Université Paris Cité

École doctorale Frontières de l'Innovation en Recherche et Education 474

Centre d'Histoire des Philosophies Modernes de la Sorbonne

"Taking Direct Democracy Seriously"

Why direct democracy is imposing itself as democracy's new chapter in the technological age

Par Gilles MENTRÉ

Thèse de doctorat en Etudes culturelles, artistiques et philosophie

Dirigée par **Eric MARQUER, Paris Sorbonne**
Et Codirigée par **Michael J. SANDEL, Harvard University**

Présentée et soutenue publiquement le 13/01/2025

Devant un jury composé de :

Luc FOISNEAU, directeur de recherche au CNRS, CESPRA/EHESS, examinateur
Jennifer GANDHI, Professor, Yale University, examinatrice
Charles GIRARD, professeur des universités, Université Lyon III Jean Moulin, rapporteur
Véronique MUNOZ-DARDÉ, Professor, University College London, examinatrice
Isabelle PARIENTE-BUTTERLIN, professeure des universités, Aix-Marseille Université, rapporteure

Table of Contents

EXECUTIVE SUMMARY **4**

SYNTHÈSE **7**

RÉSUMÉ COMPLET **10**

INTRODUCTION **17**

A THIN DEFINITION OF DEMOCRACY 21
"One person, one vote": why the thinnest definition of democracy is too thin *22*
First principle: legitimacy as participation *28*
Second principle: efficiency as equality *31*
Third principle: qualified majoritarianism *38*
WHAT IS WRONG WITH DIRECT DEMOCRACY? 44
The enemy of representative democracy? *46*
Beyond impracticality *50*
Ignorance of the masses? *53*
THESIS, METHODOLOGY, AND PLAN 56

1. DIRECT DEMOCRACY AS THE WARRANT OF PARTICIPATIVE TRUST AND PLURALISTIC INTELLIGENCE **59**

1.1. LEGITIMACY AS PARTICIPATIVE TRUST 60
1.1.1. The Decline of Legitimacy and Trust *62*
1.1.2. An Anthropological Debate on Participation *77*
1.1.3. Participation in What? *93*
1.2. EFFICIENCY AS PLURALISTIC INTELLIGENCE 108
1.2.1. Dismissing Political Expertise *111*
1.2.2. Recognizing Pluralistic Intelligence *126*
1.3. CONCLUSION: BEYOND CONSENSUS, CONFLICT, AND COMPROMISE 134
1.3.1. Two Contemporary Deadlocks: Compromise and Consensus *135*
1.3.2. Direct Democracy and the Creation of New Majorities *142*

2. DIRECT DEMOCRACY AS A TECHNIQUE: PRESENT AND FUTURE OF DIRECT DEMOCRACY IN PRACTICE **147**

1.2. CASE STUDIES ON THE UNITED STATES AND TAIWAN 149
2.1.1. The Depolarizing Effect of Direct Democracy in California and other States *153*
2.1.2. Digital Democracy in Taiwan *172*
2.2. E-VOTING: CURRENT STATE AND FUTURE PROSPECTS 191
2.2.1. E-Voting in Estonia: The Role of Trust in Government *195*
2.2.2. E-Voting in Switzerland: Public Scrutiny on Security *200*
2.2.3. The Conditions of Secure and Trustable E-Voting: Not Yet, but Soon *203*
2.2.4. New Possibilities Opened by E-Voting: Participation and Innovation *212*
2.3. CONCLUSION: THE SELF-INSTITUTION OF DIRECT DEMOCRACY 225

3. PROPOSITIONS FOR A DIGITAL DIRECT DEMOCRACY 230

3.1. THE AGENCY OBJECTION: "WHO SHOULD VOTE?" 233
3.1.1. Nuancing, Yet Combating, Fake News 235
3.1.2. Organizing Deliberation 244
3.2. THE FORMAL OBJECTION: HOW SHOULD ONE VOTE? 260
3.3. THE MATERIAL OBJECTION: WHAT SHOULD ONE VOTE ON? 265
3.3.1. Can All Matters Be Subject to Referendum? 265
3.3.2. Who Should Initiate the Vote 274
3.4. THE FINALIST OBJECTION: WHY SHOULD ONE VOTE? 282
3.4.1. The Uncertain Implementation of Referendums: Recent Examples 282
3.4.2. Propositions to Improve Execution Certainty 283
3.5. CONCLUSION: TOWARD A DIRECT DIGITAL DEMOCRACY 288
3.5.1. Datatorship 290
3.5.2. Pancracy 294
3.5.3. The Role of Processual Utopia 302

CONCLUSION 307

BIBLIOGRAPHY 312

BOOKS 312
COLLECTIVE BOOKS 323
SCIENTIFIC ARTICLES 324
INSTITUTIONAL REPORTS 339
CONFERENCE PAPERS 340
ONLINE DOCUMENTS 346
OTHER DOCUMENTS 346

LIST OF ABBREVIATIONS 349
LIST OF TABLES, CHARTS, AND FIGURES 350
ACKNOWLEDGMENTS 353
LIST OF TABLES, CHARTS, AND FIGURES REMOVED FROM THE INTERNET VERSION DUE TO COPYRIGHTS 355

Executive Summary

Taking Direct Democracy Seriously: Why Direct Democracy is Imposing Itself as Democracy's New Chapter in the Technical Age

Keywords: Direct Democracy, Trust, Polarization, Majoritarianism, E-Voting, Participation, Referendum, Digital Democracy

The dissertation aims to demonstrate that direct democracy is the new stage of democracy.

Direct democracy has never been taken seriously. Most authors deem it unrealistic given space and time constraints and stress the risk that the ignorance of the masses could pose. Since democracy is the search for a legitimate and efficient system producing increased equality and respecting individual and minority rights, direct democracy seems, to many, a dead-end.

In section 1, I analyze how direct democracy, theoretically, can answer these objections. Legitimacy is grounded in intersubjective and institutional trust. Distrust is not only targeted against the government but also toward others, fueled by and fueling polarization. Direct political participation in deliberating and voting is not only a solid human desire and condition of fulfillment but also a vector of renewed institutional trust, echoing a broader movement for more horizontal power.

The efficiency of direct democracy is more debated. An increasing number of voters prefer decisions driven by experts over the crowd. Direct democracy must only prove that it is at least as efficient as experts or that experts are fallible. Given the epistemological value of non-experts, the private character of expertise, and the dynamic and inclusive aspect of pluralistic intelligence, this minimal test is passed.

Direct democracy is, therefore, a powerful tool to solve the compromise/consensus conundrum. While consensus has turned into that of a particular elite, compromise is impracticable in a polarized context. Direct democracy creates new majorities based on projects rather than programs. The condition is that minority rights stay off-limits and that individual rights are treated through qualified majoritarianism.

In section 2, I empirically test direct democracy's adaptability and margin of uncertainty.

Direct democracy, in the 24 American States that allow it, leads to results closer to the majority opinion than legislatures. Initiatives present no constant political trend in their results and prove resistant to polarization. In recent popular votes on abortion, voters did not align with their parties on critical issues. In Taiwan, direct democracy helps re-unite on specific topics a divided nation, powered by online debate and decentralized fact-checking tools.

In Estonia, citizens have had the possibility to vote via the Internet since 2005, a system that has increased turnout and overhauled the generational digital divide. The Swiss used internet voting for twenty years until it was halted in 2020. Security issues around e-voting still need to be solved regarding identification, devices, and verifiability. Nevertheless, both examples prove that, once these difficulties are solved or in contexts with higher trust or lower stakes, e-voting fosters participation, flexibility, and security. It enables direct democracy to self-institutionalize itself.

In section 3, I make concrete propositions for a “digital direct democracy”. The referendum is subject to criticism. Renewed fact-checking and tracking are needed, although fake news is no excuse for inaction. Citizens’ assemblies can be helpful deliberative and controlling tools if their recommendations are submitted for a referendum. Referendums always risk becoming plebiscites unless they are citizen-led. Multiple-choice voting, multi-stage referendums, or open questions need to be experimented with through e-voting.

What does the future hold? Efficiency needs to be reconsidered with AI, potentially leading to “datatorship”. Reversely, the development of e-voting has the potential to allow for a fully direct democracy. This model of “pancracy” could be powered by

communities in a society with multiple individual affiliations. Decentralized autonomous organizations already provide an experimental framework. “Datatorship” and “Pancracy” are processual utopias. They allow us to understand the conditions of a true democracy.

Synthèse

Prendre la démocratie directe au sérieux : Pourquoi la démocratie directe s’impose comme le nouveau chapitre de la démocratie à l’âge technologique

Mots-clés : démocratie directe, confiance, polarization, majoritarianisme, vote électronique, participation, référendum, démocratie numérique.

L’objet de la thèse est de démontrer que la démocratie directe est la nouvelle étape de la démocratie.

La démocratie directe n'a jamais été prise au sérieux. La plupart des auteurs la jugent irréaliste en raison des contraintes de temps et d'espace et soulignent le risque de l'ignorance des masses. Si la démocratie est un système légitime et efficace favorisant l'égalité et le respect des droits, la démocratie directe semble, pour beaucoup, une impasse.

La section 1 analyse comment la démocratie directe peut théoriquement répondre à ces objections. La légitimité repose sur la confiance intersubjective et institutionnelle. La méfiance ne vise pas seulement le gouvernement mais aussi nos semblables, alimentant la polarisation. La participation politique directe dans la délibération et le vote est un désir humain profond et un vecteur de confiance institutionnelle renouvelée, au sein d’une tendance générale à l’horizontalité.

L'efficacité de la démocratie directe est plus débattue. Un nombre croissant de citoyens préfèrent des décisions prises par des experts. La démocratie directe doit seulement prouver qu’elle est au moins aussi efficace que les experts ou que les experts sont faillibles. Ce test minimal est acquis du fait de la valeur épistémologique des non-experts, du caractère privé de l'expertise et de l'aspect dynamique de l'intelligence pluraliste.

La démocratie directe est donc un outil puissant pour résoudre le dilemme compromis/consensus. Alors que le consensus est devenu celui d'une élite particulière, le compromis est impraticable dans un contexte polarisé. La démocratie directe crée de nouvelles majorités de projets plutôt que de programmes. À condition que les droits des minorités soient exclus et que les droits individuels soient soumis à un majoritarianisme qualifié.

La section 2 teste la démocratie directe de manière empirique sur son adaptabilité et sa marge d'incertitude.

La démocratie directe, dans les 24 États américains qui l'autorisent, donne des résultats plus proches de l'opinion majoritaire que la démocratie indirecte. Les initiatives ne présentent aucune tendance politique constante et résistent à la polarisation. Lors des récents votes populaires sur l'avortement, les électeurs n'ont pas suivi leurs partis. À Taïwan, la démocratie directe réunifie un pays fracturé sur des questions spécifiques, grâce aux débats en ligne et aux outils décentralisés de vérification de l'information.

En Estonie, les citoyens peuvent voter en ligne depuis 2005, augmentant la participation et réduisant le fossé numérique. Les Suisses ont utilisé le vote électronique pendant vingt ans avant de l'interrompre en 2020. Le vote en ligne continue à poser des problèmes de sécurité en matière d'identification, d'appareils et de vérifiabilité. Cependant, ces deux exemples prouvent que le vote électronique favorise participation, flexibilité et sécurité, permettant à la démocratie directe de s'auto-instituer.

La section 3 formule des propositions pour une "démocratie directe numérique". Le fact-checking et la traçabilité sont nécessaires, bien que les fake news ne justifient pas l'inaction. Les assemblées de citoyens peuvent être des outils délibératifs utiles si leurs recommandations sont soumises à référendum. Les référendums risquent toujours de devenir des plébiscites, sauf s'ils sont initiés par les citoyens. Des votes à choix multiples, en plusieurs étapes ou à questions ouvertes doivent être expérimentés via le vote électronique.

Quel avenir envisager ? L'efficacité sera repensée avec l'IA, menant à une "datacrature". Inversement, le développement du vote électronique permettrait une démocratie entièrement directe. Ce modèle de "pancratie" serait indispensable dans une société aux affiliations multiples. Les organisations autonomes décentralisées en fournissent un cadre expérimental. "Datacrature" et "pancratie" sont des utopies processuelles, éclairant les conditions d'une véritable démocratie.

Résumé complet

Prendre la démocratie directe au sérieux : Pourquoi la démocratie directe s'impose comme le nouveau chapitre de la démocratie à l'âge technologique

Mots-clés : démocratie directe, confiance, polarization, majoritarianisme, vote électronique, participation, référendum, démocratie numérique.

L'objet de la présente thèse est de démontrer que la démocratie directe représente la nouvelle étape de la démocratie au XXIe siècle. Dans un contexte général de méfiance politique et de polarisation, la revendication d'une participation directe aux décisions se fait de plus en plus entendre, et l'utilisation d'outils de démocratie directe, tels que les référendums, se répand. La thèse soutient que cela constitue un développement positif, car la démocratie directe est devenue le moyen le plus légitime et le plus efficace pour prendre des décisions que la démocratie représentative. La démocratie directe vient ainsi au secours de la démocratie représentative, permettant de recréer des majorités de projet là où les majorités de programme deviennent de plus en plus difficiles à constituer. Le puissant mouvement égalitaire qui sous-tend la démocratie directe conduira cependant celle-ci, à moyen terme, à revendiquer, non plus une simple fonction de complément de la démocratie représentative, mais le premier rôle institutionnel.

La démocratie directe n'a jamais été prise au sérieux par les universitaires, les chercheurs et les politiciens. Le mot lui-même est équivoque. Beaucoup le tournent en dérision en décrivant une société où les citoyens voteraient directement sur toutes les décisions, du budget national à la gestion de l'école locale. La démocratie directe n'est pas un régime, mais un instrument ou un ensemble d'instruments (référendums, initiatives, veto) à intégrer dans la démocratie représentative. De nombreux auteurs, de J.-J. Rousseau à J. S. Mill, ont écarté son potentiel, jugeant irréaliste de faire voter

l’ensemble des citoyens sur des lois spécifiques, compte tenu des contraintes d’espace et de temps. D’autres ont souligné le risque que « l’ignorance des masses », exacerbée par la passion, l’émotion et la désinformation, nuise au bien commun.

Si la démocratie se définit comme la recherche d’un système légitime et efficace visant à promouvoir l’égalité et à respecter les droits individuels et des minorités, alors la démocratie directe serait, pour ses détracteurs, une impasse. Non seulement elle n’aurait pas de légitimité intrinsèque, car les citoyens n’auraient ni le désir ni le temps de participer directement aux affaires publiques, mais elle serait également inefficace pour produire des solutions et constituerait une menace pour les droits individuels et des minorités. Les opposants aux référendums citent volontiers l’exemple de la peine de mort, qui n'aurait sans doute jamais été abolie par voie référendaire.

Dans sa première section, la thèse analyse comment la démocratie directe peut, théoriquement, répondre aux objections concernant la légitimité, l'efficacité et les droits. La légitimité repose sur la confiance, comme l'ont démontré les trois contractualistes modernes (Marquer), et la confiance elle-même a un double aspect : intersubjectif et institutionnel. La méfiance qui traverse nos sociétés ne vise donc pas seulement le gouvernement mais aussi les personnes qui ne partagent pas nos opinions, ce qui alimente et est alimenté par la polarisation. La participation politique directe est un désir anthropologique fort, le désir étant un puissant moteur politique (Hobbes, Foisneau) ainsi qu’une condition de l’épanouissement humain (Sandel). Elle constitue également une réponse à la polarisation et à la radicalisation, restaurant ainsi la confiance intersubjective et institutionnelle, ce que confirment la théorie et les données empiriques. Ce désir de participation se porte sur deux actes politiques décisifs, la délibération (Habermas, Manin) et le vote. En cela, la démocratie direte se fait l’écho d’un large mouvement sociologique en faveur d’un pouvoir plus horizontal et distribué.

L'efficacité de la démocratie directe est un aspect encore plus débattu de celle-ci. Un nombre croissant d'électeurs fait davantage confiance aux experts qu’au vote populaire. Pour répondre à une telle critique, la démocratie directe n’a pas à prouver qu’elle produit de meilleurs résultats que la gouvernance par des experts mais seulement qu’elle est au moins aussi efficace en termes relatifs (Landemore) ou que les experts sont faillibles en termes absolus (Girard); dans les deux cas, la démocratie

directe devrait être préférée aux décisions des experts pour des raisons de légitimité. Ce test minimal est réussi si l'on prend en compte la valeur épistémologique des non-experts (Jefferson), le fait que les experts forment une classe privée avec des intérêts propres (Dewey) et que l'intelligence collective doit être évaluée de manière dynamique et inclusive (James). La démocratie directe permet l'émergence d'une intelligence pluraliste où les individus comprennent et expriment leurs opinions et leurs besoins par le biais de l'enquête sociale et du vote, enrichis par la diversité cognitive.

La démocratie directe est donc un outil puissant pour rénover la dialectique du consensus, du conflit et du compromis qui sous-tend toute démocratie. Alors que le consensus s'est mué en celui d'une élite, le conflit est devenu potentiellement dangereux dans un contexte de polarisation. Le compromis, qui est au cœur de la démocratie représentative, est aujourd'hui une option moins praticable. La démocratie directe a la légitimité et l'efficacité nécessaires pour créer de nouvelles majorités fondées sur des projets concrets plutôt que sur des programmes politiques. La condition en est que les droits des minorités en soient exclus et que les droits individuels soient traités par des procédures spécifiques basées sur un majoritarisme qualifié.

Dans sa deuxième section, la thèse analyse la démocratie directe en tant que technique. Ce faisant, elle se réfère au cadre théorique du mode d'existence des objets techniques (Simondon). La démocratie directe doit être testée non pas en général mais en termes marginaux, en fonction de sa capacité à s'adapter aux circonstances et à garder une marge d'incertitude. Il s'agit donc d'une approche empirique qui suppose d'analyser concrètement les instruments de la démocratie directe à travers des cas d'étude.

Les premières de ces études de cas concernent les États-Unis et Taïwan. Ces deux pays ont une pratique intense de la démocratie directe au regard de leurs populations respectives. L'exemple des référendums et des initiatives dans les vingt-quatre États américains qui le permettent, en particulier en Californie, montre que ces pratiques conduisent à des résultats plus proches de l'opinion majoritaire que ce que peuvent fournir les législatures. Non seulement le bilan des initiatives du XXe siècle révèle qu'aucune tendance politique ne peut être identifiée dans les résultats (prouvant en particulier que le pouvoir des lobbies industriels peut être contenu), mais les initiatives semblent résistantes à la polarisation au XXIe siècle. Les récents votes populaires sur

l'avortement dans plusieurs Etats républicains ont démontré que les électeurs ne s'alignent pas forcément sur leurs partis quant il s'agit d'enjeux critiques. L'expérience plus récente de la démocratie directe à Taïwan va dans le même sens, réunissant sur des sujets spécifiques tels que la souveraineté énergétique une nation intensément divisée. Taïwan a commencé à expérimenter d'autres instruments de participation politique, tels que le débat en ligne ou la vérification des faits décentralisée, prouvant que la technologie peut revigorer la délibération citoyenne.

Les deux dernières études de cas concernent l'Estonie et la Suisse, deux pays qui pratiquent activement le vote électronique (« e-voting »). En Estonie, les citoyens ont la possibilité de voter depuis leur téléphone ou leur ordinateur à chaque élection souveraine depuis 2005. Le « I-Voting » estonien a permis une augmentation modeste mais réelle de la participation et a contribué à combler la fracture numérique en intégrant progressivement les électeurs âgés dans le système. Cependant, il a été prouvé que le sysème est vulnérable à des manipulations par l'autorité organisatrice de l'élection. Cette faille paraît bénigne en Estonie, où la confiance dans le gouvernement est élevée, mais serait problématique ailleurs. La même vulnérabilité a été identifiée avec le système suisse « sVote », stoppant en 2020 une expérimentation de vingt ans.

Ces exemples montrent que les enjeux de sécurité autour du vote électronique demeurent problématiques, en particulier en ce qui concerne l'identification, les appareils malveillants, l'indépendance des logiciels et la vérifiabilité de bout en bout. Néanmoins, ils prouvent également que le vote électronique, une fois ces difficultés surmontées (Schneier) ou dans des contextes de confiance accrue ou à faible enjeu, présente des avantages décisifs : inclusivité et participation, flexibilité et réduction des coûts et sécurité par rapport aux autres systèmes de vote à distance. Le vote électronique constitue donc une révolution, nouvelle preuve que le monde virtuel redéfinit le monde « réel » et vice versa, comme les deux faces d'un même monde (Pariente-Butterlin).

En tant que technique, la démocratie directe répond de manière dynamique au défi démocratique. En termes d'efficacité, elle offre une indétermination et une plasticité qui la positionnent favorablement par rapport à la démocratie indirecte. En termes de légitimité, elle permet une expérience qui renouvelle la perception de la participation de manière ontologique. Le vote électronique accentue chacun de ces aspects de

manière inédite. Combinées aux avantages axiologiques et épistémologiques identifiés dans la section 1, ces qualités techniques permettent à la démocratie directe de s'auto-institutionnaliser (Castoriadis).

Dans sa troisième section, la thèse examine les instruments de la démocratie directe d'un point de vue institutionnel, en formulant des propositions concrètes sur la manière de les utiliser dans le cadre de ce qui peut être appelé une « démocratie directe numérique ».

L'instrument clé est le référendum (et ses variantes comme les initiatives ou les veto). Il regroupe pourtant toutes les critiques qui peuvent être adressées à la démocratie directe en général, comme l'ont montré les réactions au vote sur le Brexit au Royaume-Uni. Ce n'est qu'en analysant méthodiquement le « qui », le « quoi », le « comment » et le « pourquoi » du vote que l'on peut répondre à toutes les objections.

Le suffrage universel serait dénaturé en l'absence d'une action rigoureuse sur l'information. Un renforcement des procédures de vérification et de traçage de l'information est nécessaire, bien que les *fake news* ne doivent pas servir de prétexte à l'inaction. Les assemblées citoyennes représentent un puissant vecteur d'information et de débat. L'Irlande offre un cadre institutionnalisé qui s'est avéré efficace pour favoriser la construction d'un consensus ou, au minimum, clarifier les divergences sur des sujets clivants. Des règles spécifiques doivent être respectées : les experts doivent être sélectionnés de manière délibérative et les recommandations du jury ne peuvent en aucun cas devenir une décision sans passer par un référendum. Les assemblées citoyennes pourraient également constituer un puissant outil de mise en œuvre.

Les référendums risquent toujours d'être détournés en plébiscites, et une vraie démocratie directe ne serait pas possible sans initiatives menées par les citoyens eux-mêmes. L'existence de seuils et quorums permet d'éviter l'inflation législative et la manipulation politique. Des modes de vote alternatifs, tels que le vote à choix multiple ou les questions ouvertes, doivent être explorés en utilisant l'intelligence artificielle. De nouveaux mécanismes doivent être mis en place pour garantir que les résultats de tout vote soient correctement appliqués, par exemple grâce à des processus de référendums en plusieurs étapes.

Les droits des minorités constituent une problématique démocratique spécifique et doivent être tenus en dehors du champ référendaire. C'est le cas également des sujets budgétaires et fiscaux. Rien ne devrait interdire, en revanche, de demander au peuple de trancher sur des traités internationaux, ni de s'opposer à une loi votée par le parlement (la réciproque est vraie et le parlement est fondé à pouvoir défaire ce que le référendum a fait).

L'intelligence artificielle (IA) va redéfinir en profondeur les notions de légitimité et d'efficacité démocratiques. L'IA est un facteur centralisateur fort qui remet en question la notion d'expertise. Les régimes politiques peuvent être ramenés à deux grandes catégories : la démocratie et l'autoritarisme (Gandhi). D'ici vingt ans, les instanciations de ces deux catégories seront la « pancratie » et la « datacrature ». Les développements actuels sur les jumeaux numériques et le crédit social montrent qu'un futur basé sur les données est envisageable, où l'argument de l'efficacité sera repensé (« datacrature »). À l'inverse, le développement du vote électronique, lié à des systèmes open-source et potentiellement à des IA décentralisées, nous permettra de voter plus fréquemment et potentiellement d'instaurer une démocratie entièrement directe où les décisions seront préparées et délibérées par des représentants sélectionnés individuellement ou des avatars (« pancratie »). Ce dernier modèle pourrait être porté non pas par les États, mais par les communautés elles-mêmes dans une société marquée par le « polypolitisme » (Allen) et les affiliations multiples. Les organisations autonomes décentralisées (DAO), construites sur des blockchains, offrent un cadre expérimental avancé pour de tels systèmes. « Datacrature » et « Pancratie » ne sont pas des descriptions futuristes de systèmes possibles, mais des utopies au sens processuel du terme. Comme le proposent Raulet, Deleuze, ou Ricoeur, les utopies processuelles ne sont pas des images descriptives, mais des fictions temporelles, immanentes plutôt que transcendantes, qui permettent de contre-balancer les risques inhérents aux idéologies et de nous aider à façonner l'avenir. Ils nous permettent de comprendre que le choix entre l'autocratie et la démocratie ne repose pas uniquement sur des critères de légitimité et d'efficacité, mais touche également à un choix éthique fondamental entre le culte du succès et du pouvoir et la valeur que nous accordons à l'égalité (Popper, Sandel) et à la fraternité (Rawls, Munoz-Dardé). La démocratie directe en constitue la forme la plus avancée.

Introduction

On June 3, 2024, Charles Larmore was invited by Luc Foisneau and Patrick Savidan to a conference in Paris[1]. The title, "What is political philosophy?", was already profoundly enticing, let alone the perspective of meeting such a critical contemporary thinker as Larmore. In perfect French, by video call, since a strike had canceled his flight, he detailed his criticism of Rawls and the possibility of overcoming reasonable disagreements on justice. To him, priority should be logically given to legitimacy. In the discussion, Luc Foisneau asked whether the reasonable disagreements could concern legitimacy itself. Larmore dismissed the objection, considering legitimacy as a process, not a value. After the floor was given to the larger audience, I questioned Larmore on direct democracy. To Foisneau's point, the Yellow Vest movement in France had shown the deepness of disagreement on legitimacy in contemporary democracies. At the core of their protest stood, unexpectedly, a vibrant claim to direct democracy. Shouldn't it be considered and lead us to question our democracies?

Larmore's answer was straightforward. To him, direct democracy was far too "dangerous". Being from New England, he admitted that the tradition of town hall meetings was still vivid and that direct democracy could be used locally ("Should a piece of land be converted into a natural park?"). At the other end of the spectrum, there was a role for referendums in the adoption and modification of constitutions – an already supportive position toward direct democracy given the limited number of countries that adopted their constitution by referendum (e.g., only eight of the twenty-seven EU countries) or allowed its modification by referendum (e.g., in only twenty-one EU countries)[2]. Apart from these limited use cases, Larmore deemed the risk of disinformation too high, particularly in the context of fake news. His position on direct democracy cannot, of course, be inferred from a short answer on a video conference. However, I took the liberty of quoting his remarks as they seem to me to be

[1] Conference of the Worskshop of Political Theory (Atelier de Théorie Politique) organized by Luc Foisenau and Patrick Savidan on June 3, 2024 at Paris Panthéon Assas: "What is political philosophy? Discussion with Charles Larmore".

[2] Stéphane Pinon, *La participation populaire directe au pouvoir constituant – Regards sur le droit étranger [Direct popular participation in the constitution-making power – a foreign law perspective]*, 2017, Revue interdisciplinaire d'études juridiques, Vol. 78, pp. 3-35.

characteristic of a general intellectual stance that direct democracy should not be taken seriously. It was as if asking the people was fine when it concerns a local subject they know about (but what do they know about nature protection?) but not at a national level (where it should be left to experts?). And that citizens should have the final say on constitutional procedure but not on substance – the recent example of the two failed referendums on a new constitution in Chile shows how entangled these two aspects are.

Larmore is not alone in his skepticism. On the contrary, there seems to be an overwhelming consensus among political thinkers, from conservatives to progressives, including liberals and radicals, that politics is too serious to be left to Mr. Smith[3]. Everyone agrees that there should be more participation and deliberation from the public – but decision-making, no. As constitutionalist Dominique Rousseau puts it: "Deliberation elevates the level of consciousness, referendums diminish it[4]". More generally, since the European Enlightenment and the rise of representative democracy, direct democracy has been pictured as an ancient, if not primitive, stage of democracy, overtaken by the more advanced representative democracy – with the postcard-like exception of Switzerland. Most scholars who have made essential contributions to the thinking of contemporary democracies, particularly toward greater citizen participation, never seem to have questioned that caricature. Promoting "participatory" democracy sounds contemporary; advocating direct democracy seems, on the contrary, retrograde or utopian. It is as if the possibilities opened by new technologies, particularly internet voting and artificial intelligence, were a subject for cypherpunks rather than philosophers.

The expression "direct democracy" institutionally refers to a regime where all main decisions are submitted to the direct vote of citizens. Such a definition is in line with contemporary scholars such as Buldge ("a regime in which citizens as a whole debate and vote on the most important decisions, and where their vote determines the action to be taken[5]") or Altman ("a publicly recognized institution wherein citizens decide or emit their opinion on issues—other than through legislative and executive elections—

[3] Franck Capra, *Mr Smith goes to Washington*, 1939, Columbia Pictures, Los Angeles (movie picture).
[4] Dominique Rousseau, interview with Jean-Baptiste de Montvalon, Le Monde, February 23, 2019.
[5] Ian Budge, *The New Challenge of Direct Democracy*, 1996, Polity Press, Cambridge (U.K.).

directly at the ballot box through universal and secret suffrage[6]"). It is opposed to indirect democracy, or representative democracy, in which elected representatives make decisions and citizens can only exert their power through elections.

In the technical sense of the term, which I will use in the current dissertation, direct democracy only refers to a category of decision-making instruments encompassing all means that involve direct voting by citizens (the main instruments being referendums, initiatives, and vetoes). With this technical definition, a regime does not have to be a fully institutionalized direct democracy to incorporate elements of direct democracy in its operational design (a representative democracy that combines aspects of direct democracy is sometimes called a "semi-direct democracy[7]"). Norberto Bobbio, who explicitly rejected direct democracy in the 1970s[8], concluded in the 1980s that direct democracy instruments were compatible and even valuable for representative democracy:

"the direct exercise of power by the citizens is not incompatible with its direct exercise by way of elected representatives (as is demonstrated by the existence of constitutions such as that now observed in Italy, where provision is made for popular referenda, though these can only veto or annul legislation)." [9]

The current dissertation aims to take direct democracy seriously, paraphrasing Ronald Dworkin's landmark book. Such an effort must be carried out not in absolute but in comparative terms with indirect or representative democracy (including its more recent participatory versions).

We are taking here for granted that democracy is the most adequate form of government in our contemporary societies, both objectively (theoretical dominance of

[6] David Altman, *Direct Democracy Worldwide*, 2011, Cambridge University Press, Cambridge (MA).
[7] Gilles Delannoi (ed.), *Direct Democracy and Sortition,* April 2012, Les Cahiers du Cevipof, n°56, p. 29. Delannoi defines semi-direct democracy as "popular decisions without collective elaboration and deliberation of policies" and equals it to "referenda".
[8] "Already in the 1970s, Bobbio insisted that there is no full-fledged, realizable alternative to representative democracy that would satisfy the classical promise of democracy better than the existing model does. In a manner quite reminiscent of Roberto Michels, Bobbio shows convincingly that neither of the individual institutions of "direct democracy" – referendums, local committees or assemblies, the binding mandate -nor even their combination offers a feasible replacement for the representative system" (Jean Louise Cohen and Andrew Arato, *Civil Society and Political Theory*, 1992, MIT Press, Cambridge (MA), p. 168).
[9] Norberto Bobbio, *Liberalism and Democracy*, transl. M. Ryle and K. Soper, 2006 [1985], Verso, New York, p. 27.

democracy over authoritarian regimes in terms of peace[10], economic and social security[11] or innovation[12], to name a few theoretical or empirical evidence) and subjectively (overwhelming support from population in most democratic countries[13]). As Jennifer Gandhi contends, "democracies, on average, produce better outcomes: higher economic growth, better welfare for citizens, and fewer wars[14]". Drawing on Machiavelli, Kelsen, and Bobbio, Gandhi demonstrates that the variety of political regimes has boiled down, in the modern era, to an opposition between democracy and autocracy, as they embody the fundamental opposition between autonomy and heteronomy:

"The crucial distinction, then, is between autonomy and heteronomy: democratic forms of government are those in which laws are made by the same people to whom they apply (i.e., autonomous norms), whereas in autocratic states, lawmakers differ from those to whom the law is addressed (i.e., heteronomous norms)." [15]

[10] See Immanuel Kant, *Towards Perpetual Peace*, transl. David L. Colclasure, 2006, Yale University Press, New Haven, 8:356, p. 80: A republic "according to its nature naturally tends towards perpetual peace". Kant uses the term "republic" in opposition to "despotism" to designate a form of government where the legislative power is distinct from the executive power. This opposition can be reinterpreted in modern terms as a duality between democracy and authoritarianism (see Jennifer Gandhi below). Kant argues that citizens are much more cautious about deciding on a war that will directly affect them than a despot who will not bear the consequences of his decision. Michael Doyle was seminal in this re-actualization of Kant's theory and partial empirical validation, coining it as the "democratic peace" theory (Michael W. Doyle, *Ways of War and Peace: Realism, Liberalism and Socialism*, 1997, W. W. Norton and Cie, New York). For a review and evaluation, see Jeff Pugh, *Democratic Peace Theory*, April 2005, Center for Mediation, Peace, and Resolution of Conflict, International, CEMPROC Paper Series, New York.

[11] See Amartya Sen, *Democracy as a Universal Value*, 1999, Journal of Democracy, 10.3, pp. 3-17. Sen reckons there is no significant evidence of a difference between democracies and authoritarian regimes regarding economic growth. However, only democracies can provide economic and social security as citizens can draw attention to general needs. This is, in particular, the case for famines that no democracy has ever substantially experienced.

[12] See Karl Popper, *The Open Society and Its Enemies*, vol. 2, 1962, Routledge, London.

[13] In the United States, 74% of Americans agree (strongly or somewhat) that democracy is the best form of government (source: McCourtney Institute for Democracy, January 2023). The same number can be found in France, where 78% of surveyed people agree (completely or somewhat) with the statement: " The democratic regime is irreplaceable; it is the best possible system" (source: Opinion Way – Cévipof Confidence Barometer, 13th wave, June 2022).

[14] Jennifer Gandhi, *The Institutional Roots of Democratic Backsliding*, 2018, The Journal of Politics, Vol. 81, n°1.

[15] Jennifer Gandhi, *Political Institutions under Dictatorship*, 2008, Cambridge University Press, Cambridge (UK), p. 7.

Therefore, we aim to identify the best institutional way to implement democracy, namely, direct democracy or representative democracy. For the introduction, three main preliminary points need to be addressed: what we mean by democracy, and what would be the thinnest definition against which both forms of democracy should be assessed against each other; a general overview of the literature around direct democracy to start understanding how come it has fallen into a blind spot of political thinking; and a presentation of the relevant methodology, incorporating an empirical perspective based on sociology, political science and computer and cognitive sciences.

A thin definition of democracy

Starting a discussion on direct democracy requires a definition of "democracy" itself. The term has been extensively used, defined, and debated, both in the philosophical and political world. As Yasha Mounk ironizes: "Democracy has nearly as many definitions as there are political thinkers. It is, as one philosopher puts it, an essentially contested concept—one that will brook no agreed-upon definition so long as we continue to disagree about what exactly is valuable about it[16]". A large variety of regimes have called themselves "democracies" that have nothing in common, from Solon's Athens to Western modern liberal democracies, including "popular democracies", such as the former German Democratic Republic, or the current Democratic People's Republic of Korea. Its well-known Greek etymology, the "power of the people", leaves the debate wide open. Whom does the notion of "people" encompass? What power does it yield?

Is it possible to reach a "thin" definition of democracy? Such a concept is distinct from the minimality found in the contemporary debate on ethics and bioethics. Acknowledging the variety of moral points of view in a pluralistic society, some contemporary scholars have suggested sticking to a minimal definition of ethics that can commonly be agreed upon. As Tristam Engelhardt stated: "Universality is purchased at the price of content. Content is purchased at the price of universality"[17]. He proposes a "general secular ethics" that is more procedural than substantive,

[16] Yasha Mounk, *The People vs. Democracy - Why Our Freedom Is in Danger and How to Save It*, 2018, Harvard University Press, Cambridge (MA), p. 92.
[17] H. T. Engelhardt, *The Foundations of Bioethics*, 1986, Oxford University Press, New York, p. 67.

coining it as a "minimum grammar[18]". That framework can be transferred to the field of political philosophy. As in moral philosophy, pluralistic and competing views exist within society on the best form of government. Some scholars conclude that these pluralistic views on the right form of government converge only into a commonly agreed minimal definition, generally a merely electoral one (as for Schumpeter[19], Popper[20], or Przeworski[21], as we will discuss beyond). Our definition of "thin" is different. It is not the same "thin democracy" that Benjamin Barber mentions: "What we have called 'thin democracy', then, yields neither the pleasures of participation not the fellowship of the civic association, neither the autonomy and self-governance of continuous political activity not the enlarging mutuality of shared public goods – of mutual deliberation, decision and work[22]". Barber promotes, on the contrary, a "strong democracy" that encompasses the ideals of participation, autonomy, and equality.

Our methodology for constructing our thin definition of democracy is not negative, as criticized by Barber, but positive. Instead of excluding from the definition any element that would not be subject to consensus and arriving at a minimal definition, we will instead start from the minimal definition and add constructively all the elements that are logically necessary for our definition to remain coherent. In the end, as we will see, our thin definition will appear much closer to Barber's definition of a strong democracy than to the minimal ones of Schumpeter, Popper, or Przeworski.

"One person, one vote": why the thinnest definition of democracy is too thin

The first formula that immediately comes to mind is: "one person, one vote". It is not universal, and other systems have been proposed, such as plural voting or sortition,

[18] *Ibid.*, p. 70.
[19] Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy*, 2004 [1942], Routledge, London, p. 269: "the democratic method is that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people's vote".
[20] Karl Popper, *The Open Society and Its Enemies*, vol1, 1962, Routledge and Kegan Paul, London, p. 124: "Democracy is the only form of government that permits reform without violence. It is a system that provides the institutional framework which makes it possible to get rid of governments without bloodshed, by peaceful means".
[21] Adam Przeworsky, *Minimalist Conception of Democracy: A Defense*, in *Democracy's Value*, ed. Ian Shapiro and Casiano Hacker, 1999, Cambridge University Press, Cambridge (U.K.), p. 15: democracy is a system where "conflicting political forces obey the results of voting".
[22] Benjamin R. Barber, *Strong Democracy: Participatory Politics for a New Age*, 1984, Cambridge University Press, Cambridge (U.K.), p. 24.

which we will discuss in sections 1 and 3. As such, it implies three characteristics, in the absence of which it would be ineffective: free voting, universal suffrage, and majority rule – what Philippe van Parijs precisely believes could be a "thin definition of democracy"[23]. Each of these three characteristics can be subject to debate. Does free voting imply full anonymousness? In the two Swiss cantons that are still practicing direct democracy, voters decide by raising their hands. Can universal voting survive the low level of turnout in our modern democracies? Some countries like Belgium impose compulsory voting. Is simple majority rule the only democratic way to make decisions? Many political systems submit certain decisions to a qualified majority, or a double majority that requires a majority of constituencies or other subdivisions of the nation. This last objection is probably the strongest as it raises the question of protecting minorities and individuals, which we will discuss below in the introduction. In the first approximation, we will retain majority rule without restriction. That characteristic is as old as democracy, as it can be traced back to ancient Athens and has been a constant feature of political systems. Grotius deemed it "natural" and Locke explained it by an analogy with physics: the body moves to the side of the greatest strength[24]. The notion of strength can also be understood politically in terms of "force" as explained by Condorcet, who contended that majority rule was not chosen for epistemic reasons but on the consideration that "for the sake of peace and general welfare, it was necessary to place authority where lied the force[25]". There has been a more contemporary scientific validation of the majority rule by May's theorem. It offers "a logical and mathematical proof that majority rule is the only procedure (for deciding between two options) which satisfies each of the conditions of decisiveness (a determinate outcome is always reached), anonymity (equality of impact in the process), neutrality between options, and positive responsiveness (that it responds positively if an individual changes their preference)[26]". Even authors who ground legitimacy in justice like Rawls assume that "some form of majority rule is justified as

[23] Philippe van Parijs, *Just Democracy- the Rawls-Machiavelli Program*, ECPR Press, 2011, Colchester (U.K?), p. 1.
[24] All these examples are quoted from Kyle Laurent Murray, *A Road Out of Nowhere*, MURRAY, Kyle Laurent*, A Road Out of Nowhere: Towards an Anti-Foundationalist Constitutional Theory*, 2020, Durham University, Durham theses, Durham University, http://etheses.dur.ac.uk/13435/, accessed April 12, 2024, p. 180.
[25] Nicolas de Condorcet, *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix [Essay on the application of analysis to the robability of majority decisions*], 1785, Imprimerie nationale, Paris, p. xi, my translation.
[26] K.O. May, *A Set of Independent Necessary and Sufficient Conditions for Simple Majority Decision*,1952, Econometrica, Vol. 20, n°4, p. 680, quoted by K. L. Murray*, op. cit.*, p. 181.

the best available way of insuring just and effective legislation[27]". As Foisneau comments, majority rule is, for Rawls, a "disappointing yet inevitable stage" – a position that underlines his "democractic disillusionment"[28].

In this form, it corresponds to a vast majority of modern democratic systems and is, therefore, a valuable candidate for a thin definition of democracy that reads as follows:

"A set of mandatory electoral institutions, built on the principle of one person equals one vote and its characteristics: free vote, universal suffrage, and majority rule."

Empirically, the "one person, one vote" principle is not explicitly present as such in the democratic tradition and does not seem to have appeared until the end of the 19th century in the context of trade unions[29]. These terms have no formulation in the debates of the French Revolutionaries or the American Founding Fathers. The French constitutional jurisprudence does not refer to it[30]. It only acquired constitutional value in the United States in 1963 through the decision *Gray vs. Sanders*. As the Supreme Court then asserted: "the concept of political equality from the Declaration of Independence to Lincoln's Gettysburg Address [government of the people, by the people, and for the people] and the fifteenth [which guarantees the right to vote to former slaves], seventeenth [which establishes the direct election of senators] and nineteenth amendments [which grants voting rights to women] can mean only one thing: one person, one vote[31]".

Many regimes have considered themselves democratic while not respecting this rule. This is particularly the case concerning its universal suffrage characteristic and the disenfranchisement of citizens based on wealth, race, or gender. The French 1791 constitution established outright wealth-based disenfranchisement. During the Estates General of 1789, the Third Estate could only vote by universal suffrage above 25 based

[27] John Rawls, *A Theory of Justice*, 1971, Harvard University Press, Cambridge (MA), p. 356.
[28] Luc Foisneau, *Rawls et la justification de la règle de la majorité* [*Rawls and the justification of the majority rule]*, 2014, Raisons politiques n°53, Les presses de Sciences Po, Paris, pp. 63-79, p. 76
[29] Howell, George. *One Man, One Vote*, 1880, Liberal and Radical Printing & Publishing Association, https://jstor.org/stable/60239578, accessed May 30, 2024.
[30] Art. 3, French Constitution of October 4, 1958: "The vote […] is always universal, equal and secret". The French Constitutional Council has ruled that this equality only allows disenfranchisement based on age, full possession of one's intellectual means, and specific judiciary condemnations (see Conseil Constitutionnel, September 18, 2001, https://www.conseil-constitutionnel.fr/sites/default /files/as/root/bank_mm/pdf/Conseil/princeg2.pdf, accessed May 30, 2024).
[31] U.S. Supreme Court, Gray vs. Sanders, 372 U.S. 368, March 18, 1963, §5 (d).

on the registration on the tax rolls. The French Revolution maintained the same approach. It is only the constitution of 1799 that eventually stated that "every man born and residing in France, who, having reached the age of twenty-one, has registered on the civic register of his communal district, and who has resided for one year on the territory of the Republic, is a French citizen[32]".

Disenfranchisement based on race or gender took centuries in various democratic regimes to disappear. In the United States, as quoted in *Gray vs. Sanders*, the "one person – one vote" principle was not fully implemented until the 15th and 19th amendment[33]. In France, if the emancipation decree for the Jews[34] and the abolition of slavery[35] date from the French Revolution, women had to wait until 1944 for enfranchisement[36].

The question of disenfranchisement remains open today, both in principle and in practice. There is an ongoing discussion in modern democracies about the right to vote for other categories of potential citizens. Claims to reduce the eligible age of voting periodically resurface. So does the debate around the right to vote in local elections for immigrants. Some academics like Sarah Fine have advocated for allowing some participatory rights to immigrants based on the claim that, in a democracy, these rights should be given to all those governed[37]. Each country sets different rules regarding the voting rights of convicted persons or prisoners. In the U.S., it has been found that state laws had disenfranchised 6.1 million citizens because of felony convictions (that number was only 1.2 million twenty years before). This level led States like Wyoming, Nevada, Mississippi, and Minnesota to impose less stringent rules to register non-violent or former felons. A new debate has emerged on guaranteeing rights and even

[32] Art. 2, Constitution of the 22nd Frimaire of Year VIII [1799], https://www.conseil-constitutionnel.fr/les-constitutions-dans-l-histoire/constitution-du-22-frimaire-an-viii, accessed March 12, 2022, my translation.
[33] For an analysis of how the right to vote for Black people and for women were two entangled causes, see Angela Y. Davis, *Women, Race and Class*, 1981, Random House, New York.
[34] National Assembly, decree of September 27, 1791.
[35] National Assembly, decree of September 28, 1791, Article 1: "every individual is free as soon as they enter France" and Article 2: "every man, regardless of color, enjoys in France all the rights of a citizen, if he possesses the qualities prescribed by the Constitution to exercise them".
[36] Article 17 of Ordonnance of April 21, 1944, organizing public authorities in France.
[37] Sarah Fine, *Democracy, citizenship and the bits in between*, 2011, Critical Review of International Social and Political Philosophy, Vol. 14, n°5, Routledge, London.

representation to entities that cannot vote, such as future generations[38] or existing non-human beings[39].

In practice, rules can be put in place that lead to the *de facto* exclusion from the vote of specific groups - a debate coined as "voter suppression" that is particularly vivid in the United States. Several Southern states are seeking to roll back electoral equality. The Supreme Court invalidated in 2013 some of the provisions contained in the 1965 law, which aimed to prevent States from implementing measures that restrict African Americans' access to voting (including the prior review of such measures by the federal level)[40]. While directly discriminatory rules are no longer possible, governments can implement indirect hurdles such as reducing the number of polling stations in working-class neighborhoods. In 2012, the waiting time was twice as long for an African American than for a White[41]. New legislation requires photo ID cards to vote—a usual practice in Europe but not in the United States, where some Southern counties impose unreasonable delays to renew identity documents[42]. Such demands decrease participation by 8.8% for Democrats versus only 3.6% for Republicans[43]. In 2016, the Brennan Center for Justice identified fifteen States that had introduced new restrictions. The phenomenon continued with the 2024 elections: Georgia has made it impossible to provide water to voters queuing at polling stations (a practice coined by opponents as "line warming") to ban propaganda[44].

Therefore, the "one person, one vote" formula should be read in a dynamic rather than static way as a progressive (potentially open-ended) inclusion process. As Paul Ricoeur pointed out, the continuous extension of the number of citizens is one key aspect of

---

[38] See Alan Gewirth, *Human Rights and Future Generations in Environmental Ethics*, M. Boylan (ed), 2001, Prentice-Hall, pp. 207–12; Deryck Beyleveld, Marcus Düwell, Andreas Spahn, *Why and How Should We Represent Future Generations in Policymaking?*, September 2015, Jurisprudence, Vol. 6, n°3, pp. 549-566; and Stephen Humphreys, *Against Future Generations,* November 2022, European Journal of International Law, Vol. 33, n°4, pp. 1061–1092.
[39] See Alfonso Donoso, *Representing Non-Human Interests*, October 2017, Environmental Values, Vol. 26, n°5, pp. 607-628; and Simon Jenkins, *Votes for dogs appeals, but giving animals rights is moral chaos*, The Guardian, March 18, 2010.
[40] United States Supreme Court, *Shelby County v. Holder*, June 25, 2013, 570 U.S. 529.
[41] The Brennan Center for Justice, *Cooperative congressional election study*, quoted by Bernie Sanders, *Our Revolution,* 2016, Thomas Dunne Books, New York, p. 195.
[42] *Ibid.*
[43] *Ibid.*
[44] Tierney Sneed and Dianne Gallagher, *Judge partially strikes down Georgia ban on giving voters food and water in polling lines*, CNN, August 18, 2023. The « line warming » ban, enacted in 2021 by Georgia under the « Election Integrity Act », was limited in its scope by a federal judge in 2023.

democracy, which he defines as "the form of government in which participation in the decision-making process is guaranteed for an ever-increasing number of citizens. It is a form of government in which the gap between the ruler and the subject continues to decrease[45]".

However, even with an accepted definition of "the people" (e.g., the set of citizens allowed to vote under the principle "one person, one vote"), the question of the democratic aspect of a particular regime remains unsolved. As Jennifer Gandhi observes, "there is increasing skepticism about using solely electoral criteria to differentiate between democracies and dictatorships[46]". One can think of the numerous dictatorships that started with a democratic vote, only to hand over the power to a regime that never went back to the popular vote or only in a formal manner by restricting the choice offered to voters. This is why even Schumpeter, adamantly in favor of a minimal definition of democracy, had to go beyond the "one person, one vote" formula. To him, "the democratic method is that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide using a competitive struggle for the people's vote.[47]" Effective and fair competition requires scrutiny beyond the simple organization of elections or votes. Presidential elections in Russia run without a proper competitive political offer[48]. Even in liberal representative democracies, political practice has demonstrated the possibility of watering down the "one person, one vote" by giving more or less voice to specific categories of citizens by over- or under-representing certain constituencies through political malpractice such as gerrymandering or election districting. The Supreme Court has admitted that a deviation of 10% between district populations was compatible with the "one person, one vote" rule[49]. As Ronald Dworkin commented, the "simple formula of one-man-one-

---

[45] Paul Ricoeur, *Ethics and Politics*, transl. K. Blamey, in *From Text to Action: Essays in Hermeneutics II,* 1991, Northwestern University Press, Boston, p. 335.
[46] Jennifer Gandhi, *Elections and Political Regimes*, July 2015, Government and Opposition Vol. 50, n°3, Cambridge University Press, Cambridge, pp. 446-468.
[47] Joseph A. Schumpeter, *op. cit.*, p. 269, emphasis mine. Schumpeter's definition goes, nevertheless, beyond adding a criterion of effective competition to the electoral process. In his views, there is no individual- or group-wise volitions without a political leader to "work them up" and include them in their political offer.
[48] Cameron Ross, *State against Civil Society: Contentious Politics and the Non-Systemic Opposition in Russia*, March 2015, Europe-Asia Studies, Vol. 67, n°2, pp. 171-176.
[49] Supreme Court*, Evenwel v. Abbott*, 2016, 136 S. Ct. 1120, 1124: "Where the maximum population deviation between the largest and smallest district is less than 10%, the Court has held, a state or local legislative map presumably complies with the one-person, one-vote rule" and Supreme Court, *Thomson*,1983, 462 U.S. 835, 842: "an apportionment plan with a maximum population deviation

vote for passing on the fairness of election districting, for instance, has produced neither sense nor fairness[50]". Propositions have been made to move from "one person, one vote" to "one person, one weighted vote" to eliminate these deviations through a system where the representatives of each district will have a vote weighted in proportion to the population of that district[51]. Direct democracy offers a much more straightforward answer to gerrymandering and redistricting, as it is, by definition, a single-constituency election where every vote has the same impact.

First principle: legitimacy as participation

It appears that defining democracy only through the "one person, one vote" formula is a far too formal approach. Electoral procedures need to pass a legitimacy test.

As we mentioned, Charles Larmore believes that legitimacy should be the key criterion of any democracy. For Larmore, democracy is about dealing with our "reasonable disagreements". To him, one cannot consider, as in the Aristotelian tradition, that we will gather a reasonable consensus on the common good. One can neither assume, as in the Kantian tradition, that we will reach a reasonable consensus on justice. Legitimacy should have the logical priority, as reasonable disagreements between citizens on any definition of the common good or the just can only be dealt with through a minimal agreement on legitimacy itself. However, how do we define legitimacy? Larmore proposes the notion of "respect" in a thin acceptance: the ability to explain to citizens the use of coercive means.

"The characteristic claim of a liberal order has always been that its legitimacy in imposing coercive rules of political association stems from its citizens being able to see reason to accept these rules."[52]

The limit of such a proposition is that it does not cover the possibility of a reasonable disagreement on legitimacy itself, i.e., a reasonable disagreement on reasonable disagreements leading to an institutional crisis. It is not a theoretical counterargument.

---

under 10% falls within [the] category of minor deviations". These references are quoted from Ashira Pelman Ostrow, *One Person, One Weighted Vote,* November 2016, Florida Law Review, Vol. 68, n°6, Miami.

[50] Ronald Dworkin, *Taking rights seriously*, 1997 [1977], Bloomsbury, New York, p. 178.

[51] Ashira Pelman Ostrow, *op. cit.*

[52] Charles Larmore, *What is Political Philosophy?*, 2020, Princeton University Press, Princeton, p. 151.

We already described how the Yellow Jackets in France questioned the legitimacy of representative democracy. When coercive rules were implemented to counter the violence of some of the protests, a debate arose over the legitimacy of these rules. One of the central claims of the protest was to establish a citizen-initiated referendum mechanism[53]. As one of their mottoes stated: "Direct democracy: let us vote for our laws rather than for our masters[54]". The only solution to such a contradiction on the possible reasonable disagreement on disagreements is to equate legitimacy with the collective agreement on the decision itself. There is no way out of the tautology: citizens will agree on a decision they agree on. Hence the definition given above by Ricoeur: "the form of government in which participation in the decision-making process is guaranteed for an ever-increasing number of citizens[55]". Charles Girard goes further and proposes a "principle of political autonomy" that states that "each citizen should be able, as much as everyone one, and as often as possible, the author of decisions applicable to all"[56]. While "as much as everyone" corresponds, quantitatively, to Ricoeur's imperative of "an ever-increasing number of citizens", "as often as possible" adds a qualitative objective, which can be added to the definition and rephrased, in Ricoeur's terms, as the participation in "an ever-increasing number of decisions".

It recalls one of the rare definitions of democracy given by Tocqueville in one letter of 1835: "a state of society in which everyone, to a greater or lesser degree, takes part in the political process[57]". Ricoeur insisted on the dynamic aspect of participation, which can also be inferred from Tocqueville's definition. The "greater or lesser degree" could refer statically to each citizen's voluntary degree of participation. However, I prefer to opt for a dynamic version referring to various stages of participation, which aligns with the rest of Tocqueville's work, as we will see below. By equating democracy with increasing participation, Tocqueville, Ricoeur, and Girard highlight the procedural

[53] France Info, *RIC : le référendum voulu par les "gilets jaunes" [RIC: the referendum claimed by the « Yellow Vests »]*, December 16, 2018.
[54] Arnaud Andreu, *Perpignan : une centaine de Gilets jaunes dans la rue pour la "démocratie directe" [Perpignan: a hundred Yellow vests have taken the streets to claim « direct democracy »]*, L'Indépendant, January 18, 2020.
[55] Paul Ricoeur, *From Text to Action, op. cit.*
[56] Charles Girard, *Délibérer entre égaux – Enquête sur l'idéal démocratie [Deliberate among equals – Enquiring on the democratic ideal]*, 2019, Vrin, Paris, p. 36.
[57] Alexis de Tocqueville, *Letter to Kergolay or Stoffels, 1835,* in André Jardin, *Tocqueville: A Biography,* transl. by L. Davis with R. Hemenway, 1988 [1984], The Johns Hopkins University Press, Baltimore, p.93.

character of democracy. Participation is in constant evolution not only in terms of the number of citizens but also in the quality of participation itself.

We have therefore extended our thin definition from the one person, one vote formula (static) to legitimacy as participation (dynamic). The key concept behind legitimacy as participation is equality. As Larmore admits, liberty and equality are "cardinal values" underlying any concept of legitimacy. Tocqueville gives priority to equality: "liberty is not the chief and constant object of their [the Americans'] desires; equality is their idol[58]". To him, equality is more than just one passion among others, alongside freedom or property. Equality is a priority, and liberty and property are justified through it: we crave them to become even more equal. Again, the analysis is not static but dynamic. For Tocqueville, the process of equalization of conditions is historical. It has been at work since the feudal communes and burst into broad daylight with the emergence of the English, French, and American democracies. It has further developed ever since. As long as there remains the slightest difference between the conditions of citizens, the demand for equality will remain strong and get paradoxically more robust as the gap becomes smaller and therefore unbearable – "Tocqueville's paradox":

"The gradual development of the equality of conditions is therefore a providential fact, and it possesses all the characteristics of a divine decree: it is universal, it is durable, it constantly eludes all human interference, and all events as well as all men contribute to its progress. […] It is impossible to believe that equality will not eventually find its way into the political world as it does everywhere else."[59]

We need to enrich our initial definition of democracy by adding Ricoeur's definition (enhanced by Girard):

"A set of mandatory electoral institutions, built on the principle of one person equals one vote and its characteristics (including free vote, universal suffrage, and majority rule) and guaranteeing the participation of an ever-greater number of citizens to an ever-greater number of decisions."

[58] Alexis de Tocqueville, *Democracy in America, vol. 1,* transl. H. Reeve, 2002 [1835], Penn State Electronic Classics Series Publication, Pennsylvania State University, http://seas3.elte.hu/coursematerial/LojkoMiklos/Alexis-de-Tocqueville-Democracy-in-America.pdf, p. 72, accessed June 12, 2022.
[59] Alexis de Tocqueville, *Ibid.*, p. 71.

However, this definition transfers the question to another definition: participation. What does it mean for citizens to participate? How can they be involved in the three different moments of decision: preparation, decision-making, and control? Are these three moments of equal importance? Representative democracy seems to emphasize the latter, giving citizens a right to control and sanction politicians through voting. Yet, can democracy be "by the people" if citizens are voting only occasionally to elect representatives? The recent discussions around deliberative democracy[60] underline the preparation aspect. Bernard Manin advocates that deliberation as such should be "the basis of any modern theory of legitimacy"[61]. As Seyla Benhabib puts it: "legitimacy in complex modern democratic societies must be thought to result from the free and unconstrained deliberation of all about matters of common concern"[62].

Participation must correspond to the three aspects of the decision: deliberation, voting, and control. Deliberation or control without increased participation in voting would not pass the legitimacy test. That point is established by Charles Girard, who asserts that "decision-making should be, like the weighing of the various reasons, collective: collective decision should be derived from the totality of the participants' individual choices[63]". When there is no apparent consensus, the only way to achieve it is through the vote[64]. For Girard, deliberation means weighing the reasons collectively but only if it is "to make a collective decision[65]".

Second principle: efficiency as equality

The above definition leaves aside the question of political results. Contrary to an assessment based on a reasonable agreement on the common good or justice, the legitimacy approach does not test a political system against an outcome criterion. Such

[60] The term "deliberative democracy" was coined by Joseph M. Bessette in 1980 in *Deliberative Democracy: The Majority Principle in Republican Government*, in R. Goldin and W. Schambra (eds.), *How Democratic is the Constitution?,* 1980, American Enterprise Institute for Public Policy Research, Washington, quoted by Charles Girard, *op. cit.*, p. 243.
[61] Bernard Manin, *On Legitimacy and Political Deliberation*, transl. E. Stein and J. Mansbridge, 1987, Political Theory, Vol. 15, n°3, p. 338.
[62] Seyla Benhabib, *Deliberative Rationality and Models of Democratic Legitimacy*, 1994, Constellations: An International Journal of Critical & Democratic Theory, Vol. 1, n°1, p. 26.
[63] Charles Girard, *op. cit.*, p. 119, my translation.
[64] Along the vote itself, Girard mentions an alternative decision-making tool: lot weighted by votes. I will discuss the role of sortition in section 3. At this stage, I will identify lot weighted by votes with vote itself in a first approximation
[65] *Ibid.*

an approach does not consider the claims of citizens themselves. As polls show, an increasing number of citizens could favor non-democratic regimes if those were able to deliver more effective results than democratic ones: 34% in the U.S., 37% in the U.K., 27% in Canada, and 20% in France (but only 17% in Germany and 8% in Sweden)[66]. The number for France is probably underestimated, as the Cevipof measured that 34% of respondents have a "good" or "very good" opinion of a strongman ruling the country without caring about the parliament or elections[67]. A growing number of voters do not believe in the ability of the government to provide efficiency – a reason claimed by at least a third of abstainers for not voting, as we will see in section 1.

Adding an ex-post assessment to political decisions is not a consensual path. Defenders of a mere procedural approach to democracy adamantly refrain from introducing any instrumental perspective[68]. However, as Elizabeth Anderson asserts, there is no sense in leaving aside the instrumental perspective:

"If we decide that a problem, such as air pollution, is of public interest and that dealing with it requires joint action under the law, we don't just flip a coin to decide what pollution laws to enact, even though this would be procedurally fair. [...] The ex-ante popularity of a law—its approval by a majority—may make its enactment legitimate. But that does not ensure that the law will be successful. Whether the law succeeds in solving the problem for which it was drafted depends on its external consequences—not, or not simply, on the fairness of the procedure by which it was enacted."[69]

The legitimacy-focus (procedural) approach can only answer that challenge in recursive terms. If the legitimate decision does not produce effective results, the lack of efficiency is not supposed to affect the legitimacy of the process – citizens and their representatives are simply asked to make another decision enriched by the assessment of the previous one. Such an approach, which might have been relevant during the

---

[66] Pew Research Center, *Authoritarianism and How Do They Want To Change Their Government*, 2024, https://www.pewresearch.org/short-reads/2024/02/28/who-likes-authoritarianism-and-how-do-they-want-to-change-their-government/, accessed August 15, 2024.
[67] *En qu(o)i les Français ont-ils confiance aujourd'hui [What or Whom do French Trust Today ?]*, CEVIPOF Trust Barometer, 15th wave, February 2024, Sciences Po, Paris, www.sciencespo.fr/cevipof/sites/sciencespo.fr.cevipof/files/BConf_V15_Extraction1_modif.pdf, accessed July 10, 2022.
[68] John Rawls, *Justice as Fairness: Political not Metaphysical*, 1985, Philosophy and Public Affairs, Vol. 14, No. 3.
[69] Elizabeth Anderson, *The Epistemology of Democracy*, 2006, Episteme: A Journal of Social Epistemology, Volume 3, Issue 1-2, Edinburgh University Press, Edinburgh, pp. 8-22.

times of greater trust in government and which is particularly applicable to representative democracy, does not resist the growing skepticism over the ability of the government to act effectively. Correcting inefficiency by a vote every four or five years to elect another government that might prove equally inefficient seems, to many, a vicious circle.

Thus, even with increased participation, our legitimacy criterion for democracy seems too narrow. As Marcel Gauchet explained, legitimacy is a two-sided concept: "ex-ante legitimacy" and "ex-post legitimacy"[70]. The ineffectiveness of policies does not simply call for new decision-making; it affects the very legitimacy of the system itself. Not only should a democratic government allow an ever-greater number of citizens to participate in the decision-making, but it should be done efficiently. One of the central challenges of democracy is how votes are transformed into results. A truly "realistic" approach must consider the elementary fact that citizens dissatisfied with the outcome of public policies will turn their discontent against their initial acceptance of their legitimacy. As Jennifer Gandhi warns: "Even if scholars emphasize that the merits or defining features of democracy revolve around process, we cannot stop people from focusing on outcomes and wondering whether something other than democracy could provide more[71]". Charles Girard also requires a second principle balances the first principle of political autonomy that we have presented above: "each citizen should benefit like everyone, and as often as possible, from decisions applicable to all"[72].

The efficiency imperative is, therefore, based on equality. Equality, which underpins our legitimacy principle, is incomplete without assessing the results. The analyses of Ronald Dworkin offer a helpful framework to capture this dual aspect of equality. Dworkin concurs that democracy should be assessed by its institutions and results. To him, democracy should not just be about "equal treatment" (which would correspond to our first principle of equality) but also about "treatment as equal" (our second principle of efficiency). For that purpose, he proposes a thin definition of political equality, which "supposes that the weakest members of a political community are entitled with the same concern and respect from their government as the most

[70] Marcel Gauchet, *Macron, les leçons d'un échec – Comprendre le malheur français II [Macron, lessons from a failure – Understanding the French discontent II]*, with Eric Conan and François Azouvi, 2021, Stock, Paris, p. 62.
[71] Jennifer Gandhi, *The Institutional Roots of Democratic Backsliding, op. cit.,* p. 13.
[72] Charles Girard, *op. cit.*, p. 36, my translation.

powerful have[73]". These concepts of concern and respect are not merely formal and relative to coercion, as in Larmore's definition. On the contrary, for Dworkin, they require three things: "first, equal respect for citizens as the authors of the laws that govern them, next, equal respect in protecting the legitimate expectations that have been encouraged by past statutory and judicial pronouncements, and, finally, equal respect in the substantive treatment of individuals by the state[74]". The first aspect relates to the legitimacy criteria that we highlighted, which implies increased participation of citizens in decision-making. The second is linked to the largest aspect of individual rights, which we will discuss later. The third one is an answer to our need for substantial egalitarian criteria to assess the efficiency of democracy. To him, "the best form of democracy is whatever form is most likely to produce the substantive decisions and results that treat all community members with equal concern[75]". These substantive decisions encompass such public policy provisions as "integrated education"[76], "equality between races"[77], and "fair treatment by the police"[78]. Dworkin later refers to such substantial equality as "equality of resources"[79].

The purpose here is not to decide on the extent of substantial equality that can validate the effectiveness of a public policy. Sen rightly wondered: "Equality of what?"[80] (a position, as Véronique Munoz-Dardé explains, that is a paraphrase from Aristotle's *Politics*[81]). Positions vary dramatically between proponents, after Kant, an "equality of respect[82]"; those, like Tocqueville, identifying a movement toward "equality of conditions" (see above); those favoring, like Dworkin, an "equality of resources"; like

---

[73] Ronald Dworkin, *Taking rights seriously*, *op. cit.*, p. 240.
[74] Ronald Dworkin, *Réponse aux articles [Answer to articles]*, Revue internationale de philosophie, 2005/3 n°233, pp. 435-440.
[75] Ronald Dworkin, *Sovereign Virtue – The Theory and Practice of Equality*, 2000, Harvard University Press, Cambridge (MA), p. 186.
[76] *Ibid*, p. 179.
[77] Ibid., p. 121.
[78] Ibid., p. 171.
[79] Ronald Dworkin, *Sovereign Virtue – The Theory and Practice of Equality*, *op. cit.*, p. 69: "Under equality of resources, however, people decide what sorts of lives to pursue against a background of information about the actual cost the actual costs their choices impose on other people and hence on the total stock of resources that may fairly be used but them".
[80] Amartya K. Sen, *Equality of What?*. in *McMurrin S Tanner Lectures on Human Values*, Vol. 1, 1980, Cambridge University Press, Cambridge (MA).
[81] Véronique Munoz-Dardé, *La justice sociale –Le libéralisme égalitaire de John Rawls [Social justice – the egalitarian liberalism of John Rawls],* 2000, Armand Colin, Paris, p. 29.
[82] Immanuel Kant, *Fundamental Principles of the Metaphysic of Morals*, 2017 [1795], transl. T. Abbott, Project Gutenberg, pp. 60–62.

Rawls, a "fair equality of resources[83]"; or, like Sen, those proposing an "equality of capabilities[84]". There will always be disagreements on the substance of equality, and on the principles of justice that underpin it.

Just as disagreement on legitimacy cannot be solved without a collective decision on legitimacy itself, disagreement on the substance of efficiency, and therefore on equality, cannot be solved outside a decision on equality itself. Such a decision needs to encompass deliberation, voting and control. Eventually, our disagreements on legitimacy and equality (justice) are also grounded in our disagreements about the common good. Sandel insists that "to achieve a just society, we have to reason together about the meaning of the good life, and to create a public culture hospitable to the disagreements that inevitably arise[85]". It leads us to our initial discussion around the respective prevalence of legitimacy, justice, and the common good. Giving priority to legitimacy leaves aside the imperative of efficiency. Many reasons could justify public policies' inefficiencies, from the difficulty of handling issues at a national level in a globalized economy[86] to a high level of indebtedness[87] or non-collaborative bureaucracy[88], although each is debated. However, it will ultimately be up to the voters to judge if these reasons are valid and if policies have delivered results in relative terms. They will base their judgment not only on the level of economic growth but also on their conception of justice and the common good. As encapsulated by Robert F. Kennedy in his address to the University of Kansas in 1968, that Sandel quotes in the conclusion of *Justice*, the Gross National Product "can tell us everything about America except why we are proud to be Americans". If no decision is organized on these

[83] John Rawls, *A Theory of Justice*, *op. cit.*, p. 83.
[84] Amartya K. Sen, *Welfare, Freedom and Social Choice: A Reply,* 1990, Recherches économiques de Louvain, n°56, p. 460: capabilities correspond to the "real freedoms" that individuals have "of achieving the kind of lives they have reason to value".
[85] Michael J. Sandel, *Distinguished Lecture – Justice: What's the Right Thing To Do*, 2011, Boston University Law Review, Vol. 91, p. 1310.
[86] See Dani Rodrik, *Populism and the economics of globalization*, 2018, Journal of International Business Policy: "economic history and economic theory both give us strong reasons to believe that advanced stages of globalization are prone to populist backlash". Reversely, see Axel Dreher, Jan-Egbert Sturm and Heinrich Ursprung, *The Impact of Globalization on the Composition of Government Expenditures: Evidence from Panel Data*, July 2006, CESIFO Working Paper n°1755, https://www.ifo.de/DocDL/cesifo1_wp1755.pdf, that evidenced that globalization has not modified the composition of government expenditures in a panel of countries.
[87] Ayhan Kose, Franziska Ohnsorge and Naotaka Sugawara*, Benefits and Costs of Debt: The Dose Makes the Poison*, World Bank, Policy Research Working Paper n°9166.
[88] Bob Hudson, David Hunter and Stephen Peckham, *Policy failure and the policy-implementation gap: can policy support programs help?*, 2019, Policy Design and Practice Vol. 2, n°1. Reversely, see, Kenneth J. Meier, *Bureaucracy and Democracy: The Case for More Bureaucracy and Less Democracy*, 1997, Public Administration Review, pp. 193-199.

conceptions of justice and goodness, governments will find it harder to deliver on these bases, and voters will be less inclined to compromise on their own conceptions. There is an urgent need for more robust public engagement with our moral disagreements and "taking up hard questions about the meaning of the good life[89]".

Linking the different definitions listed above, we can redefine democracy as:

"A set of mandatory electoral institutions, built on the principle of one person equals one vote and its characteristics, and guaranteeing the participation of an ever-greater number of citizens, to translate the popular will thus expressed into effective equality-driven public policies."

Such a definition seems quite thick, given our initial goal of thinness. However, as we have seen, many thin definitions are, in reality, more extensive than their formulation. Adam Przeworski complemented his definition of democracy as a regime where "conflicting political forces obey the results of voting[90]" by stressing the necessity to deliver "substantive outcomes[91]". He mentions the correlation that can be identified, in South America between 1946 and 1988, between economic welfare and the probability of a democratic regime to survive within the next twelve months (92% in case of economic growth and only 67% in case of two consecutive years of recession). The same can be said of Popper's famous definition of democracy as the only system where citizens can get rid of governments peacefully[92]. As such, it tells us nothing about how bloodsheds are effectively avoided – this implies more substantive criteria that Popper will further develop (Popper advocates in particular for equality and rational communication: "Men are not equal; but we can decide to fight for equality. [...] We ourselves and our ordinary language are, on the whole, emotional rather than rational; but we try to become a little bit more rational, and we can train ourselves to use our language not as an instrument for self-expression (as our romantic educationists would say) but of rational communication"[93]). It confirms that any definition of democracy, even initially minimal, encompasses legitimacy and efficiency principles.

[89] Michael J. Sandel, *Distinguished Lecture – Justice: What's the Right Thing To Do*, *op. cit.*, p. 1310.
[90] Adam Przeworski, *op. cit.*, p. 15.
[91] Adam Przeworski, *Democracy and the Market: Political and economic reforms in Eastern Europe and Latin America,* 1991, Cambridge University Press, Cambridge (MA), p. 32.
[92] Karl Popper, *op. cit.*, p. 124.
[93] *Ibid.,* p. 264.

Reformulating our definition can recapitulate those different aspects in a more condensed way. The Gettysburg Address best captures the duality of legitimacy/efficiency in a formula later enshrined in the French constitution: democracy is the power "of the people, by the people, and for the people". By adding the requirement "for the people" to the "by the people" one, the formula emphasizes the need to complement "legitimacy" with "efficiency". I propose to replace the term "people" in the Gettysburg Address with the term "each", to stress the central role that equality plays in the conception of democracy (we will analyze below how James makes a difference between "each" and "all"). "Each" refers to a maximal inclusivity of individuals fundamentally considered equal. In that sense, it is larger than just the majority. The fact that a decision is the result of a majoritarian vote does not mean that the majority decides it and that it is the power of the majority (as we will discuss more in detail in chapter 1.3). Perhaps more importantly, it cannot be that such a decision should be for the benefit of the majority (tyranny of the majority) but instead for the benefit of each (leaving it for the collectivity to decide whether that benefit should be measured in average terms, as in a utilitarian model, in marginal terms, as in a Rawlsian model, or in other terms). Our thinnest definition would read as:

"The power of each, by each, and for each."

As in the Gettysburg Address, it extends the pure electoral approach to legitimacy and efficiency. However, in addition to Lincoln's words, it stresses the equalitarian and inclusive aspect that these notions must convey to be fully democratic, in line with Tocqueville's and Dworkin's analyses. This definition could be coined as truly Tocquevillian. Lamberti rightly notes that the word "democracy", despite its central place in Tocqueville's work, is never rigorously defined by him. As we have seen, one of Tocqueville's rare definitions of democracy is "a state of society in which everyone, to a greater or lesser degree, takes part in the political process" and points toward the "by each" aspect. Lamberti proposes to reduce the different meanings of democracy in Tocqueville's work to a double meaning: a "political regime defined by the government of the people" and, "more frequently, a state of society tending toward equality"[94]. The first definition is explicitly related to the "of each" aspect, whereas the second one points to equality as a result: "for each".

[94] Jean-Claude Lamberti, *Tocqueville et les deux démocraties [Tocqueville and the two democracies]*, 1983, Presses Universitaires de France, Paris, p. 28, my translation.

Adding the efficiency criterion ("for each") is critical to adequately assessing direct democracy against representative democracy. To put it simply, direct democracy is often thought to provide increased legitimacy (under the conditions that we have presented above) but to lack sufficient expertise to deliver effective results. As we will show in the current dissertation, there are convincing reasons to believe the latter is untrue.

Third principle: qualified majoritarianism

Our thin definition of democracy leaves aside a crucial question: individual and minority rights. Many authors have incorporated into the concept of democracy the need for a strict guarantee of human, political, or civil rights.

Whether or not to include rights u is a critical problem in our assessment of direct democracy. Indeed, referendums and direct voting have long been suspected of threatening rights. The example of the death penalty is regularly brought forward by contenders, with polls showing that a majority of voters in France would favor the return of its application[95]. Although there have never been actual referendums on the subject, some historical examples could indeed sound worrying. In 1907, the French newspaper *Le Petit Parisien* held a self-organized "referendum" on the death penalty, claiming that it gathered one million votes in favor and only 300,000 votes against – an operation that convinced Clémenceau to withdraw his abolition project from parliament[96].

There are two possible attitudes toward the link between democracy and rights.

The first one is to consider that they form two separate orders. The question then arises of which one has the priority. For liberal thinkers like Rawls, rights are "off limits" and there is a "lexical priority" of liberty over socio-economical distribution. As he stresses, certain rights "are part of the public charter of a constitutional regime and not a suitable topic for on-going public debate and legislation, as if they can be changed at

[95] Ipsos, 2020: 55% of French people favor the re-establishment of the death penalty.
[96] Radio France, *Pourquoi la peine de mort n'a-t-elle pas été abolie en 1908 ? [Why was death penalty not abolished in 1908?]*, 15 May, 2024, www.radiofrance.fr/franceculture/podcasts/le-pourquoi-du-comment-histoire/pourquoi-la-peine-de-mort-n-a-t-elle-pas-ete-abolie-en-1907-3537465, accessed May 20, 2024.

any time, one way or the other[97]". As Véronique Munoz-Dardé comments, the list of these rights is the following: freedom of thought, freedom of conscience, political liberties, and liberty of association, as well as liberties included in the notion of liberty and personal integrity, rights and liberties protected by the rule of law – personal property and protection against arbitrary arrest or detention[98]. That perspective is at the core of Rawls' theory of justice as fairness. Its first principle stipulates: "Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all"; and its first priority rule: "(a) a less extensive liberty must strengthen the total system of liberty shared by all; (b) a less than equal liberty must be acceptable to those with the lesser liberty[99]". Similarly, Dworkin defends the famous idea of "rights as trumps"[100].

On the opposite side, a strict majoritarianist position, as defended by Jeremy Waldron or James Allan, denies legitimacy to any Bill of Rights constraining the sovereign vote. The only right to defend is what Waldron called the "right of rights", which is the "right of having a share in the making of the laws[101]". In that perspective, the sovereign vote is "off limits".

Yasha Mounk points out that those two theoretical directions can lead to opposing political deviancies: the government of judges and populist authoritarians. Writes Mounk: "Liberalism and democracy, we have long thought, make a cohesive whole[102]". This is not the case anymore. On the contrary, as Mounk develops, we see the rise of "illiberal democracy, or democracy without rights", and "undemocratic liberalism, or rights without democracy[103]".

The second approach is that popular sovereignty and individual rights form one single order. Habermas proposed the boldest formulation in that regard, imagining that they

---

[97] John Rawls, *The Idea of an Overlapping Consensus*, 1987, Oxford Journal of Legal Studies, 7.1, p. 14, note 22, quoted by Seyla Benhabib, *Models of Public Space: Hannah Arendt, the Liberal Tradition and Jürgen Habermas*, in *Situating the Self: Gender, Community and Postmodernism in Contemporary Ethics*, 1992, Polity Press, Cambridge (U.K.), p. 103.
[98] Véronique Munoz-Dardé, *op. cit* , p. 87.
[99] John Rawls, *A Theory of Justice*, *op. cit.*, p. 302.
[100] Ronald Dworkin, *Taking Rights Seriously*, *op. cit.,* p. xi.
[101] Jeremy Waldron, *Law and Disagreement*, 1999, Clarendon Press, Oxford, p. 232, quoted by Suri Ratnapala, *Bills of Rights in Functioning Parliamentary Democracies: Kantian, Consequentialist and Institutionalist Scepticisms*, 2010, Melbourne University Law Review 19, Vol. 34, n°2, p. 592.
[102] Yasha Mounk, *op. cit.*, p. 6.
[103] *Ibid.,* p. 14.

are co-originated, a logical deduction from the interpenetration of the legal and the communicational. The question is how to define precisely the list of these co-originated rights, not to speak about their legal enforcement. His "Bill of Rights" includes the "rights to living conditions that are socially, technologically, and ecologically safeguarded, insofar as this is necessary for citizens to exercise their civil rights[104]". These conditions are hard to substantiate effectively. For Nancy Fraser, "political democracy requires substantive social equality[105]". Habermas acknowledges that perspective, asserting that participation has a double meaning: to participate in political life and to get one's part of the social product. Therefore, equality in political participation (*Teilnahme*) must be completed by equality in public benefits (*Teihhabe*)[106]. For people deprived of properly safeguarded social, technological, and environmental living conditions, participation is inapplicable, an argument further developed by Honneth under the concept of "social freedom[107]". Yet that argument does not say anything about the acceptable social inequality level. Fraser argues that "a necessary condition for participatory parity is that systemic social inequalities be eliminated[108]". With no theoretical evidence on the substance of the co-originated rights, it should be left to society to decide, which contradicts the co-origination.

Seyla Benhabib proposed a more subtle solution that supersedes these two approaches. She asserts that some individual rights are a prerequisite to democracy. As she states it: "when basic rights and liberties are violated, the game of democracy is suspended[109]". Yet, it does not imply that they are off-limits, as Rawls proposed. Individual rights should be part of the democratic deliberation and therefore subject to the sovereign rule but as particular matters that deserve specific rules:

"Where I would differ [...] from Rawls's formulation about keeping certain topics 'off limits' [...] is in the matter of procedure. Basic human, civil, and political rights, as guaranteed by the Bill of Rights to the U.S. Constitution and as embodied in the constitutions of most democratic

[104] Jürgen Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, William Rehg (transl.), MIT Press, Cambridge (MA), pp. 120-123.
[105] Nancy Fraser, *Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy,* 1990, Social Text, n°25/26, p.65.
[106] Jürgen Habermas, *Reflexionen über den Begriff des politschen Beteiligung [Reflexions on the concept of political participation]*, 1958, in *Kultur und Kritic [Culture and Critic],* 1973, Suhrkamp, Francfort-am-Main.
[107] Axel Honneth, *Three, Not Two, Concepts of Liberty*, July 17, 2015, Dewey Lecture, University of Chicago Law School, https://www.youtube.com/watch?v=wslFRjaGyRQ, accessed May 12, 2024.
[108] Nancy Fraser, *op. cit*.
[109] Seyla Benhabib, *op. cit.*, p. 107.

governments, are never 'off the agenda' of public discussion and debate. They are simply constitutive and regulative institutional norms of debate in democratic societies that cannot be transformed and abrogated by simple majority decisions. The language of keeping these rights off the agenda mischaracterizes the nature of democratic debate in our kinds of societies: although we cannot change these rights without extremely elaborate political and juridical procedures, we are always disputing their meaning, their extent, and their jurisdiction[110]."

Against Rawls, Benhadid advocates for one single order but in a different way than Habermas. There is a subtle institutional order in which the majoritarian vote institutes some fundamental rights and their protection, which apply to further law or decision-making. These rights are not off-limits since they can constantly be amended. Yet these amendments, as per the initial majority decision, cannot take the form of a majoritarian vote but a more lengthy and constrained procedure (including qualified or multiple majorities, or vetos, all mechanisms that I will label "qualified majoritarianism"). Such a system does not prevent the possibility of unjust decisions that could, despite qualified majoritarianism, affect individual rights – "this is why it can be sometimes morally justified to disobey to a legitimate order[111]". Yet, as Girard comments, this is the price to pay for political autonomy. "Individuals can have good reason to stand, as moral agents, against choices they should abide by as citizens. Yet one must have precisely separated justice from legitimacy to understand how tragic such a dilemma can be"[112].

Qualified majoritarianism, therefore, offers an appropriate framework to assess direct democracy. The objection that the majority might easily erase a specific human or civic right does not stand if popular sovereignty and rights are entangled in a multi-level system. A referendum on the death penalty cannot be undertaken in a simple "one person-one vote" manner, as even the French leader of the extreme right admitted it[113]. This is one of the "counter-majoritarian devices" that Charles Beitz recommends when he comments: "we might adopt counter-majoritarian devices such as bills of rights or requirements for 'special majorities' in order to constrain the social choice mechanism so that results that could be severely damaging to some people's interests and rights

[110] *Ibid.,* p. 106
[111] Charles Girard, *op. cit.*, p. 204, my translation.
[112] *Ibid.*
[113] Idèr Nabili, *Référendum sur la peine de mort : finalement, Marine Le Pen fait marche arrière [Referendum on death penalty: Marine Le Pen eventually steps back]*, 15 April, 2022, TF1 Info.

will be less likely to occur[114]". We only retain here the supermajority (and not the bill of rights for the reasons outlined above) in the context of the sole rights (and not "interests" in general which are both too large and too vague).

A particular case needs to be made for minority groups' rights. By minority, as we will define in chapter 3.3.2, w refer in the current dissertation to a group collectively discriminated against for physical, cultural, social, ethnic, racial, or religious reasons. Majority rule has constantly been confronted by a fundamental objection: how to guarantee minority rights and their protection against possible systematic oppression by the majority. As Karl Popper ironizes, how do we ensure that "the majority of those less than six ft. high may decide that the minority of those over six ft. shall pay all taxes[115]"? Or, as Qvortrup imagines, how we prevent the 51% who speak language A from imposing it on the 49% who speak language B[116]? Beintz makes a specific case for what he calls "entrenched minorities" and draws attention to decisions that "could be catastrophic for an entrenched minority, for whom it would pose the risk of being permanently excluded from participation in government[117]". Therefore, he recommends that "fair procedures ought not to allow the more or less permanent exclusion of an entrenched minority from effective participation in politics"[118]. This imperative is particularly stringent in democracies that are ethnically divided, although our focus in the current dissertation is rather on Western democracies (which can still count ethnically diverse groups, although rarely, or limitedly, on a geographical basis). The guarantees given to entrenched minorities' rights can be based on axiological and epistemological grounds, as discussed in section 3. From our thin definition perspective, we will stick to a merely logical analysis of the majority rule vs. minority rights question. Supposing that citizens view their government as a political institution they are free to adhere to (in a contractualist approach), then, logically, majority rule should be limited by a minority right guarantee, in the absence of which the minority will not accept to adhere. It can be seen as a specific (and much narrower) reformulation of Rawls' "veil of ignorance", which imposes on each of us to put

[114] Charles Beitz, *Political Equality: An Essay on Democratic Theory*, 1990, Princeton University Press, Princeton, p. 65.
[115] Karl Popper, *The Open Society and Its Enemies*, *op. cit.*, p. 149.
[116] Matthew Qvortrup and Leah Trueblood, *The case for supermajority requirements in referendums*, 2023, I•CON, Vol. 21, n°1, pp. 187–204.
[117] Charles Beitz, *op. cit.*, 1990, Princeton University Press, Princeton, p. 86.
[118] *Ibid.,* p. 90.

ourselves in the position of neutrality in terms of gender, talent, and social-economic position but also moral, philosophical, and religious values. As Véronique Munoz-Dardé comments, "in the same way that we do not know if we will be one of the least advantaged person, we do not know neither if we will be part of a minority that could be subject, due to its values, to possible persecution by the majority[119]". Our third principle is narrower than Rawls' approach as it only considers the rights of a minority as a group and not individual or civic rights and the rule of law. However, it is not an anecdotal question, as all authoritarian regimes have developed anti-minority policies (to name a few contemporary examples: Uighurs in China, Kurds in Turkey, Chechens in Russia, Romas in Hungary). On the contrary, as Amartya Sen demonstrated, no famine can occur in a democracy (with free press and an active political opposition) as minorities are sufficiently vocal and protected to make themselves heard[120].

To sum up those developments, our third principle reads as follows: democracy should provide fair procedures for protecting minority rights and exclude them from referendums, and submit any decision affecting individual rights to qualified majoritarianism. We will discuss in section 3 how to put this principle into practice.

We have thus gone from a definition of democracy as being "one person, one vote" to a more comprehensive one as "the power of each, by each, and for each". The latter formula corresponds to the three democratic principles we have highlighted: legitimacy as participation, efficiency as equality, and rights protection as qualified majoritarianism (excluding minority rights). For many authors, those three principles are better encapsulated in the dichotomy between procedural and instrumental democracy (or equivalent dichotomies as presented by Habermas, Gauchet, or Girard), where the question of rights is usually addressed within the procedural aspect. I have nevertheless chosen a tripartite approach, in line with the three principles of democracy identified by James Kloppenberg in his history of self-rule in American and European thought: popular sovereignty, equality, and autonomy[121]. This tripartition

[119] Véronique Munoz-Dardé, *op. cit.*, p. 87, my translation.
[120] The first formulation of this "Sen's law" can be found in Amartya Sen, *Development: Which Way Now?*, 1983, The Economic Journal, Vol. 93, n°372, Royal Economic Society, London, p. 757: "with the present political system in Inda, it is almost impossible for a famine to take place. The pressure of newspapers and diverse political parties make it imperative for the government in power to organize swift relief."
[121] James T. Kloppenberg, *Toward Democracy: The Struggle for Self-Rule in European and American Thought*, 2017, Oxford University Press, Oxford, p. 6.

also echoes the French motto of liberty, equality and fraternity, which can be paralleled with our three principles if one considers liberty in the perspective of rights, equality in the sense of participation, and fraternity as an "egalitarian" principle, as Munoz-Dardé analyzes referring to Rawls[122].

Beyond its theoretical justification, our tripartition has practical advantages for analyzing direct democracy. Put simply, direct democracy is often heralded as intrinsically legitimate, questionably efficient, and structurally problematic concerning individual and minority rights. Isolating these three aspects offers a more operational framework for the current dissertation.

What is wrong with direct democracy?

Direct democracy sounds indeed well positioned to fulfill our definition of democracy: it is the most primary and obvious implementation of "one person, one vote", it allows for much larger participation, and it theoretically expresses in the most precise possible way the will of the population. However, it is commonly called a "contested notion[123]" or "misleading and problematic vocabulary[124]". What is wrong with it?

Direct democracy has a long history. It is arguably as old as democracy itself – the first democratic regime, Solon's Athens in the 5th century B.C., stemmed from the regular gathering of all citizens on the Pnyx, forming the Ecclesia that decided on general affairs (keeping in mind that the vast majority of the population, in particular women and enslaved people, were excluded from citizenship). There is a debate about whether the Athenian democracy was really direct. Gil Delannoi argues that important decisions were made by magistrates designated by lot rather than direct democracy[125]. Hélène Landemore demonstrates that it was, in fact, "representative" due to the low turnout at the Ecclesia, the existence of an intermediate assembly (the *Boulè*)

[122] Véronique Munoz-Dardé, *Fellow Feelings: Fraternity, Equality and the Origin and Stability of Justice*, 2018, Daimon: Revista Internacional de Filosofía, pp. 107-123.
[123] Francis Cheneval and Alice el-Wakil, *The Institutional Design of Referendums: Bottom-Up and Binding,* in 2018, Swiss Political Science Review, Vol. 24, n°3, pp. 294–304. The authors prefer to use the words « popular vote processes ».
[124] Hélène Landemore, *Referendums Are Never Merely Referendums: On the Need to Make Popular Vote Processes More Deliberative*, 2018, Swiss Political Science Review; Vol. 24, n°3, pp. 320-327.
[125] Gil Delannoi, *Le tirage au sort. Comment l'utiliser ? [Selection by Lot: How to use it?]* , 2019, Paris, Les Presses de Sciences Po, coll. « Nouveaux débats ».

controlling the legislative agenda, and the designation of magistrates[126]. Nevertheless, it can be opposed that citizens failing to turn out cannot be considered as delegating their vote to the ones present and that the Boulé lost all legislative power in the 4th century[127]. The magistrates designated by lot were the least important ones (accountants, stewards, overseers, priests, and sellers, but not the ten strategists and the naval architects who were elected). It could be argued that "it was difficult to fill all the positions[128]" since there were only 6 to 8,000 Athenian citizens who were politically active[129]. We will, therefore, adopt Benard Manin's and Nadia Urbinati's position that Athenian democracy was, on the contrary, a typical form of direct democracy[130]. As Bernad Manin argued:

"I would say [that the Ancients did not know any form of representation]. I don't think that the Athenian Council (Boulè) should be viewed as a representative body. While sources identify the Assembly and "the people of Athens", they do not identify the Boulè and the demos, thus underlining that the Council was not perceived as standing for the people. The Boulè was just a collegial magistracy."[131]

In practice, most modern democracies use direct decision-making instruments at the local, federal or national level[132]. Yet direct democracy seems to play only a minor role in political theory. Yasha Mounk's *The People vs. Democracy* illustrates that general position. Mounk is very lucid about the undemocratic form that most modern democracies have taken, limiting citizens' influence in decision-making and control: what he calls "undemocratic liberalism". However, at the same time, he dismisses direct democracy as equally obnoxious, paving the way for "illiberal democracy". He argues:

---

[126] Hélène Landemore, *Rousseau's Mistake: Representation and the Myth of Direct Democracy*, presented at Berkeley University, April 15, 2016.
[127] Paul Demont, *Socrate et le tirage au sort [Socrates and the drawing of lots]*, Commentaries n°169, spring 2020, p. 82.
[128] *Ibid*.
[129] Donald Kagan, *Athenian Democracy*, in *Introduction to Ancient Greek History*, Yale University, course CLCV 205, 2007.
[130] Hélène Landemore, *Is representative democracy really democratic? Interview with Bernard Manin and Nadia Urbinati*, La vie des idées.fr, April 10, 2007.
[131] *Ibid.*
[132] Even a country like Germany, where referendums at the national level have been banned after 1945, allows for citizen initiatives at the level of the *Länder* (see for example the Berlin referendum of Sept. 26, 2021, on the expropriation for large residential properties owned by private real estate companies).

"I am not suggesting that most citizens of contemporary democracies want to be intimately involved in the process of policy making. They don't. Nor do I believe that deliberation on a virtual agora would turn out to be civil and rational. It wouldn't. For good reason, the idea of direct democracy has many more adherents in theory than it does in practice."[133]

Mounk dismisses direct democracy on both legitimacy and efficiency grounds. The purpose of the current dissertation is precisely to contradict him on both. Before getting into the theoretical debate, one piece of evidence strikes the mind: direct democracy is already alive in practice. Sociological evidence does not back Mounk's position on citizens' general attitude toward direct voting. Contrary to his assertion, direct voting by citizens is a universally shared aspiration. In most countries, nearly two out of three citizens wish to decide by referendum on the main directions of their country: 67% in the United States, 71% in Italy, 74% in France and Germany, more than 75% in India, in Turkey, or Kenya. Even in countries where distrust of direct democracy is the strongest (Northern European or Latin American countries), this support rate remains above 50%[134]. John Matsusaka rightly underlines that such constancy in public opinions, regardless of culture, history, and political traditions, is rare enough to be stressed, as if the consubstantiality of democracy and direct voting was unconscious self-evidence[135]. Consequently, significantly fewer people agree that citizens are not competent enough to decide on unfamiliar issues compared to those who believe the opposite (respectively 41% and 49% in France in 2020)[136].

The enemy of representative democracy?

However, to Mounk's point, it is also a fact that direct democracy is divisive evidence. At a time when society is increasingly polarized, support for direct democracy emanates, mainly in the form of protest, from the most left-behind parts of society. If 68% of Americans would favor "a national popular vote on any subject if enough voters

[133] Yasha Mounk, *op. cit.*, p. 58.
[134] Richard Wike, Katie Simmons, Bruce Stokes, and Janell Fetterolf, *Globally, Broad Support for Representative and Direct Democracy - But many also endorse nondemocratic alternatives*, Pew Research Center, October 16, 2017, https://www.pewresearch.org/global/wp-content/uploads/sites/2/2017/10/Pew-Research-Center_Democracy-Report_2017.10.16.pdf, accessed September 12, 2021.
[135] John G. Matsusaka, *Let the People Rule*, 2020, Princeton University Press, Princeton.
[136] CEVIPOF Trust Barometer, *op. cit.,* wave 11, February 2020.

sign a petition requesting a vote on that subject", that number is only 63% for those with a higher education diploma compared to 71% for others[137].

Reversely, elites unanimously concur in their defense of representative democracy. In the Netherlands, 62% of those with a lower education level back direct democracy, but only 45% of those with more education agree - consequently, those who have a favorable opinion of extreme parties also value direct democracy positively by a difference of 28 points compared to the average population[138]. It is a center-right coalition that abolished in 2023 the veto referendum (although only consultative), which was introduced in the country eight years earlier and that the subsequent extreme-right-led coalition is contemplating reintroducing. In the 2024 Austrian parliamentary elections, both the extreme-right Liberty Party (FPÖ) and the anti-capitalist party The Change (Der Wandel) proposed to develop the referendum, with the FPÖ explicitly campaigning to introduce a citizen-initiated referendum. The other traditional parties had no proposal on direct democracy, the only party addressing the democracy issue being the Green but through the proposal to create citizens' assemblies[139]. It is particularly illustrative since Austria is a country where referendums are rarely used given historical precedents, and petitions are the only commonly used participatory instruments[140].

The gap in support for referendums reaches 20 points in Spain between Spaniards in general (support of 68%) and supporters of the extreme-left party Podemos (88%)[141]. In France, in November 2018, there was a 30-point gap in the positive appreciation of the Yellow Vests between the voters of Jean-Luc Mélenchon or Marine Le Pen and those of Emmanuel Macron[142]. For its supporters, the citizen-initiated referendum has already proved its efficiency in countries like Switzerland[143]. For its contenders, such

[137] Jeffrey M. Jones, *Americans in Favor of National Referenda on Key Issues*, July 10, 2013, Gallup News, Princeton.
[138] Richard Wike et al., Pew Research Center, *op. cit.*, p. 23.
[139] Anton Pelinka and Sylvia Greiderer, *Austria: the Referendum as an Instrument of Internationalisation*, in *The Referendum Experience in Europe*, M. Gallagher and P. Vincenzo Uleri (eds.), 1996, Palgrave Macmillan, London, pp. 20-32.
[140] *Ibid.*
[141] Richard Wike et al., Pew Research Center, *op. cit.*
[142] Elabe survey for BFMTV of November 5, 2018. Remember that 49% of French people, in February 2019, described themselves as active or inactive "yellow vests" (see the Society and Consumption Observatory, Who are the yellow vests, their supporters and their opponents, February 2019, Paris).
[143] Pauline Pennanec'h, *RIC : comment les votations citoyennes marchent en Suisse, Italie, Hongrie, Portugal... [RIC: how do citizen votations work in Switzerland, Italy, Hungary, Portugal]*, France Inter, December 17, 2018.

an instrument brings up the dramatic images of the assault on the Capitol[144], when Donald Trump's supporters stormed the U.S. Congress to occupy the very seats of parliamentarians and show the world that "they have a voice[145]".

Is direct democracy the enemy of representative democracy, calling our modern political tradition into question? Or are these two powers more complementary than contradictory, direct democracy being just another form of the principle "one person, one vote"? In the latter, the combination of direct and representative democracy would form a "third way" exactly in a sense given to it by Anthony Gidden, who coined the term in his eponymy book. As per Gidden's acknowledgment:

"the term 'third way' is of no particular significance in and of itself. It has been used many times before in the past history of social democracy, and also by writers and politicians of quite different political persuasions. I make use of it here to refer to social democratic renewal – the present-day version of the periodic rethinking that social democrats have had to carry out quite often over the past century".[146]

In that sense, combining direct democracy with representative democracy would be necessary for the "rethinking" of democracy in the years 2020, now that the development of technology has made both the desire for direct implication and its practical possibility more universal than ever. Gidden himself, contrary to most liberal thinkers, anticipated the introduction of direct democracy within our existing systems, including the use of e-voting:

"The downward pressure of globalization introduces not only the possibility but the necessity of forms of democracy other than the orthodox voting process. Government can re-establish more direct contact with citizens, and citizens with government, through 'experiments with democracy' – local direct democracy, electronic referenda, citizens' juries and other

[144] Mathilde Goanec and Ellen Salvi, *Gilets jaunes et Capitole: une déraisonnable exploitation politique [Yellow Vests and the Capitol attacks: an unreasonable political exploitation]*, Mediapart, January 7, 2021. The article explains how the Capitol attacks inspired some elected members of the centrist and extreme-right parties to draw an analogy with the Yellow Vests.
[145] See the testimony of one of the insurgent, Landon Copeland: "I don't regret being there, the idea was to confront our lawmakers. The idea was to try and have a voice and try and, you know, speak for people and just be like, you know, we're not getting what we want from our lawmakers", in Scott MacFarlane, Rick Yarborough and Sophia Barnes, *U.S. Capitol Insurrection Defendant Says He Has No Regrets, Sought to Confront Lawmakers - Landon Copeland defends vulgar outbursts against judge in May hearing*, NBC Washington, June 5, 2021, quoted in Gilles Mentré, *Les deux pouvoirs, op. cit.*
[146] Anthony Gidden, *op. cit.*, Preface, p. 1.

possibilities. These won't substitute for normal voting mechanisms in local and central government, but could become an enduring complement to them."[147]

The thesis I will defend in the current dissertation takes that analysis further. As Gidden proposed twenty-five years ago, direct democracy must be incorporated into our representative democracies to form a third way. However, the "third-way" approach does not exhaust direct democracy's ability to transform our institutions. More fundamentally, direct democracy is the new stage of democracy considered as a dynamic process, complementing representative democracy but with a view to replace it. If direct democracy emerged as the central claim of the Yellow Vests, ahead of any tax or fiscal issues, it is not only because it was deemed a helpful instrument but also because it embodied the core of the movement's inspiration: a request for greater equality. It is, therefore, an empirical force before being theoretical evidence, exactly as Tocqueville described democracy:

"We are moving towards unlimited democracy, I am not saying that this is a good thing, what I see in this country convinces me on the contrary that France will cope badly with it; but we go there driven by an irresistible force. All the efforts we make to stop this movement will cause nothing more than halts [...] In a word, democracy now seems to me a fact that a government can claim to regulate, but to stop, no."[148]

Therefore, the theoretical and empirical analyses of direct democracy go hand in hand. Proving, as we will do in section 1, that direct democracy is a more legitimate and efficient way to promote the power of the people is not a pre-condition for its implementation. Direct democracy has not awaited political philosophy. It is already empirical evidence, and the philosophical work should not be to justify it, but to assess which conditions will maximize its legitimacy and efficiency. Like Hegel's owl, political theory unfolds once History has occurred. Such a methodological turnaround is the same as the one Tocqueville used when analyzing democracy:

"To men to whom the word *democracy* is synonymous with upheaval, anarchy, spoliation, murders, I tried to show that [...] whatever their opinion might be in this regard, there was no

[147] Anthony Gidden, *Ibid.*, p. 42.
[148] Alexis de Tocqueville, Letter to Louis de Kergorlay, without date and written in Calwell (following the letter from June 29, 1831 in Yonkers), in *Correspondance et Œuvres posthumes [Correspondence and Posthumous Works]*, 1866, Ed. Michel Lévy Frères, Paris, p. 315, my translation.

longer time to deliberate; that society was every day proceeding and dragging them along with it towards equality of conditions."[149]

The reason why direct democracy is imposing itself is its fundamental relationship with equality and the new stages of our egalitarian demands both from a legitimacy and efficiency point of view. These can take very different forms, linked to the various conceptions of equality that coexist in a pluralistic society. Yet, it is the same fundamental aspiration that everyone be treated with the same "dignity[150]", in Victor Hugo's terms. Can representative democracy still meet that demand by only asking citizens to cast a vote in the ballot box once every four or five years? Or does the democratic rite of equality demand to be celebrated more regularly and in a way more explicitly linked to the decision?

Beyond impracticality

In the face of such empirical and theoretical evidence, one would have expected intensive research and literature on direct democracy. This is not the case. On the contrary, the question falls into a blind spot of contemporary political thinking. As if the *zeitgeist* around the irrelevance and even possible danger of direct democracy was muting the debate even before it could start. Mounk's and Larmore's positions are echoed on the other side of the Atlantic. Dominique Schnapper published an insightful book around the disillusions of democracy without mentioning, once, direct democracy[151]. Pierre Rosanvallon, commenting on the rise of the extreme right in France, talks about the "cult of referendum that accompanies [...] a purely electoral conception of the people's sovereignty"[152].

That *zeitgeist* seems primarily inherited from the traditional philosophical treatment of direct democracy. Before the Internet, there was no practical possibility of considering any direct democracy at scale, apart from rare and decisive moments (typically adopting a new constitution). For ordinary laws, citizens have no means nor

[149] Alexis de Tocqueville, *Letter to Eugène Toffels*, February 21, 1835, *in Selected Letters on Politics and Society*, transl. J. Toupin, R. Boesche, University of California Press, Berkeley, 1985, p. 99.
[150] Victor Hugo, *Speech at the National Assembly on the law reforming the electoral law of 1848*, May 21, 1850, https://www2.assemblee-nationale.fr/decouvrir-l-assemblee/histoire/grands-discours-parlementaires/victor-hugo-21-mai-1850, accessed July 12, 2023.
[151] Dominique Schnapper, *Les désillusions de la démocratie [The disillutions of democracy]*, 2024, Gallimard, Paris.
[152] Simon Blin, interview with Pierre Rosanvallon, Libération, June 29-30, 2024.

time to be consulted regularly. As Rousseau ironized, Greeks could afford direct democracy since they had enslaved people to spare their free time. In modern times, "it is impossible to imagine that people should remain in permanent assembly[153]" and they have no choice but to be represented. However, when they chose to do so, "a people stop being free[154]". The American Founding Fathers used the same argument to instore a representative democracy. Writes Bobbio: "In a period which saw the Declarations of Rights, we find the authors of *The Federalist* opposing the direct democracy that prevailed in antiquity and in medieval city-states to the representative democracy which is the only mode of popular government possible in a large state[155]". John Stuart Mill concluded:

"...since all cannot, in a community exceeding a single small town, participate personally in any but some very minor portions of public business, it follows that the ideal type of a perfect government must be representative".[156]

The presumed impracticality usually extinguishes the debate. Prominent promoters of increased participation of citizens in the political sphere, like John Dewey or Jürgen Habermas, hardly ever analyzed direct democracy, as if it was evident from a practical perspective that the only framework in which participation should be assessed was representative democracy. In *Law and Disagreement*, the rapidity with which Jeremy Waldron gets rid of direct democracy, after promoting it, is illustrative. He opens the door in a footnote by saying that his argument around majority-decision as a necessary aspect of respect to each citizen is "easier to explain [...] in terms of majority-decision in a direct democracy, rather than majority-decision in a representative legislature »[157]. Only to close immediately that door in another footnote: "representation does reduce deliberation and voting to a (politically) manageable scale; but it is...supposed to do so as a way of respecting citizens in their millions[158]". Waldron admitted later that "one of the glaring defects of this book [Law and Disagreement] is that it does not include

[153] Jean-Jacques Rousseau, *The Social Contract,* transl. H. Tozer, 1998, Woodsworth, London, p. 67.
[154] *Ibid.*, p. 50.
[155] Norberto Bobbio, *op. cit.*, p. 26.
[156] John Stuart Mill, *Considerations on Representative Government*, 2nd ed., Parker, Son, and Bourn, 1861, London, p.69.
[157] Jeremy Waldron, *Law and Disagreement*, *op. cit.*, p. 109 footnote 4, quoted by Kyle Lambert Murray, *The Road from Nowhere*, *op. cit.*
[158] Jeremy Waldron, *op. cit.*, p. 110 footnote 4, quoted by K.L Murray, *op. cit.*, p. 210.

an adequate discussion of representation[159]". Doesn't direct democracy deserve more than footnotes?

The impracticability of direct democracy cannot be used as a refutation in the 21st century. On the one hand, its implementation is not limited anymore to iconic Switzerland, as countries like Taiwan or the United States (for half of the States that use it) prove that it functions, not to mention Italy or smaller countries like Ireland, Uruguay, or Slovenia. We will analyze and question some of these examples in part 2 of the current dissertation. On the other hand, the technological revolution will soon make it easy to organize referendums more frequently in large countries. As we will describe in section 2, new technologies are transforming how we can deliberate, vote, and control, from fact-tracking to digital identity, not to speak about artificial intelligence-driven analyses. The most important of these revolutions is e-voting, which suddenly makes it possible to bring the vote back to citizens without enduring the costs and organizational burden of paper voting. Countries such as Australia, Estonia, France, Mexico, Switzerland, and the United Arab Emirates[160] use it for sovereign elections, and others are contemplating it (from Lithuania[161] to Denmark[162]).

Some authors recognize this possibility, as in the case of Gidden, Laremore, or Barber, but leave it aside based on insufficient scientific knowledge. In the same vein, Maskin and Tirole, in an article that mentions direct democracy as a theoretical instrument of political accountability, only mention e-voting in a footnote that states: "Many have argued that once the digital divide is eliminated, e-voting will enhance the appeal of referendums[163]". One of the objectives of the current thesis is to bridge the disciplinary gap between computer sciences and philosophy, to allow for a serious discussion on a digital direct democracy without leaving it to speculation. The current dissertation is nevertheless a philosophical one. I will mobilize computer science knowledge to give

[159] *Ibid.* p.110 footnote 60, quoted by K.L Murray, *op. cit.*, p. 200.
[160] The United Arab Emirates used e-voting for the elections of the Federal National Council in 2023 and Mexico implemented e-voting for Mexicans abroad for the 2024 presidential election.
[161] Sarah Harrison, Elisabet Vives, Giulia Gentile, and Michael Bruter, *Study on E-Voting practices in the EU*, n°JUST/2021/OP/0002, 2023, European Commission, Bruxelles.
[162] *Greenland, together with Top Universities and Concordium Blockchain, is investigating the possibilities of a blockchain-based election system*, Oct 18, 2022, Cision, https://news.cision.com/concordium/r/greenland--together-with-top-universities-and-concordium-blockchain--is-investigating-the-possibilit,c3655942, accessed November 22, 2023.
[163] Eric Maskin and Jean Tirole, *The Politician and the Judge: Accountability in Government*, September 2004, The American Economic Review, vol 94, n°4, p. 1034.

credibility to the possibility and the practicality of internet voting, but without making it a *deus-ex-machina* argument in favor of direct democracy. The philosophical attitude toward these new technologies should be as follows: we have valuable reasons to believe that secure e-voting solutions will be objectively available shortly; we need to assess under which conditions these solutions would be subjectively accepted and deemed trustworthy by citizens; and given these conditions, we should debate how these new techniques will modify our democracies, and in particular their impact on legitimacy and efficiency from an equality-driven perspective.

Ignorance of the masses[164]?

The presumed impracticality of e-voting is not the only reason direct democracy has been made a footnote in the philosophical tradition. As I described at the beginning of the current dissertation, Charles Larmore's immediate reaction was to shield himself behind the epistemological argument, especially in the new social network and fake news context. Other arguments have been raised, which we will review in section 3, such as: citizens always answer another question than the one asked[165]; only representatives can put the question into the general perspective of a coherent policy framework for the nation[166]; direct democracy weakens the Parliament and therefore the balance of powers[167]; referendums open the door to the tyranny of the majority and are dangerous from a human right perspective[168]; binary questions exclude more consensual third options[169]. As Dominique Rousseau puts it, "referendums favor preconceived notions[170]".

These arguments are serious, and defending direct democracy implies answering each of them carefully. Nevertheless, it remains difficult to explain why most authors have not done it themselves and examined the counterarguments. It might be linked to the

[164] This common expression can be traced back to Plato: "Suppose nature would bring this state of affairs to an end [the imprisonment in the cave]. […] Think what their release from their chains and the cure from their ignorance would be like". In Plato, *The Republic*, book 7, §515c, transl. T. Griffith, 2000, Cambridge University Press, Cambridge (U.K.), p. 221,
[165] Hélène Landemore, *Referendums are Never Merely Referendums*, *op. cit.*
[166] John Stuart Mill, *op. cit.,* and Pierre Rosanvallon, *Le siècle du populisme [The century of populisme]*, 2020, Seuil, Paris, p. 178.
[167] Pierre Rosanvallon, *op. cit.*
[168] Hamilton, Jefferson, and Tocqueville quoted by Giovanni Sartori, *The Theory of Democracy Revisited*, vol. 1., 1987, Chatham House, Chatham (NJ), pp. 131-137.
[169] Charles Beitz, *op. cit.*
[170] Dominique Rousseau, *op. cit.*

presumed impracticality: why spend time exploring the pros and cons of a system that would not be applicable? I believe another explanation underlies the divisive aspect of direct democracy we mentioned. The political philosophy landscape is dominated by two opposing models: the "consensus model" and the "agonistic model"[171]. In the former, a reasonable agreement on political issues is reachable through deliberation (Habermas[172]) or persuasion (Rorty[173]), in a dialogist mode. In the latter, consensus is a lie since it implies excluding those who do not concur with it. Politics should be organized around "conflictual consensus": "consensus on the ethical-political values of liberty and equality for all, dissent about their interpretation[174]". For their defender, only agonistic politics, by organizing the polarization of citizens and allowing the legitimization of alternative views, can guarantee people's cohesion.

Direct democracy does not satisfy any of them. For consensualists, it fragments society by fostering polarization around a specific question (as was the case for the referendum on the European Constitution in France and Netherlands in 2005 and Brexit in 2016, as we will discuss in section 3), far from the consensus that would have emerged from an informed, open and *bona fide* debate. Acknowledging the limits of traditional representative democracy and the claim to greater citizen participation, they favor innovation like citizens' assemblies and "participatory democracy[175]" which preserve consensus. This is why prominent defenders of the active participation of citizens in decision-making, such as Pateman[176] or Manin[177], end up very cautious about direct democracy instruments such as the referendum. For antagonists, direct democracy exhausts polarization immediately after creating it. The only direct democracy that

[171] Chantal Mouffe, *op. cit.*, p. 121. Seyla Benhabib (*op. cit.*) draws the same line between the "agonistic public sphere" and the "legal public sphere". She adds a third type, which is the "discursive public sphere" as presented by Habermas, whereas Chantal Mouffe links Habermas to the "consensus model".
[172] Jürgen Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, William Rehg (transl.), MIT Press, Cambridge (MA).
[173] Richard Rorty, *Persuasion is a Good Thing,* in *Take Care of Freedom and Truth Will Take Care of Itself*, 2006, Stanford University Press, Stanford.
[174] Chantal Mouffe, *op. cit.*, p. 121.
[175] Laurence Bherer, Pascale Dufour and Françoise Montambeault (eds.), *The Participatory Democracy Turn*, 2018, Routledge, New York.
[176] Carole Pateman, *Participation and Democratic Theory*, 1970, Cambridge University Press, Cambridge (U.K.), p. 49: "The most important aspect of the idea of participation in democratic theory is that it requires that individuals should be involved in the processes of decision-making, not simply in the act of voting on occasional issues."
[177] Bernard Manin, *The Principles of Representative* Government, 1997, Cambridge University Press, Cambridge (U.K.), p. 184: "The direct expression of the people's will, through plebiscites and referendums, cannot, by itself, provide a solution to the problem of legitimacy."

they could accept would be a referendum on the entire program of a political party or a leader, in a "take all or leave all" approach – what can be called a plebiscite (see below the discussion of the definition of the term plebiscite). Such a conundrum explains why direct democracy has hardly been defended by any political thinker since Jean-Jacques Rousseau, except anarchist theoreticians such as Proudhon, who, by definition, reject both consensus, when mediated by institutions, and agonistic politics[178]. Yet the anarchist perspective is irrelevant in our discussion since direct democracy needs institutions[179] (even from the standpoint of a self-institution, which we will discuss later[180]). There are only a few exceptions (for example, Castoriadis[181], Barber[182], Matsusaka[183]), whom I will refer to and discuss in the current dissertation.

What if the consequence were, on the contrary, the cause? Both approaches favor representative democracy: the dialogists need it to overhaul polarization, and the antagonists, on the contrary, to make it more visible. What if representative democracy was itself the cause of polarization? Direct democracy would be the only way to maintain the cohesion of society by making apparent the divides on specific issues before recreating unity through pluralistic intelligence.

[178] "By virtue of the democratic principle, all citizens must participate in the formation of the law, in the governance of the state, in the exercise of public functions, in the discussion of the budget, and in the appointment of officials. Everyone must be consulted and have their say on matters of peace and war, trade and alliance treaties, colonial enterprises, public works, awards to be given, and penalties to be imposed; finally, all must pay their debt to the homeland, as taxpayers, jurors, judges, and soldiers." (Pierre-Joseph Proudhon, *La Démocratie [Democracy],* in 1848, *La solution du problème social [Solution to the social problem],* Issue 2, Pilhes Ed., Paris, my translation.

[179] A point made by some anarchist authors themselves, as for example Paul Wolff, see Robert A. Dahl, *Democracy and Its Critics*, 1989, Yale University Press, New Haven, p. 48.

[180] Cornelius Castoriadis, *Crossroads in the Labyrinth,* transl. M. Ryle and K. Soper, 1984, Harvard University Press, Cambridge (MA), p. 317.

[181] Cornelius Castoriadis, *Democracy as Procedure and Democracy as Form,* in *Philosophy, Politics, Autonomy*, 1991, Oxford University Press, Oxford, ch. 7:"A real democracy would be a democracy of *self-management*, in which the institutions of the state, the economy, education, and all other areas of life, would be controlled and decided upon by the people, directly, through the forms of self-institution. This is a question of the total political organization of society, not just a question of how to elect representatives."

[182] Benjamin Barber, *op. cit.*, p. 117: "Democracy is not a system for selecting rulers but a system for governing, a system that involves people directly in the processes of decision-making in their communities".

[183] John G. Matsusaka, *For the Many or the Few: The Initiative, Public Policy, and American Democracy*, 2004, University of Chicago Press, Chicago, p. 9: "Direct democracy is a system in which the people govern themselves directly, bypassing the legislative process, and it holds the potential to make government more responsive to the public's will. However, its efficacy depends on the mechanisms of participation and the broader political context".

Thesis, methodology, and plan

Gathering all these elements, I can now expose the thesis of the current dissertation. Direct democracy is not only a vibrant claim in our democratic societies but also the most appropriate contemporary way to fulfill the definition of democracy as being the power of each, by each, and for each. It fosters renewed legitimacy through increased participation in times of distrust for government and representatives while allowing an efficient mobilization of pluralistic intelligence to deliver an outcome aligned with the majoritarian perspective on equality. Its practicality is demonstrated by the examples of countries that use it regularly, and the current revolution of internet voting has the potential to make it easier to scale. The next transformation of democracy could, therefore, be the digital direct one, providing that appropriate measures are taken to ensure deliberation, decision, and control.

The objective of the current work is to demonstrate each of these assertions. Despite all the analyses that would have us believe that politics has become a business like any other and that citizens are ready to give up their decision-making power to an authoritarian leader, a group of experts, or tomorrow to robots, we can identify a general demand for participation and more frequent voting. The question is how to respond to that demand concretely. Direct democracy, spurred by e-voting, can gradually renew our institutions and ultimately transform them entirely through the participation of an increasing number of citizens in an increasing number of decisions.

As we mentioned, the current dissertation's methodology will be theoretical and empirical. Theoretically, we will assess direct democracy against the thin definition of democracy we have proposed, with its two core criteria: legitimacy and efficiency. On the empirical side, we will use experimental evidence from sociology, political, cognitive, and computer sciences to answer the criticism against practicality and epistemology best, mobilizing research, surveys, and case studies. Such an interdisciplinary approach is too often neglected in academic works related to democracy and participation, partially because many of these works emanate from the sole fields of philosophy, sociology, and political science. Those works rarely incorporate computer science.

However, this dissertation will remain a philosophical one. As Deleuze defended, the distinctive trait of philosophy is to create concepts. We will therefore try to build a theoretical framework in defense of direct democracy, mobilizing concepts such as qualified majoritarianism, participative trust, and pluralistic intelligence, and the opposition between datatorship and pancracy by which we will conclude. Furthermore, I borrow from Popper and Rorty the idea that the primary purpose of philosophy, and therefore of these newly created concepts, is not knowledge but hope[184]. As Popper concludes *The Open Society and Its Enemies*: "True, we need hope. But we do *not* need more, and we should not be given more. We do not need certainty[185]". Their position can be seen as a pragmatist modernization of Pascal's Wager and the Marxian preference for transformation over interpretation. I will explain in the conclusion how I understand and use hope.

In the dissertation, I will incorporate some ideas that I have developed during the four years of my PhD and that I have already published in France in the form of two books. The first one, *Democracy – Let Us Give Back the Vote to Citizens[186]*, focuses on the sociological and anthropological desire to "vote more" and provides an in-depth assessment of the potentialities and challenges of internet-voting systems. Most of those developments are still valid, contrary to some propositions made in the book, like the election of "citizen experts" to re-legitimate expertise, which I have come to realize was neither feasible nor desirable, or my negative assessment of citizens' assemblies, which I will defend in the current dissertation as a limited but valuable tool to prepare public decisions. The second one, *The Two Powers – Direct Democracy Rescuing Representative Democracy[187]*, edited by Marchel Gauchet, provides a detailed recount of several study travels that I made during my PhD, in Taiwan (December 2022) and in the United States (Boston and Atlanta, July 2022, and Seattle and San Francisco, August 2023). The empirical evidence gathered in these case studies has been reframed in the present work, as have the propositions regarding a digital direct democracy.

[184] Richard Rorty, *Philosophy and Social Hope*, 2000, Penguin Books, New York.
[185] *Ibid.*, p. 264.
[186] Gilles Mentré, *Démocratie – Rendons le vote aux citoyens [Democracy: Let's give the vote back to citizens],* 2021, Odile Jacob, Paris.
[187] Gilles Mentré, *Les deux pouvoirs : la démocratie directe au secours de la démocratie représentative [The two powers: direct democracy rescuing representative democracy]*, 2024, M. Gauchet (ed.), Gallimard, Le Débat, Paris.

I have also used the personal experience gathered through Electis, a non-profit I co-founded when finishing my master's degree in philosophy at Paris 1 Sorbonne in 2019, and that coded the protocol electis.app (the corresponding white paper was presented at the 2022 E-vote ID conference in Switzerland and published by the University of Tartu[188]). I have defended some elements of the current dissertation at the 2024 E-vote ID conference in Tarragona.

To carry out my demonstration, I propose to reason in three stages. First, I will analyze the concept of participation, showing how it is a condition for legitimacy in the form of trust in democracy and allows for the foundation of effective pluralistic intelligence (**section 1**). I will then examine what the practice of direct democracy tells us, from the examples drawn from two case studies (the United States and Taiwan) to the new possibilities opened by e-voting (**section 2**). Finally, I will propose the conditions for a digital direct democracy, detailing some concrete proposals for a renewed use of referendums that will open the debate on how democracy might look twenty years from now (**section 3**).

[188] https://dspace.ut.ee/items/96d93e36-8b8b-4cac-af55-114d30300c06, accessed November 24, 2023.

1. Direct Democracy as a Warrant of Participative Trust and Pluralistic Intelligence

In the first section, we will analyze direct democracy as a discourse. The distinction between assessing a political regime as a "discourse" and as a "technique" can be inferred from Castoriadis' reference to the two ancient Greek concepts of *legein* and *teukhein*. The legein is the "ineffaceable component of language and social representation" and the teukhein the "ineffeceable component of social doing"[189]. The legein is therefore the "distinguish-choose-posit-assemble-count-speak[190]" and the theukhein the "assembling-adjusting-fabricating-constructing"[191]. Legein is "making" and teukhein is the "tool"[192]. Hence "the central operation of legein is designation[193]".

I am introducing the distinction only in an analogy to Castoriadis, as the couple legein / teckhein is used by Castoriadis to analyze the auto-institution of society, and we are analyzing here the auto-institution of a particular regime of society: direct democracy. The correspondence between discourse and legein, on the one hand, and technique and teukhein, on the other hand, is approximative. Writes Castoriadis:

"What has been called techne, a word that derives from teukhein and that has given the term technique, is but a particular manifestation of teukhein and concerns only secondary and derivative aspects of it. For example, 'before" there can be any question of 'technique' of any sort, the social imaginary must assemble-adjust-fabricate-construct *itself* as society."[194]

Teukhein cannot be limited to technique as legein is never totally the logos (etymologically: discourse). One must pass "from legein to full logos" when "one enters into a discourse which recognizes no limits save those which arise from its own nature and its own possibilities, and where, as a result, the question that emerges is no longer

[189] Cornelius Castoriadis, *The Imaginary Institutin of Society,* transl. K. Blamey, 1987, MIT Press, Cambridge (MA), p. 175.
[190] *Ibid.*, p. 223.
[191] *Ibid.,* p. 260. See also: Christophe Premat, *Valeurs et normes sociales dans le projet d'émancipation de Cornelius Castoriadis [Social values and norms in Cornelius Castoriadis' emancipatory project]*, 2019, Labyrinth, an international Journal for philosophy, pp.49-78, my translation.
[192] *Ibid.*, p. 248.
[193] *Ibid.*, p. 244.
[194] *Ibid.*, p. 260.

concerned merely with the facts, but with the logos of those facts[195]". We will discuss at the end of section 2 how the social imaginary can institute itself as a society through direct democracy and e-voting. At this stage, we only borrow from Castoriadis the duality discourse/technique that underlies any such institution.

The discourse/technique distinction can also be compared to the discourse/praxis distinction used in social sciences. As Tibbets and Johnson define it, "on the discourse model, reconstructions are grounded in what scientists say and write; on the *praxis* model, the focus is on what scientists do[196]". Such a distinction can be balanced, as discourse and praxis are interrelated[197]. A more radical criticism is addressed by Foucault, for whom the "discourse" is always "itself as a practice", less concerned by the grounding than by the "surfaces of emergence", the "nexus of regularities that govern [the] dispersion [of discursive objects] rather than [the common depth of a primary soil][198]". I will nevertheless use this distinction as an operational method to analyze direct and indirect democracy.

As we have proposed in our thin definition of democracy, any democratic regime, and in particular direct and representative democracy, should be assessed against two key criteria: legitimacy and efficiency - what Gauchet called "ex-ante" and "ex-post" legitimacy. How have these two criteria evolved in the history of democracy and what do they convey in our contemporary societies? We will show that legitimacy should be analyzed today as "participative trust" (1.1) and efficiency as "pluralistic intelligence" (1.2). In this respect, direct democracy appears as a new stage of democracy, best suited to meet these two goals and overcome the current difficulties of representative democracy (1.3).

1.1. Legitimacy as Participative Trust

Legitimacy has always been at the core of the democratic claim, and in particular, the claim to fully apply the "one person, one vote" criterion. Among the many historical

[195] Cornelius Castoriadis, *Crossroads in the Labyrinth, op. cit.*, p. 212.
[196] Paul Tibbetts and Patricia Johnson, *The Discourse and Praxis Models in Recent Reconstructions of Scientific Knowledge Generation*, November 1985, Social Studies of Science Vol. 15,n°4, p. 739.
[197] Steve Woolgar, *On the Alleged Distinction Between Discourse and Praxis*, May 1986, Social Studies of Science, Vol. 16, n° 2, pp. 293-307.
[198] Michel Foucault, *The Archeology of Knowledge – And The Discourse on Language*, transl. A. M. Sheridan Smith, 2010, Vintage Books, Random House, New York, chapt. 2 (Discursive Formations), 4.

examples that can be used to illustrate the importance of legitimacy, the French debate around universal suffrage at the middle of the 19th century is particularly telling. Universal suffrage, after a short installment during the French Revolution, was not reintroduced before the 1848 Revolution and the subsequent presidential election. It resurfaced in 1850 with the attempt by the conservative majority to restrict suffrage. The Parliament pushed through an electoral law that required three years of residency at the voting location[199] – a measure that was clearly targeting seasonal workers, which accounted for a third of the electorate. During these two parliamentary debates, the key argument of the most prominent defenders of universal suffrage was legitimacy. Victor Hugo defended the "granite of universal suffrage[200]", and Lamartine argued notably that "a deliberated, well-thought and voluntary universal suffrage is [...] the very sacrament of authority"[201].

Victor Hugo's speech in 1850 was particularly lyrical. To him, "universal suffrage [...] needs to be really universal suffrage, which means that it should leave no one, absolutely no one, outside of the vote; it needs to make the city everyone's thing, without exception; since, in such a matter, to make an exception is to create usurpation[202]." Hugo was ahead of his time as his non-exclusion principle included the right to vote for women[203].

Yet Victor Hugo did not base his position on an epistemological perspective. For him, the baseline argument was legitimacy. Universal suffrage is the token of equal dignity:

"There is a day in the year when the least noticeable citizen, when the social atom takes part in the immense life of an entire country, when the most narrow chest opens itself to the vast air of public affairs. A day when the weakest feels internally the grandeur of national sovereignty,

[199] Law of May 30 1850 modifying the electoral law of March 5, 1848 [popularly referred to as the « Loi des Burgraves » or « Burgraves' law », after the eponymic play of Victor Hugo depicting German aristocratic warlords].
[200] Victor Hugo, May 21, *op. cit.*, my translation.
[201] Alphonse de Lamartine, *Speech at the House on the election of the president of the Republic through universal suffrage*, October 6, 1848, https://www2.assemblee-nationale.fr/decouvrir-l-assemblee/histoire/grands-discours-parlementaires/lamartine-6-octobre-1848#:~:text=non%20pas%20un%20citoyen%20plus,Longue%20agitation%20et%20applaudissements%20prolong%C3%A9s.), accessed March 10, 2021, my translation.
[202] Victor Hugo, May 21, 1850, *op. cit.*
[203] As Hugo wrote in his open support letter to the Banquet for the Future of Women in 1872: "in your legislation as it is, woman does not […] vote, does not count, does not exist. There are male citizens, but there are no female citizens. This is a violent situation: it has to cease (Victor Hugo, *Lettre à Léon Richer, June 8, 1872*, L'Avenir des femmes, July 7, 1872, p. 2, my translation).

where the humblest feels internally the soul of the nation! What an increase in dignity for each individual[204]."

By stating that equal dignity through universal suffrage cements the necessary legitimacy to impose authority, Hugo uses the same argument that Lamartine had put forward two years before. Writes Hugo:

"The right of insurrection [was] abolished by the right to vote. [...] Universal suffrage, in the midst of all our stormy oscillations, creates a fixed point. This fixed point is the national will legally manifested; the national will, robust mooring of the State, brazen anchor which does not break and which comes to vainly beat in turn the flow of revolutions and the ebb of reactions!"[205]

To understand the links between participation and legitimacy, a three-level analysis is necessary. Firstly, at the axiomatic level, we need to understand how legitimacy is linked to another key concept: trust (1.1.1). Secondly, at the anthropological level, we will discuss to what extent participation can revitalize trust (1.1.2). Lastly, at the practical level, we will identify how the desire to participate more in deliberation and voting fits into a broader movement toward a more horizontal society (1.1.3).

1.1.1. The Decline of Legitimacy and Trust

As we have seen, Hugo bases his appraisal of universal suffrage on legitimacy. However, he immediately adds trust. Through universal suffrage, "the deprived [feels] enhanced by social trust[206]". We will analyze in the current chapter how these two notions of legitimacy and trust are entangled, starting with a theoretical analysis of the concept of trust before explaining how the current breach in political trust, in particular through increased polarization, is at the root of the legitimacy crisis.

[204] Victor Hugo, May 21, 1850, *op. cit.*, my translation and emphasis mine.
[205] Victor Hugo, May 21, 1850, *op. cit.*
[206] *Ibid.*, emphasis mine.

Equaling legitimacy and trust

The question of trust is central in any analysis of political legitimacy[207]. No authors have better located trust at the heart of the democratic pact than the three modern contractualists, Thomas Hobbes, John Locke, and Jean-Jacques Rousseau. Hobbes, as we will see below, builds his contractualism on mistrust. Eric Marquer points out that "as Hobbes shows, prudence and mistrust are both symptoms and causes of the state of war[208]". By opposition, Locke's contractualism is positively founded on "trust", a condition of "consent" to hand over power to the few:

"Political power is that power which every man having in the state of Nature has given up into the hands of the society, and therein to the governors whom the society hath set over itself, with this express or tacit trust, that it shall be employed for their good and the preservation of their property. "[209]

Trust is so central in the social contract that its breach (for example, if the governors act by "ambition, fear, folly or corruption[210]") recalls the legitimacy of those governors and authorizes individuals to reclaim their original freedom. Locke evokes the "trust which is put into [the leaders'] hands by their brethren[211]". Losing confidence in institutions, or even in democracy itself, means seeing the risk of the collapse of the entire social contract. The term "trust" conveys the contractual dimension of the operation. It is intrinsically linked to the purpose for which this freedom is entrusted (in Locke's words: "intrusted"[212] or "delegated"[213]) to the established power. To illustrate the range of concepts that cover the Lockean trust, we can refer to the variety of terms used by one of Locke's historical French translators, David Mazel (died in

[207] See Jan Pakulski, *Trust and Legitimacy*, Policy Organisation and Society, Winter 1992, Special Trust Issue, Routledge, New York, pp. 25-31; László Kontler and Mark Somos (eds.), *Trust and Happiness in the History of European Political Thought.* 2017, Brill, Leiden; and M. Hough, J. Jackson, B. Bradford, A. Myhill and P. Quinton, *Procedural justice, trust, and institutional legitimacy*, 2010, Policing, 4, pp. 203–210.
[208] Éric Marquer, *Léviathan et la loi des marchands – commerce et civilité dans l'œuvre de Thomas Hobbes [Leviathan and merchant law – trade and civility in the works of Thomas Hobbes],* 2012, Classiques Garnier, Paris, p. 349, my translation
[209] John Locke, *Second Treatise of Civil Government*, 1690, Awnsham Churchill, London, ch. 15, §171, emphasis mine.
[210] *Ibid.*, ch. 19, §222.
[211] *Ibid.*, §231.
[212] *Ibid.* §111 and §139.
[213] *Ibid.* §141.

1725): "obligation[214]", "authority[215]", "assurance[216]", "persuasion[217]" (in the sense of being persuaded), "condition[218]", "credit" and "advantage[219]", "commitments" and "essential obligations[220]" (all these terms being here re-translated in English). It is the same notion of trust that Locke mobilizes to ground reason. As explained by Eric Marquer, we believe that the three angles of a triangle are equal to two square angles because we can demonstrate it or because of "the authority of the mathematician that, on this point, is a *man of credit*[221]".

The notion of trust has been extended in common law countries to a precise legal notion, non-transferable in continental law: the "trust[222]". Unlike the French *fiducia*, the assets entrusted to the trust by the settlor no longer belong to the latter's estate, unless the latter adds a power of revocation. The assets are managed by the trustee according to the initial trust deed. The parallel with the political mandate is straightforward: the voters entrust a representative of the faculty to act on their behalf to manage the common good irrevocably for the duration of the mandate. Such a contract only makes sense if the representative is a trustee worthy of trust, actually bound by a trust deed that rests on the conditions posed by the voter.

The third great contractualist of the modern era, Jean-Jacques Rousseau, also takes up the notion of trust. Rousseau warns against the misdeeds of its opposite term, mistrust or distrust, which he describes as a "poison": "If there remains among you the slightest germ of bitterness or distrust, hasten to destroy it as a ruinous leaven that sooner or later results in your misfortunes and the ruin of the state[223]". However, the central position of trust in any democratic system is not limited to the contract theories.

---

[214] *Ibid.*, §110.
[215] *Ibid.,* §134 and §222.
[216] *Ibid.*, §136 and §156.
[217] *Ibid.* §167.
[218] *Ibid.* §171.
[219] *Ibid.* §210 and §222.
[220] *Ibid.* §226.
[221] Eric Marquer*, Locke : liaison probable et liaison nécessaire [Locke : probable bond and necessary bond],* 2014, in Asterion, n°12, *Le principe de la folie et de la raison. Association des idées et liaison des idées aux XVII^e^ et XVIII^e^ siècles [The principles of madness and reason. Associating and binding ideas in the 17th and 18th century]*, Paris, my translation.
[222] B. A. Wortley, *Le « trust » et ses applications modernes en droit anglais*, 1962, Revue internationale de droit comparé, Vol. 14, n°4, pp. 699-710.
[223] Jean-Jacques Rousseau, *Discourse on the Origine and the Foundations of Ineaquality Among Men,* in "Basic Political Writings", trans. Donald A. Cress, Hackett Publishing Company, 1987, Cambridge, p.29.

Hannah Arendt (openly "anti-Rousseau[224]") considers it a token against totalitarianism. As Margaret Canovan sums up: "In so far as sovereign power does have any reality in politics, [Arendt] claims, it arises from common action and mutual trust"[225]. Without the "trusting and trustworthiness company of my equals", solitude becomes loneliness as I lose the identity of my self – and if that loneliness becomes an everyday experience, I am prepared for "totalitarian domination"[226].

These different philosophical references point to the fundamental duality of trust: interpersonal and institutional. These two types can be theoretically analyzed in opposite terms (as when Arendt distances herself from Rousseau[227]). Is it because I trust others that I trust in the institutions arising from the general will, or is it because I trust in the political institution that I can trust my neighbor? Yet the two questions are, in practice, inseparable. They refer to the necessary complementarity between the horizontal and vertical dimensions of any political institution that Paul Ricoeur analyzed:

"the most fundamental [...] paradox that divides in another way power against itself: which is the relationship between the vertical and hierarchical dimension of dominance and the horizontal and consensual dimension of willing to live together[228]."

Laura Ayassag rightly translates Ricoeur's views in terms of trust: "Intersubjective trust and institutional trust, although different in nature, are inseparable: institutional trust is based on the trust individuals have in institutions, and intersubjective trust is only possible on the basis of stable institutions[229]". One could go one step further than Assayag and add a third element: self-trust or self-confidence. In the same article, Ricoeur recalls the triad that he presented in *Soi-même comme un autre* between "the self", "the other" and the "each of us": "the ethical perspective would consist in the

[224] Etienne Tassin, *Le peuple ne veut pas [The people does not want]*, in *Hannah Arendt : Crises De L'Etat-Nation [Hannah Arendt: crisis of the nation-State],* Pensées Alternatives, org. Anne Kupiec, Martine Leibovici, Géraldine Muhlman, and Etienne Tassin, 2007, Sens&Tonka, Paris.
[225] Margaret Canovan, *Hannah Arendt: A Reinterpretation of Her Political Thought*, 1994, Cambridge University Press, Cambridge (UK), p. 211.
[226] Hannah Arendt, *The Origins of Totalitarianism, Part Three,* 1985 [1966], Harvest Books, New York, pp. 175- 176.
[227] Etienne Tassin, *Le peuple ne veut pas, op. cit*.
[228] Paul Ricoeur, *Morale, éthique et politique [Morality, ethics and politics]*, April 1003, Pouvoirs, n°65, p. 15, my translation.
[229] Laure Assayag, *Penser la confiance avec Paul Ricoeur [Thinking Trust with Paul Rixoeur]*, 2016, Études Ricœuriennes, Vol 7, n°2, p.179, my translation.

aspiration toward a good life (the self), with and vis-à-vis others (the "face-à-face") within fair institutions (the third party or each of us)"[230]. As he wrote elsewhere, the face-à-face has a priority over the two others, to "keep the enigma of otherness intact and even to exalt it[231]", yet each of the three relations cannot exist without the two others. The question of participation is not only a matter of trust but takes up an ethical perspective and allows Ricoeur to move up the challenge to an upper level by requesting to "think democracy in ethical terms" and to assume a teleological perspective based on each citizen's engagement in democracy[232].

Trust is thus a central element of the social bond. The lack of trust from others affects us in our conception of ourselves as individuals and, therefore, in the recognition we need. The link between recognition and our relationship with our political community has been analyzed by Axel Honneth in his reinterpretation of Hegel. As he comments in *The Struggle for Recognition*, "basic individual self-confidence [is] indispensable for autonomous participation in public life"[233]. Self-confidence is based on inter-subjectivity at three levels: love, law, and solidarity. As Yannick Courtel details:

"The structure of the interaction or integration relationship is rich since it relates three forms (love, law, solidarity) that determine three modes of recognition (personal care, consideration, social esteem) and three 'objects' (the individual, the person, the subject). These three 'objects' are as many supports of the practical relations to oneself (trust, respect, esteem) to which the various facets of contempt [...] undermine while referring, but negatively, to the three forms of recognition[234]."

Disrespect attacks the self-confidence of an individual and, by extension, their trust in the political system. Intersubjective trust, institutional trust, and self-trust are interrelated. Despite the criticism that has been addressed to the theory of

[230] *Ibid.*, my translation. Note that this triade is also central to Arendt's notion of trust, in the form of "the seld", "the other", and "the world" (Hannah Arendt, *op. cit.*, p. 175).
[231] Paul Ricœur, *Parcours de la reconnaissance [The Course of Recognition]*, 2004, Stock, Paris, p. 230, my translation.
[232] Paul Ricoeur, *Ethics and Politics*, *op. cit.,* p. 334.
[233] Aexel Honneth, *The Struggle for Recognition: The Moral Grammar of Social Conflicts*, transl. J. Anderson with T. McCarthy, 1996, MIT Press, Cambridge (MA), p. 107.
[234] Yannick Courtel, *La lutte pour la reconnaissance dans la philosophie sociale d'Axel Honneth [Struggle for recognition in the social philosophy of Axel Honneth]*, 2008, Questions d'éthique sociale n°82/1, p. 5, my translation.

recognition[235], the merit of Honneth, in line with Ricoeur, is thus to surpass the debate on the causality between institutional trust and intersubjective trust to propose a model where these two trusts mutually sustain each other. A political system will, therefore, be legitimate, not only if it allows for trust in its institutions through participation, but if it guarantees the intersubjective trust that makes participation possible at the individual level.

Trust, however, requires strong conditions to flourish. It is "rational" to be distrustful in the absence of information about others, when interactions are irregular, and when one considers that there is nothing to gain. Economists Yann Algan and Pierre Cahuc, in *The Society of Distrust*, have highlighted the negative impacts of distrust in economic terms: defiance toward market instruments, excess regulation, and corruption on the one hand; hurdles on social dialogue and labor market reform on the other hand[236]. We can transfer each of these negative consequences to the political domain: low mobility of the electorate (traditional voters as well as protest voters), creation of "electoral capital" for certain elected officials, structurally high level of abstention, hurdles on political dialogue, and institutional reforms. The lack of trust in the system leads to certain forms of behaviors that further degrade trust.

The decline in trust in government in our contemporary societies

A quick statistical analysis shows how much trust seems to be eroding in Western democracies. Two out of three people surveyed in France think that democracy functions poorly[237]. Only a third of French people think that representative democracy is the best system to the exclusion of all others (government by experts, a strong man, or the army). The "representative democracy index", which measures the rate of support for representative democracy to the exclusion of all alternatives, scores France at 35%, the United States at 40%, the Netherlands at 47%, and Germany at 48%. The only large country above 50% is Sweden (52%). The median of Western countries (European countries, Canada, and the United States) is 37%[238]. Alarmingly, nearly 40%

[235] See Veit Bader, *Misrecognition, Power, and Democracy,* May 13-15, 2023, Symposium on Recognition and Power, University of Utrecht, in which Bader accuses Honneth of "elitist theoretical incapacitation".
[236] Pierre Cahuc, Yann Algan, *La société de défiance : comment le modèle français s'autodétruit [The mistrust society: how the French model destroys itself],* 2008, Ed. Rue d'Ulm, Paris.
[237] CEVIPOF Trust Barometer, *op. cit.,* wave 15, January 2024.
[238] Richad Wike et al., Pew Research Center, *op. cit.*

of those under thirty-five think that a strong man governing regardless of parliament and elections would be a good option[239]. In line with Arendt's analysis, is distrust inevitably preparing the ground for authoritarianism?

Trust in the U.S. Congress, which was above 30% between 1995 and 2005, is now consistently below that level—except for the four months following the attacks on the Capitol. Distrust is not limited to Congress. Trust in government has also continuously declined in the United States.

[Elément sous droit – Diffusion non autorisée]

Chart 1: Trust in government, U.S.A. (Source: Pew Research Center[240])

While trust in government stood at over 75% during J. F. Kennedy's presidency in the 1960s, it began to decline from the Vietnam War and Watergate era, dropping below 25% at the start of Bill Clinton's presidency. It never rose above 50% again, except briefly during the September 11 attacks. Under B. Obama, D. Trump, and J. Biden, trust in government has consistently remained below 25%. More worryingly, distrust is no longer limited to a population segment. While traditionally higher among Republicans, who ideologically oppose federal state intervention, it has become equally prevalent among Democrats since the end of G.W. Bush and D. Trump's presidencies.

The same phenomenon can be observed in France and can be measured by another indicator: "year-1" (at the time of the election) and "year-2" (one year after taking office) approval rates of presidents. The year-1 approval rate is structurally declining, to the point that Emmanuel Macron became the first president of the Fifth Republic in

[239] CEVIPOF Trust Barometer, *op. cit.,* wave 11, March 2020.
[240] Pew Research Center, *Public Trust in Government Near Historic Lows,* 2020.

France to take office with less than one French out of two supporting him. Year-2 approval rate follows the same path. The reading of the popularity ratings of Presidents since 1978 reveals a rapid decline in popularity after one year from 1995 onward for all presidents (only Jacques Chirac remained stable between 2002 and 2003, due to his low popularity at the time of the election and a popularity gain due to the refusal to engage in Iraq in 2003). The following table summarizes those findings:

President of the Republic	**Approval rate at the time of the election (year 1)**	**Approval rate after one year in office (year 2)**	**Decline in approval rate**
E. Macron (2d term)	41%	28%	**-13%**
E. Macron (1st term)	57%	40%	**-17%**
F. Hollande	55%	29%	**-26%**
N. Sarkozy	63%	37%	**-26%**
J. Chirac (2d term)	50%	49%	-1%
J. Chirac (1er term)	64%	47%	**-17%**
F. Mitterrand (2d term)	63%	62%	-1%
F. Mitterrand (1er term)	74%	63%	-11%

Table 1: Decline in approval rates of the French President after one year in office (source: Kantar Sofrès, author[241])

The causes can be grouped into legitimacy and efficiency.

Legitimacy causes relate to the very representativeness of representatives—with accusations of control by private interests or even corruption leading the charge. Unsurprisingly, the sense of distrust is stronger among those who belong to categories

[241] Cf. Gilles Mentré, *Démocratie, op. cit.*, p. 33.

that feel unrepresented by elite politicians: individuals with a modest income, younger voters, or those belonging to an ethnic minority[242]. In a sociological study carried out among working-class young adults in the United States, Silva found that two-thirds were not turning out to vote as they felt politics was "pointless" given their conditions[243].

Efficiency causes relate to the government and institutions' capacity to effectively change voters' daily lives. The primary reason cited in trust surveys is the government's lack of performance. Inequalities have grown steadily over the past thirty years in the United States—the Gini index, which measures the gap in income distribution relative to an equal distribution, grew by 20% between 1980 and 2016[244]. Those income inequalities result in growing inequalities in life expectancy, with the life expectancy of the total population decreasing for the first time in 2015[245]. Moreover, those numbers do not account for racial or gender inequalities. Other matters of dissatisfaction could, of course, be listed.

The increasing polarization of American political life is further fueling mistrust. In his essay *Why We're Polarized*, Ezra Klein demonstrates how being a Democrat or Republican has become a marker of "identity" as strong as religion or race. Party identification has existed for a long time in American politics and was already identified by Campbell et al. in their seminal study on *The American Voter*[246]. However, the chart below shows how the proportion of voters who are "completely Democratic" or "completely Republican" has increased over twenty years:

[242] Richad Wike et al., Pew Research Center, *op. cit*.
[243] Jennifer Silva, *Coming Up Short: Working-Class Adulthood in an Age of Uncertainty*, 2013, Oxford University Press, Oxford.
[244] Juliana Menasce Horowitz, Ruth Igielnik and Rakesh Kochhar, *Trends in income and wealth inequality*, Pew Research Center, January 9, 2020.
[245] Victor R. Fuchs and Karen Eggleston, *Life Expectancy and Inequality in Life Expectancy in the United States,* April 2018, Institute for Economic Policy Research, Stanford University, Stanford.
[246] Angus Campbell, Philip Converse, Warren Miller and Donald E. Stokes, *The American Voter,* 1960, University of Chicago Press, Chicago. The authors identify a causal paradigm by which "party identification influences the voting act by influencing attitudes toward the object to which this act relates" (p. 136).

[Elément sous droit – Diffusion non autorisée]

Chart 2: Distribution of Democrats and Republicans on a scale of political values 1994-2014 (Source: Pew Research Center[247])

The median Democratic voter's opinion has increasingly diverged from that of the median Republican voter. This situation is not uniquely American, but Gentzkow et al. showed that, among OECD countries, the United States had experienced the most significant increase over forty years in "affective polarization", which they define as positive feelings toward individuals from one's own party and negative toward others[248].

Klein demonstrates that partisan affiliation has become a lens for interpretation and decision-making. Voters see what they want to see in a debate: a "feedback loop"[249] that makes political discussion impossible. The radicalization of political positions was allegedly initiated by the Republican Party, starting in the 1990s, developing in the 2000s with the emergence of the Tea Parties[250], and promoting, *among other things*,

[247] Pew Research Center, *Political Polarization in the American Public,* June 12, 2024.
[248] Levi Boxell, Matthew Gentzkow, Jesse M. Shapiro, *Cross-Country Trends in Affective Polarization*, August 2021, Review of Economics and Statistics.
[249] Ezra Klein, *op. cit.*
[250] Thomas E. Mann and Normann J. Orstein, *It's Even Worse Than It Looks: How the American Constitutional System Collided with the New Politics of Extremism*, 2012, Basic Books, New York.

abortion bans, lose gun control or extreme versions of free speech. The Democratic Party eventually followed. As analyzed by Francis Fukuyama, an increasingly activist base has steadily pushed the party's political center toward its most radical wing, promoting non-consensual causes like affirmative action, identity politics, or cancel culture[251]. An indicator summarizes this antagonism: the respective proportion of Republicans and Democrats who would be "fairly or very unhappy" if one of their children married someone from the opposing political camp. The figure, which was less than 5% on both sides in the 1960s, has risen to 33% of Democrats and 49% of Republicans in 2010, then to 55% of Democrats and 49% of Republicans in 2016[252] (which clearly shows the two waves of radicalization, that of the Republicans starting in the 1990s and that of the Democrats since the 2010s).

The causes of polarization are numerous and debated. Social media undoubtedly favor the most divisive political offers. As Dani Rodrik comments: "economic and technological shocks or the rise of social media can raise the salience of latent cultural sentiments and increase cultural polarization[253]". Certain characteristics specific to American representative democracy also contribute, particularly the selection of candidates through primary systems that mobilize only the most radical voters, loosely controlled funding mechanisms that increase the influence of lobbying groups and already polarized campaign contributors[254], or low turn-out in midterm elections (turnout in midterm elections have been systematically below 50% since 1914[255]) push to mobilize committed voters rather than convince the undecided. These different elements influence each other in what Michael Neblo has coined as a "vicious cycle":

"Interest group politics tends to drive out all but the most motivated individuals, and to distort representatives' views of the range of opinion amongst the full breadth of their constituents. This process reinforces the perception that elected officials respond only to organized interests,

[251] Fukuyama, *Identity*, 2018, Farrar, Strauss and Giroux, New York, p. 117.
[252] Steven Levitsky, Daniel Ziblatt, *How democracies die*, 2018, Crown, New York, pp. 167-168 : In 1960, respondents were asked about finding inter-party marriage "unpleasant," and in 2016, about "fearing" it.
[253] Dani Rodrik, « *Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism* », 2021, Annual Review of Economics, Harvard University Press, Cambridge (MA), p. 135.
[254] *Ibid.*, p. 142.
[255] Aaron O'Neill, *Turnout rates among the voting-eligible population in United States presidential and midterm elections from 1789 to 2020*, Statista, July 4, 2024, https://www.statista.com/statistics/1139251/voter-turnout-in-us-presidential-and-midterm-elections/, accessed September 5, 2024.

which leads to further disengagement and low civic participation, thus creating a vicious cycle where members can only engage with and represent "the loudest voices in the room[256]."

The general decline in partisan activities has narrowed the diversity of the parties' bases, abandoning it to the "loudest voices in the room". Putnam analyzes that "the frequency of virtually every form of community involvement [...] declined significantly, from the most common – petition signing – to the least common – running for office[257]".

The phenomenon is accelerated by the fragmentation of society, which polarization accentuates in return. Daniel Cohen writes that the contemporary era is marked by a "triumph of endogamy", with each social group isolating itself, fostering general mistrust toward others[258]. Friedman comments: "The world is thus fragmented into a herd of clans, nations, solidarity groups, religious and ethnic groups, clubs, cabals, and so on ad infinitum[259]". Belonging to the group becomes more important than expressing an individual opinion – which does not mean that such a movement goes against individualism since, as Friedman argues, "tribalism is a *consequence* of individualism and not in contradiction to it[260]". Such a result is in line with cognitive science research. Van Bavel and Perreira demonstrated that our brain prioritizes group identity over fact accuracy[261]. Group fragmentation fosters extreme positions and polarization. As Putnam elaborates: "political scientists concerned about the decline in political parties as forces for organizing politics argue that citizen group politics is almost by nature extremist politics[262]". Mutz shows that geographic segregation and polarization go hand in hand[263].

---

[256] Michael Neblo, *Engaging Constituents is Essential to Depolarizing Congress*, in Michael Neblo, Jason Brennan and Whitney Quesenbery, *The Impact of Voter Turnout on Polarization*, Divided We Fall, June 15, 2022, emphasis mine.
[257] Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community*, 2020 [2000], Simon and Schuster, New York, p. 41
[258] Daniel Cohen, *Homo numericus*, transl. S. Rendall, 2022, Wyley, New York.
[259] Lawrence Friedman, *op. cit.*, p. 11.
[260] *Ibid.*
[261] Jay Van Bavel and Andrea Pereira, *The partisan brain: An Identity-Based Model of Political Belief*, 2018, Trends in Cognitive Sciences, Vol. 22, n°3, pp. 213-224.
[262] Robert Putnam, *op. cit.*, p. 340.
[263] Diana C. Mutz, *Hearing the Other Side: Deliberative* versus *Participatory Democracy*, 2006, Cambridge University Press, Cambridge (U.K.), p. 56.

As a result of polarization, most public debate topics are increasingly treated in a non-consensual and bimodal way: environment, taxes, gun control, education, or immigration. Regardless of their mutual correlation, they all become linked to a fundamental right/left split. This phenomenon, called "issue partisanship" or "partisan alignment", has been analyzed by Baldassari and Gelman[264]. Whether partisan alignment is the cause or the consequence of an issue alignment remains. Do citizens align issues (identifying links between, for example, low levels of taxation, restriction of arms control, and a hard stance on immigration) and then vote for the party that defends such an alignment, or do they first identify with a party and find correlations between political issues through the mediation of that party? Said differently, do citizens get polarized because political elites demonstrate increased polarization, or are they already polarized and press parties to embody that polarization?

Participation as a way to rebuild trust

The question is crucial since it governs the relationship between participation and polarization and, therefore, participation and trust. Under an issue-partisanship model, increased participation and even more direct voting will have a fair chance of reducing polarization, stopping Neblo's vicious cycle. Neblo contends that "engaging constituents is essential to depolarizing Congress[265]". Conversely, under an issue alignment model, the more citizens participate, the more polarized the public debate becomes. This is the view Brennan defended against Neblo. Brennan poses that the reasons for polarization are intrinsic to the political debate and that increased participation can only worsen it:

"Increased political participation would not reduce polarization. On the contrary, increased participation would probably make polarization worse. Increasing participation would not mean the quiet middle would exert a moderating influence on the more active extremes; it would mean the mostly apathetic middle would become mean, intolerant jerks, like most current voters. [...] Our best evidence in political science and political psychology shows that

[264] Delia Baldassari, Andrew Gelman, *Partisans without Constraint: Political Polarization and Trends in American Public Opinion*, 2008, AJS, Vol. 114, n°2, The University of Chicago Press, Chicago, pp. 408-446. Baldassari and Gelman refer to the opposition between issue partisanship and issue alignment, wherease Kozlowski and Mpurphy prefer the terms partisan alignment and issue alignment, which we will rather use in this disseration (see below).
[265] Michael Neblo, *op. cit.*

when people start participating in politics, they become nastier, meaner, less tolerant, more close-minded, and more extreme[266]."

The model built by Baldassari and Gelman gives Neblo an advantage over Brennan. As Baldassari and Gelman concluded, "the main change in people's attitudes has more to do with a resorting of party labels among voters than with greater constraint in their issue attitudes[267]". As the two scholars proved, the divide between Republicans and Democrats was initially limited to economic issues and, to a lesser extent, to civil rights before voters started to align moral issues because of the increased polarization of both parties (first, the Republicans and then the Democrats) on these issues. Recent social science research gives nevertheless Brennan some new arguments. A recent study by Kozlowski and Murphy[268] shows that the Baldassari-Gelman model is accurate for explaining voting decisions in the years 2000. However, the years 2010, while witnessing a further increase in partisan alignment, are also characterized by issue alignment, bringing about "affective polarization" (animosity toward the other party) and "political hostility." In the current dissertation, I chose to adopt a primarily partisan alignment rather than issue alignment stance. Firstly, Kozlowski and Murphy do not contradict the partisan alignment model, stating that partisan alignment has continued to increase, therefore validating its relevance as a political concept. Secondly, we must dynamically read the opposition between partisan and issue alignment. A credible explanation of the Kozlowski-Murphy model is that, as citizens identify with parties (partisan alignment), their "innocence of ideology"[269] will eventually be modified by experience, and they will import some of the polarized ideology of the parties they identify with (issue alignment). This analysis is nevertheless based on a representative democracy model, where citizens vote on comprehensive programs rather than on unbundled issues, and says nothing of the possible alignment of voters in specific referendums or initiatives. The hypothesis that we will validate in section 2 is that voters are primarily subject to partisan alignment rather than issue alignment and that, if issue alignment materializes, it mainly

[266] Jason Brennan, *Polarization is Here to Stay*, in *The Impact of Voter Turnout on Polarization*, *op. cit.*, emphasis mine.
[267] D. Baldassari, A. Gelman, *op. cit.*, p. 443.
[268] Austin C. Kozlowski, James P. Murphy, *Issue alignment and partisanship in the American public: Revisiting the 'partisans without constraint' thesis*, February 2021, Social Science Research, Vol. 94, n°102498, University of North Carolina, Charlotte.
[269] Philip E. Converse, *The nature of belief systems in mass publics*, 2006 [1964], Critical Review, Vol.18, n°1-3, Routledge, New York, p. 46.

concerns program-based rather than project-based votes. Such a hypothesis enhances the relevance of direct democracy in fighting polarization. In the same dynamic way, direct participation allows voters to unbundle and, therefore, un-align issues by investing them separately.

Beyond alignment as such, both theory and practice support the positive effect of participation on political trust. In Honneth's model, participation allows us to reconstruct self-trust, breaking the vicious circle and building renewed trust in others and institutions. Writes Honneth: "engaging in political struggle publicly demonstrates the ability that was hurtfully disrespected, this participation restores a bit of the individual's lost self-respect"[270]. Recovering self-respect is the necessary first step for a renewed trust environment. Social studies confirm the link between direct participation, on the one hand, and legitimacy and trust in institutions, on the other hand. As with all cross-sectional data, the phenomenon is complex to measure since a decrease in political trust in jurisdictions practicing direct democracy can be both a cause and a consequence of the will for more direct democracy tools[271]. A Belgian study comparing two municipalities, one using referendums and the other not, shows that direct democracy changes both the satisfaction with local democracy and trust in local institutions for those who voted (but not for those who did not)[272]. The phenomenon is stronger on the winners' side – the authors emphasize that, since the winners are, by construction, the majority, the increase in trust and satisfaction is biased by a subjective "the winner takes it all" effect. Yet satisfaction and trust also increase on the loser side, although more modestly, showing that such an effect is general[273]. The same evidence has been found in Indonesian villages where direct decisions brought more legitimacy than decisions made by representatives[274], and in laboratory where

[270] Axel Honneth, *op. cit.*., p. 164.
[271] Sofie Marien and Anna Kern, *The Winner Takes it All: The Effect of Direct Democracy on Democratic Satisfaction and Political Trust Revisited*, paper prepared for the 'Political Trust in Contemporary Representative Democracies' 24-25 November 2016, Barcelona, https://www.oidp.net/docs/repo/doc35.pdf, accessed June 12, 2022, p. 2. Examples of cross-sectional studies include P. C. Bauer and M. Fatke, *Direct Democracy and Political Trust: Enhancing Trust, Initiating Distrust–or Both?*, 2004, Swiss Political Science Review, Vol. 20, n°1, pp. 49–69 and I. Stadelmann-Steffen and A. Vatter, *Does Satisfaction with Democracy Really Increase Happiness? Direct Democracy and Individual Satisfaction in Switzerland*, 2012, Political Behavior, Vol. 34, n°3, pp. 535–559.
[272] Sofie Marien and Anna Kern, *op. cit*.
[273] *Ibid.*
[274] Benjamin Olken, *Direct democracy and local public goods: evidence from a field experiment in Indonesia*, 2010, American Political Science Association, n°104, Cambridge University Press, Cambridge (U.K.): "This project investigated two alternate mechanisms through which villagers could

participating in decision-making has been identified as the critical factor for legitimacy[275].

1.1.2. An Anthropological Debate on Participation

We have analyzed how the legitimacy test should be analyzed as a test on trust itself, in its dual aspect of inter-subjective and institutional trust (and their interaction with each citizen's self-confidence). It allows us to understand better how legitimacy is linked to participation, as participation is a critical factor of trust, particularly within an increasingly polarized political sphere. Increased participation, particularly direct participation, can overhaul partisan and issue alignment and rebuild trust in the political system.

This perspective leaves aside a key behavioral question: are citizens willing to participate more in political decisions? As we saw, Yasha Mounk blatantly answered with a "no". Surveys on citizens' willingness to participate tend to prove the contrary. As mentioned in the introduction, two out of three citizens in most Western countries want to decide by referendum on critical national issues. Yet, to Mounks's point, the general turnout levels in Western democracies do not go the same way. We need to shift from surveys to political anthropology, first at the conceptual level (the Aristotle vs. Hobbes debate) and then at the empirical level (what do social studies tell us in detail about the desire to participate today?).

Hobbes vs. Aristotle[276]: How to reconcile reason with desire

For Aristotle, man is famously a "political animal by nature". As Hegel quotes him at length in *Natural Law*:

---

choose how to spend money for infrastructure projects in their village: a representative meeting and a plebiscite. Each village selected two projects, a general project, chosen by all villagers, and a women's project, chosen exclusively by the women in the village. […] The experiment found very different results for the two projects considered. For the general project, the plebiscite process resulted in substantially higher villager satisfaction with the political process, even though it had very limited impacts on the actual projects selected. For the women's project, not only did women's satisfaction increase, but the plebiscite process resulted in women's projects that were more likely to be located in poorer hamlets of the village."

[275] Peter Esaiasson, Mikael Gilljam, and Mikael Persson, *Which Decision-Making Arrangements Generate the Strongest Legitimacy Beliefs? Evidence from a Randomised Field Experiment*, 2012, European Journal of Political Research, Vol. 51, n°6, pp. 785–808.

[276] This chapter recapitulates the arguments in Gilles Mentré, *Démocratie*, *op. cit.*.

"The state [*polis*] comes by nature before the individual; if the individual in isolation is not anything self-sufficient, he must be related to the whole state in one unity, just as other parts are to their whole. But a man incapable of communal life, or who is so self-sufficing that he does not need it, is no part of the state and must be either a beast or a god"[277].

Man is made by nature for the City, but what is the City made for? Aristotle answers: "The end and purpose of the city is the good life, and the institutions of society are means to this end"[278]. The good life, and not survival, profit, or even happiness, which are individual notions. The City comes before the individual. The Greeks had a verb to designate that attitude: *politeuein*, the fact of "being political" by practicing "those free activities of debate and persuasion that comprised the core of political life for a citizen"[279]. In Hegel's words, *politeuein* expresses "living in and with and for one's people, leading a general life that belongs entirely to the public"[280] – a formulation that echoes Gettinburgh's address. Using a verb that does not translate into English or any modern Western European language ("to politicize") indicates the participative aspect of political activity in the Greek conception of the *polis*. Ricoeur summed up Aristotle's position as follows:

"the individual becomes human only within [the] totality which is the 'universality of citizens'. The threshold of humanity is the threshold of citizenship, and the citizens are citizens only through the City [...] One is a citizen who, in the land he inhabits, is admitted to jurisdiction and deliberation [...] for it is by participation in public power that we define him."[281]

Outside the political body, human life is not only threatened by the violence of others; it is devoid of meaning and dignity. Such was the reason for the anathema cast by Greek thought on the entire sphere of private life, whose "idiocy" consisted in that it dealt only with survival. Socrates was convinced by his "inner voice" (*daimonion*) that he must not "lead the public life of a citizen", *politeuein*, and so, by default, he will '" end

[277] Aristotle, *Politics*, fragment 1253, 25-29 quoted in G. W. F. Hegel, *Natural Law*, trans. T. M. Knox, 1975, University of Pennsylvania Press, Philadelphia, p. 113.
[278] *Ibid.*, III, ch9, fragments 1280a and b.
[279] Diana Villa, *Arendt*, 2021, Routledge, New York, p. 122.
[280] G. W. F. Hegel, *On the Scientific Treatment of Natural Law*, transl. T. Newcomb, Newcomb Livraria Press,
[281] Paul Ricoeur, *The Political paradox*, in *History and Truth*, transl. C. Kelbey, Northwestern University Press, 1965, Boston, p. 250, quoted by Bernard Dauenhauer, *Paul Ricoeur: the Power and Risk of Politics*, 1998, Rowman and Littlefield, Lanham (MA), p. 73. Ricoeur is quoting Aristotle, *Politics*, fragment 1275 a-b, in Kelbley's translation arranged by Dauenhauer.

the private life", *idiōteuein*[282]*",* an attitude that was condemned as part of his attempt to corrupt the youth. Arendt shows that the Romans shared the same conception of politics, indicating that, in Latin, to die is expressed by the formula: "to cease to live among men". Cicero asserted that "only through building and preserving political communities could human virtue attain the actions to the ways of the gods[283]".

As summarized by Michael Sandel:

"The Aristotelian vision of citizenship is more elevated and strenuous than ours. For him, politics is not economics by other means. Its purpose is higher than maximizing utility or providing fair rules for the pursuit of individual interests. It is, instead, an expression of our nature, an occasion for the unfolding of our human capacities, an essential aspect of the good life[284]."

Breaking with the medieval scholastic tradition that assumed, after Aristotle, that man is a rational animal[285], Hobbes bases man on passion[286]. The virulence of Hobbes against Aristotle stands out in a passage from the Leviathan: "And I beleeve that scarce any thing can be more absurdly said in naturall Philosophy, than that which now is called Aristotles Metaphysiques; nor more repugnant to Government, than much of that hee hath sald in his Politiques[287]". However, as Marquer observs, Hobbes' criticism is not so much toward Aristotle than aristotelicsm, or "aristotelity", to use Hobbes' expression, which is "criticism of scholastics"[288]. Hobbes observes that the competition of desires is the primary driver of humankind. One can follow the analyses of Philippe Crignon, for whom the survival instinct in Hobbes confirms the primacy of desire: "Fundamentally, we desire only the preservation of our life. Even this is not the object, but only the condition for the renewal of desire itself; in the final analysis, we desire only to continue to be able to desire[289]". As Luc Foisneau analyzes, it is a reversal

---

[282] Plato, *Apology of Socrates*, 32a, transl. by Gregory Nagy, *The Ancient Greek Hero in 24 Hours*, 2013, Harvard University Press, Cambridge (MA), 22§3.
[283] Hannah Arendt, *Between Past and Future,* 2006, Penguin Books, New York, p. 71.
[284] Michael J. Sandel, *Justice: What's the Right Thing To Do?,* 2009, Farrar, Strauss and Giroux, New York, p. 200 of the Penguin Books edition [2009].
[285] As Saint Thomas Aquinas asserts, differentiating humankind from animality, "man acts by judgment […], an act of synthesis that proceeds from reason" (Saint Thomas Aquinas, *Summa Theologica*, I, q. 83, a. 1, my translation).
[286] Thomas Hobbes, *Leviathan*, 1909 [1651], Oxford University Press, Oxford, Chapter XLVI, p. 522.
[287] *Ibid.*
[288] Eric Marquer, *Hobbes and the merchant law*, *op. cit.*, p. 21-22.
[289] Philippe Crignon, *Presentation*, in Thomas Hobbes, *Léviathan*, trad. P. Crignon, 2017, Flammarion, Paris p. 26, my translation.

of precedent: to the Aristotelian analysis of the good as the source of desire, Hobbes substitutes the reverse causality of desire as the source of the good. Writes Foisneau:

"the Aristotelian thesis condemns in advance the reversal carried out by Hobbes because it affirms that the principle of moral judgment is distinct from the desire of the subject. By indexing moral values on the desire of the human agent, Hobbes proceeds to an unprecedented reversal."[290]

Given the competition of individual desires, dominated by the desire for domination, men are thus plunged into the fear of the war of all against all. Hobbes does not think that, in all circumstances, man is "a wolf to man". He can also be "a God to man", as soon as he no longer fears for his safety: "To speak impartially, both sayings are very true; That Man to Man is a kind of God; and that Man to Man is an arrant Wolfe. The first is true, if we compare Citizens amongst themselves; and the second, if we compare Cities[291]".

Hobbes could be called (against his will) a "democrat". Mistrust of others is, in fact, the strict counterpart of the perfect equality that reigns among us all: since I am ready to do anything to ensure my survival and my domination, then so are others. We are rationally interested in ending the war of all against all and seeking peace. To do so, we entrust ourselves entirely to a Sovereign at the origin of all laws and standing above them all: the Leviathan, the "Mortall God[292]". Leviathan is not a monarch by divine right. Hobbes indicates that it must be "elected", that is, chosen by a "majority". It is not necessarily a person but can be an assembly, even if Hobbes favors monarchy for pragmatic reasons, which could be stated today by contenders of direct democracy: competence, excessive place taken by eloquence, and creation of factions. He concludes that "these inconveniences which are found in the deliberations of great assemblies do so farre forth evince Monarchy to be better than Democraty, as in Democraty affairs of great consequence are oftner trusted to be discussed by such like Committees, than in a Monarchy"[293]. The central point is that once established, he decides alone. "For by this Authoritle, given him by every particular man in the Common-Wealth, he hath the

[290] Luc Foisneau, *Hobbes – La vie inquiète [Hobbes – The Anxious Life]*, 2016, Gallimard, Paris, p. 216 (ed. Folio), my translation.
[291] Thomas Hobbes*, De cive,* 1651, Royston, London, http://www.public-library.uk/ebooks/27/57.pdf, accessed June 3, 2021, p. 1.
[292] Thomas Hobbes, *Leviathan, op. cit.*, Chapter XVII, p. 132.
[293] Thomas Hobbes, *De cive*, *op. cit.*, p. 52.

use of so much Power and Strength conferred on him, that by terror thereof, he is enabled to forme the wills of them all, to Peace at home, and mutuall ayd against theyr enemies abroad[294]". Hobbes does not refute the Aristotelian idea that the human nature bears a desire for political participation and civic virtue. However, he advocates for a minimal theory of civic virtue where our desire for participation is limited to "active obedience"[295].

The authoritarian wave that is sweeping the world seems to prove Hobbes right. Larry Diamond has diagnosed since the early 2000s a "democratic recession". His results are based on the following criteria: stagnation in the number of democracies in the world (at about 60% of all countries, while the total number of countries had continuously grown from its level at 30% in 1974); a 50% increase in the number of countries where the democratic model has failed (to 18% in the past fifteen years compared to 13% in the previous fifteen years); a rise in the index of constraints weighing on freedom, which reached its low point in 2005; and a general weakening of freedom and the rule of law, particularly in China, Russia, or Turkey[296]. That recession is not only happening outside our borders. Setbacks in public liberties can also be observed in Western countries, notably following laws to fight terrorism or, more recently, against COVID-19. The annual reports of Varieties of Democracy shed the same light, in a more balanced way, as their authors found for the first time in 2018 an equal number of countries where democracies advance and of countries experimenting with "democratic backsliding"[297].

In *Capitalism, Alone*, Branko Milanovic analyzes the authoritarian wave under the term "political capitalism", and wonders if it is not gaining an advantage over "liberal capitalism". As he notes, democratic rights may be voluntarily abandoned, and some have already been in the hope of higher incomes. "The objective of political capitalism is to take politics out of people's minds, which can be more easily done when

[294] Thomas Hobbes, *Leviathan, op. cit.*, p. 132.
[295] Luc Foisneau, *Hobbes et la théorie machiavélienne de la "VIRTÙ" [Hobbes and the Machiavelian theory of "VIRTÙ"]*, 1987, Archives de Philosophie, Vol. 60, No. 3, Centre Sèvres – Facultés jésuites de Paris, pp. 371-391.
[296] Larry Diamond, *Facing up the Democratic Recession,* January 2015, Journal of Democracy, Vol. 26, n°1, Johns Hopkins University Press, Baltimore, p. 142.
[297] Anna Lürhmann, Valerya Mechkova, and Saffan Lindberg, *State of the World: Liberal and Electoral Democracy,* in Anna Lührmann and Staffan Lindberg (eds.), *Democracy for All? V-Dem Annual Democracy Report*, 2018, University of Gothenberg, Gothenberg, pp. 16-30, quoted by Jennifer Gandhi, *The Institutional Roots of Democratic Backsliding, op. cit.,* p. 11.

disenchantment and lack of interest in democratic politics are high[298]". It is in that respect that political capitalism asserts its "superiority". Milanovic does not think that political capitalism allows for higher incomes by itself. On the contrary, liberal capitalism allows for more rational choices due to the constant democratic corrections it imposes. However, the competition in which it places political capitalism leads the latter to a performance imperative by pure competition. Being less legitimate, it is forced to do better than liberal capitalism or disappear. According to Milanovic, this emulation ultimately confers a decisive advantage to authoritarianism. One reads between the lines, of course, the attraction exerted by models of authoritarian capitalism à la Singaporean or Chinese.

Milanovic believes that the times of Greek democracy, when everyone could indulge in political exercise, are thus definitively past. Already, Hobbes found it doubtful that a man would prefer politics to commerce:

"for there is no reason why every man should not naturally rather mind his own private, than the publique businesse, but that here he sees a means to declare his eloquence, whereby he may gain the reputation of being ingenuous, and wise, and returning home to his friends, to his Parents, to his wife, and children, rejoyce, and triumph in the applause of his dexterous behavior."[299]

In today's world, the growth of risks and the pursuit of profit would push civic participation further into the background. Between democracy and authoritarianism, there would no longer be a difference in purpose but only in effectiveness. If the second can better satisfy desires than the first, citizens will eventually rally to it. As Milanovic bluntly puts it, we are mistaken if we believe that people are still "as Aristotle described them, 'political animals', who value involvement in civic matters as a general principle. It might have been the case in the agoras of the Greek city-states, but even then, for only an affluent minority of free citizens. In today's commercialized and hectic world, citizens have neither the time, knowledge or the desire to get involved in civic matters unless the issues directly concern them[300]".

[298] Branko Milanovic, *Capitalism, Alone – The Future of the System that Rules the World*, 2019, Harvard University Press, Cambridge (MA), p. 218.
[299] Thomas Hobbes, *De cive*, *op. cit.*, p. 52.
[300] *Ibid.,* pp. 119.

Political Evidence of the Desire for Participation

Several indicators seem to back Milanovic's views on the current "disenchantment" with democracy, notably the "electoral protest index" and the "year-1" and "year-2" approval rates.

As proposed above, the "electoral protest index" can be defined as the rate of citizens not considering themselves represented by any party with experience in government. I have therefore constructed an electoral protest index since 2002 by aggregating abstention, blank and invalid votes, votes for the FN/RN, votes for far-left parties, and votes for other parties that have never participated in any government. Such a classification necessarily includes arbitrary aspects: abstention may have different motivations, the invalid vote is not necessarily a protest (it has only been counted separately from the blank vote since 2014), and certain parties are located on the border between government and non-government. Acknowledging these reservations, the results show a clear upward trend in protest voting (except the 2007 election), reaching a worrying 70% in 2022:

Number of voters (million)	**2002**	**2007**	**2012**	**2017**	**2022**
Abstention	11,7	7,2	9,4	10,6	12,8
Vote for FN/RN	4 ,8	3,8	6,4	7,7	8 ?1
Vote for extreme-left[301]	3,9	2,7	4,6	7,7	9,0
Other protest votes[302]	1,9	1,8	0,7	2,5	3,2
Blanck or invalid	1,0	0,5	0,7	0,9	0,8
Total protest vote	*23,3*	*16,1*	*21,2*	*29,4*	*33,9*
Total number of voters	41,2	44,5	46,0	47,6	48,7
Electoral protest index[303] (%)	**45%**	**36%**	**47%**	**62%**	**70%**

Table 2: Electoral protest index in the first round of presidential elections in France 2002-2022 (source: French Ministry of Interior and Constitutional Council[304], author's calculation)

Including abstention in protest voting is, of course, questionable. The reasons for abstaining can be manifold. Statistics generally discriminate between "systematic vote", "systematic abstention", and "intermittent vote" (to turn out to at least one

[301] Parti Communiste Français, La France Insoumise, Parti des Travailleurs, Force Ouvrière, Nouveau Parti Anticapitaliste (or candidates backed by these parties).
[302] Union pour la République, Chasse, Pêche et Tradition, Debout la France, and all independent candidates (ex : J. Bové, J. Lasalle, J. Cheminade, etc.) with the exception of parties led by former ministers (ex : C. Lepage, C. Boutin, J.-P. Chevènement, P. de Villiers, C. Taubira, etc.).
[303] Total protest vote on total number of voters.
[304] https://www.interieur.gouv.fr/%20Elections/Les-resultats, and https://conseil-constitutionnel.fr, accessed May 10, 2023.

round of a national election a given year, but not to all – in France, all national elections have two rounds and all presidential elections since 2002 have been followed by parliamentary elections the same year)[305]. However, this taxonomy does not give the reasons behind intermittent voting, which could be voluntary or involuntary. In the current dissertation, I propose dividing abstention into three categories based on the traditional distinction between structural, conjonctural, and frictional unemployment. "Frictional abstention" relates to involuntary abstention caused by personal impediments, i.e., physical inability to come to the poll station, urgency, or incomplete registration. "Conjonctural abstention" encompasses all decisions to voluntarily abstain from a particular election due to specific characteristics, such as discontent with the candidates proposed or the political programs or a disagreement on the purpose of the election as in the case of anticipated elections. "Structural abstention" refers to a permanent attitude of abstaining due to a general distrust in the political system and in the interest of elections. The relative weight of these three types of abstention in the general turnout has been hugely debated, and data on the specific reasons for abstaining in each election are scarce. In France, local elections present a better case study for abstention, as turnout is typically lower in these elections than in national ones. Analyzing Jérôme Fourquet's data around the 2015 local elections in France, one can estimate that each of these abstention types represents a third of the total:

[305] Elisabeth Algava and Kilian Bloch, *Vingt ans de participation électorale » [« Twenty years of electoral participation]*, INSEE Première n°1929, Paris, Institut national de la statistique et des études économiques, 2022. Note that the INSEE participation survey numbers do not correspond to the official numbers from the Ministry of interior and Constitutional council.

Reason for abstention	% of voters
Because these elections will not change anything in your situation	*21%*
To demonstrate your dissatisfaction with political parties	**20%**
Because you are on weekends, on vacation, or traveling	14%
Because you do not know the candidates who are running	**9%**
Because you do not really know which are the competences of the general councils	*6%*
Because no candidate defends or represents your ideas	**5%**
To express your dissatisfaction with the action of your general council	**3%**
Because you never vote	*2%*
Because the management of your department does not interest you	*1%*
Other reason	19%
TOTAL STRUCTURAL – disengagement abstention (italic)	*30%*
TOTAL CONJONCTURAL – protest abstention (bold)	**37%**
TOTAL FRICTIONAL – involuntary abstention (regular)	33%

Table 3: Structural, conjonctural, and frictional abstention in French 2015 local elections (source Jérôme Fourquet and Sylvain Manternach[306], data retreated by the author)

With these results, we can recalculate the electoral protest index by excluding the frictional abstention from the protest vote (reducing the total abstention by one-third). The results are shown in the table below:

[306] Jérôme Fourquet and Sylvain Manternach, *Départementales de mars 2015 (2) : le premier tour [Local elections March 2015 (2): the first round]*, Fondation pour l'innovation politique, August 2015, p. 12, www.fondapol.org/etude/jerome-fourquet-et-sylvain-manternach-departementales-de-mars-2015-2-le-premier-tour/, accessed February 2, 2020.

Number of voters (million)	**2002**	**2007**	**2012**	**2017**	**2022**
Strucural and conjonctural abstention	7,839	4,824	6,298	7,102	8,576
Vote for non-governmental parties	5,8	8,3	11,7	17,9	20,3
Blanck or invalid	1	0,5	0,7	0,9	0,8
Total protest vote	*14,6*	*13,6*	*18,7*	*25,9*	*29,7*
Total number of voters	41,2	44,5	46	47,6	48,7
Electoral protest index	**36%**	**31%**	**41%**	**54%**	**61%**

Table 4: Electoral protest index recalculated in the first round of presidential elections in France 2002-2022 (source: French Ministry of Interior and Constitutional Council, author's calculation)

The recalculated ("net") electoral protest index in Table 4 is, of course, lower than the one initially calculated ("gross") in Table 2. Yet, it still leads to the same striking result: the protest vote has been on a structurally increasing trend for years, and for at least ten years in France, it has been above 50%. More than a French citizen out of two does not trust the political system they live in.

However, are these numbers clear signs that political capitalism is taking politics from our minds? Despite Milanovic's analyses, it is not evident that the conditions of the contemporary world lead us to neglect our civic roles. In the face of the "democratic recession", numerous indicators suggest, in the opposite direction, that we continue to desire political engagement. As many social and political science surveys have found

out, citizens are still willing to exercise their democratic rights to rebuild inter-subjective and institutional trust, but in a different way.

In 2018, the Cévipof surveyed French people on their preference between vertical power ("surrounding oneself with competent experts" and "making decisions without considering criticisms") and horizontal power ("seeking the opinion of the largest number of citizens" and "making compromises to avoid conflicts"). Across the entire population, the two concepts appear evenly split at around 50%. However, focusing on supporters of the far-right and far-left, surveyors found stronger support for horizontal power (62% and 65%, respectively) and a corresponding distrust of vertical power[307]. It explains why protest political parties (parties with no governmental experience) usually put forward increased citizen participation and direct voting in their programs. The program of France's far-right movement Rassemblement National for the 2024 parliamentary election insisted on creating a citizen-led referendum procedure (the "referendum d'initiative citoyenne" or RIC demanded by the Yellow Vests) on all legislative issues and on limiting to referendum the possibility of modifying the constitution[308]. The left coalition Nouveau Front Populaire program incorporated the propositions put forward by the far-left party La France Insoumise to create a legislative RIC and ease the use of the "joint initiative referendum" in the French constitution[309]. The same attitude could be observed with Italy's Five Star Movement (M5S), whose initial program promoted "power decentralization" and the concept of the "inverted pyramid", creating platforms for proposals and "participation ambassadors[310]". However, the movement has not aligned its actions with its words, as the reality of M5S's practice of power revealed significant verticality[311]. Given their tradition of centralized and vertical party discipline, the same risk can be anticipated regarding La France Insoumise or le Rassemblement National (RN or National

[307] CEVIPOF Trust Barometer, *op. cit.*, wave 9, 2018.
[308] Rassemblement National, *Bardella Premier Ministre, Un projet, une méthode [Bardella Prime Minister, A Project, A Method]*, June 2024, https://rassemblementnational.fr/documents/202406-programme.pdf, p. 15, accessed on July 7, 2024.
[309] Nouveau Front Populaire, *Contrat de législature [Legislative Term Contract]*, June 2024, https://lafranceinsoumise.fr/wp-content/uploads/2024/06/PROGRAMME-FRONT-POPULAIRE.pdf, p. 17, accessed on July 7, 2024.
[310] Associazione Rousseau, *Manifesto Controvento [Manifesto against the Wind]*, March 17, 2021, https://associazionerousseau.s3-eu-west1.amazonaws.com/Manifesto/Manifesto+ControVento.+Principi+e+valori+del+modello+Rousseau.pdf, accessed July 20, 2021.
[311] Cf. James Politi and Hannah Roberts, *Five Star Movement: The unanswered questions about Italy's populist party,* Financial Times, September 17, 2017.

Rally)[312]. The leader of the National Rally, Marine Le Pen, even candidly reckoned the party's over-centralized decision-making process, only to advocate for a "decentralization" of the movement - which is still to be done. She even proposed a new version of Lincoln's democracy definition, entirely related to the party's leadership: "the RN has always had a very concentrated organization. Everything comes from the headquarters, for the headquarters and by the headquarters[313]."

That situation illustrates the current political deadlock of modern democracies. On the one hand, parties with proven democratic records cling to traditional "vertical" politics inherited from domination models. On the other hand, the demand for more "horizontality" is only supported *prima facie* by protest movements, whose tradition and organization are even more vertical. As Ricoeur advocated, there is an urgent need to build a political system that would genuinely prioritize the horizontal dimension over the vertical one:

"An entire political theology, during millenniums, was about founding in divine transcendence the verticality of dominance. The question remains whether another 'theological politics' is possible, which would assume the horizontal dimension of power and subordinate to it the vertical dimension of domination."[314]

This paragraph from Ricoeur is essential since it clearly prioritizes horizontality over verticality. Such a clear position goes against a common interpretation of Ricoeur that would see him as balancing verticality and horizontality. Emmanuel Macron proposed a questionable reading of Ricoeur in several interviews[315] and never subordinated verticality to horizontality in his power practice.

---

[312] Lauriane Clément, *Législatives 2024 : le RN, un fonctionnement centralisé et peu démocratique [2024 Parliamentary elections: the National Rally, a centralized and undemocratic way of functionning »*, La Croix, June 5, 2024 and Thomas Guénolé, *« Pourquoi le fonctionnement de La France insoumise est anti-démocratique » [« Why the functionning of La France insoumise is anti-democratic »],* Le Figaro, May 3, 2024.

[313] Marine Le Pen quoted by Paul Laubacher, *Rassemblement national : après la claque surprise aux législatives, l'heure du vaste droit d'inventaire [National Rally: after the failure at the parliamentary elections, it is time for a review],* July 31, 2024, Le Figaro, Paris.

[314] Paul Ricoeur, *Morale, Ethique et Politique [Morality, Ethics and Politics], op. cit.,* p. 15, my translation.

[315] "The only possible way is to articulate a high horizontal transparence, necessary to deliberate, and to resort to more vertical means, necessary to decision making", in *Grand Entretien*, Le 1, n°64, July 8, 2015.

The increase in protest voting is not primarily anti-democratic but reflects an aspiration for more citizen involvement. If citizens protest in elections (by abstaining or voting for parties other than the mainstream government parties), it is because the current system offers too limited a role for voting. Indeed, surveys show that more than a third of the French consider voting useless, a sentiment also found among our European neighbors in Germany and the United Kingdom[316]. However, it seems to be the form of voting that is targeted. Beyond the issues of programs and personalities, giving any political leader a blank check for half a decade no longer makes sense. As Rémi Lefebvre contends: "Voters are rejecting not so much the act of voting itself, but what voting has become: a mechanism through which they can no longer express preferences; where, regardless of their choice, their vote will not have an impact[317]".

The Yellow Vests movement turned out to be an unexpected revelation of the importance of the democratic claim and a violent contestation of vertical power. The organization of the movement was decentralized. The symbols evoked the idea of a power that would be neither individualized nor localized, mainly through the choice to gather on peripheral roundabouts whose centers are empty[318]. Everywhere, protesters targeted the symbols of vertical power, such as the Arc de Triomphe or effigies of the president.

Even more strikingly, that attitude crystallized around a specific and robust demand: the "citizen-initiated referendum" (R.I.C. or RIC), which became an emblem of the movement. At the same time as they demanded an increase in their purchasing power, the Yellow Vests called for institutional changes. During the online consultation "True Debate" conducted by Yellow Vests, the RIC topped all claims[319]. The government promised to reform the shared initiative referendum (R.I.P. or RIP) provided by the Constitution, by lowering the triggering threshold to one million signatures (currently more than four million) and making the referendum compulsory if Parliament does not examine the proposal. The RIP project on the privatization of Aéroports de Paris unprecedentedly exceeded the threshold of one million signatures despite a "very high

[316] CEVIPOF Trust barometer, *op. cit.*, February 2020.
[317] Rémi Lefebvre (université de Lille), qutoed by Marion Dupont, *De quoi le vote est-il l'enjeu ? [What is at stake with voting ?],* Le Monde, December 4, 2021.
[318] Laurent Jeanpierre, *In Girum – Les leçons politiques des ronds-points [In Girum – The political lessons of roundabouts],* 2019, La Découverte, Paris.
[319] Zoé Boiron, *Le « vrai débat » des « gilets jaunes » : le RIC supplante toutes les revendications [The « true debate » of the Yellow Vests: RIC over rides all other claims],* Le Figaro, March 29, 2019.

threshold of support", a "complex, non-intuitive and insufficiently adapted website," and the absence of any "public debate or media information" as criticized by the French Constitutional Council[320].

The focus of the Yellow Vests movement on the RIC indicates the centrality of the vote in affirming each individual as a citizen. Hobbes already underlined this when he distinguished the "multitude" from the "people". As he writes in *De Cive*, "a Multitude is no naturall Person[321]". For a multitude to become a person, and more specifically, a people, it must:

"Contract one with another, that the will of one man, or the agreeing wills of the major part of them, shall be received for the will of all, then it becomes one Person; for it is endu'd with a will, and therefore can doe voluntary actions, such as are Commanding, making Lawes, acquiring and transferring of Right, and so forth; and it is oftner call'd the People, than the Multitude."[322]

A movement or a crowd cannot claim to embody the "people" if such a contract has not been passed. As Luc Foisneau comments: "What gives a 'crowd' its 'unity' can only be either contractual relations between all the individuals, or representation; otherwise, there are only individual people acting for themselves according to their own will and judgment.[323]" What type of contract does Hobbes have in mind and how does it relate to voting? Hobbes is explicit about it. For the "people" to constitute itself as such, sovereignly, it is imperative that it can deliberate, that is to say, both assemble and vote:

"The People, therefore, retain the supreme power no longer than there is a certain day and place publiquely appointed, and known, to which whosoever will may resort. For except that be known and determined, they may either meet at divers times, and places, that is in factions, or not at all; and then it is no longer demos, the People, but a dissolute multitude, to whom we can neither attribute any Action, or Right: Two things therefore frame a Democratie, whereof one (to wit the perpetuall prescription of Convents) makes demos, the People, the other (which is a plurality of voyces) to kratos or the power."[324]

---

[320] Conseil constitutionnel, decision n°2019-1-9 RIP, June 18, 2020.
[321] Thomas Hobbes, *De cive, op. cit.*, p. 36.
[322] *Ibid.*
[323] Luc Foisneau, *The Hobbesian Crowd Problem,* in *The Crownd in the History of Political Thought: A Symposium on Populism*, Fall 2023, The Review of Politics, Vol. 85, Special Issue 4, part II, p. 474.
[324] *Ibid.*, p. 39, emphasis mine.

Democracy is the addition of deliberation (the demos) and voting (the kratos). By calling for the RIC, the Yellow Vests become Hobbesian, but in an Aristotelian way. They subscribe to the analysis that there is no sovereignty without the vote (the "plurality of voyces"). They agree that manifesting a will is necessary, which supposes a people distinct from the multitude. However, they refuse to entrust themselves to the Leviathan. This will does not need to be embodied in a person or an elected assembly for them. When Hobbes asserts that, in a democracy, "the Citizens are the Multitude, but the Court is the People[325]" the Yellow Vests respond (a possibility theoretically opened by Hobbes but that he does not consider explicitly) that the Court must be composed, not of representatives, but of all citizens.

Indeed, the individual representatives of the Yellow Vests who emerged all suffered from a lack of legitimacy. "Rather than lacking a leader, the Yellow Vests movement seems marked by a proliferation of charismatic subjectivities with fragile legitimacy and ephemeral ascendancy[326]". Electoral lists formed by such protagonists in the 2019 European elections garnered less than 1% of the expressed votes[327]. The only representation that the Yellow Vests seemed to accept is that of the entire people through referendum. The RIC thus became the instrument of a new social contract that does not rely on the dual process of "dispossession" and "authorization" as proposed by Hobbes for the Leviathan[328]. If a dual process can be read under the RIC mechanism, it is rather one of re-appropriation and self-authorization by the community of "citizens," as the majority can decide it.

There could thus be another reading of Hobbes. Indeed, as Éric Marquer comments on the Leviathan: "it is not a matter of leading men toward a *summum bonum*, but of harmonizing their desire for power, or allowing the march forward of desire[329]". As we have seen, Hobbesian anthropology posits desire (or rather the desire of desire) as the central engine of human action. However, Éric Marquer lets us glimpse at another Hobbesian outcome than the simple balance (or "neutralization[330]") of individual

---

[325] *Ibid.*, p. 58.
[326] Laurent Jeanpierre, *op. cit.*, p. 66, my translation.
[327] The "Citizen Evolution" and "Yellow Alliance" lists gathered about 125,000 votes in the June 2019 European elections in France.
[328] Philippe Crignon, *op. cit.*, p. 21.
[329] Eric Marquer, *op. cit.*, p. 249.
[330] Albert O. Hirschman, *The Passions and the Interests: Political Justifications of Capitalism before Its Triumph*, transl.P. Andler, 1997, Presses Universitaires de France, Paris, p. 33, quoted by Luc

passions and desires to avoid civil war. A common political project is conceivable, provided that it is, itself, the condition for maintaining desire. As Chantal Mouffe comments, democratic politics "needs to have a real purchase on people's desires and fantasies[331]". It is not to say that such a common project necessarily takes the form of a commonly agreed *summum bonum*, or a plurality of competing conceptions of the common good. The objective here is instead to describe a political process that allows desire to regenerate itself, faithful to the maxim proposed by Hobbes in *The Elements of Law*: "[T]here can be no contentment but in proceeding[332]". Luc Foisneau notes that "human contentment cannot be linked to the satisfaction of a single good but resides in an indefinite process of satisfying desires[333]". Direct democracy has that potential, as an open-ended process that allows for the constant participation of citizens.

1.1.3. Participation in What?

We have highlighted that trust, which lies at the basis of any political regime, is grounded in participation and that it is both rational and desirable for citizens to claim it. Yet, what does it mean to participate in decision-making? We will answer that question theoretically and empirically, showing that participation means primarily participating in deliberating and voting.

Theoretical evidence of the dual aspect of participation: deliberating and voting

John Elster distinguishes between "three varieties of political theories", which all correspond to three different views on legitimacy and three different "decisive political acts". The first ones are aggregative theories, where legitimacy lies in the voting mechanism. According to them, "the decisive political act is [...] the individual and secret vote". The second ones can be called deliberative theories, where legitimacy is linked to the actual mechanisms by which the individual and collective opinions are formed. In that respect, "the decisive political act is engaging in public debate". The third ones are referred to as participatory theories, where the legitimacy is embedded

Foisneau, *op. cit.,* p. 125, who comments: "under the aegis of state power, the most destructive passions, such as the desire for domination and pride, are neutralized by the more peaceful passions, such as the fear of violent death".

[331] Chantal Mouffe, *op. cit.*, p. 6.

[332] Thomas Hobbes, *The Elements of Law*, ed. F. Tonnies, 2020 [1650], Routledge, London, I, VII, 6.

[333] Luc Foisneau, *op. cit.*, p. 220.

in the very fact of participation, regardless of the content of the deliberation and the voting phases. "Politics, on this view, is an end in itself".[334]

What is the "decisive political act" underpinning the claim to participation that we have highlighted? Is it voting, deliberating, or any of the two (as participating should be an end regardless of its substance)? That aspect is key to our comparison between representative and direct democracy. Put simply, direct democracy seems, prima facie, best positioned in terms of legitimacy if participation is linked to voting. As we have analyzed, Hobbes, and after him, the liberal tradition, assumes that the critical aspect of political participation is voting. Heralding the citizen-initiated referendum as their core claim, the Yellow Vests seem to confirm that position. Conversely, representative democracy could better qualify for deliberation. As Manin recalls, the prohibition of imperative mandates in most democracies is embedded in the necessity to carry an unconstrained deliberation: "since representatives are not bound by the wishes of those who elect them, Parliament can be a deliberating body in the fullest sense – that is to say, a place where individuals *form* their wills through discussion and where the consent of a majority is reached through the exchange of arguments[335]".

However, can voting and deliberating be understood separately from each other? A static conception of individual opinions, as proposed by several political thinkers, from Rousseau to Carl Schmidt[336], can justify such separation and defend the view that citizens should vote without deliberating. Abbé Fauchet hence believed that the "general will" should be collected directly from the lips of the voters before it could be corrupted by deliberation[337]. As presented below, it is also one of the epistemic conditions posed by Condorcet for his jury theorem.

In his article *General Will or Deliberation?*[338], Bernard Manin opposes those views. In political matters, opinions are never fixed once and for all, as they do not refer to truths

[334] John Elster, *The Market and the Forum: Three Varieties of Political Theory*, in *Deliberative Democracy: Essays on Reason and Politics*, J. Bohman and W. Rehg (eds.), 1997, MIT Press, Cambridge (MA).
[335] Bernard Manin, *The Principles of Representative Government, op. cit.*, p. 206.
[336] Pierre Rosanvallon, *op. cit.*, p. 185.
[337] Abbé Fauchet, speech to the general assembly of the representatives from the commune of Paris, November 25, 1789, quoted by Pierre Rosanvallon, *op. cit.*, p. 185.
[338] Bernard Manin, *La volonté générale ou la deliberation ? Esquisse d'une théorie de la délibération publique [General will or deliberation?: essay on a theory of public deliberation],*1985, Le Débat n° 33, pp. 72-93.

or mathematical evidence but to collective decisions. In the next chapter, we will discuss such a position from an epistemic point of view. Manin concludes that the legitimacy necessarily lies in deliberation: "The legitimate decision is not the will of all, but the one that results from the deliberation of all; it is the process of forming wills that grants legitimacy to the outcome, not the already-formed wills[339]". Yet, the focus on deliberation is a condition, not a refutation, of the importance of participation in the voting process itself. As Manin concludes, "the deliberative process ends up with the choice, the vote[340]". Charles Girard elaborates further on that complementarity. Deliberation is necessary to grant full equality in the voting process, as it is the means to ensure equal information and access to arguments and counterarguments. Writes Girard:

"Democracy must be deliberative, as democratic decision-making should strive to achieve the aims of political autonomy and the common good as much as possible; while the public deliberation of all citizens cannot guarantee this achievement, it alone enables the collective pursuit of it as equal citizens."[341]

Therefore, participation in the voting process remains central, and the claim for direct democracy embodied by the Yellow Vests is valid. Deliberation does not substitute for voting. As Girard concludes, "democratic deliberation is not self-sufficient [...] it needs to be closed by a vote[342]". This conclusive aspect of deliberation distinguishes it from a simple public debate. Deliberating and voting are the two "decisive political acts" that underpin the desire for increased participation – which does not mean that other aspects should not be addressed, from the preparation of the deliberation to the control of the execution of the decisions voted. To guarantee that citizens vote equally, the vote must be preceded by a public deliberation, giving each citizen access to the same information and lines of argumentation. As described in the previous chapter, Hobbes must be reconciled with Aristotle. Democracy encompasses both deliberation (the

[339] *Ibid.*, p. 82.
[340] *Ibid.*, p. 87.
[341] Charles Girard, *La démocratie doit-elle être délibérative ? [Should democracy be deliberative?]*, 2011, Recherches Philosophiques, Vol. 74/2, pp. 223-240, my translation.
[342] Charles Girard, *Délibérer entre égaux*, *op. cit.*, p. 328, my translation. Girard contemplates alternatives to voting (such as apparent consensus, or even lottery weighted by vote), although the concluding sentence quoted here clearly expresses that voting should be the "reference procedure" (a term Girard uses for deliberation, with alternative non-deliberative procedures only accepted on a case-by-case approach with appropriate democratic justification – the same should be applied, in my views, to decision-making methods other than voting).

demos) and voting (the kratos). It does not disqualify direct democracy, on the contrary. As we will see in section 2, referendum campaigns are occasions for extensive public debates that favor deliberation, contrary to representative democracy where that deliberative function is restricted to elected members. However, concrete solutions must be put in place (media impartiality, actions against fake news, citizens' assemblies, or online deliberative platforms).

The horizontal society in corporate and civil society

Examining areas of society situated outside the political sphere can help us understand how the desire to participate is, at the same time, a desire to participate in the deliberation and the vote. Democratic practices in non-political arenas are relevant as they are part of "participatory democracy" envisioned broadly. As Carole Pateman writes:

"The existence of representative institutions at the national level is not sufficient for democracy; for maximum participation by all the people at that level socialization or 'training' in democracy must take place in other spheres, as well. For this reason, participatory democracy is concerned with ensuring that all individuals have the opportunity to participate in decision-making in their everyday lives as well as in the political sphere."[343]

For the past thirty years, Western societies have experienced a shift "from vertical to horizontal identity, from vertical to horizontal social structure[344]", of which the desire for citizen participation is merely the political manifestation. Lawrence Friedman writes in *The Horizontal Society*: "Authority changes meaning, too, in a horizontal society. Authority is no longer vested in the holders of vertical power – at least not to the same extent. It is more diffuse – more horizontal[345]". It can be observed outside the public sector, both in the corporate and civil society world, and it has gained new traction with the development of distributed technologies such as the Internet, social media, and blockchain.

The transformation in corporate organization is a striking example. The hierarchical, meritocratic, and decentralized management of the 1960s gave way in the 1990s to a

[343] Carole Pateman, *op. cit.*, p. 42.
[344] Lawrence M. Friedman, *The Horizontal Society*, 2014, Yale University Press, New Haven, p. 7.
[345] *Ibid.*, p. 13.

management style in which hierarchies are downplayed to foster "networks"[346]. More advanced, yet still scarce, examples go further, reconstructing the decision process from a bottom-up perspective in the forms of "advice process"[347], "free companies"[348] or "holacracy"[349]. Besides motivating and engaging employees, the aim is to spur innovation. Such a movement is not limited to business. Horizontal trends in the intellectual and artistic world have preceded and inspired corporate organizations, as shown by Boltanski and Chiapello[350]. Theater collectives have proliferated since the 1970s, mixing co-creation and new forms of collective organization, if not collective creation[351]. As Hannah Arendt wrote: "Theater is the political art par excellence; only there is the political sphere of human life transposed into art. It is the only art whose sole subject is man in his relationship to others[352]".

The same horizontality can be observed in the rise of shareholder democracy. Financial markets have always been built on the principle that one action equals one vote. That rule remained largely formal for decades. The dispersed nature of the shareholding structure (due in particular to the importance of small shareholders, notably in the United States) and the institutional practice, which placed almost total trust in the team managing the company, made annual shareholder meetings places of information and communication rather than deliberation and decision-making. A re-concentration of the shareholder structure started in the 1980s due to the emergence of large American pension funds. That new financial landscape has led to the development of shareholder activism, with "activist" funds mounting campaigns

---

[346] Luc Boltanski and Ève Chiapello, *Le nouvel esprit du capitalisme [The new spirit of capitalism],* 1999, Gallimard, Paris.
[347] Denis Bakker, *The Decision Maker*, 2013, Pear Press, New York.
[348] Brian M. Carney, Isaac Getz, *Free Inc.: Free your Employees and Let them Lead Your Business for Higher Productivity, Profit and Growth* , 2009, Crown, New York.
[349] Brian J. Robertson, *Holacracy : The New Management System for a Rapidly Changing World,* 2015, Henry Holt and Co., New York.
[350] Boltanski et Chiapello, *op. cit.,* pp. 233-244. The authors nevertheless note that capitalism co-opting of "emancipatory" concepts has not prevented it from promoting, on the contrary, new forms of "alienation".
[351] An extreme example is given by Ariane Mnouchkine's Théâtre du Soleil, in which horizontality is pushed so far that the entire troupe plays the role of stage director, and everyone ultimately gets the same pay (see Béatrice Picon Vallin, *La création collective au Théâtre du Soleil [Creative creation at the Théâtre du Soleil]*, L'Avant-Scène théâtre, n° 1284-1285 - 1er juillet 2010, pp. 86-97). Here too, the practice has not always followed the initial inspiration (see Philippe Caubère, *Jour de colère (Ariane II) [Days of wrath (Ariane II)]*, 1988, Théâtre Hébertot).
[352] Hannah Arendt, *The Human Condition,* 2013 (1961), University of Chicago Press, Chicago, p. 188. James Baldwin himself admitted at the end of his life that "if he could live his life over again, perhaps he would devote himself exclusively to the stage" (see Anna Venarchik, *Baldwin's 'Blues for Mister Charlie,' 60 Years After It Hit Broadway*, New York Times, July 29, 2024)

against the management of listed companies to propose alternative strategies, seeking support from other shareholders[353]. Such shareholder campaigns have dismantled groups as emblematic as General Electric[354]. One cannot speak of "democracy", as voting power is linked to the number of shares held. However, it is a radical evolution from the time when a shareholder could only vote "with their feet" (selling the shares out instead of voting on the strategy)[355]. Shareholder activism illustrates the dual aspect of the claim for participation: the desire to participate in the public deliberation as much as in the decision itself. Activist campaigns can be compared to referendums (again, with the limitation of unequal voting rights) with broadly publicized debates leading to an actual vote.

A last and very particular example of the trend toward more horizontal structures is the evolution of churches and denominations worldwide. A specific focus can be made on the Catholic church. The debate around the differences in church structures between Catholics and Protestants has existed for centuries. A research paper in the 1960s showed that, in the perception that Catholics and Protestants have of each other, protestant churches are seen as "democratic". In contrast, the Catholic church is deemed "hierarchical"[356]. With Vatican II, and, more recently, with the synod opened by Pope Francis, a significant movement of horizontalisation has shaken the Catholic church, rebalancing that view. The full embrace of democracy by the Catholic church, and the emphasis on participation by the Social Doctrine of the Church are illustrative. As stated in the Compendium (official codification of the social doctrine in 2004):

"Participation in community life is not only one of the greatest aspirations of the citizen, called to exercise freely and responsibly his civic role with and for others, but is also one of the pillars of all democratic orders and one of the major guarantees of the permanence of the democratic system. [...] It is therefore clearly evident that every democracy must be participative."[357]

---

[353] Matthew R. Denes, Jonathan M. Karpoff, and Victoria B. McWilliams, *Thirty years of shareholder activism: A survey of empirical research*, June 2017, Journal of Corporate Finance, Vol. 44, pp. 405-424.
[354] Steve Blank, *Why GE's Jeff Immelt Lost His Job: Disruption and Activist Investors*, Harvard Business Review, October 30, 2017.
[355] Xiaoqiong Wang, Hongxian Zhen, and Feifei Zhu, *Voting with their feet: Controlling shareholders' strategic response*, June 2023, Pacific-Basin Finance Journal, Vol. 79.
[356] James D. Davidson, William V. D'Antonio, Joseph A. Schlangen, *Protestant and Catholic Perception of Church Structures*, 1969, Social Forces, Vol. 47, No. 3, pp. 314-322, Oxford University Press, p. 314.
[357] Compendium of the Social Doctrine of the Church, 2004, §190, emphasis mine. https://www.vatican.va/roman_curia/pontifical_councils/justpeace/documents/rc_pc_justpeace_doc_20060526_compendio-dott-soc_en.html, accessed May 12, 2024. The Compendium further states:

The synod launched in 2021 symbolizes the "participatory turn[358]". All members are being questioned about the evolution of the church, including debated topics such as the marriage of priests and the ordination of female priests[359]. Such an initiative is essentially innovative given the centralized or semi-centralized tradition of synods, which since 1965 have gathered only bishops (with appointed qualified experts). Some commenters speak of a "more democratic Church, turning away from centralization and a pyramidal and hierarchical functioning[360]", or even a "form of global direct democracy[361]". The conclusions of the synod were adopted as such by the Pope without issuing its own "apostolic exhortation". The church will nevertheless continue to carry its mission "with a hierarchically structured community", and the synod's conclusions will need to be articulated with the "apostolic authority" of the Pope[362]. Pope Francis opened the second session of the synod on October 2, 2024, by stating: "the synod is not a parliament"[363]. Like in shareholder activism, the debates of the synod showed an evolution from mere participation in the debate to actual deliberation and participation in the decision.

The development of the www, Web 2.0 and web3

One last significant upheaval is the development of the Internet, social networks, and the web3 since the early 2000s. Not only is it a revealer and an accelerator of the horizontal society, but it also provides an experimental framework of how direct democracy can work in practice.

"Democratic government, in fact, is defined first of all by the assignment of powers and functions on the part of the people, exercised in their name, in their regard and on their behalf. […] This means that the different subjects of civil community at every level must be informed, listened to and involved in the exercise of the carried-out functions".

[358] Laurence Behrer et al. *op. cit.*

[359] According to the church officials, participation of the church members is theologically based on the *sensus fidei*, an "instinct for the truth" (see Alexandre Joly, *La synodalité, expérience de fraternité et de communion* [*Synodality, experience of fraternity and communion]*, in Documents Episcopat n°1 – 2022, p. 8) that each human being is believed to be endowed with, and the *sensus fidelium*, "a gift received by all" and "implemented together" (*ibid.*).

[360] Jean-Marie Guénois, *Ces nouvelles orientations qui vont guider la gouvernance de l'Eglise catholique [These new directives that will guide the governance of the Catholic Church]*, Le Figaro, October 28, 2024.

[361] Jean-Marie Guénois, *Comment le pape tente de garder la main sur la réforme de l'Eglise [How the pope is trying to keep a firm hand on the Church reform]*, Le Figaro, October 5-6, 2024.

[362] Theological International Commission, *Synodality in the life and mission of the church*, 2021, §69.

[363] *Ibid.*

In general, all innovations in communication, from the invention of the printing press to that of the telegraph, including the free press, began with a desire for more distributed power[364]. In 1851, Nathanael Hawthorne envisioned, with the telegraph, the possibility that the whole world might one day be "one head, one brain, one instinct with intelligence[365]". The Internet now carries on that vision. As Fred Turner demonstrated, there is a direct lineage between the counterculture of the 1970s and the birth of the Internet in the 1990s[366]. Democratic optimism dominated the first decade of general access to the Internet. In 2004, Al Gore, then Vice President of the United States, asserted that the Internet was going to "promote the functioning of democracy by greatly enhancing citizen participation in political decision-making[367]" and lead to a "new Athenian Age of democracy". The resulting freedom of information circulation has profoundly structured contemporary democratic protests. The European referendum of 2005 was the first revelation, in France, of the new power of online information. An observation of websites related to the referendum showed that those in favor of "no" were twice as numerous as those in favor of "yes"[368].

The first phase of the Internet has led to the decentralization of information across the entire planet. A second phase then took over, coined "Web 2.0" by Darcy DiNucci[369] (who coined at the same time the word "Web 1"), which saw the internet "fragmented" in "myriad, ubiquitous Internet-connected tools, often referred to as Internet appliances"[370]. Web 2.0 allowed for the emergence of social media, which played a central role in the perception of new possibilities for action. They have been instrumental in the emergence of citizens' protests and civil revolutions such as Occupy

[364] Félix Tréguer*, L'utopie déchue - Une contre-histoire d'Internet XVe-XXIe siècle [The fallen utopia – a counter-history of internet in the 15th-21st century]*, 2019, Fayard, Paris.
[365] Nathaniel Hawthorne, *The house of the seven gables,* 1851, Ticknor and Fields, Boston.
[366] Fred Turner, *From counterculture to cyberculture*, 2006, The University of Chicago Press, Chicago.
[367] Al Gore, opening speech at the first conference on the development of the International Telecommunication Union, March 21, 2004, Buenos Aires
[368] Excluding media and official sites considered neutral, even when including them, websites supporting the "no" vote made up over 50% of available sites (see Guilhem Fouetillou, *The Web and the European Constitutional Treaty - Ecology of a Competitive Thematic Locality*, 2008, Réseaux, Vol.1, n°147, pp. 229-257).
[369] Darcy DiNucci, *Fragmented Future,* Design & New Media, April 1999, pp. 32; 221-222.
[370] *Ibid.*

Wall Street[371], the French Yellow Vests[372], and the Arab Spring[373]. On the one hand, they open new channels of information and debate, which are no longer necessarily intermediated by the world of adults. As shown by a survey in France, the best spokespersons recognized by young people under 25 are bloggers, YouTubers, and influencers (34%) rather than political parties (less than 8%) or even the youth movements of these parties (21%)[374].

On the other hand, social media facilitates community engagement of a new type: those communities created and developed online. It is easier to get involved in community action when it only takes a click to join an online group, exchange on forums, or get informed of events and meeting points through Facebook invitations. As Friedman notes, "Internet will only accentuate this trend [toward a horizontal society]. Virtual groups multiply like rabbits[375]". Over the last decade, volunteer involvement in non-profit organizations in France has grown by 16% between 2010 and 2016, reaching 13 million people today[376]. The same trend is visible in the U.S. and in Western countries in general[377], contradicting the diagnosis made by Robert Putnam in *Bowling Alone*[378] of a decline in social capital and civic engagement in the U.S., as he later acknowledged[379]. These volunteers demonstrate less mistrust than the rest of the population. The "Fraternity Barometer" indicates that 50% of those actively involved in a non-profit organization or political movement are ready to trust others,

[371] Anastassia Kavada, *Creating the collective: social media, the Occupy Movement and its constitution as a collective actor,* 2015, Information, Communication & Society, Vol. 18, pp. 872-886; and Chan S. Suh, Ion Bogdan Vasi and Paul Y. Chang, *How social media matter: Repression and the diffusion of the Occupy Wall Street movement,* 2017, Social Science Research, Vol. 65, pp. 282-293.
[372] Jean-Marie Vernier, *Gilets Jaunes : la carte (les réseaux sociaux) précède le territoire (les ronds-points) [Yellow Vests: maps (i.e. social media) come before territories (i.e. roundabouts)],* 2019, Quaderni, n°99-100, pp. 151-158.
[373] Vincent Geisser et Déborah Pérez, *De la difficulté à « faire parti » dans la Tunisie post-Ben Ali [On the difficulty to « Take Part[y] » in post-Ben Ali Tunisia]*, 2016, Confluences Méditerranée, Vol. 3, n° 98, pp. 21-44.
[374] Survey by BVA for the Apprentis d'Auteuil, November 2016.
[375] Lawrence Friedman*, op. cit.*, p. 26.
[376] Survey conducted by IFOP for France Bénévolat, March 2016 and March 2019.
[377] Dietlind Stolle and Marc Hooghe, *Inaccurate, Exceptional, One-Sided or Irrelevant? The Debate about the Alleged Decline of Social Capital and Civic Engagement in Western Societies*, 2004, British Journal of Political Science, n°35, Cambridge University Press, pp. 149–167.
[378] Robert Putnam, *op. cit.*, p. 40.
[379] Robert Putnam, *Conclusion*, in *Democracies in Flux*, ed. R. Putnam, 2002, Oxford University Press, Oxford, p. 410: "At the most general level, our investigation has found no general and simultaneous decline in social capital throughout the industrial/post-industrial world over the last generation".

compared to less than 35% for the rest of the population[380]. The same barometer shows that the more people are confronted in their daily lives with people from different backgrounds, the more they tend to trust others.

These new forms of involvement offer an alternative to the classical electoral participation process. As Ronald Inglehart proposed in 1990, voting is generally considered by the average voter as "elite-directed[381]": of the elite, by the elite, and for the elite. Citizens who are excluded from the elite do not necessarily withdraw from the political field but seek other means of "elite-challenging participation[382]". This phenomenon is particularly marked among the youth, whose distrust of traditional parties is stronger. Their participation in national elections has been constantly lower than average over the last 20 years, and increasingly so since their rate of systematic participation (participation in the four elections of each year – in France, the presidential election has always been followed by parliamentary elections since 2002, and each of these elections have two rounds) is now 50% less than the average in 2022:

Age category	Systematic vote in 2002	Systematic vote in 2022
18-24 years	32,5%	16,7%
24-35 years	30,1%	18,1%
Total population	47,6%	37%

Table 5: Systematic vote rate by age at national elections in 2002 and 2022 in France (source INSEE[383])

Such a distance is not due to a feeling of powerlessness but to a desire to mobilize other means of action. A 2014 survey showed that nearly two-thirds of young people aged 16

[380] Fraternity Barometer, IFOP, wave 1 (April 2018), which assesses the trust rate at 49% and 47% for people who are members of an association or a political movement, respectively. This occurs despite Algan and Cahuc dismissing such an approach as a way to develop trust in France (op. cit. p. 94).
[381] Ronald Inglehart, *Culture Shift in Advanced Industrial Society*, 1990, Princeton University Press, Princeton.
[382] *Ibid.*
[383] Elisabeth Algeva, Kilian Bloch*, op. cit.*

to 25 felt they could contribute, at their level, to achieving significant changes near the place where they live[384]. As Tiberj comments regarding the youth:

"Their members are not necessarily indifferent to public affairs, but they are more distrustful of political leaders and representative democracy, and their relationship with parties has been stretched very thin. In this framework, we can suppose that their attitude toward voting is decentered. For these citizens, voting is at best one means among others for political action, and not necessarily the most effective one when it comes to making oneself heard. Their relationship with this act can be characterized more by right-based voting: I'll vote if I'm interested."[385]

Young people have shifted from duty-based voting to a right-based voting approach. As the Youngelect survey showed in 2022, 46% of citizens under 35 consider voting a right rather than a duty, compared to 23% (half of that number) for citizens over 65[386]. The question of whether such an attitude is temporary or structural remains debated. Are we talking about a new generation that will keep during its lifetime a distant attitude toward voting[387], or is that phenomenon a "civic moratorium" that will see these generations come back to vote when they age[388]? On the one hand, some data show that greater online volunteering goes hand in hand with the return of young adults to the classical political sphere. In France, the last European elections mobilized 39% of 18-24-year-olds and 40% of 25-34-year-olds, an increase of 15% and 10% respectively compared to 2014. On the other hand, the comparison between the efficiency, openness, and horizontality of online communities and the inertia of classic democratic models also contributes to disaffection. Young people are increasingly critical of the difficulty, not just of being part, but now of "being a party". As Vincent Geisser and Déborah Pérez commented in relation to the Tunisian revolution:

"large sectors of society, especially in the popular regions of the center and south of the country, which had been the hotbeds of the Revolution, no longer recognize themselves in institutional

[384] Survey by TNS Sofrès for the National Agency for Civic Service, June 2014.
[385] Vincent Tiberj, *« Decentered voting - Generational renewal and voting culture in France »*, transl. T. Corkett, 2018, Revue française de science politique Volume 68, Issue 5, pp. 821 to 845, §31.
[386] Laurent Lardeux, Vincent Tiberj, « *Le vote et l'abstention des jeunes au prisme de leurs valeurs et de leur situation sociale » [Vote and abstention of young people with regard to their values and social position]*, Analyses & synthèses n° 62, 2022, Institut national de la jeunesse et de l'éducation populaire, Paris.
[387] *Ibid.*
[388] Anne Muxel, *« L'expérience politique des jeunes » [The political experience of young voters]*, 2001, Presses de Sciences Po, Paris.

politics (non-registration on the lists, electoral abstention, distrust of the elites, etc.) and develop forms of contestation that totally escape the control of political parties."[389]

Leaving aside which interpretation should prevail concerning representative democracy, it is clear that Web1 and Web2.0 have created a new field for participation that is more horizontal and fosters the claim for more direct democracy among young voters. There is a 10-point gap in the support for national referendums on key issues between those under 25 and those above 65. The progression of support is linear with the date of birth, as shown in Gallup's table below:

[Elément sous droit – Diffusion non autorisée]

Table 6: Support for Political Reforms, by Age and Education (source: Gallup[390])

There is no question of painting here an idyllic picture of the influence of the Internet and social networks on the decentralization of society. Shoshana Zuboff has shown how exploiting users' data by the GAFAM (Google, Amazon, Facebook, Apple, and Microsoft) leads to the emergence of a "surveillance capitalism" that threatens democracy. She denounces a "coup from above, not an overthrow of the state but an overthrow of the people's sovereignty and a prominent force in the perilous drift toward democratic deconsolidation that now threatens Western liberal

[389] Vincent Geisser et Déborah Pérez, *op. cit.,* p. 44.
[390] Jeffrey M. Jones, *op. cit.*

democracies”[391]. She lists the attacks that surveillance capitalism is waging on individual rights, including "the unauthorized expropriation of human experience", “the illegitimate rendition of human experience as behavioral data and the use of behavioral surplus as free raw material”, “the stealthy imposition of the hive collective and the hijack of the division of learning in society”, “the degradation of the self-determining individual as the fulcrum of democratic life; and the insistence on psychic numbing as the answer to its to this illegitimate quid pro quo”[392].

Against growing centralization, a new form of decentralization has developed around “web3”. After the decentralization of information and communication, web3 focuses on decision-making. Gavin Wood, one of the first developers of the Ethereum blockchain, coined the word “web3” in a 2014 blog, defining it as a:

“reimagination of the sorts of things we already use the web for, but with a fundamentally different model for the interactions between parties. […] Information that we assume to be public, we publish. Information that we assume to be agreed, we place on a consensus-ledger. Information that we assume to be private, we keep secret and never reveal. […] In short, we engineer the system to mathematically enforce our prior assumptions, since no government or organization can reasonably be trusted.”[393]

Web3 is a fully decentralized online environment almost entirely based on blockchain technology in which all stakeholders are interested in the growth of the whole[394]. Thanks to the blockchain, any transaction is subject to transparent and irreversible registration. The system remunerates the actors according to their involvement. They are also required to participate in governance itself. Decentralized autonomous organizations (DAO) call upon each token holder to vote on the governance rules or management decisions of the network, a decision-making process fueled by active online deliberations on specific channels (for example, through dedicated open

[391] Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, 2019, Public Affairs, New York, p. 513.
[392] *Ibid*.
[393] Gavin Wood, quoted by Thomas Stackpole, *« What is Web3? Your guide to what (could) be the future of Internet,* May 10, 2022, Harvard Business Review, Cambridge (MA).
[394] Qinxu Ding, Daniel Liebau, Zhiguo Wang, Weibiao Xu, *A Survey on Decentralized Autonomous Organizations and Their Governance*, March 2023, World Scientific Annual Review of Fintech, Vol. 1, n°2.

channels on encrypted communication applications[395]). The participation in DAOs and web3 organizations goes well beyond the information boost underlying the World Wide Web and the claim for debate and discussion that underlies Web 2.0. Within web3, participants deliberate on amendments to the protocols and vote on governance issues.

Blockchain, web3, and DAOs have only found limited ways into the "real world" and the large public (we will nevertheless discuss in section 2 the relationship between the "real world" and the "virtual world" and explain why we chose to opt in the current dissertation, along with Isabelle Pariente-Butterlin, for a non-separation paradigm between the two). Practical applications of blockchain include sectors such as asset management[396] and supply chains[397]. It is too early to assess whether current DAOs are a premonition of the decentralized world or mere inspiration for a more distributed power. Blockchain has nevertheless already spurred new research in organization theories[398]. As Lumineau et al. comment, "blockchains may create important opportunities for innovative forms of organizing[399]". This is particularly the case for DAOs:

"The governance of DAOs shows that, even in the absence of a central party giving instructions and distributing information, blockchains can realize coordination among autonomous actors in a decentralized way."[400]

This rapid sociological overview shows how the trend toward greater horizontality traverses our societies. In businesses, associative and cultural movements, there is an increasing propensity for network operation and power redistribution. Social networks

[395] Thomas Macaulay, *Why crypto fans love Telegram despite it betraying their decentralization ethos: Security and usability don't always align*, The Next Web, July 7, 2022, https://thenextweb.com/news/why-crypto-fans-love-telegram-despite-security-privacy-decentralization-concerns, accessed September 15, 2022.
[396] Lin Deng, *Research on the Application of Blockchain Technology in Digital Asset Management*, 2024, Leaning and Analytics in Intelligent Systems, pp. 199-208.
[397] Arnab Banerjee, *Blockchain technology: Supply Chain Insights from ERP,* 2018, Advances in Computers, Vol. 111, pp. 69-98.
[398] See Panos Constantinides, Ola Henfridsson, and Geoffrey G. Parker, *Introduction—Platforms and infrastructures in the digital age*, 2018, Information Systems Research, Vol. 29, n°2, pp. 381–400; D. Tilson, K. Lyytinen, C. Sørensen, *Digital infrastructures: The missing IS research agenda*, 2010, Inform. Systems Res. 21(4), pp. 748–759; and Fabrice Lumineau, Wenqian Wang and Oliver Schilke, *Blockchain Governance—A New Way of Organizing Collaborations?*, October 9, 2020, https://doi.org/10.1287/orsc.2020.1379, accessed March 10, 2023.
[399] Fabrice Lumineau et al., *op. cit.*
[400] *Ibid.*

have amplified that dynamic in the last fifteen years, and web3 is feeding a new wave of more fundamental decentralization.

*

In the first chapter, we have demonstrated that direct democracy increases legitimacy. We have linked legitimacy to trust, in line with the Lockean and Hobbesian traditions, and shown that our contemporary democracies are facing an issue of declining trust, both in the intersubjective and institutional sense of the term. We have then evidenced how participation, which corresponds to an anthropological human desire, can revitalize trust and legitimacy. We have finally analyzed that the claim for participation is the claim for both deliberating and voting. Deliberation without taking part in the vote does not suffice while voting without deliberating does not bridge the legitimacy gap. Sociology shows that the claim for increased political participation and horizontalization is embedded in a larger movement within our societies: shareholder activism, new horizontal management, web3. It is valid to think that we are and remain political animals, nurtured by common life and thus capable of trust in our democracy, perhaps even more so today than twenty years ago. It is indeed a central point in the argument of the current dissertation: the desire for participation in deliberation and decision is rooted in all individuals as citizens, so much so that we make it a token of trust in political institutions and, therefore, of their legitimacy. We do not wish to withdraw from the political field but rather to reinvest it in essential issues. If we increasingly desert the current system, it is because we do not consider it trustworthy. We take refuge in protest voting while getting more engaged in other modes of political action.

Jan Pakulski opposed in 1992, in an article entitled *Trust and Legitimacy*, "legitimacy without trust", which he identified with "bureaucratized corporatist systems", and "trust without legitimacy", which he linked to new social movements[401]. We can use the same duality to characterize representative democracy as "legitimacy without trust" in the context of increasing distrust and polarization and the desire for increased participation as "trust without legitimacy" in relation to the sociological claim for a

[401] Jan Pakulski, *op. cit.*

more horizontal society. Direct democracy, as we have demonstrated, can reunite these two concepts.

1.2. Efficiency as Pluralistic Intelligence

In the previous chapter, we discussed the question of direct democracy from the angle of legitimacy. Yet, as we have analyzed in the introduction, legitimacy cannot be the only angle in assessing the democratic aspect of a regime, and an efficiency test is equally important. Equal participation is not sufficient. Direct democracy should also be challenged in its ability to deliver efficient results from an equality-driven perspective. This raises the question of an "epistemology" of democracy, and in particular of direct democracy. Is direct democracy able to deliver more informed and adequate public policies than representative democracy or experts? Tenants of pure procedural democracy explicitly decline the epistemological approach. John Rawls, for example, states that "the aim of justice as fairness as a political conception is practical, not metaphysical or epistemological"[402]. The position of the current dissertation is that direct democracy should *also* be proved on the grounds of its epistemological capacity, delivering equality efficiently.

The task is all the more important since critics of direct democracy target the efficiency/instrumental argument to disregard it. With every expansion of the electorate, voices have claimed that the world is too complex to allow new voters to express their opinions.

That was already the case during the debate on universal suffrage in France in 1848 and 1850, which we mentioned at the beginning of the above chapter on legitimacy. Even Lamartine, who adamantly supported universal suffrage in 1848 and opposed the Burgraves law in 1850, eventually proposed to add an instruction requirement to it:

"A certain general instruction, the obligation to know how to read and write, the requiring of the voter to write his own vote, are among the number of those moral guarantees which the future law may prescribe. This cannot be done now, because instruction has not yet been declared gratuitous and obligatory, and because it would cause a retroactive exclusion to the

[402] John Rawls, *Justice as Fairness: Political not Metaphysical*, Philosophy and Public Affairs, 1985, Vol. 14, No. 3, p. 230.

mass of the people, who have not received what would be demanded; but in a few years the republican society would have a right to require this guarantee. Elementary instruction is the spiritual enrolment of the citizen. To know how to read and write is to know how to comprehend. Light is an essential condition of morality; intelligence is the *security* of the sovereign voter."[403]

In his view, the law has the right to exclude those who "exercise an infamous profession" or the "beggar by voluntary and habitual idleness" from universal suffrage. He concludes that "universal suffrage is not the suffrage of the firstcomers; it is the suffrage of the citizens".

The epistemic position of Lamartine strangely echoes that of the conservatives. In 1847, Guizot stated to the Chamber of Deputies that "the principle of universal suffrage is so inherently absurd that not even its proponents dare to present and defend it to the end."[404]. The reasons behind Guizot's rejection of universal suffrage are twofold[405]. The first, linked to legitimacy, is the fear of anarchy - we saw that Lamartine adamantly responded to it by stating that, on the contrary, universal suffrage guarantees authority. The second, though, is very close to Lamartine's position. Guizot concurs with Lamartine in saying that universal suffrage would be acceptable, and even desirable, within a fully educated population. He could accept it as a goal but not as a present necessity. As Guizot advocated in 1837 that the task of government was to extend "political light [and] intelligence of political questions in such a way that, at the same moment when it limits political rights, it is dedicated to move further that limit, extend and push it aside, and elevate it to the entire nation[406]."

The same line of reasoning can be found on the conservative side during the 1850 debate. Adolphe Thiers drew a parallel between the restriction of universal suffrage and the exclusion of women and those under twenty-one:

---

[403] Alphonse de Lamartine, *The Past, the Present and the Future of the Republic,* transl. unknown, 1850, Harpers, New York, p. 152.
[404] March 26, 1847, debate in the Chamber of Deputies on the proposal to reform the electoral code submitted by Deputy Duvergnier de Hauranne, my translation.
[405] Pierre Rosanvallon, *Guizot et la question du suffrage universel au XIXe siècle [Guizot and the question of universal suffrage in the 19th century]*, 1987, Actes du Colloque François Guizot, Association François Guizot, https://www.guizot.com/wp-content/uploads/1970/04/col87-Rosanvallon-2.pdf, accessed July 27, 2024.
[406] François Guizot, *Histoire parlementaire de la France, recueil complet des discours prononcés dans les Chambres de 1819 à 1848 [Parliamentary History of France, complete collection of speeches in front of the Houses between 1819 and 1848],* 1863-64, Vol. 5, p. 380, in Pierre Rosanvallon, *op. cit.*, p. 141.

"It is these men [those unable to prove three years of fixed residence] who form [...] the dangerous part of the cities; these men deserve this title, one of the most tainted in history, understand, the title of multitude. [...] You say that we are not in the spirit of the [1848] Constitution because it mentioned the word universal. It's a sad pun, permit me to tell you. (Rumblings on the left.) What does the word universal mean? [...] If everyone must vote, I ask why the Constitution only allows 9 million individuals to vote. [...] You'll tell me: "It's quite simple to first exclude women." Agreed. Why do you exclude them? (Laughter and noise.) You exclude them because you do not suppose they have knowledge of the country's interests [...] and 18 million women are cut out. Are there 18 million who vote? No; there are 9 million still excluded, due to youth's weakness, because you suppose they likewise lack knowledge of the country's interests (Muted noise again noted on the left)."[407]

Guizot and Thiers's position captures the zeitgeist of their time against universal suffrage, which refers to efficiency rather than legitimacy and underlines average citizens' limited intelligence or knowledge. That approach was systematized some years later by John Stuart Mill in his *Considerations on Representative Government*, in particular in chapter 8 on the extension of suffrage where he advocates for "plural voting[408]: "It is not useful, but hurtful, that the constitution of the country should declare ignorance to be entitled to as much political power as knowledge[409]". Although Mill reckons that such a proposal bears more theoretical than practical value, he details it as far as considering that graduates of universities, liberal professions, and citizens who have exerted a superior function should be admitted to a "plurality of votes".

A century and a half later, the same criticisms are being addressed to direct democracy. Any decisions taken by the "multitude" (in Hobbesian terms) will fail to deliver proper results in terms of equality as they will be based on wrong analyses and potentially subject to constant changes. As mentioned above, it seems safer for many scholars to transfer political decisions to political experts, whether elected politicians or technical experts.

To counter these arguments, we will analyze why political expertise ("the few") is a void concept (1.2.1) and why, on the contrary, the vote of "the many" can deliver more

[407] Speech delivered at the Legislative National Assembly on May 24, 1850, during the discussion on the electoral law project (voted on May 31, 1850), my translation.
[408] John Stuart Mill, *Considerations on Representative Government,* 2001 [1861], Batoche Books, Kitchener (Ontario), p. 112.
[409] *Ibid.*, p. 114.

expertise based on pluralistic intelligence (1.2.2). Doing so will identify two levels of epistemic value of citizens' expertise. The "minimal" value is established if it cannot be proven that experts/representatives are systematically more competent than citizens to decide on public affairs. The "maximal" epistemic value should prove that citizens are generally more competent (theoretically or statistically)[410]. We do not distinguish between experts and representatives in the current dissertation despite the important differences between these two categories (experts are not elected, and representatives are not requested to justify any expertise). In the first approximation, both are supposed to produce judgments of superior epistemological value compared to average citizens, a point that we will challenge both minimally and maximally. I follow here Castoriadis' position that representative democracy does not only differ from direct democracy because of its indirect decision-making process but also because it pitches the experts against the people and the State against the community[411].

1.2.1. Dismissing Political Expertise

The first question refers to the epistemological discussion on who should be enrolled in the political decision. For many thinkers, the decision should be left to "competent" representatives enlightened by experts. Against Pericles, who argued that "ordinary citizens, though occupied with the pursuits of industry, are still fair judges of public matters[412]", Plato noted that "people say that Pericles made the Athenians lazy and cowardly and garrulous and greedy[413]". During the French Revolution, Sieyès favored a division of labor between voters and their educated representatives and argued that France "could not be a Democracy[414]". As Bernard Manin commented, for Sieyès, "citizens no longer enjoy the leisure to attend constantly to public affairs and must therefore use the election to entrust the government to people who can devote their time to the task." Sieyès considered that, in a large country, only two systems were

[410] This definition is therefore different from the one proposed by Landemore, who by "minimal" refers to a system of public decision-making being better than random choice and "maximal" for it to be better than any given other (see Hélène Landemore, *Democratic Reason - Politics, Collective Intelligence, and the Rule of the Many*, 2012, Princeton University Press, New Jersey., p. 10).
[411] Cornelius Castoriadis, *The Greek Polis and the Creation of Democracy*, 1983, New School of New York, Graduate Faculty Philosophy Journal, Vol. 9, n°2.
[412] Thucydides, *Funeral Oration by Pericles*, in *The Peloponnesian War*, transl. R. Crawley, Book I, Ch. VI, Vancouver Island University, Vancouver, https://web.viu.ca/johnstoi/thucydides/thucydides_2.htm, accessed November 20, 2020.
[413] Plato, *Gorgias*, transl. W. Hamilton, ed. C. Emlyn-Jones, 2004, Penguin Classics, London, 515e.
[414] Abbé Sieyès, address to the National Assembly, September 7, 1789.

possible: electing representatives (indirect democracy) or gathering "partial meetings in the various localities" (direct democracy). To him, only the former could result in "one general will"[415]. Guilhaumou recalls that, for Sieyès, priority should be given to the "unity of action", in opposition to the "common discussion" favored by Condorcet[416].

That position raises the question of the epistemological value of expertise. Two questions arise: Do non-experts' judgments have epistemic value in the political debate? Should experts' voices be counted more compared to non-experts? Our conclusion will be affirmative in the first case and negative in the second, leading to a strong non-exclusion principle. To analyze these two questions, we will relate to two important debates since the end of the eighteenth century: Thomas Jefferson vs. Alexander Hamilton (political) and John Dewey vs. Arthur Lippman (philosophical).

Jefferson vs. Hamilton: the "good sense" of "common people"[417]

To grasp the origins of the epistemological reasons for our non-exclusion principle, it is helpful to return to the beginnings of American democracy and the debate between two Founding Fathers in the early 19th century: Alexander Hamilton and Thomas Jefferson[418].

The fundamental line of division between Jefferson and Hamilton did not primarily refer to the question of citizens' knowledge and expertise but to the extent of power that should be transferred to the federal government. Hamilton advocated for a strong central government (he was the instigator of the American Federal Reserve), while Jefferson championed the power of the States. Yet, behind these administrative approaches were two fundamentally opposing visions of democracy. For Hamilton, the

---

[415] Sieyès, *Bases de l'ordre social [Basis of social order],* quoted by Bernard Manin in Hélène Landemore, *Is representative democracy really democratic? Interview with Bernard Manin and Nadia Urbinati*, *op. cit.*

[416] Jacques Guihaumou, *Condorcet – Sieyès : une amitié intellectuelle [Condorcet – Sieyès: an Intellectual Friendship]*, in *Condorcet, homme des Lumières et de la Révolution [Condorcet, a Man of Englightment and the French Revolution]*, ed. A.-M. Chouillet and P. Crépel, 2023, ENS éditions, Lyon, p. 223.

[417] This chapter is based on Gilles Mentré, *Démocratie, op. cit.*.

[418] Anil Nair and David Ahlstrom, *Balancing Hamiltonian and Jeffersonian Contradictions Within Organizations*, 2008, Sage Publications, Newbury Park (CA) et Colleen A. Sheehan, *Madison vs. Hamilton: The Battle over Republicanism and the Role of Public Opinion*, 2004, American Political Science Review, Vol. 98, n°3.

people were "turbulent" and democracy "reckless", thus necessitating control over both:

"Every community divides into the few and the many. The first are the rich and well-born, the others the mass of the people. It has been said that the voice of the people is the voice of God; and although this maxim has been widely quoted and generally adhered to, it is not true in fact. The people are turbulent and changing; they seldom judge or determine correctly. Give therefore to the first class a distinct, permanent share in the government. They will check the instability of the second class, and as they cannot possibly have any advantage by change, they will maintain good government. […] Can a democratic assembly, which renews itself annually by the mass of the people, be supposed continually to pursue the public good? Only a permanent body can monitor the imprudences of democracy. The uncontrolled and turbulent disposition [of the people] demands oversight."[419]

The *vox populi vox Dei* formula that Hamilton targets is, of course, Machiavelli's: "It is not without reason that the voice of the people is considered the voice of God. Public opinion presages events in such a marvelous way, it seems the people have a gift for foreseeing both good and evil[420]". Machiavelli's vision was that citizens should have "direct access to policy making[421]", as stated by James P. McCormick in his book *Machiavellian Democracy*. There is an academic debate on Machiavelli's continuity or break from traditional republican thinking, as embodied by Cicero (see Quentin Skinner[422] and James P. MacCormick[423]). Nevertheless, some reforms proposed by Machiavelli, such as the reinstatement of Rome's tribunes in the form of randomly selected *proposti* (provosts) with legislative, veto, and prosecution powers[424], go in the sense of greater popular control of the elites.

It is precisely what Hamilton and James Madison fought against (as did Machiavelli's friend and contender Guicciardini)[425]. They advocated for the intervention of a "select body of citizens" to prevent the people from harming themselves. "The few" were

[419] Alexander Hamilon, *in* H. C. Syrett (Ed.), *The Papers of Alexander Hamilton (Vol. 4)*, 1962, Columbia University Press, New York, p. 200.
[420] *Discours contre Tite-Live*, chapitre LVIII, in *Œuvres complètes*, vol. 1, Ed. J.A.C. Buchon, trad. Giraudet, 1842, Société du Panthéon, Paris, p. 490.
[421] James P. McCormick, *Machiavellian Democracy*, 2011, Cambridge University Press, Cambridge (U.K.), p. 165.
[422] Quentin Skinner, *Machiavelli's Political Morality*, 1998, Cambridge University Press, Cambridge (U.K.), pp. *ix-x*.
[423] James P. McCormick, *op. cit.,* p. 8.
[424] *Ibid.,* p. 8.
[425] *Ibid.*

necessary to protect "the many" against themselves (against Machiavelli's warning: "the few always behave in the manners of the few"[426]). Hamilton, therefore, favored indirect elections to select the most capable elector. To him, the supposed unequal distribution of qualities provides a rationale for the indirect election of the president since a "small number of persons, selected by their fellow citizens from the general mass, will be most likely to possess the information and discernment requisite to such complicated investigations[427]." The same line of reasoning leads him as well to defend indirect democracy:

"In the Senate, the necessary moderation is ensured by the composition of a select body of citizens, whose wisdom may best discern the true interest of their country, and whose patriotism and love of justice will be least likely to sacrifice it to temporary or partial considerations. By thus connecting the senatorial body with the pre-existing institutions and securing the benefit of experience, it provides that the cooling and deliberate sense of the community may prevail over the impulse of sudden and violent passions."[428]

Thomas Jefferson's vision was different. He firmly believed that "on the good sense [of the common people] we may rely with the most security for the preservation of a due degree of liberty[429]", therefore highlighting the critical importance of general education. Jefferson did not conclude that direct democracy was necessary for the "good sense" to materialize. His reasons were based on practicality rather than legitimacy or efficiency concerns. He was nevertheless convinced that the people should be able to control their representatives: "Governments are more or less republican as they have more or less of the element of popular election and control in their composition[430]." Moreover, representation should not lead to centralizing power in the hands of an elite but should instead allow it to be gradually distributed from the federal level to the State level, then to counties, municipalities, and down to individual

[426] Nicola Machiavelli, *Discorsi sopra la prima deca de Tito Livio [Discourses on Titus Livy's First Ten Books]*, I, 7, 1997, Einaudi-Gallimard, Torino, quoted and transl. by James P. McCormick, *op. cit.*, p. 1.
[427] Alexander Hamilton, Federalist No. 68, 1788, https://ballotpedia.org/Federalist_No._68_by_Alexander_Hamilton_, accessed July 2, 2021.
[428] Alexander Hamilton, James Madison, Federalist n. 63, 1788, https://ballotpedia.org/Federalist_No._63_by_James_Madison_or_Alexander_Hamilton_, accessed July 1, 2021.
[429] Thomas Jefferson, *Letter to James Madison,* December 20, 1787, Papers 12:442, in *The Papers of Thomas Jefferson*. Ed. J. P. Boyd et al., 1950, Princeton University Press, Princeton, chapter 18, document 21.
[430] Thomas Jefferson, *Letter to Pierre Samuel Dupont de Nemours*, April 24, 1816, in *The Papers of Thomas Jefferson*, Retirement Series, vol. 9, ed. J. Jefferson Looney, 2012, Princeton University Press, Princeton, pp. 699–702.

farms. “It is not by consolidation, or concentration of powers, but by their distribution, that good government is effective[431]”.

Jefferson had in mind the adaptation of the model of the early agricultural communities of New England to a larger state. In his 1816 letter to Kercheval, he advocated for a division of the United States into “wards”, which would be “pure and elementary republics”, where everyone would know everyone and would be a “true democracy” as for the “nearest and daily concern”[432]. In another letter to Cabell, he asserts that “every man is a sharer in the direction his ward-republic [...] and feels that he is that he is a participator in the government of affairs, not merely at an election one day in the year, but every day[433]”. The functioning of the ward democracy would be direct, as “the mayor of every ward, on a question [...], would call his ward together, take the simple yea or nay of its members, convey it to the county court, who would hand on those of all its wards to the proper general authority; and the voice of the whole people would be thus fairly, fully and peacefully expressed, discussed, and decided by the common reason of the society[434]”.

In that sense, Jefferson was close to another Founding Father, James Wilson, who inspired him to write the Declaration of Independence in the “We” form and advocated for people’s sovereignty and citizen participation. As Garry Wills writes, “Wilson, unlike Madison, thought the intermediation of representatives was a regrettable (but necessary) departure from the ideal of direct democracy[435]”.

Jefferson's approach was influenced by religious beliefs, as indicated by the creed from the Declaration of Independence engraved on his memorial in Washington D. C.: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with inalienable rights, among these are life, liberty, and the pursuit of happiness”. Yet the memorial also houses another quote from Jefferson: “I am not an advocate for frequent changes in laws and constitutions, but laws and

[431] Thomas Jefferson, *Autobiography*, https://avalon.law.yale.edu/19th_century/jeffauto.asp, accessed March 20, 2021.
[432] Thomas Jefferson, *Letter to Samuel Kercheval*, September 5, 1816, in *Policital Writings*, J. Appleby and T. Ball (eds.), 1999, Cambridge University Press, Cambridge (MA), p. 219.
[433] Thomas Jefferson, *Letter to Joseph C. Cabell,* February 2, 1816, *ibid.*, p. 205.
[434] Thomas Jefferson, *Letter to Samuel Kercheval*, July 12, 1816, *ibid.*, p. 216, emphasis mine.
[435] Garry Wills, *James Wilson’s New Meaning for Sovereignty*, in T. Ball and J.G.A. Pocock (eds.), *Conceptual Change and the Constitution*, 1988, University Press of Kansas, Lawrence (KA).

institutions must go hand in hand with the progress of the human mind". Jefferson's stance on equality resulted from his own observations and was rooted in epistemological research. Contrary to Hamilton, and aligned with Aristotle, he believed that democracy, by giving everyone an equal voice in public affairs, was instead the most prudent.

Jefferson's position gives us a clear direction: the "good sense" of the "common people", at the core of the "common reason of society", has its own epistemological value, and therefore every citizen's judgment should be included in the discussion. Yet his position lacks concrete analysis of the underlying reasons for such a statement. As Dewey wrote: "His idealism was a moral idealism, not a dreamy utopia[436]". On the one hand, it implies that as a pragmatist and empiricist, Jefferson relied on his observations. On the other hand, it also points to the fact that as an "idealist", he did not feel compelled to justify his beliefs.

Dewey vs. Lippman: experts as a class

Jefferson's thoughts profoundly influenced John Dewey. Besides the numerous references to Jefferson in his work, he even presided over the publication of Jefferson's complete works[437]. In doing so, he encountered an explicit successor to Hamilton: Walter Lippmann. Together, they led the "Lippmann-Dewey Debate[438]", a philosophical reformulation of the political discussion between Jefferson and Hamilton. Amid the Great Depression that followed the crash of 1929 and with the rise of young regimes in Europe, both men pondered the best way to restore democracy. John Dewey advocated for a "creative democracy[439]", where the greatest number would be encouraged to express themselves within a democracy practiced as an experiment. In contrast, Walter Lippmann believed only in the capacity of experts. Like Hamilton, Guizot, Thiers, or Lamartine, he starts from the principle that the ordinary man is incapable of grasping the full complexity of the contemporary world:

---

[436] John Dewey, *The Living Thoughts of Thomas Jefferson*, 1940, Fawcett, New York, p. 28.
[437] *The Living Thoughts of Thomas Jefferson*, ed. J. Dewey, 1957 [1940], Fawcett Publications, New York.
[438] Barbara Stiegler, *« Il faut s'adapter » - Sur un nouvel impératif politique [« We need to adapt » - On a New Political Imperative*, 2019, Gallimard, Paris. The developments in this chapter on the Lippmann-Dewey debate draw on her analyses.
[439] John Dewey, *Creative Democracy*, in *John Dewey and the Promise of America*, 1939, Progressive Education Booklet n°14, American Education Press, Colombus.

"Not only was it inconceivable to [Lippmann] that the average voter was capable of governance – such being the untenable myth of what Lippmann called 'the sovereign and omnicompetent citizen' – but it now seemed to him that there was really no such thing as a public" [440].

Lippmann extends his analysis further. If public opinion and leaders are unable to understand the world, it is because they see reality through "stereotypes", a term that Lippmann was the first to coin[441]:

"For the most part we do not first see, and then define, we define first and then see. In the great blooming, buzzing confusion of the outer world we pick out what our culture has already defined for us, and we tend to perceive that which we have picked out in the form stereotyped for us by our culture."[442]

We need these fixed images to act, which requires "economizing our attention": "Life is too short for one to pursue omniscience, to count, in a state of nervous excitement, all the leaves of the same tree[443]". They are also a "defense of our positions in society", which explains why any disturbance of our stereotypes feels like "an attack upon the foundations of the universe"[444]. It follows that these stereotypes do not automatically correspond to the external world. Therefore, experts must enable such intelligibility. The term "expert" is not here to be understood from a technical or scientific point of view but rather as referring to an "insider" regarding a "*particular* affair or circumstances[445]". Lippmann presents a second argument. The ordinary man cannot decide on matters of general interest because he is, by nature, in a conflict of interest: each of us is primarily "a farmer", "an industrialist", "an employer or employee", "a creditor or debtor". None of us "tries to grasp society as a whole[446]".

In a system characterized by such an uneven distribution of knowledge, there is no room for increased participation and more frequent popular vote. On the contrary, "the practice of appealing to the public on all sorts of intricate matters means almost always

---

[440] Wilfred M. McCay, introduction to Walter Lippmann*, The Phantom Public,* 1993 [1925], Transaction Publishers, Londres, p. xxvi.
[441] Michaël Oustinoff, *Les avatars du stéréotype depuis Walter Lippmann [Avatars of stereotype since Walter Lippmann]*, 2019, Hermès – La revue, n°83, pp. 48-53.
[442] Walter Lippmann, *Public Opinion*, 1922, Harcourt, Brace and Company, New York, p. 142.
[443] Walter Lippmann*, The Phantom Public*, *op. cit.*, p. 22.
[444] Walter Lippmann, *Public Opinion*, *op. cit.* p. 63.
[445] Walter Lippmann, *The Phantom Pubic*, *op. cit.* p. xxvi.
[446] *Ibid.*, p. 35.

a desire to escape criticism from those who know by enlisting a large majority which has had no chance to know[447]". Far from collective intelligence, Lippmann, therefore, favors the concept of "organized intelligence", where trained experts analyze and interpret information to guide public policy. The average citizen is not included in the organization as they pursue not only their rational interests but also their desires and vices, and it is the role of the politician to be able to offer substitutes. For that, they will need experts, not only in technical matters themselves but also in social sciences, psychology, and sociology[448]. Society requires the political leader to have no other expertise than to be an expert in choosing experts, whose primary skill will be the "manufacture of consent[449]".

The merit of Lippmann is to push the concept of expert to its limit. Rather than the Platonic philosopher-king, Lippmann's expert is an insider limited to a practical situation or an electoral expert. For him, there cannot be any specialist in the universal.

Paradoxically, Dewey reaches the same conclusion from an opposite angle, with totally different implications. For Dewey, there is no individual intelligence and knowledge that preexists in public debate: "If we see that knowing is not the act of an outside spectator but of a participator inside the natural and social scene, then the true object of knowledge resides in the consequences of directed action." Dewey combined theory and practice and applied these radical ideas to the field of art. He advised the art collector Albert Barnes, who opened in Philadelphia the first museum where paintings are presented without labels or chronology, offering each "viewer" the "experience that permits him to participate[450]" without any required expertise.

Experts (in art as in politics) constitute merely a class with private interests, which disqualifies them from a double point of view. Firstly, because private interests have no place as such in public decisions, almost by definition. With that assertion, Dewey extends to experts Lippman's remark on average citizens' supposed conflict of interest. As Dewey fiercely notes, "it is not without significance that etymologically 'private' is defined in opposition to 'official', a private person being one deprived of public

[447] Walter Lippmann, *Public Opinion*, *op. cit.*, p. 252.
[448] *Ibid.*, p. 227.
[449] *Ibid.,* p. 158.
[450] John Dewey, *Art as an Experience*, 1980 [1934], I Books, New York, p. 85.

position[451]". Secondly, experts possess "private knowledge, which in social matters is no knowledge at all[452]". By separating themselves from the masses, experts have separated themselves from public knowledge. Indeed, "in the absence of an articulated voice of the masses, the best can no longer remain the best, the wise cease to be wise". The idea that experts are neutral is "undemocratic"[453], as Michael Sandel demonstrated. He comments, targeting economic and financial experts:

"Markets are not neutral instruments. As you well know, efficiency considerations, cost benefit analysis, these are not neutral ways of deciding contested questions of justice or the common good. [...] They simply enable them to be decided [...] at a distance from public view, superintendent largely by the wealthy and the powerful and the well-connected."[454]

Lippmann's argument turns against itself. If the masses were not intelligent enough to understand the issues, then they would not be equipped to validate experts' analyses either. It is precisely why Jason Brennan is against any type of democracy, representative or not[455]. He quotes Ilya Somin, author of *Democracy and Political Ignorance*, who contends that "the sheer depth of most individual voters' ignorance is shocking to many observers not familiar with the research"[456]. Brennan's views are not only that "the people know nothing", but that "the people know less than nothing"[457]. To him, most voters do not know what the representatives they elect stand for, let alone who these candidates are, do not base their judgment on accurate data (a minority only can estimate correctly key indicators such as unemployment or crime rate), and do not engage in retrospective voting. To impose their views, experts, therefore, cannot merely monopolize knowledge but must also monopolize power. Giving experts a privileged voice is, therefore, anti-democratic.

---

[451] John Dewey, *The Public and Its Problems – An Essay in Political Inquiry*, 2012 (1927), Penn States Press, Philadelphia, p. 48.
[452] *Ibid.*, p. 154.
[453] Michael J. Sandel, interview with Nick Hanauer, *The Tyranny of Merit (with Michael Sandel),* Pitchfork Economics, September 26, 2023, https://pitchforkeconomics.com/episode/the-tyranny-of-merit-with-michael-sandel/, accessed September 5, 2024.
[454] *Ibid.*
[455] Jason Brennan, *Against Democracy*, 2016, Princeton University Press, Princeton.
[456] Ilya Somin, *Democracy and Political Ignorance*, 2013, Stanford University Press, Stanford, p. 17, quoted by Jason Brennan in *Debating Democracy*, op. cit., p. 21.
[457] Jason Brennan, Hélène Landemore, *Debating Democracy,* 2021, Oxford University Press, Oxford, p. 24.

It does not mean that the voice of experts is just one among other voices. On the one hand, if there is no general expertise about public questions, expertise on specific subjects obviously matters. On the other hand, a division of labor as envisioned by Sieyès, Hamilton or Milanovic is necessary to a certain extent. As Landemore sums up: "the recognition that a category of individuals labeled as 'experts' can legitimately speak for the people is not necessarily incompatible with the view that ultimately people know best and remain the underlying source of normative authority, not just on fairness grounds, but also on epistemic grounds[458]". In section 3, we will analyze how these two forms of expertise can be articulated pragmatically, particularly in the form of citizens' juries or citizens' assemblies.

The minimal epistemic value of citizens' knowledge

Experts' residual role does not invalidate the fact that citizens "know best" through "creative intelligence", as proposed by Dewey. For such intelligence to form, a "social inquiry" is necessary, which means "the social sharing of knowledge and its collective testing[459]". It requires conducting the inquiry continuously, openly, and broadly. Under these conditions, any proposition gains the status of "warranted assertability", a concept proposed by Dewey to designate those assertions warranted by the continuous and self-amending process of the public inquiry[460]. The contenders of increased citizen participation leave aside the dynamic aspect of citizenship. It is the very act of participating in social inquiry that allows individual intelligence to manifest. The question, therefore, is not whether a particular individual has the necessary knowledge to engage in a debate. In any case, Dewey's epistemology values the "knowing" (dynamic) over the "knowledge" (static). The causality is, therefore, reversed: it is the lack of participation in debate that diminishes one's civic competence. Stigmatizing certain voters as less expert is a sure way to entrench their views further. It is through engaging in debate, discussion, deliberation, proposing ideas, and voting that one forms convictions. Participation in decision-making leads everyone to articulate their interests and needs, placing them within a broader debate. As Dewey reckoned: "Democracy will come into its own, for democracy is a name for a

[458] Hélène Landemore, *op. cit.*, p. 16.
[459] Barbara Stiegler, *op. cit.*, p. 95.
[460] Deron R. Boyles, *Dewey's Epistemology: An Argument for Warranted Assertions, Knowing, and Meaningful Classroom Practice*, 2006, Educational Policy Studies Faculty Publications, issue 7.

life of free and enriching communion. It had its seer in Walt Whitman. It will have its consummation when free social inquiry is indissolubly weeded to the art of full and moving communication[461]". Only through social communication and free inquiry can the Public come into existence and the Great Society become a Great Community[462].

Collective intelligence eventually relies on voting to actualize itself: on the one hand, we need all viewpoints to assemble a complete vision of society; on the other hand, only voting allows these individual viewpoints to truly form. Politics practiced at the citizen level (*politeuein)* is educational. As Michael Sandel underlines:

"We can now see more clearly why, for Aristotle, politics is not one calling among others, but is essential to the good life. First, the laws of the polis inculcate good habits, form good character, and set us on the way to civic virtue. Second, the life of the citizen enables us to exercise capacities for deliberation and practical wisdom that would otherwise lie dormant. This is not the kind of thing we can do at home. We can sit on the sidelines and wonder what policies we would favor if we had to decide. But this is not the same as sharing in significant action and bearing responsibility for the fate of the community as a whole. We become good at deliberating only by entering the arena, weighing the alternatives, arguing our case, ruling and being ruled — in short, by being citizens."[463]

Castoriadis has further reformulated the idea that any expertise in politics is void in his analysis of the Greek *polis*[464]. Experts can be auditioned about any public policy, as was the case in front of the Athenian *Ecclesia*. However, there are no experts in the field of politics because of "the emptiness of the notion of a specialization in the universal"[465]. Citizens do not vote on the Earth's flatness or on weather forecasts but on political and moral issues. As he further develops:

"If a full and certain knowledge (epistémé) of the human domain were possible, politics would immediately come to an end, and democracy would be both impossible and absurd: democracy

[461] John Dewey, *The Public and its Problems*, *op. cit.*, p. 141.
[462] Michael J. Sandel, *Dewey's Liberalism and Ours,*1996, New York Review of Books, in Michael J. Sandel, *Public Philosophy – Essays on Morality and Politics*, 2005, Harvard University Press, Cambridge (MA), pp. 183-196.
[463] Michael Sandel*, op. cit.*, p. 120, emphasis mine.
[464] Cornelius Castoriadis, *The Greek Polis and the Creation of Democracy*, *op. cit*.
[465] An idea that Castoriadis formulated in almost the same terms in one of his Paris seminaries of the same year: "The idea that there are specialists of the universal is empty as such" (in Cornelius Castoriadis, *La cité et les lois – Ce qui fait la Grèce [The city and the laws – what makes Greece], tome II, Séminaires 1983-1984, La création humaine III,* 2008, Seuil, Paris, p. 96.

implies that all citizens have the possibility of attaining a correct doxa and that nobody possesses an epistémé of things political."[466]

Castoriadis' position leads him to criticize "bureaucracy." Enhancing that the concept of " State" would have been inconceivable for a Greek, for whom "the polis is the men" (Castoriadis underlines that Greek democracy was nevertheless excluding women, enslaved people and foreigners from its elective body), he recalls that enslaved people held the administrative-technical functions of the Greek cities. He ironically concludes: "Donald Regan and Paul Volker would have been slaves in Athens [467]". In general, any attempt to deliver a public policy based on the sole rationality of a few, even more of a single person, is inevitably wrong. Being wise alone (or *monos phronein*, as Creon's son accuses his father in *Antigone*) is anti-democratic. The denunciation of the *monos phronein* (etymologically: solitarian practical wisdom) is, therefore, "the fundamental maxim of democratic politics".

The same vision is supported by Robert Dahl, who contends that "because the knowledge of policy elites is specialized, their expert knowledge ordinarily provides too narrow a base for the instrumental judgments that an intelligent policy requires"[468]. Therefore, citizens' judgment should not only, or not even primarily, prevail on moral (legitimacy) grounds since experts' specialization "may itself impair their capacity for moral judgment"[469]. Dahl adds a "may" to his assessment of experts' moral judgment while the instrumental/epistemic superiority of citizens is not subject, for him, to such a reserve. Yet, the "maximal" epistemic value of citizens is conditioned to a proper level of information and participation, conditions that Dahl recognizes as rarely met (hence the proposition of a "mini-populus" that we will discuss in section 3).

The theoretical evidence of citizens' minimal competency is backed by empirical research. Cuttler and Mendelsohn have shown that voters' information level, even for the most poorly informed citizens, generally increases during a referendum campaign[470]. That study is all the more interesting as it focuses on Canada, a country that seldomly resort to referendums and where direct democracy can be more

[466] Ibid., p. 96.
[467] *Ibid.,* p. 101.
[468] Robert Dahl, *op. cit.*, p. 337.
[469] *Ibid.*, emphasis mine.
[470] Matthew Mendelsohn and Fred Cutler, *The Effect of Referendums on Democratic Citizens: Information, Politicization, Efficacy and Tolerance*, 2000, British Journal of Political Science, London.

immediately surveyed than countries like Switzerland or the United States, where direct democracy is more regular. Lupia and Matsusaka have demonstrated that, although Somin and Brennan, among others, are right about saying that average voters have limited interest in politics and know little about what they vote for, they can find cognitive "shortcuts" and "clues" to infer information on what to vote for from third parties (political parties, activist groups, communities, etc.[471]). Lupia earlier coined such trade-offs as "shortcuts against encyclopedias"[472], as he entitled his 1994 research study on a Californian initiative vote on insurance reform. The 1994 vote proposed three initiatives, two of which were promoted by the insurance industry and one by lawyers and consumer groups. Lupia divided a group of voters in three categories: the "model" citizens who knew both who were the initiators of each initiative and could answer specific questions about the insurance industry; the second group who could answer neither of these questions; and a third group of citizens that could not answer the specific questions but knew who promoted each initiative. Interestingly, the third group voted in a very similar way to the first group, proving that adequately identifying the initiators was a sufficient clue for uninformed voters.

It lays down a definitive counterargument to J. S. Mill's plural vote. Mill, too, grasped the dynamic aspect of knowledge. To him, it was precisely why the uneducated should not be given the same voting right as the educated: "The position which gives the strongest stimulus to the growth of intelligence is that of rising into power, not that of having achieved it[473]." The prospect of being admitted into the plurality of votes would motivate for acquiring knowledge. However, leaving apart the critical question of which criteria to apply, such reasoning supposes that an individual can build a knowledge of common affairs before participating in them through Dewey's social inquiry. Aristotle stated that the city comes first. As Sandel contends, if political knowledge could be learned at school, then high positions should be granted through exams, not voting[474].

[471] Arthur Lupia and John G. Matsusaka*, Direct Democracy: New Approaches to Old Questions*, 2004, Annual Review Political Science, University of Southern California, Los Angeles.
[472] Arthur Lupia, *Shortcuts versus encyclopedias: information and voting behavior in California insurance reform elections*, 1994, American Political Science Review, n° 88, pp. 63–76.
[473] John Stuart Mill, *op. cit.*, p. 115.
[474] Michael J. Sandel, *The Tyranny of Merit – What's Become of the Common Good*, 2020, Allen Lane, New York.

We can thus formulate a "minimal" epistemic value of citizens compared to experts. Citizens are minimally as competent as experts because (i) they display a different type of expertise (Jefferson, Dewey), (ii) experts are a private group with private knowledge like any other group (Dewey, Dahl), and (iii) in any case there cannot be any general expertise of public affairs (Dewey, Castoriadis).

The fallibility argument

Do we need the minimal competence of citizens to advocate for the participation of the many? Charles Girard develops a further argument, based on neither a maximal nor the minimal value we have identified. We have defined the minimum value of knowledge as a level where it cannot be proven that experts are more competent (i.e., when the maximum value of experts' knowledge cannot be established). That test is relative, as it would justify leaving the decision to experts if they systematically, or even just statistically, make fewer mistakes than citizens do. For Girard, such a test is biased toward expertise. To let experts decide, it should be demonstrated in absolute terms that they could not be mistaken[475]. However, there is no proof that expert opinions are infallible — quite the opposite. Such an approach is inspired by "fallibilist epistemology", as notably constructed by Pierce[476], James[477], and Dewey[478], which Girard defines as follows: "Fallibilism certainly recognizes, against dogmatism, that the possibility of error can never be excluded, yet it also admits, at the same time, unlike skepticism, that opinions do not all have the same value[479]". With a fallibilist approach, it is possible to recognize that experts are statistically more knowledgeable than citizens and still consider that there cannot always be right and, therefore, should not be given greater weight in collective decisions. Historical failures of experts, like the

[475] Charles Girard, *op. cit.* pp. 225-227.
[476] See Charles Sanders Peirce, *Collected Papers,* C. Hartshorne and P. Weiss (eds.), 1932, Harvard University Press, Cambridge (MA), CP 5.569: "there is no reason to suppose that any given scientific hypothesis is perfectly true. On the contrary, we have every reason to think it is, in some measure, false and we are even justified in expecting that in the future all of our theories will be rejected in favor of others closer to the truth".
[477] See William James, *Pragmatism*, Lecture VI, in *Pragmatism: A New Name for Some Old Ways of Thinking*, 1907, Longmans, Green and co., New York, p. 97: "Truth happens to an idea. It becomes true, is made true by events. Its verity is in fact an event, a process: the process namely of its verifying itself, its verification."
[478] See John Dewey, *The Quest for Certainty*, 1929, Minton, Balch and co., New York, p. 27: "all realities are subject to change and are therefore uncertain, and every change brings some degree of risk."
[479] *Ibid.*, p. 225, my translation.

Maginot Line or the Nord Stream pipeline, highlight the fallibility of all political judgments, supporting equal participation in decision-making. Writes Girard:

"Thus, the democrat's answer to the epistocrat should not consist of negating political truths or in stating that the people are always wiser; rather, it should underline the fallibility of the practical judgment. Identifying citizens with a more capable political judgment, which is as difficult as identifying the best political decisions, can never be certain enough to justify that they be advantaged within the decision-making process. Not only does epistocracy contradict political autonomy, but its epistemic justification is insufficient. Opinions need to be treated equally, not because they would have an equal value, but because judgments on their value cannot guarantee an absolute certainty".[480]

Citizens' voices should not be preferred to those of the experts because all have an equal chance of being wrong. It might be the case that experts have a greater chance of being right. However, that chance is not a certitude, as no certitude exists on practical judgment.

The fallabilist argument is critical to justify the claim for increased citizen participation in decision-making fully. If the minimal value of citizens' knowledge is established in relative terms, or if even a maximal value can be attributed to that knowledge (as we will see in the next paragraph), then the efficiency test will not contradict the legitimacy test and the voice of the many should be promoted against the one of the few. However, if experts are proven to be statistically better than citizens, efficiency and legitimacy will conflict. The fallibility argument allows to grant citizens' knowledge a minimal value in absolute terms[481], therefore defining precisely under which circumstances the voice of the many should be preferred to the voice of the few: it should always be the case if there is any possibility that experts can be wrong – which is always the case in terms of practical political judgment. We will analyze in chapter 3.5.1 how this affirmation still holds with the latest technological developments and the rise of A.I.

[480] *Ibid.*, p. 227, my translation.
[481] By minimal value of citizens' knowledge in absolute terms, we here refer to the situation described by Girard where experts cannot prove that they are always right (while in relative terms, it refers to a situation where they cannot prove that they are statistically better).

1.2.2. Recognizing Pluralistic Intelligence

As we have seen, a minimal epistemic value of citizens' knowledge, in relative or absolute terms, is sufficient to justify the need to increase citizen participation in decision-making. Although these arguments already established the efficiency test (or, in case of conflict, the reasons to prioritize the legitimacy test over the efficiency test), we will now consider under which conditions citizens' knowledge can be given maximal value.

For this, we will analyze the concept of collective intelligence. Although collective intelligence is central to John Dewey's approach (Dewey preferred to refer to it as "public collective intelligence" or "cumulative intelligence[482]"). Aristotle was the first to state that "the many, who are not as individuals excellent men, nevertheless can, when they have come together, be better than the few best people, not individually but collectively, just as a feast to which many contribute are better than feasts provided at one person's expense"[483]. It does not make of Aristotle a direct defender of democracy, although he explicitly advocates for it when the level of "quality" of the multitude is high enough: "[w]here the multitude of poor people is superior in the proportion mentioned [to offset their inferior quality], there it is natural for a democracy to exist[484]". In the current chapter, we will concentrate on the modern reformulation of Aristotle's intuition with Condorcet's jury theorem.

Condorcet and the Limits of the Jury Theorem

The first formulation of collective intelligence in modern philosophy is due to Nicolas de Condorcet and his "jury theorem" - although Condorcet never used the words "collective intelligence" himself. The jury theorem was presented in his *Essay* from 1785 and reads as follows:

[482] Dewey concludes his article on "radical democracy" with the term "public collective intelligence" (see *Political Writings*, trans. J.-P. Cometti and J. Zask, 2018, Gallimard, Paris, p. 416). Dewey also speaks of the "cumulative intelligence" of a "multitude of individuals cooperating with each other," as found in *Liberalism and Social Action* (1935), in John Dewey, *The Later Works (1925-1953)*, vol. 5, 2008 [1984], Southern Illinois University Press, Carbondale (IL).
[483] Aristotle, *Politics*, fragment 1281 a41-b2, transl. C.D.C. Reeve, 1998, Hackett Publishing, Indianapolis, p. 83, quoted by Hélène Landemore, *Democratic Reason, op. cit.*, p. 59.
[484] *Ibid.*, fragment 1296b16, quoted by Hélène Landemore, *op. cit.*, p. 63.

"For this, we will first suppose that the assemblies are composed of Voters with an equal *justesse* of mind and equal lights; we will suppose that no Voter will influence the vote of others and that all are giving their opinion in good faith. Let us suppose then that we know the probability that the vote of every Voter will conform to the truth. […] If the vote probability of each Voter is greater than 1/2, i.e., if it is more probable that his judgment will conform to the truth, the greater the number of Voters, the greater the probability of truth: the limit of such a probability will be certitude; meaning that by multiplying the number of Voters, we will have a probability as great as one would want to have a true decision."[485]

Condorcet's conclusion is very forceful and has been qualified by many authors as a demonstration of the "wisdom of the many", if not of the "wisdom of the crowds[486]". If the number of voters is sufficiently high, one can be almost sure to reach the truth. However, the theorem is valid under extreme assumptions: the voters must be equally competent, they should not influence each other, and their probability of reaching the truth must be superior to 1/2. These conditions are rarely met, as Condorcet reckoned himself:

"A vast assembly cannot be composed of very enlightened men; it is even realistic to think that those who compose it will add prejudice to ignorance on numerous subjects. There will be many topics for which the vote probability of each Voter will be under 1/2; the greater the assembly will then be, the more it will be exposed to deliver false decisions. Since these prejudices and ignorance can exist on very important matters, it is clear that it can be dangerous to give a democratic constitution to an unenlightened people; a pure democracy would even only be suitable to a people much more enlightened and free of prejudices than any of those that we know of from History."[487]

While many contemporary scholars refer to Condorcet to defend new forms of democratic participation, Condorcet was himself a very cautious democrat. Nevertheless, good reasons to think that its theorem bears epistemological value. In *The Wisdom of Crowds*, James Surowiecki gives two striking examples. British scientist Galton, in an article later published in *Nature* in 1907 under the title *Vox Populi,* showed that a crowd could predict the actual weight of an ox with a 1%

[485] Nicolas de Condorcet, *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix, op. cit.*, pp. xxii, xxiv, my translation.
[486] Petr Spelda, Vit Stritecky, and John Symons, *No-Regret Learning Supports Voters' Competence*, Routledge, New York, 2023, https://doi.org/10.1080/02691728.2023.2252763], accessed May 5, 2024.
[487] Nicolas de Condorcet, *op. cit.,* pp. xxiv, xxv, my translation.

precision rate[488]. In the TV program *Who wants to become a millionaire?*, where competitors are allowed to consult a person they trust or the audience on any question asked, it appears that trusted people are accurate with a 65% only, and that they are outnumbered by the audience with a rate of 91%[489]. Surowiecki provides additional examples of how crowds can deliver accurate predictions (in particular, prediction markets). These examples are interesting, not because of the fields they cover (democracy is not about voting on the weight of an ox or on the name of the capital city of Nepal) but because they identify the conditions under which the epistemical value of a group decision is maximal: diversity, independence, and decentralisation.

The diversity criterion is crucial, although it was not part of the criteria listed by Condorcet. To reach a "collective exercise of practical intelligence", as Anderson names it, one has to consider diversity's epistemic value[490]. Anderson details the example of community forestry groups (CFGs) in Southeast Asia, which allow for collective decisions and responsibility over preventing deforestation. These CFGs nevertheless excluded women, impoverishing the collective knowledge on forest fuels and leading to "civil disobedience" of certain women. The inclusion of these women, providing that these women were able to get prepared by first opening the discussion between themselves, has allowed them to deliver increased epistemic value. Beyond diversity, Anderson identifies two other aspects missing in the Jury Theorem: public discussion, dynamic control, and feedback. In the South-Asian CFGs, including women does not per se better the public decision. A debate should be organized to allow women to properly formulate their needs (in particular, a first internal debate limited to women helped them formulate their requests and proposals), and feedback loops put in place[491].

Hélène Landemore also emphasizes the importance of "cognitive diversity". Adding up on Condorcet's theorem, she demonstrates that the larger the deliberative group, the more likely it is to produce "intelligent decisions[492]", under the condition that cognitive diversity correlates with numbers. As she contends, "as the group gets larger, it is more

[488] Francis Galton, *Vox Populi*, 1949 [1907], Nature, n°75, pp.450–451
[489] James Surowiecki, *The Wisdom of Crowds: Why the Many are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations,* 2004, Doubleday, New York.
[490] Elizabeth Anderson, *op. cit.*
[491] *Ibid.*
[492] Hélène Landemore, *Democratic Reason, op. cit.*,

important to have a cognitively diverse group than a group of accurate individuals[493].” Talking specifically of “collective intelligence of the people” (by opposing to collective intelligence in general, which could also apply to smaller groups), she proposes the notion of “democratic reason”.

The psychological ground of pluralistic intelligence

William James, who significantly influenced Dewey, offers a psychological framework for such collective intelligence. James is extensively quoted for presumably defining *intelligence* as “a fixed goal with variable means”. Despite numerous references to that sentence, it seems to be a paraphrase than an actual citation. James nevertheless gives in *Principles of Psychology* the example of the dog of one of his friends who was able to go and fetch a sponge from his master’s house to help him deal with a flooded boat. James’s point is that “sagacious as it was, it required nothing but contiguous association of ideas[494]”. To be a proper “act of reasoning” the dog should have been able to bring back a mot or a dipper if he had not found a sponge, which it would have been incapable of doing. James speaks of an “act” of reasoning because intelligence is knowledge in action: “Cognition, in short, is incomplete until discharged in act[495]”. Hence the paraphrased sentence quoted above: intelligence is an ability to identify alternative means to adapt to circumstances or to optimize the result in a search for trustworthiness and infallibility. “Where ends must be attained, we must know trustworthy means which infallibly possess a property or produce a result[496]”. Habits are dangerous: “It is true that habitual arrangements may also become agreeable […] [O]ne sign of intelligence is never to mistake the one for the other[497]”. As Mercier and Sperber comment, William James presents “two modes of inference, one occurring spontaneously and effortlessly and the other – reasoning proper – being on the contrary deliberate and effortful[498]”.

Effortful reasoning is necessarily social, as is reality itself for James. As David Lamberth comments, “on James’s view, truth and the process of establishing it is

[493] *Ibid.*, p. 164.
[494] William James, *Principles of Psychology*, 1890, H. Holt, New York, vol. 2, p. 349.
[495] *Ibid.*, p. 314.
[496] *Ibid.*, p. 637.
[497] William James, *Principles of Psychology*, 1918 [1890], H. Holt, New York, vol. 1, p. 639.
[498] Hugo Mercier et Dan Sperber, *The enigma of reason – A new theory of human understanding,* 2017, Harvard University Press, Cambridge (MA).

social, then, most basically because reality itself – including the knowers and the known, concepts and objects, and the true and the real – is social in the most fundamental and human senses[499]". James's pragmatism offers a socio-psychological framework for analyzing collective intelligence. It is because we need to constantly adapt to an infinite number of evolving circumstances that we need the intelligence and experience of each actor in the social field to provide their views and contradictions. A constructed discussion and debate are the best way to move from "effortless" to "effortful", i.e. from "association of ideas" and "habit" to "proper reasoning". James proposes to think of reality in the "each-form", pluralistic and distributed, rather than in the "all-form", monistic and centralized: "In the each–form, on the contrary, a thing may be connected by intermediary things, with a thing with which it has no immediate or essential connection. It is thus at all times in many possible connections which are not necessarily actualized at the moment[500]." These new connections trigger the expression of individual experiences and the formation of pluralistic views. That approach explains why we have chosen in the introduction the formula "of each, by each, and for each", putting the Gettinburgh formula in the each-form rather than on the all-form.

These considerations, nevertheless, did not make James an advocate of direct democracy. To him, building on his fascination for "geniuses", "common people" could not conduct public affairs, which should be left to an elite: "The notion that a people can run itself and its affairs anonymously is now well known to be the silliest of absurdities. Mankind does nothing save through initiatives on the part of inventors, great or small, and imitation by the rest of us-these are the sole factors active in human progress. Individuals of genius show the way and set the patterns, which common people then adopt and follow[501]". James adds in *The Social Value of the College-Bred*: "In our democracy, where everything else is so shifting, we alumni and alumnae of the colleges are the only permanent presence that corresponds to the aristocracy in older countries". The only role of democracy is the selection of good leaders. Some scholars

[499] David C. Lamberth, *William James and the metaphysics of experience*, 1999, Cambridge University Press, Cambridge (U.K.), p. 57
[500] William James, *A Pluralistic Universe*, 2004 [1909], Blackmask Online, https://jennymackness.wordpress.com/wp-content/uploads/2016/08/james-william-a-pluralistic-universe.pdf, accessed June 10, 2024, p. 72
[501] William James, *The Social Value of the College-Bred*, in *Essays, Comments, and Reviews,* 1987, Harvard University Press, Cambridge, p. 109.

have highlighted a "new Jamesian paradox[502]". It can be nuanced by the fact that James considered himself a "radical democrat[503]", and that to him, although democracy can be "self-poisoning", it is "a sort of religion". Balancing his views on the aristocracy of the college-bred, he elsewhere wrote that democracy was a fundamental tide impossible to stop: "Such are the changes from aristocracy to democracy [...] [that to] oppos[e] to such a change [...] is like stopping a river by planting a stick in the middle of its bed[504]". James, therefore, strongly supported representative democracy as a mix of elitist preference and impracticability considerations.

In the current dissertation, we will only retain from James's work a psychological framework for collective intelligence, which is embedded in his definition of pragmatic intelligence which we will call "pluralistic intelligence" (an expression never used by James but built on his concept of "pluralistic universe"). It refers to the sort of intelligence that James was promoting: effortful instead of effortless, practical instead of theoretical, and pluralistic in the sense that it would never attach one single solution to a problem and rather gather variable means inferred from variable circumstances and experiences – intelligence in the each-form.

Cognitive validation of pluralistic intelligence

Contemporary cognitive research confirms James's model. The two-system view developed by Stanovich and West and popularized by Kahneman considers its duality. Stanovich and West define system 1 in their seminal article as "automatic, largely unconscious, and relatively undemanding of computational capacity", "relatively fast" and "interactional". In contrast, system 2 is "rule-based", "analytic", "relatively slow" and "demanding of cognitive capacity"[505]. That model can nevertheless give flesh to the idea that masses are driven by system 1 and leaders and experts by system 2. Why generalize system 1 decisions of low cognitivity through direct democracy when we can

[502] Sheldon Wolinm Joshua I. Miller, *Democratic Temperament: The Legacy of William* James, 1997, University Press of Kansas, Topeka, p.100.
[503] Trygve Thronveit and James T. Kloppenberg, *James and Politics: The Radical Democracy of a Radical Empiricist*, in *The Oxford Handbook of William James,* ed. M. Klein, 2020, Oxford Handbook, Oxford, p. 245.
[504] William James, *Humanism and Truth Once More*, 1912, Longman Green and Co, New York, pp. 245-246.
[505] E. Stanovich and Richard F. West, *Individual differences in reasoning: Implications for the rationality debate?*, 2000, Behavorial and Brain Sciences, n°23, Cambridge University Press, Cambridge (U.K.), pp. 646–647.

guarantee system 2 well-thought-through public policies when the government remains in the hands of "the few"? This is probably why James favored an aristocracy of the "college-bred".

However, two objections can be made to that argument. The first is the one articulated by Lupia and Matsusaka around the evidence that uninformed citizens use "clues" and "shortcuts". They might rely only on their system 1, but it allows them to identify reliable system 2 advisors.

The second goes beyond the system 1/system 2 dichotomy. As Mercier and Sperber demonstrated:

"The reason why System 2, as a rule, fails to correct mistaken intuitions is even more of an indictment of standard dual process models. Instead of looking for reasons why our intuitions might be mistaken, or to look for reasons supporting alternative answers, System 2 suffers from a massive myside bias (or confirmation bias [...]). Once someone has an intuition about what the correct decision is, their System 2 mostly finds reasons supporting this intuition. Moreover, System 2 is lazy when it comes to evaluating our own reasons, not making sure that the reasons we find to support our intuitions are particularly foolproof [...]. Confirmation bias and laziness were supposed to be System 1, not System 2 features, but the evidence says otherwise[506]."

Mercier and Spencer propose an alternative model, which does not oppose intuition and reason, but rather unify the two systems under a wholly intuitive system where reason is just another cognitive mechanism to justify intuition. Solitary thought is primarily intuitive, and elements of reasoning only develop within a social context[507]. Even solitary reasoning takes the form of an inner dialogue – "just as solitary sexuality typically resorts to imagining interactive sex[508]". Reason primarily serves to justify ourselves and to build arguments to persuade others, hence the biases of our brain in favor of established beliefs and our difficulty in embracing new epistemological perspectives. Although it goes beyond the duality proposed by James, the "intuitive model" proposed by Mercier and Sperber is more "Jamesian" than the two-system view since it truly dwells on the idea that all reality is social and that it demands a variety of

[506] Hugo Mercier and Dan Sperber, *Bounded Reason in a Social World,* in *Routledge Handbook of Bounded Rationality*, ed. R. Viale, 2020, Routledge, New York, p. 258.
[507] Hugo Mercier and Dan Sperber, *op. cit*.
[508] *Ibid.*, p. 260.

solution stemming from a variety of experiences. Pluralistic intelligence is thus merely intelligence itself: the ability to construct a shared discourse of argumentation and justification, necessarily broader than what is produced by each individual in isolation. Such a mechanism, therefore, presupposes two additional conditions: that the group itself is diverse and heterogeneous enough to express varied and potentially conflicting opinions; and that diversity is not artificially reduced by an external force, such as a charismatic leader imposing their views or a too-homogeneous media environment. This public debate, shall we call it "social inquiry" or else, needs, of course, specific conditions to unfold, which we will discuss in section 3.

We have thus demonstrated that the voice of the many is more important in public matters than that of the many. Not only are citizens minimally more competent (in relative or absolute terms) but it can be proved, theoretically and empirically, that they are maximally as competent as experts. They can provide pluralistic intelligence, embedded in cognitive diversity. One last point needs to be addressed: is this efficiency equality-driven? We saw in the introduction that the substantive outcome expected from public decisions should be assessed against each voter's conception of equality. Theoretically, there are valuable reasons to believe that decisions opened to a larger number of citizens provide more egalitarian policies (Barber)[509]. Such an assumption is backed by empirical research. Geissler et al. surveyed direct democracy in Europe between 1990 and 2015 and found that there were more pro- than anti-equality bills[510]. Krämling et al. extended that result to non-Western countries from the Global South, finding that two-thirds of the bills favored equlity: "Likewise, these votes produced more pro- than contra-equality outputs. This held for all continents as well as for all dimensions of equality."[511]

[509] See Benjamin Barber, *op. cit.*, p. 148 for a reference to "face-to-face communities" where unitary democracy serves "citizenship and equality" (i.e., our first and second principle).
[510] Brigitte Geissel, Anna Krämling, and Lars Paulus, *More or less equality? Direct democracy in Europe from 1990 to 2015*, December 2019, Zeitschrift für Vergleichende Politikwissenschaft, Vol. 13, n°4, pp. 491-525.
[511] Anna Krämling, Brigitte Geißel, Lars Paulus et al., *Direct democracy and equality: A global perspective*, International Political Science Review, Vol. 44, n°4.

1.3. Conclusion: Beyond Consensus, Conflict, and Compromise

We have shown how direct democracy, against its critics, is equipped to answer the two democratic principles that we have defined in the introduction (we will see in section 3 how it can respect the third principle). Participation through voting is the only way to rebuild trust in institutions, which in turn is the foundation of intersubjective trust that underpins individuality and social cohesion – I have named "participative trust" this virtuous circle. Participative trust is the most robust token of legitimacy in contemporary democracies, as backed by anthropological and sociological evidence and in line with a general tendency toward more horizontal societies, and direct democracy is axiologically adequately positioned to answer them. We have also demonstrated that "the many" have an epistemological advantage compared to "the few". At a minimal level, the concept of expertise in political affairs is void, leaving experts and professional politicians on an equal footing with average citizens. At a maximal level, confronting individual practical experiences leads to a pluralistic intelligence better suited to deliver efficient public results.

Combining the axiological and epistemological advantages of direct democracy opens an additional perspective. As we have seen in the introduction, one of the reasons why the popular vote falls into a blind spot of political philosophy is the divide between consensual and agonistic politics. That confrontation is at the base of the contemporary system of representative democracy, and cognitive research shows that there are only two equilibrium points in citizens' preferences: consensus and polarization. Far from being antithetic, the two systems are indeed complementary. However, both are being radicalized by contemporary politics. Consensus is leaving on the side an increasing number of voters who turn to protest votes, while polarization drives agonistic politics into mere antagonistic violence. Direct democracy offers a dialectical overcoming of that contradiction by offering a "dynamic consensus". Let us detail each of these statements.

1.3.1. Two Contemporary Deadlocks: Compromise and Consensus

Following Hannah Arendt, agonistic politics can be traced back to the Greek conception of the public space as a competing area for glory and recognition[512]. Arendt's position is more balanced, as she also advocates for deliberation and persuasion in the political sphere, drawing on her analysis of Kant's conception of judgment[513]. Agonistic politics are still advocated today. Chantal Mouffe, for example, has developed a comprehensive conceptual framework that dismisses the possibility of a collective agreement on political issues and posits each issue as a conflict to defeat the opposite side. To her, the very essence of politics is to define "us" vs. "them" as a way of constructing political identities[514]. As she writes, these identities "play a central part in politics, and the task of democratic politics is not to overcome them through consensus but to construct them in a way that energizes the democratic confrontation[515]". She explicitly refers to Carl Schmitt in her analysis:

"In my view, one of Schmitt's central insights is his thesis that political identities consist of a certain type of we/they relation, the relation friend/enemy which can emerge out of very diverse forms of social relations."[516]

For such an agonistic approach to lead to effective public policies instead of open conflict, a "compromise" is needed. Kelsen hence comments: "the general will, if it should not express the interest of a single and unique group, can be only a result of such oppositions, a compromise between opposing interests[517]". Thomas Mayer, an influential thought leader of the German Social Democratic Party[518], encapsulates the criticism addressed to consensus in *The Art of Compromise*. Not only does consensus

[512] Hannah Arendt, *The Human Condition*, 1958, University of Chicago Press, Chicago, quoted by Seyla Benhabib, *op. cit.*, p. 91: "Arendt's text is a panegyric to the agonistic political space of the Greek polis".
[513] Hannah Arendt, *Lectures on Kant's Political Philosophy*, 2015, University of Chicago Press, Chicago, p. 120: "This effort at persuasion is not external to the judgment; rather, it supplies the very raison d'être of judging".
[514] *Ibid.*
[515] Chantal Mouffe, *On the Political, op. cit.*, pp. 5-6.
[516] *Ibid.*, p. 14.
[517] Hans Kelsen, *La Démocratie - Sa Nature - Sa Valeur [Democracy, Its Nature, Its Value]*, 1988 [1929], Economica, Paris, quoted and translated by Adam Przeworski, *Consensus, Conflict, and Compromise in Western Thought on Representative Government*, 2010, Selected Papers of Beijing Forum 2006, Procedia Social and Behavioral Sciences, Vol. 2, pp. 7042–7055.
[518] Thomas Meyer is an honorary member of the SPD's Fundamental Values Commission, has led the Political Academy of the Friedrich Ebert Foundation (a think-tank associated with the SPD), and has served as the editor-in-chief of one of Germany's leading center-left journals, the Frankfurter Hefte.

"take a lot of time", but "without the possibility of conflict, it weakens democracy. It depolarizes the country[519]". Mayer, in line with the "antagonistic" approach of Mouffe and Schmitt, favors compromise which he sees as "the key to any democracy" (he clearly distinguishes it from any "petty compromise"). For him, consensus is a false unanimity and can lead to the disguised oppression of the minority by the majority. On the contrary, conflict allows the minority to assert itself and ask for a compromise in which it hopes to have influence.

In contrast with the agonistic approach, the liberal model proposes to see the public space as an area of "public dialogue" where a consensus can be reached through a cooperative search. Debate and deliberation already seem to have played a significant role in classical Athens, balancing the view that the Greek democracy was agonistic. Mirko Canevaro has shown that "consensus- based forms of deliberation were a key element of Greek decision making, which secured the cohesion of Greek communities as well as the synthesis of wide-spread knowledge[520]" – most Hellenistic decrees display unanimity or near-unanimity. This practice was favored by the fact that citizens were voting by show of hands[521]. Jürgen Habermas and Karl-Otto Apel have developed the conditions for public dialogue in their "ethics of discussion". The first condition is the demand for validity in the search for truth, asking every participant to raise universal validity claims and assume the possibility of honoring them. The second is the rejection of constructing a position in isolation (subjective), instead favoring debate (intersubjective). When these two conditions are met, one can speak of "communicative action" in the sense given by Habermas to it: "when the participants coordinate their plans of action consensually, with the agreement reached at any point being evaluated in terms of the intersubjective recognition of validity claims[522]". Those claims are claims to truth (referring to the objective world), claims to rightness (referring to the common social world), and claims to truthfulness (referring to each participant's own subjective world). Where Kant proposed universalizing one's reasoning, Habermas and Apel argue that only through discussion can we truly

[519] Thomas Meyer, *The Art of Compromise – The Path Towards the Realization of Ideals in a Working Democracy,* 2009, Friedrich Erbert Stiftung, pp. 19, 23.
[520] Mirko Canevaro, *Majority Rule vs. Consensus: The Practice of Democratic Deliberation in the Greek* Poleis, in A*ncient Greek History and Contemporary Social Science*, ed. Canevaro, 2018, Edimburgh University Press, Edimburgh.
[521] *Ibid.*, p. 135.
[522] Jürgen Habermas, *Moral Consciousness and Communicative Action,* trans. C. Lenhardt and S. Weber Nicholsen, 1999, MIT Press, Cambridge (MA), p. 58.

measure its consequences for everyone. Apel indeed saw two limits to Kantian universalization: the causal intervention in the world and the historical character of moral norms:

"The 'causality from freedom', which is postulated by Kant [...] cannot be supposed to change something by causal intervention in the world of possible experience because all states of this world are predetermined by causal chains. [...] Kant had no concept as yet of this historical reality between nature and the ideal principle of morality [...] and hence Kant's ethics could not mediate between the ideal universalization principle as a formal yardstick of moral judgment and the material content of moral (and juridical norms) that is pre-given through history."[523]

Some political traditions are effectively based on consensus, like Sweden which maintains a long-standing consensus practice reflected in the adage *lagom är bäst* ("moderation is best") and in the practice of *remiss*, or voluntary stakeholder contributions to any legislative discussion[524]. Research has shown that, although there is a tendency to favor insiders, such as NGOs and seasoned lobbyists, the remiss process broadly enables effective and non-corporatist participation from a wide range of actors[525].

For Dewey, the culture of conflict/compromise stems from a logical error: "The idea that the conflict of parties will, by means of public discussion, bring out necessary public truths is a kind of political watered-down version of the Hegelian dialectic[526]", an attitude that he also calls "an unusually credulous faith in the Hegelian dialectics of opposites"[527], a method that has nothing in common with organized cooperative inquiry. It assumes that political opinions are pre-existing and fixed, and only the conflict/compromise pair can reconcile them. Compromise is static, as it represents a balance between existing positions, whereas consensus is dynamic, leading to the joint construction of positions. Such a dynamic vision of consensus also preserves the rights

[523] Karl-Otto Apel, *The Response of Discourse Ethics to the Moral Challenge of the Human Situation as Such and especially Today,* March 1999, Mercier Lectures, 2001, Peeters, Bruxelles, p. 23.
[524] Eric Lundberg, *Does the Governement Selection Process Promote or Hinder Pluralim?: Exploring the Charactersitics of Vountary Organizations Invited to Public Consultations*, 2013, Journal of Civil Society, Vol. 9, n°1, pp. 58-77. Robert Dahl, *op. cit.*, nervertheless classifies Sweden in the "majoritarian" rather than "consesnsu" category as a bipartisan democracy (*op. cit.*, p. 159).
[525] *Ibid.*
[526] John Dewey, *Liberalism and Social Action*, 1963 [1935], Capricorn Books, Jenkington (PA), p. 71, quoted by Barbara Stiegler, *op. cit.*, p. 156.
[527] *Ibid.,* p. 86.

of the minority (leaving aside entrenched minorities). The majority can only be formed because it has incorporated some of the minority's concerns:

"But the heart of the matter is found not in the voting nor in the counting the votes to see where the majority lies. It is in the process by which the majority is formed. The minority are represented in the policy which they force the majority to accept in order to be a majority; the majority have the right to 'rule' because their majority is not the mere sign of a surplus in numbers, but is the manifestation of the purpose of the social organism. Were this not so, every election would be followed by a civil war."[528]

Dewey's perspective helps us understand why we recognize the victory of a candidate even if the difference is only a few hundred or thousand votes. If it were a culture of conflict, such a narrow lead would be unacceptable to the minority. If we see victory as the ability, on the contrary, to speak beyond one's camp and respond at the same time to some of the minority's concerns, then even 51% carries well enough legitimacy. The comfortable margins by which Jacques Chirac in 2002 and Emmanuel Macron in 2017 and 2022 won against the extreme-right candidates (respectively 82%, 66%, and 59%) remind us that large victories do not translate into broad consensus. On the contrary, winning with 51% means that neither candidate was assured of victory, and each probably had to make overtures to attract reluctant voters. Paradoxically, the closer the scores, the better democracy functions. Jean-Pierre Dupuy even suggests that in a true democracy, elections could ultimately be decided "by a coin toss[529]". As Dewey commented, citing the former governor of New York Samuel Tilden, "the small numerical difference is, in reality, testimony of the coinciding of the two parties"[530]. It is not just a metaphor: between 1973 and 1976, the Swedish parliament was split into two blocks with the same number of deputies, resulting in numerous laws being decided by lot[531].

We could reinterpret the victory of George W. Bush over Al Gore in 2000, which was decided by a few hundred votes. At the time, their positions seemed so opposed that

[528] John Dewey, *The Ethics of Democracy,* in *Philosophical Papers*, Second Series n°1, 1888, The University of Michigan, Andrews and Cie, Chicago, p. 10.
[529] Jean-Pierre Dupuy, *Une élection à pile ou face [An election by tossing the coin]*, Novembre 23, 2012, Le Monde. Dupuy's position is different from the selection of representatives and magistrates by lottery, which we will analyze in section 3.
[530] John Dewey, *The Ethics of Democracy, op. cit.* p. 10.
[531] Between 1973 and 1976, 79 decisions were made by drawing lots, resulting in the conservative bloc winning in half of the cases (40) and the socialist bloc in the other half (39).

the recount left no one indifferent. In retrospect, considering the 2016, 2020, and 2024 elections, we see how close the political visions of Bush and Gore actually were. Surveys show that just over half of Americans could say at the time that Gore was to the left of Bush[532]. It was no longer the case in 2016, where three-quarters of voters understood that Clinton was to the left of Trump[533]. Clearly, there was no unanimity, and the electoral result was accordingly less close (similarly for Biden's victory over Trump in 2020 and Trump's victory over Harris in 2024). As Karl Popper rightly wrote: "Every opposition has the majority it deserves."[534]

Nevertheless, the evolution of turnout between 2000 and 2016 casts a different light on consensual democracy:

Turnout (%)	**2016**	**2020**	**Increase**
Turnout on total of Voting Age	50,5%	54,8%	+4,3%
Turnout on total Voting Eligible	54,3%	59,2%	+4,9%
Turnout on total Registered	81,5%	86,7%	+5,2%

Table 7: Evolution of turnout in U.S. presidential elections between 2000 and 2016 (Source: The American Presidency Project, University of California Santa Barbara[535])

***(1) The Voting Age Population*—broadly speaking it is the population above the legal voting age**

***(2) Voting Eligible Population*—all citizens who are not excluded from voting because of some legal impediment**

***(3) Registered voters*. Reported measures of each of these have varied somewhat over time as estimates have been revised and refined.**

---

[532] Jason Jordan, *Americans are getting smarter about politics in at least one important way*, Washington Post, 7 février 2021.
[533] *Ibid.*
[534] Karl Popper, *The Open Society and Its Enemies, Vol.2 The Hide Tide of Prophecy: Hegel, Marx and the Aftermath*, 1966 [1962], Princeton University Press, Princeton, p. 161.
[535] https://www.presidency.ucsb.edu/statistics/data/voter-turnout-in-presidential-elections, accessed January 30, 2021

Consensual democracy seems to have a price paid in low turnout. It could be argued that it is a sign of a healthy democracy where trust in government is high enough for voters not participating fully in elections[536]. However, as we have demonstrated in the first part of the current section, legitimacy requests participative trust. Consensual politics seem to fuel polarization and distrust by pushing some of the voters out of the consensus system, leading them to protest through abstention and eventually through protest parties.

Agonistic politics and their heralds, like Mouffe and Mayer, seem right when they accused consensus of being exclusionary. Yet conflict/compromise politics also stir polarization, which in turn radicalizes conflict into violence. Although Mouffe is advocating for "agonistic" politics instead of "antagonistic" ones (i.e., the confrontation of "adversaries" rather than "enemies"), polarization has empirically led to the hegemony of the latter (in the sense that Ernesto Laclau gives to that term: a "contingent" but "constitutive" articulation of social practices[537]). As Lagasnerie blatantly puts it: "In a world of antagonisms, non-violence is a category void of any analytical meaning[538]". He adds: "one must not harbor any illusion of the power of dialogue and conviction. There are moments where only strength can change the course of things"[539]. Reading this, one cannot but gasp like writer Fabrice Humbert: "By what aberration can one think that politics consists of designating enemies when it is the definition of a sharing? [540]"

Recent cognitive science findings corroborate that the only equilibrium points are complete consensus and polarization, as citizens and parties are moving away from the possibility of a rational compromise. Schweighofer and Garcia have built a model of weighted balance opinion dynamics[541] based on "affective cognition". The concept is

[536] Earl Warren Schattschneider, *The Semi-Sovereign People,* 1960, Holt, Rinehart, and Winston, London; and Samuel P. Huntington, Michel Crozier, and Joji Watanuki*, The Crisis of Democracy: Report on the Governability of Democracies to the Trilateral Commission*,1975, New York University Press, New York.
[537] Quoted by Chantal Mouffe, *Ibid.* p. 17.
[538] Geoffroy de Lagasnerie, *Sortir de notre impuissance politique [Moving away from our Political Impotence]*, 2020, Fayard, Paris, p. 48. Note that Lagasnerie's essay is entirely written in the we/they grammatical mode.
[539] *Ibid.*, p. 20, my translation.
[540] Fabrice Humbert, *Les mots pour le dire – De la haine et de l'insulte en démocratie [Words to say it – on hatred and insult in democracy]*, 2021, Tracts Gallimard, p. 23.
[541] Simon Schweighofer and Daniel Garcia, *Raising the Spectrum of Polarization: Generating Issue Alignment with a Weighted Balance Opinion Dynamics*, 2023, Journal of Artificial Societies and Social Simulation, Vol. 27, n°1, p. 15.

imported from the Gestalt psychology, and in particular Fritz Heider's balance theory and triadic model that shows that any individual prefers to like (respectively dislike) the same events or values than a person they like (respectively dislike) and vice versa:

"Attitudes towards persons and causal unit formations influence each other. An attitude towards an event can alter the attitude towards the person who caused the event, and, if the attitudes towards a person and an event are similar, the event is easily ascribed to the person. A balanced configuration exists if the attitudes towards the parts of a causal unit are similar."[542]

Schweighofer and Garcia found that there can be only two equilibrium points: "complete consensus" or "extreme polarization". The probability of reaching one or the other of these equilibrium points depends on the level of "equanimity" of the individuals, i.e., "the strength of an individual's emotional reaction to political agreement or disagreement[543]." Mercier and Sperber reach the same conclusion, foreseeing the risk that politics move to an antagonistic model:

"Reasons, we argue, are not tools for individual, solitary thinking; they are tools for social interaction aimed at justifying oneself or at convincing others and at evaluating the justifications and arguments others present to us. In performing these functions, reason is bounded not only by limited internal resources and external opportunities, but also by obstacles to the social flow of information. In situations of cooperative dialogue, reason can help overcome these obstacles and foster convergence. In the case of entrenched antagonisms, on the other hand, reason can foster polarization."[544]

It is clear that neither compromise nor consensus offers a satisfactory path. Agonistic politics shift away from compromise and feed extreme polarization in the age of "affective cognition". In contrast, unless it is a "complete consensus" impossible to maintain, consensus accelerates party disaffiliation, potentially leaving the parties in the hands of interest groups and further fostering polarization. Schweihofer and Garcia could lead us to the conclusion that we are not anymore in Baldassari's time when only parties were polarized, while citizens remain little affected by issue alignment. In line with Kozlowski and Murphy, the polarization of political parties might have had a "hysteresis" effect on voters themselves, who now mirror issue alignment. We will now

[542] Fritz Heider, *Attitudes and Cognitive Organization*, 1946, The Journal of Psychology, n°21, p. 107.
[543] Simon Schweighofer and Daniel Garcia, *op. cit.*, 1.5.
[544] Hugo Mercier and Dan Sperber, *op. cit.*, p. 265.

prove that this is not inevitably the case, and that direct democracy can break the vicious cycle of polarization by overpassing both compromise and consensus, and building new compromise and new consensus on projects rather than on programs.

1.3.2. Direct Democracy and the Creation of New Majorities

As above, and as we will demonstrate empirically in section 2, issue alignment corresponds to the current representative democracy framework and not to a direct democracy one. Direct democracy offers, on the contrary, a possibility of overhauling that trend and return to a genuinely dynamic consensus, as proposed by Dewey, by creating a consensus on *projects* rather than on *programs*. Dealing with public policies, issue after issue, is a surer manner to break issue alignment, with separate debates arising on each of these themes. The solution that Dewey proposed for representative democracy is even more applicable to direct democracy: the closer the questions put to referendum will be to a consensus, the greater chance they will have to gather a majority. Putting divisive questions to the popular vote is a way to provoke negotiation and consensus-building. Writes Ricoeur: "Here is where conflict calls for consensus, just as consensus makes negotiation possible[545]". He adds: "a democratic State is that State which does not propose to eliminate conflicts but to invent procedures allowing them to be expressed and to remain open to negotiation[546]". Direct democracy can deliver it.

The practice of bundling all issues together, both among themselves and over time, is at the core of representative democracy. Even under the unrealistic assumption that voters have read all party platforms, the factors influencing their votes are varied and diverse. Bernard Manin distinguishes between enabling an elected representative, making a retrospective negative decision, or choosing to reflect social diversity[547]. These factors can be cumulative, and the three aspects they embody (mandating, controlling and expressing) are all simultaneous core functions of the vote. A study from the London School of Economics shows that 70% of voters identify "barring" one candidate as a major factor (a negative version of Manin's first factor)[548]. Such

[545] Paul Ricœur, *Violence et langage [Violence and language]*, 1967, Recherches et Débats, Vol. 16, n°59, pp. 86-94, cité par Laure Assayag, *op. cit.,* my translation.
[546] Paul Ricœur, *Ethics and Politics*, *op. cit.*, p. 335.
[547] Bernard Manin, *The Principles of Representative Government, op. cit.*, pp. 158, 179-181.

versatility, he argues, is a robustness factor, safeguarding voter freedom by allowing each to choose their voting purpose. Each voter should be able to decide which value they base their vote on: "voters must be free to determine which qualities they value positively and to choose from among these qualities the one they regard as the proper criterion for political selection[549]". Only under such conditions, he asserts, can the "aristocratic nature" of representative government be compatible with democracy.

The argument is powerful but can be reversed. Voting more regularly on more precisely targeted issues allows everyone to vote closer to their values and convictions if the options proposed make these value options clear. Direct democracy allows breaking political affiliations by refocusing the voter back to his convictions, theme by theme. To illustrate, consider a liberal voter concerned about environmental issues who desires both specific tolls on city traffic (which we suppose here as not supported by the party) and lower corporate taxes (which we suppose here as supported by the party). Separate votes on these issues would allow them to express their position on traffic tolls while still supporting the liberal party in general elections. A recent survey by Radio Télévision Suisse showed that 42% of Green party voters felt the party was "too left-wing" compared to their own beliefs[550]. The same is true for all parties. This reasoning can be refined by detailing more topics, each offering us a rare or even unique combination of different positions. Besley and Coat have called that phenomenon: "unbundling"[551]. Such unbundling also reduces perceived complexity, whether related to a single issue over time or multiple intertwined issues. A voter might feel (mistakenly) incompetent about national indebtedness policies but have a clear opinion on the future of agriculture or euthanasia. It does not eliminate the need to synthesize these various issues, justifying the existence of both government and parliament. Two essential synthetic functions are traditionally used to justify decision-making at a centralized level: policy coherence (in particular, through fiscal policy) and trade-offs between different measures. If the former is indispensable and confirms the necessity to maintain a centralized budget authority, the latter is more questionable.

[548] Friedrich Gelecke and Xavier Jaravel, *Conversations at Scale: Robust AI-led Interviews with a Simple Open-Source Platform,* 2024, working document, London School of Economics, London, quoted in Xavier Jaravel, *Utiliser l'IA pour mieux comprendre les électeurs [Using AI to better understand voters]*, Les Echos, October 10, 2024.
[549] Bernard Manin, *The Principles of Representative Government, op. cit.*, p. 158.
[550] Radio Télévision Suisse, Infrarouge, sondage publié sur Twitter le 27 octobre 2022.
[551] Timothy Besley and Stephen Coate, *Issue Unbundling via Citizens' Initiatives*, 2008, Quarterly Journal of Political Science, Vol. 3, n°4, pp. 379–397.

Butely and Ranney argued, back in 1994, that "decisions by elected officials involve weighing the intensity of preferences and melding the legitimate interests of many groups into policies that will give all groups something of what they want[552]". However, that second argument is linked to the conflict/compromise attitude that prevailed at the time of the article. In a polarized world, compromise is more challenging to extract from conflict, and trade-offs prove less actionable.

Moreover, unbundling issues can more accurately reflect individual positions. As Hannah Arendt wrote, the public realm is not only unifying but also separating, thus making us not "masses" but citizens:

> "The public realm, as the common world, gathers us together and yet prevents our falling over each other, so to speak. What makes mass society so difficult to bear is not the number of people involved, or at least not primarily, but the fact that the world between them has lost its power to gather them together, to relate and to separate them. The weirdness of this situation resembles a spiritualistic séance where a number of people gathered around a table might suddenly, through some magic trick, see the table vanish from their midst, so that two persons sitting opposite each other were no longer separated but also would be entirely unrelated to each other by anything tangible."[553]

That statement is close to Castoriadis' analysis of the institution of society, where "one can only unite by separating (what is united from the rest), one can separate only by uniting[554]". Referendums thus separate citizens by unbundling issues while reunifying them through majority building. More frequent voting is not just a way to create new majorities on specific issues; it also separates us by affirming the uniqueness of our political identities. A democratic society must constitute a public space capable, at the same time, of gathering and separating its citizens. The purpose of the current dissertation is not to build such a theory of public space, a central question to any assessment of democratic regimes that has been notably analyzed in very different ways by Arendt, the liberal tradition and Habermas[555]. Our point is to emphasize the necessary contribution of voting as both an individualizing and reunifying factor.

---

[552] David Butler and Austin Ranney, *Referendums around the world: The growing use of direct democracy*, 1994, American Enterprise Institute, Washington, DC, p. 17.
[553] Hannah Arendt, *The Human Condition*, 2d ed., 1998, The University of Chicago Press, Chicago, p. 509.
[554] Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.*, p. 249.

Direct democracy, therefore, corrects a major imperfection of representative democracy, where voters are faced with a trade-off between their political preferences and tactical votes to avoid vote splitting (a phenomenon that varies according to the voting methods but which can never be avoided as we have discussed in section 2). Gandhi and Ong demonstrated that even in authoritarian regimes voters are not ready to sacrifice their ideological commitments at any cost to ensure the victory of an opposition coalition. While opposition voters overwhelmingly support opposition coalitions beforehand, they tend to switch to a vote for another opposition not part of the coalition if they are faced with the perspective of their least preferred party within the coalition potentially controlling the government[556].

Direct democracy offers a practical way to move beyond the contemporary deadlock of both consensus and compromise politics. Consensus and compromise remain core values of any political system[557] (they etymologically refer to our need for a common sense – *con-sensus*, and of a common promise – *com-promissium*[558]). Direct democracy allows voters to compromise on their partisan alignment or even issue alignment to build a new consensus on a specific subject.

*

In the current chapter, we have outlined the axiological and epistemological arguments supporting the idea that direct democracy can pass both the legitimacy and the efficiency test. We have further demonstrated that it provides a unique solution to override the deadlock of both consensus- and conflict-based politics by providing new majorities based on projects rather than on programs. Before turning in section 3 to the concrete conditions of implementation of direct democracy, we will propose in section 2 an empirical approach, looking at direct democracy where it is already put

---

[555] Seyla Benhabib, *Models of Public Space: Hannah Arendt, the Liberal Tradition and Jürgen Habermas, op. cit.*
[556] Jennifer Gandhi and Elvin Ong, *Committed or Conditional Democrats? Opposition Dynamics in Electoral Autocracies*, June 2019, American Journal of Political Science, Vol. 63, n°3.
[557] Adam Prjeworski, *Consensus, Conflict, and Compromise in Western Thought on Representative Government, op. cit.*
[558] Gilles Mentré, *Faire droit à la démocratie directe [Give direct democracy its rights]*, April 2024, Etudes, Vol. 4314.

into practice (the United States and Taiwan) and examining how recent technologies modify the concrete conditions of its practice.

2. Direct Democracy as a Technique: Present and Future of Direct Democracy in Practice

We have shown in section 1 how direct democracy fits our thin definition of democracy from a theoretical perspective; we have proven that it can provide both legitimacy and efficiency by guaranteeing participative trust and pluralistic intelligence and escape from the deadlock of consensus/conflict by promoting a dynamic consensus. It helps us build direct democracy as a discourse, that is, according to Castoriadis, a distinguishing power to identify the bricks or words in order to assemble them. These bricks (participative trust, pluralistic intelligence, dynamic consensus) must now be assembled into institutions. To do so, they need "tools": information platforms, deliberative forums, and bottom-up decision-making mechanisms (referendums, initiatives, veto). These tools have different implementation modes: centralized/decentralized, online/offline, and majoritarian/non-majoritarian. In section 2, we will analyze specifically those tools and their various implementations from a *teukhein* perspective: assembling-adjusting-fabricating-constructing[559].

Beyond identifying the tools and their implementations, analyzing direct democracy as a technique also means assessing how those tools function in concrete situations. So far, we have only considered direct democracy in generic scenarios, i.e., in average terms. The purpose of the current section is to pivot from that perspective and describe how they function incrementally, assessing how they marginally adapt to variations and evolutions. A pivotal author to help us understand the specificity of a technique is Gilbert Simondon and his seminal work as a "technologue": *On the Mode of Existence of Technical Objects*. As he wrote:

"The true progressive perfecting of machines, whereby we could say a machine's degree of technicity is raised, corresponds not to an increase of automatism, but on the contrary to the

[559] Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.,* p. 260. See also : Christophe Premat, *Valeurs et normes sociales dans le projet d'émancipation de Cornelius Castoriadis [Social values and norms in Cornelius Castoriadis' emancipatory project]*, 2019, Labyrinth, an international Journal for philosophy, pp.49-78, my translation.

fact that the operation of a machine harbors a certain margin of indeterminacy. It is this margin that allows the machine to be sensitive to outside information."[560]

The concept of "margin of indeterminacy" is perfectly adapted to analyze institutions and organizations, as analyzed by Castoriadis himself: "[no] organization[] can be inescapably dictated by natural laws or by rational considerations. In what appears here as a margin of indeterminacy we find what is essential[561]". That indeterminacy results from the over-determination of symbols since several signifieds can be attached to the same signifier[562]. To compare direct democracy tools with the existing representative democracy ones, we should, therefore, go beyond their theoretical ability to deliver legitimacy and efficiency in ideal circumstances and examine how, in doing so, they can offer a margin of indeterminacy and the greatest possible freedom in functioning.

Such a framework applies to all political regimes considered as techniques. The current French Constitution establishing the Fifth Republic exemplifies such "plasticity". As the former president of the Constitutional Council declared: "The strength of the Constitution is to be flexible, to adapt to the circumstances of political life. When the parliamentary majority aligns with the presidential one, we have a presidential reading of it. In times of cohabitation [when the president and the prime minister are not from the same party], we have a parliamentary reading of it[563]."

Studying direct democracy in practice is not applying the principle we defined to reality but seeing how direct democracy tools, with their variation and sometimes unpredicted results, bring about new definitions of direct democracy itself and, by extension, of democracy in general. By doing so, they create a "culture" in Simondon's sense. To him, technique is "a foundation for culture, to which it will bring a unifying and stabilizing power, making culture adequate to the reality which it expresses and regulates[564]." As with any technique, direct democracy has indeed the potential of transforming itself through practice and overcoming its shortcomings. The accusations made against

---

[560] Gilbert Simondon, *On the Mode of Existence of Technical Objects*, transl. C. Malaspina and J. Rogove, 2017 [1958], Univocal, Minneapolis, p. 17.
[561] Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.,* p. 145.
[562] *Ibid.*, p. 138.
[563] Jean-Louis Debré, interview with Matthieu Belliard, Europe 1, October 4, 2018.
[564] Paul Simondon, *op. cit.*, p. 21.

direct democracy by its opponents, from Plato to Hamilton, Stuart Mill, Lippman, or Brendan, can be read as "saturation of the system of sub-ensembles". They can never definitive condemnation of the instrument since it is the "overcoming" of such a "play of limits" that "constitutes progress"[565].

To do so, we will follow two distinctive routes. We will first look at current tools, as they have been practiced for over a century in the United States and more recently in Taiwan: referendums, initiatives, vetoes, but also decentralized fact-checking and deliberation (2.1). In a second time, we will investigate the possible future techniques of direct democracy through the revolution of e-voting, as already practiced in Estonia and Switzerland (2.2).

2.1. Case Studies on the United States and Taiwan.

Almost every country has, in its constitutions, tools of direct democracy, and in particular referendums (initiated by the government) and initiatives (initiated by citizens). However, only experience tells whether these instruments are effectively used or not. In France, for example, the practice of referendum has evolved a lot over the years. The Constitution of the Fourth Republic only allowed referendums on constitutional matters ("the people exert [national sovereignty], in constitutional manners, by the vote of its representatives and by referendum[566]"). On the contrary, the Constitution of the Fifth Republic instated the referendum in certain legislative domains. During the 10-year presidency of Général De Gaulle, four referendums were organized. The practice was gradually reduced to the current situation where no referendum has been organized since 2005.

Rather than analyzing countries like France or the United Kingdom, where direct democracy is used only episodically, we will focus on how it is practiced in countries that resort to referendums regularly. Uwe Serdült and Yanina Welp have carried out a comprehensive analysis of direct democracy in all countries of the world and, in particular, what they labeled "bottom-up direct democracy" consisting of referendums, initiatives, and vetoes initiated by citizens themselves (all grouped under the generic

[565] *Ibid.*, p. 32.
[566] Article 3 of the Constitution of October 27, 1946 instating the Fourth Republic (emphasis mine).

term “referendum”)[567]. They identified that only thirty-two countries have bottom-up direct democracy instruments (leaving aside the four countries that only have recalls for parliamentary members). Tracing all referendums since the first one in Switzerland in 1874, they concluded that Switzerland alone accounts for 63% of all referendums in the 1874-2009 period and Liechtenstein for 10%. These numbers nevertheless leave aside automatic referendums on constitutional amendments (as they take place regularly, for example in Ireland) and referendums at the subnational level (a very active practice, notably in the United States).

The sample of countries that I have retained is the following: Ireland, Italy, Slovenia, Switzerland, Taiwan, the United States (state level), and Uruguay. I have added France and the United Kingdom as reference points. This choice is due to a mix of referendum frequency and of total population. To assess the intensity of direct democracy in a country, I have chosen to focus on two factors: the number of questions asked by referendum over a certain period and the country’s total population. The first factor is a better indicator than just the number of referendums, as in some countries, citizens can be asked several questions on the same date. In our sample, if we limit our study to the 1990-2023 period, the number of questions per referendum varies from a single one (as it has always been the case in France, the United Kingdom, or Uruguay) to a maximum of 9 in Switzerland (for the Swiss federal referendum of May 2023), 10 in Taiwan (for the Taiwanese referendum of 2018) and 12 in Italy (for the Italian referendum of 1995). The number gets even more significant when considering referendums and initiatives at the state level in the U.S., such as the 1990 “Big No” vote when Californians were asked to vote on 28 different issues. The second factor seems indispensable in answering the long-run objection to direct democracy’s practicability concretely. A standard view is that direct democracy can only be organized at the local level or in small states with a limited population, as is the case in our sample with Slovenia (2.1m), Uruguay (3.4m), or even Ireland (5.1m) which all experience vigorous, direct democracy. To take into consideration these two factors, we propose here a “direct democracy score” that is the product of these two factors on a logarithmic scale. The results are displayed in the following table:

[567] Uwe Serdült and Yanina Welp, *Direct Democracy Upside Down*, 2012, Taiwan Journal of Democracy, Vol. 8, n°1, pp. 69-92 .

Country	Population in 2023 (m)	Year of introduction of referendums	Number of referendums between 1990 and 2023 (*)	Regularity	Total number of questions asked	Direct democracy score
California	*39.0*	*1911*	*20*	*Every two years*	*331*	***4.1***
France	68.5	1958	3	No	3	2.3
Ireland	5.1	1937	20	No	28	2.2
Italy	58.9	1947	18	No	72	3.6
Slovenia	2.1	1990	21	No	28	1.8
Switzerland	8.8	1848	113	Every quarter	312	3.4
Taiwan	23.6	2003 / 2018	6	Every two years	21	2.7
United	67.0	N/A	2	No	2	2.1
Uruguay	3.4	1917	11	No	11	1.6

Table 8: Direct democracy score of selected countries over the 1990-2023 period (author's calculation)

(*) Including all types of referendums, initiated by government or citizens, constitutional or not, mandatory or not

The table gives a more nuanced picture than the mere opposition between "virtuous" countries in terms of direct democracy (Switzerland, Slovenia, Uruguay, Ireland) that vote very regularly and "non-virtuous" ones (like France and the United Kingdom) where referendums are rare. Given these latter countries' populations, the 2-3 referendums they organized between 1990 and 2023 are already a significant direct democracy feat. Switzerland is not even the number one country on our scale despite

the 312 questions put to the popular vote at the federal level since 1990. Italy, with four times fewer questions, comes second as it is six times more populated. The most interesting result in the above table is California, which has the highest score. Such an analysis explains why I have decided not to retain countries like Slovenia or Uruguay in the case studies despite their very active direct democracy experience[568].

Taiwan is a specific country to study since it introduced referendums only recently: 2003 for the first inscription in the constitution and 2018 for an actual practice of direct democracy (lowering of the threshold for citizen-initiated referendums). A second table can be drafted by concentrating only on the 2018-2023 period:

Country	**Population in 2024 (m)**	**Total number of questions asked**	**Direct democracy score**
California	*39*	*36*	***3,1***
Ireland	5,1	4	1,3
Italy	58,9	7	2,6
Slovenia	2,1	5	1,0
Switzerland	8,8	49	2,6
Taiwan	23,6	14	2,5
Uruguay	3,4	2	0,8

Table 9: Direct democracy score of selected countries over the 2018-2023 period (author's calculation)

We see that California is still ahead and that Switzerland, Italy, and Taiwan have the same score on the direct democracy scale. In only six years of referendum practice, Taiwan has caught up with countries with much longer experience.

[568] Ronald Hill and Stephen White note that "the position (of referendum) in Slovenia has become one of the more interesting, perhaps approaching the position in Switzerland or California" (Ronald Hill and Stephen White, *Referendums in Russia, the Former Soviet Union and Eastern Europe*, in *Referendums Around the World: The Continued Growth of Direct Democracy*, ed. M. Qvortrup, 2014, Basingstoke, Palgrave Macmillan, London.

For all these reasons, I have decided to concentrate on U.S. States (2.1.1) and Taiwan (2.1.2) and analyze them through two short monographies. Switzerland cannot be omitted, given the longevity and influence of its direct democracy. We will investigate it in the next chapter from the point of view of internet voting. As for the remaining countries, we will limit my inquiry to some specific mechanisms or examples.

2.1.1. The Depolarizing Effect of Direct Democracy in California and Other States

The U.S. has no direct democracy tools at the federal level (as per the discussion among the Founding Fathers that we have mentioned in section 1), but those exist at the level of States. The concept of States as "laboratories of democracy" was pointed out by former Supreme Court judge Louis Brandeis: "It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."[569] It is, therefore, relevant for the United States to focus on direct democracy at the State level. Not only does the size of some of the States justify this focus (in particular, California), but institutional arrangements experimented in some States diffuse to others, as has been historically the case since direct democracy was first introduced in South Dakota in 1898 and spilled over other States (the latest one being Mississippi in 1992).

Initiatives in California until the 1990s: the "case for cautious optimism"[570]

Direct democracy in the U.S. involves nearly one in two citizens. Referendums and initiatives are put to the vote at the same time as federal elections, either presidential or mid-term elections, should it be a general vote or primary. That tradition dates back to New England colonies. Massachusetts was the first state in the world to make its inhabitants validate the constitution by a popular vote in 1780, dwelling on a tradition initiated by the approval of the "Body of Liberties" by the colonists of the State in

[569] Louis Brandeis, in Supreme Court of the U.S.A., *New State Ice Co. v. Liebmann*, 1932, 285 U.S. 262.
[570] This chapter incorporates arguments developed in a less detailed manner in Gilles Mentré, *Les deux pouvoirs*, *op. cit.*

1639[571]. Rhode Island followed in 1788 but only to have its constitution, on the contrary, rejected by a majority of voters.

Before the end of the 19th century, apart from these ratification referendums, the U.S. was a straightforward representative democracy. The situation changed with a new intellectual and political movement in favor of direct democracy, spurred by publications like J. W. Sullivan's broadly read account of the Swiss democracy[572] or the political platform of the Populist Party. As Richard Ellis put it, reformists and radicals so in direct democracy are a means to "sidestep doctrinal fights about political economy and focus instead on knitting together a broad 'opportunistic' coalition of labor and middle-class reformers with the power to remake political institutions[573]". South Dakota became the first American state in 1898 to introduce officially the referendum on non-constitutional matters into its constitution (referendums on constitutional amendments initiated by the legislature are in place in all American States except Delaware). Many American States have followed, representing today twenty-four of the fifty States (plus the District of Columbia). Each State has its rules, quorums, and scopes of application (citizen initiative or congressional decision, statute or constitutional amendment, spontaneous or revocatory measure) and its own taxonomy regarding the direct democracy instruments (referendums, initiatives, measures, statutes). A survey of these States shows that twenty-four allow for a popular vote on ordinary laws (statutes) initiated by the legislature, twenty-one on statutes initiated by citizens, and eighteen on constitutional amendments initiated by citizens. Additionally, twenty-three propose veto referendums and eighteen recall votes[574].

California, with nearly 40 million inhabitants and soon the fourth largest GDP in the world ahead of Germany[575], leads the "direct democracy score" presented above. The introduction of direct democracy in the State in 1911 did not come from the populist

[571] Jeffrey A. Lenowitz, *Constitutional Ratification without Reason*, 2022, Oxford University Press, Oxford, p. 73.
[572] James W. Sullivan, *Direct Legislation by the Citizenship Through the Initiative and Referendum*, 1893, Nationalist Pub. Co, New York.
[573] Richard J. Ellis, *The Opportunist: James W. Sullivan and the Origins of the Initiative and Referendum in the United States*, 2022, American Political Thought, Volume 11, Number 1, The University of Chicago Press Journal, Chicago.
[574] Ballotpedia, https://ballotpedia.org/Forms_of_direct_democracy_in_the_American_states, accessed August 10, 2024. As per footnote 1, recall referendums are outside the scope of this dissertation.
[575] Matthew Winkler, *California Poised to Overtake Germany as World's No. 4 Economy*, Bloomberg, October 24, 2022.

movement, as in many Midwest States, but from two progressive figures from both the civil society and the political world: John Randolph Haynes (a successful physician) and Hiram Johnson (governor of California). In the State's taxonomy, the term "referendum" refers to the revocation of a law passed by the Californian Congress, and "initiative" designates a text emanating from the citizens. Initiatives must garner signatures from 5 to 8% of the electoral body to be put to the popular vote. Since 1911, over two thousand initiatives have been presented to citizens' signatures, of which 386 have been submitted for voting and 136 adopted (35%)[576].

	Total initiatives	**Statutes**	**Constitutional**
Total	386	212	174
Approved	136 (35%)	79 (37%)	57 (33%)
Defeated	251 (65%)	133 (63%)	117 (67%)

Table 10: Number of California ballot initiatives since 1911 (source: Ballotpedia[577])

The system has been extensively studied by political scientists, leading to very contrasted judgments, from John Matsusaka, who clearly states that "direct democracy works[578]", to Wyn Grant, who asserts that it "should be regarded more as a warning than an example[579]". We can group the critics addressed to American direct democracy tools into three groups: the power of the lobbies, the political bias, and rights protection.

The first concern of the direct democracy's contenders focuses on the role of private interests and lobbies. David Broder, talking about how "democracy derailed[580]", makes

[576] Vincent Michelot, *Le processus référendaire en Californie : un travestissement démocratique ?,* 2010, Pouvoirs, n°133, pp. 57-68.
[577] https://ballotpedia.org/How_many_initiatives_have_there_been_in_California, accessed August 10, 2024
[578] John G. Matsusaka, *Direct Democracy Works*, 2005, Journal of Economic perspectives, Vol.19, n°2, American Economic Association, New York, p.185.
[579] Wyn Grant, *Direct Democracy in California: Example or Warning?*, 1996, Democratization, Vol. 3, n°1, Routledge, New York, pp. 147-148.
[580] David Broder, *Democracy Derailed: Initiative Campaigns and the Power of Money,* 2000*,* Harcourt, Inc., New York.

the case that citizens voting directly defend more private interests than their elected representatives. He quotes a former justice of the Oregon Supreme Court, Hans A. Linde, who contends that "there is a difference between deciding to reduce taxes on one's constituents and deciding to reduce taxes [for yourself][581]". As Broder elaborates, "Linde argued that the initiative process, far from promoting the public interest, was inherently tailored to private, personal interests[582]." Broder advocates for a "republic" rather than a "democracy" that "subverts" it (an argument already defended by Hamilton[583]). The same argument is made by Cynthia De Chaine who underlines the effect of "NIMBYism" (Not In My Backyard), in particular in the context of insufficient education and communication[584].

Being more watchful of their private interests, citizens are supposed to be more receptive to lobbies. Direct or indirect corporate funding represented 66% of initiative campaign funds in 1990, with 67% of all funds raised in amounts superior to $100,000[585]. In 1990, a proposal to ban certain pesticides (Prop. 128 named "Big Green") was rejected after $6.5 million was spent in the campaign, $5 million of which by the petro-chemical industry alone (including $1,2 million by Monsanto, Chevron, and Dupont) [586].

In their study for Santa Clara University on all environmental initiatives in California in the 1990s, Marie Bolton and Nancy Unger conclude that the influence of lobbies on voters is, all things considered, less significant than the influence they can exert on elected representatives. Direct democracy deserves "cautious optimism". The same positively nuanced judgment can be found with Elisabeth Gerber, who found that elected representatives rarely vote in accordance with the majority of voters in their

[581] *Ibid.,* p. 216.
[582] *Ibid.*
[583] As recalled by John Patrick Coby, *op. cit.*, as we have mentioned in the introduction.
[584] Cynthia DeChaine, *The NIMBYism in Modern Suburbia: The Case of Pomona*, 1998, International Science Review, Vol. 73, n°1.2., p. 103.
[585] Marie Bolton and Nancy C. Unger, *The Case for Cautious Optimism: California Environmental Propositions in the Late Twentieth Century,* 2004, Santa Clara University, pp. 89-90. All of the research articles quoted in this section are reviewed in Bolton and Unger's article (except from John Matsuska, Daniel Lewis, Richard Collins, and David Oesterle, *op. cit.*).
[586] Wall Street Journal, October 22, 1990, quoted by Marie Bolton and Nancy C. Unger, *op. cit.*, p. 94.

constituencies and that "direct legislation, therefore, is frequently the truer measure of the will of the people"[587], evidence that is backed by other scholars[588].

Marie Bolton and Nancy Unger focus their article on environmental issues and, particularly, the 1990 vote that epitomized the advantages and risks of initiatives. That year, Californians were asked to vote on 28 initiatives ranging from property tax exemption to child-care bonds and forestry programs. Proposition 128 ("Big Green") was the most significant proposal, which aimed to set an ambitious environmental agenda and stirred important opposition campaigns by industry lobbies. The rejection of Big Green led many commentators to criticize the Californian system and the role of lobbies. Petrochemical industries did not only fund campaigns against Proposition 128, but they also systematically introduced countermeasures in the form of competing initiatives. That practice is facilitated by the professionalization of initiative campaigning and, in particular, signature collection and "the use of paid signature firms which could guarantee almost any client automatic qualification for about $1 million[589]" (an amount that favors well-funded organizations – Collins and Oesterle have found that in Colorado the financial threshold for professional to qualify a ballot was only $40,000[590]). The abundance of propositions / counter-propositions and campaigning / counter-campaigning enticed voters to reject most initiatives – a vote labeled as the "big NO". Bolton and Unger nuance that presentation. They point out that Prop. 128 had an "octopus-like form[591]", was particularly poorly written (16,000 words compared to an average of 5,000 for propositions submitted to referendum), and proposed the creation of a new public agency. This perspective acted as a scarecrow for many Independent and Republican voters. Alternative propositions sponsored by industry, such as Propositions 135 and 138, respectively supported by farmers and the timber industry, were also defeated, showing that votes on initiatives are generally balanced.

---

[587] Elisabeth Gerber, *Legislatures, Initiatives, and Representation: The Effects of State Legislative Institutions in Policy*, 1996, Political Research Quaterly, Vol. 49, n°2, p. 263, quoted by Bolton and Unger, *op. cit.,* p. 82 (where the above quotation on Gerber's article is taken from).
[588] Carl Lutrin and Allen K. Settle, *The Public and Ecology: The Role of Initiatives in California's Environmental Politics*, 1975, Western Political Quaterly, n°28, pp. 352-371 and Richard Braunstein, *Practicing Democracy: Initiative and Referendum Voting at the End of the 20th Century,* 1999, Ph.D. diss., University of Colorado.
[589] Marie Bolton and Nancy C. Unger*, op. cit.,* p. 90.
[590] Richard Collins and Dale Oesterle, *Governing by Initiative: Structuring the Ballot: Initiative Procedures That Do and Don't Work*, 1995, University of Colorado Law Review n°47, pp. 94-95.
[591] *Ibid.*, p. 93.

The second criticism that can be addressed to direct democracy is that it could be politically biased: referendums and initiatives would provide primarily conservative results. However, an overview of all initiatives since 1980 shows that no clear progressive or conservative trend can be identified in the approved measures[592]. Initiatives have allowed landmark progressive victories (like Proposition 65 of 1986 against toxic products) but also notoriously conservative ones (like the rejection of racial quotas at universities in Proposition 209 of 1996, reaffirmed in Proposition 16 of 2000), while other initiatives can be deemed bipartisan (like Proposition 140 of 1990 which limits terms in the lower house to six years and eight years in the Senate). As the historian Joseph Zimmermann analyzes, "[e]xperience with the initiative and the referendum supports the Aristotelian concept of the 'collective wisdom of the voters' and mixed election results show that voters are not 'enthralled with the rhetoric of ideologues' and pass a balance of liberal and conservative initiatives[593]". In 2022, Californians adopted in the same election four liberal measures (right to abortion, ban on sports betting, creation of an educational fund for music and art, refusal to reverse the ban on the sale of menthol cigarettes) and one conservative measure (rejection of an additional tax on very high income). That type of nuance could never have been captured by indirect voting, as liberal elected representatives rarely vote conservatively and vice versa.

John Matsusaka, surveying literature and studies on referendums and initiatives, showed that referendums present some consistent trends over time and States: they tend to lower spending and debt (respectively 8% and 16% under the average for mandatory referendums and systematically lower spending for initiatives in states – but increased spending for initiatives in cities)[594]. That result has nevertheless been challenged by Marschall and Ruhil[595], who found that the endogeneity of the initiative model biased these fiscal effects. This rebuttal, which has led to an extensive debate among scholars[596], is more in line with Bolton and Unger's findings, showing that

[592] *Ibid.*
[593] Joseph Zimmerman, *Participatory Democracy: Populism Revived*, 1986, Preager, New York, p. 96, quoted by Mary Bolton and Nancy C. Unger, *op. cit.*, p. 100.
[594] John G. Matsusaka, *For the Many or the Few*, 2004, University of Chicago Press, Chicago.
[595]Melissa J. Marschall and Anirudh V.S. Ruhil, *Fiscal Effects of the Voter Initiative Reconsidered: Addressing Endogeneity*, 2005, State Politics and Policy Quarterly, Vol. 5, No. 4, Cambridge University Press, pp. 327–355.
[596] John G. Matsusaka, *The Endogeneity of the Initiative: A Comment on Marschall and Ruhil*, 2005, State Politics and Policy Quarterly Vol. 5, No. 4, Cambridge University Press, pp. 356–363 and Melissa J. Marschall and Anirudh V. S. Ruhil, *Of Models and Methods: A Response to Matsusaka*,

direct democracy is never conservative or progressive as such. It is also another conclusion of Matsusaka and Lupia, who have found that referendums and initiatives deliver public policies that are more in line with the majority opinion than legislative bills[597].

The evidence that voters are not "enthralled" with the parties' rhetoric can be observed in other American States. In Utah, even though the Republican party has consistently won elections at the local level since 1992, the 2018 referendum saw the adoption of three progressive reforms: the expansion of Medicaid health coverage, the legalization of cannabis, and the establishment of an independent system for electoral redistricting (a mean to avoid the gerrymandering discussed in the introduction). In 2021, in an explicit effort to constrain referendums, the Utah Congress passed a law banning lucrative signature collection activities, effectively limiting the ability to mobilize citizens[598]. The same measure was taken by Arkansas (as well as a new 60% threshold to pass a law by referendum). At the same time, Mississippi and Idaho imposed a minimum number of signatures in each county of the State. Note that in eleven States, Congress can repeal or amend a law passed by referendum, as was done in Utah to restrict Medicaid. These attempts to limit direct democracy have all emanated from Republicans—who control two-thirds of the twenty-four states where it is practiced. It seems paradoxical considering that, ten years ago, direct democracy was more strongly claimed by Republicans than Democrats[599].

The third criticism against direct democracy, as highlighted in the introduction, is relative to rights. From a legal perspective, referendums, as practiced in the U.S., do not trump other norms. A check is exercised by the judiciary, especially when it concerns minority rights. For example, Californians repealed in 1964 by a two-thirds majority the Fair Housing Act that allowed for decent housing conditions for African Americans—a decision overturned by the Supreme Court of the State which restored the rights of the Black minority. This approach is coherent with the third principle that we have highlighted in the introduction. Nevertheless, it does not consider the

2005, State Politics & Policy Quarterly, Vol. 5., n°4, Cambridge University Press, Cambridge (MA), pp. 364-372.

[597] John G. Matsuska*, For the Many or the Few*, *op. cit.*

[598] Congress of Utah, law H.B. 136, *Initiative and Referenda Modifications,* 2021.

[599] Jeffrey M. Jones, *op. cit.*, which showed that, in 2013, 69% of Independents, 74% of Republicans, and 64% of Democrats would be in favor of national referendums on key issues.

"indirect" effects of majority votes on the legislature. Daniel Lewis, contrasting with Matsusaka's "agnosticism" regarding the effects of direct democracy on minority rights, demonstrates that referendums and initiatives have an ambivalent impact and in particular clearly negative consequences for the rights of LGBTQ+ and linguistic minorities, in particular, due to the effect that majority preferences can have on legislative filters. "Evidence of tyrannical outcomes is also found in several studies of specific anti-minority policies, such as Official English language measures, affirmative action bans, and anti-gay rights policies[600]". That empirical perspective reinforces the need to ring-fence the rights of minority groups and to provide general protection of individual rights in the form of qualified majoritarianism.

Such "cautious optimism" offers an empirical ground for concrete proposals on implementing direct democracy in practice, which we will discuss in section 3. This debate is particularly vivid in California. Following the 1990 vote, a commission was put in place at the State level that formulated interesting proposals such as a 5,000-word limit on initiatives, a mandatory floor vote in the legislature, a possibility by the legislature to amend the initiative by a 60% super-majority, a series of prior public hearings and a disclosure and limitation of campaign contributions[601].

These recommendations underline that an analysis of direct democracy cannot be limited to voting mechanisms and should include preparatory elements linked to information, debate, and possibly proposition design. Horizontality and decentralization allow for more extensive participation of citizens in all those aspects. Examples are still rare in the U.S., but Oregon offers an interesting illustration of this with the Citizens' Initiative Reviews (CIR)[602]. Like citizens' juries or consensus conferences, about twenty citizens are randomly selected, incorporating criteria of representativeness and diversity, to analyze a question to be submitted to referendum over three to four days. The novelty is that they do not decide on the solution itself but on the formulation of the question posed and the information transmitted to the citizens in the form of a one-page summary document outlining the main arguments

[600] Daniel C. Lewis, *Direct Democracy and Minority Rights – A Critical Assessment of the Tyranny of Majority in the American States,* 2017, Routledge, New York, p. 15 (emphasis mine).
[601] Marie Bolton and Nancy C. Unger*, op. cit.*
[602] Hélène Landemore, *Referendums Are Never Merely Referendums*, *op. cit.*

of the debate[603]. The first CIR was instituted in 2010 around an initiative to legalize medical cannabis, a proposition ultimately rejected by the voters (56% against). It has since been institutionalized in the State's referendum system, not systematically but following a case-by-case approach, where a CIR is organized depending on the complexity of the subject and the availability of public financing. In 2020, a CIR was organized to help voters understand and make informed decisions on a proposition to amend the Oregon Constitution on the following points: allowing laws that limit political campaign contributions and expenditures, requiring disclosures of contributions and expenditures, and mandating that political advertisements identify who paid for them. The CIR formula is now being tested in several other States (Massachusetts, Arizona) and Finland[604].

The CIR is interesting from a double perspective. The first is that it exemplifies how increasing participation and decentralizing decisions go beyond voting and should encompass all the aspects of decision-making: information, debate, proposition design, and control. The second is that the CIR, contrary to other types of "mini-public" as we will discuss in length in section 3, does not contain any decision aspect. It is strictly an instrument of information, debate, and design. In that sense, it is function-specific or functionalized and does not fall into the issue of "divergence of functional direction" identified by Simondon that we will present in the next chapter.

State direct democracy in the age of polarization: referendums on abortion and the expression of the "vast middle"

The "cautious optimism" we have inferred from direct democracy, after Bolton and Unger, is based on California's experience in 1980s and 1990s. Is that conclusion still valid today in a political world characterized, as we have seen in section 1, by distrust and polarization? One of the strong arguments in favor of direct democracy was, in particular, the fact that citizens were better able to distance themselves from ideologies in comparison to representatives who often do not vote like the majority in their

[603] Fischer, K. & Reedy, J. & Piercy, C. & Thapaliya, R., *A Typology of Reasoning in Deliberative Processes: A Study of the 2010 Oregon Citizens' Initiative Review*, 2022, Journal of Deliberative Democracy, Vol. 18, n°2.
[604] Maija Setälä, Henrik Serup Christensen, Mikko Leino, Kim Strandberg, Maria Bäck, and Maija Jäske, *Deliberative Mini-publics Facilitating Voter Knowledge and Judment: Experience from a Finnish Local Referendum*, 2023, Journal of Representative Democracy, Vol. 59.

respective constituencies[605]. It was indeed the case in a period where issue alignment was strong among political parties but did not transfer to citizens themselves (the Baldassari model exposed in section 1). This is not the case anymore as issue alignment has increased among voters themselves. Can direct democracy still play the same epistemological role against issue unalignment today?

As we have concluded in section 1, there is insufficient theoretical evidence to conclude on this crucial point. In the optimistic scenario, voters can still build majorities on projects despite polarization, infused by somewhat reasonable and issue-specific arguments. In the pessimistic scenario, polarization applies similarly to direct democracy and representative democracy and installs an agonistic confrontation. It is typically the type of indetermination that Simondon refers to in his analysis of technique. By surveying concrete usage, we will conclude on the efficiency argument.

The debate around abortion offers an optimal practical field. In 1973, the Supreme Court ruled in *Roe v. Wade*, reaffirmed by *Casey* in 1992, that the right to abortion is constitutionally protected until the end of the 2nd trimester (unconditionally until the end of the 1st trimester and under reasonable regulations introduced by each State until the end of the 2nd trimester, taking into account in particular maternal health). The Supreme Court's reasoning was based on the right to privacy (*Roe*) and the right to liberty (*Casey*). Since then, the debate has been hyper-polarized by political parties. Many compromise solutions introduced at the federal level have been thwarted, one of the last ones being the bipartisan agreement pushed by two Republican female senators to codify the abortion rights recognized in *Roe v. Wade* and *Casey*[606].

The issue climaxed in 2023 with the *Dobbs* decision of the Supreme Court, which considered that the right recognized by *Roe v. Wade* and *Casey* was neither enshrined in the Constitution nor custom and that it was up to the States to determine the applicable rules.

Regardless of one's opinion on *Roe v. Wade* or *Dobbs*, it seems unsatisfactory that judges alone should decide on the question of abortion. When he imagined an ideal

[605] John G. Matsusaka*, For the Many or the Few*, *op. cit.*
[606] *Reproductive Choice Act* (RCA), amending the *Women's Health Protection Act* (WHPA), introduced by U.S. Senators Susan Collins (R-ME) and Lisa Murkowski (R-AK), February 28, 2022.

judge, whom he named "Hercules", Ronald Dworkin precisely chose the question of abortion to point out that there can be no single answer to difficult moral questions and to advocate for pluralism:

"Suppose a judge has to decide whether that very abstract provision makes abortion illegal or whether, on the contrary, it makes it unlawful to ban abortion, and suppose America is roughly evenly divided between people who think abortion murder and those who think that any ban on abortion is a savage injustice to women. [...] [M]y ideal judge Hercules could develop a liberal conception of equality that would favor the rights of women, and hold that the equal protection clause forbids constraints on abortion. But a more conservative and equally brilliant judge could with equal plausibility construct a different conception of equality that would protect what he would call unborn children. Legal theory must give up the myth of a single right answer to such hard legal questions and instead try to develop norms of 'comprehensive pluralism' that mediate among different conceptions of the right and the good in a dynamic interplay of some kind."[607]

I have quoted Dworkin's position full length because it draws the line between a static legal approach and a democratic dynamic one. Dworkin is neither a supporter of direct democracy nor an advocate for collective decisions on moral issues (as we will see while analyzing the question of assisted suicide in section 3). Nevertheless, the concept of "dynamic interplay" that he proposes so as to navigate between "different conceptions of the right and the good" can be extrapolated (against Dworkin's will) to our demonstration. In a column published by Politico just after the Supreme Court's decision, John Matsusaka suggested that referendums should be organized in each State. The referendum was indeed the way chosen by some European countries to deal with that "hard question", particularly in Italy (1978 referendum) and Ireland (2018 referendum). Mastusaka asserts that, in a polarized country, a compromise or consensual solution is more likely to be found through a referendum than within an elected assembly. As he contends:

"Some fear that allowing voters to set abortion policy will lead to extremism. But it's more likely to lead to moderation because voters themselves are fundamentally centrist on the issue. While pro-choice and pro-life activists tend to hold extreme views — prohibit abortion under any

[607] Ronald Dworkin, *Answer to articles*, *op. cit.*, 8. Dworkin's comments are an answer to an article by Michel Rosenfeld, *Dworkin and the One Law Principle: A Pluralist Critique*, *in* Revue internationale de philosophie Vol. 233, n°3, pp. 363 to 392.

circumstance or allow abortion under any circumstance — polls suggest that most Americans reject both those extremes."[608]

In Mississippi, an attempt to impose a definition of life from the moment of conception by referendum was rejected by voters in 2011[609]. The same refusal was expressed in North Dakota in 2014[610].

Some States have taken steps in that direction. Kansas held a referendum on August 2, 2022, concurrently with the State's primary vote, on a new constitutional amendment to allow its Congress to legislate on the subject. In accordance to *Roe v. Wade*, the Kansas Supreme Court ruled in 2019 in favor of a 22-week abortion limit based on "the ability to control one's own body, to assert bodily integrity, and to exercise self-determination[611]" enshrined in the State's constitution. After the *Dobbs* decision, the State's Republican Congress requested a constitutional amendment to implement a total ban. There was seemingly little suspense about the outcome. As portrayed by journalist Thomas Frank in his bestseller *What's the Matter with Kansas?*[612], Kansas has shifted from being a Democrat territory to becoming a stronghold of Republicans. The change, which started in the 1960s, has primarily been driven by "cultural" reasons: the rejection of the Democratic elites (a phenomenon that Frank coined as "latte libel[613]"), Christian proselytism, and an emphasis on "authenticity". Reading that analysis, one would have expected massive support for an abortion restriction on August 2. Kansas voters have a long record of overwhelmingly supporting conservative measures. In 2010, 88% voted in favor of constitutional recognition of the right to bear arms and 70% in 2005 for restricting marriage to heterosexual couples (even though such a question should not have been subject to a referendum as per our third principle). The August 2022 turnout was significant, with more than 50% of the

---

[608] John G. Matsusaka, *If Roe is Overturned, Democracy Could Be the Best Path Forward on Abortion*, Politico, April 1, 2022.
[609] Mississippi, Initiative 2011/26.
[610] North Dakota, Measure 2014/1.
[611] Supreme Court of Kansas, *Hodes & Nauser, MDs, P.A. v. Schmidt*, 2019, 309 Kan. 610, 614, 440 P.3d 461.
[612] Thomas Frank, *What's the matter with Kansas? How conservatives won the heart of America*, 2004, Picador, New York.
[613] *Ibid.*, p. 16.

electorate participating, and polls showed that Republican voters turned out in greater numbers, in absolute terms than Democrats and Independents combined[614].

The result surprised all the analysts. Over 59% of voters rejected the amendment, with many Republicans and Independents voting against it. The result seems to confirm Matsusaka's forecast: voters turned out to be less polarized than their representatives are. This analysis, in the case of abortion, is particularly true for women who voted massively against the amendment. Before being a Republican, a female Republican voter is predominantly a woman. As Peggy Noonan, a former speechwriter for Ronald Reagan and herself openly anti-abortion, wrote shortly after the vote, it is the "moderate, reasonable and balanced approaches that convince the vast middle block of voters[615]". Noonan anticipated, after a few "ugly" years of extremism, a consensus in many States, driven by direct democracy, around a limitation to 15 weeks except in cases of danger to the mother's life and rape, close to the European consensus[616].

Several other States put the question of abortion to a vote in 2022: Kentucky, Vermont, Michigan, and California. In all cases, voters chose the more favorable option in terms of abortion. In the two Democratic states, California and Vermont, a large majority unsurprisingly emerged in favor of enshrining the right to abortion in their constitutions (65% and 77%, respectively). The same result was obtained in Michigan, a swing State that had voted for Donald Trump in 2016 and Joe Biden in 2020. 56% of voters approved the proposal to enshrine in the State constitution the unconditional right to abortion up to the viability of the fetus (24 weeks) and beyond that limit in case of risk to the mother's health. The Republican majority in the State Congress had tried to cancel the referendum (on the ground that the text did not display correct spacing)

---

[614] Steve Kornacki, NBC, August 3, 2022: 464 000 Republicans, 276 000 Democrats, and 169 000 Independents voted on the August 2 initiative in Kansas.
[615] Peggy Noonan, *What Pro-Lifers Should Learn From Kansas*, Wall Street Journal, 6-7 août 2022.
[616] Leaving aside Poland, which in 2023 still prohibited abortion unless there is a risk to the life or health of the mother, and the United Kingdom and the Netherlands, which authorize it up to 24 weeks of amenorrhea. In France, the limit is 14 weeks of pregnancy (16 weeks of amenorrhea) since the law of March 2, 2022.

despite surveys showing the support of 67% of voters[617]—it took a ruling of the State's Supreme Court to allow the vote to be held[618].

The actual "surprise" came from Kentucky, where the legislature put to the popular vote an amendment to the constitution to instate a ban on abortion and a ban on any related public funding[619]. The amendment was rejected on November 8, 2022, by 53% of voters. As in Kansas, analysts were expecting a favorable vote, with 50% of Kentucky residents identifying as evangelical. Voters did not align issues. While rejecting the amendment, Kentuckians elected by more than 60% a Republican senator (openly anti-abortion), chose Republican representatives in six of the State's seven counties, and sent only Republican representatives to the State Congress. As in Kansas, the result can be explained by a sizeable female mobilization. Refusing to be "enthralled" by ideologies, voters in Kentucky affirmed that a citizen can, at the same time, vote for representatives from the Republican party in terms of indirect democracy and vote against the Republican party's recommendations in terms of direct democracy. The vote in Kentucky did not, however, restore the right to abortion, which remains banned by a trigger law activated following *Dobbs* and confirmed by the State's Supreme Court[620].

As Daniel Lewis suggested, referendum votes can also have an "indirect" effect on the attitude of representatives. In South Carolina, several Republican senators refused to follow the state House of Representatives in their proposal for a total ban[621]. However, the indirect effect does not always materialize, as shown in the example of Ohio. The State's constitution requires, since 1912, a simple majority for an initiative to be adopted. The Republican majority in the State Congress submitted to a referendum in August 2023 a measure aimed at increasing the approval threshold for initiatives to 60% and making the collection of signatures more difficult. As the Republican Secretary of State bluntly stated: "It's 100% about keeping a radical pro-abortion

[617] 67% for a referendum and 24% against, according to Polling USA, *Michigan - Support for the Constitutional Amendment Recognizing Abortion Rights*, August 2022.
[618] Jeff Milchen, *Republicans Are Trying to Block Citizen-Led State Ballot Initiatives,* The Jacobin, June 20, 2022.
[619] Kentucky, Amendment 2022/2.
[620] Supreme Court of Kentucky, decision n°2022-SC-0329-TG, February 16, 2023.
[621] Jeffrey Collins, *Some SC Republicans pause at abortion ban brink*, The Post and Courrier, August 7, 2022. South Carolina already restricted abortion to 6 weeks in 2021.

amendment out of our constitution[622]". The voters rejected the measure by 57%. Moreover, citizens pushed forward an initiative to restore *Roe v. Wade* in November 2023 that was adopted by 57%[623].

The examples of Kansas, Kentucky and Ohio are not anecdotal but reveal a structural pattern. During the 2024 presidential election, the list of States that voted at the same time pro-abortion and pro-Republican became larger. Pro-adoption initiatives where adopted on Election Day in Arizona (62% in favor of Proposition 139 that provides a right to abortion before the point of fetal viability), Colorado (62% in favor of Amendment 79 that creates a right to abortion in the state constitution and allows for the use of public funds for abortion), Missouri (52% in favor of Amendment 3 that establishes a right to reproductive freedom that includes abortion), Montana (57% in favor of the Right to Abortion Initiative), and Nevada (64% in favor of Question 6 that provides a state constitutional right for abortion until fetal viability). Only two States voted for anti-abortion measures. In South Dakota, 59% of voters rejected Amendment G, which would have created a constitutional right for abortion. In Nebraska, 55% were in favor of Initiative 434 constitutionally restricting abortion after 12 weeks, and 51% were against Initiative 439 constitutionalizing *Roe v Wade*, a result that can nevertheless be seen as a compromise between the bans advocated by Republicans (from a total ban to a ban after 6 weeks) and the liberty claimed by Democrats (until 22 to 24 weeks) and is in the range of the European consensus. The case of Florida is ambiguous, as a large majority of 57% of voters were in favor of Amendment 4 providing a constitutional right to abortion, although the amendment did not pass due to a required supermajority of 60%[624].

Referendums and initiatives on abortion are empirical proof that direct democracy can rebuild consensus based on projects when polarization makes consensus based on programs impossible. The Baldassari hypothesis of a partisan rather than issue alignment might be insufficient to explain systematically voters' preferences, as Klossovski and Murphy have shown, yet it seems valid enough when confronted with "core" issues such as abortion.

---

[622] Morgan Trau, *Ohio Sec. of State LaRose admits making constitution harder to amend is '100% about… abortion'*, Ohio Capital Journal, June 5, 2023

[623] Ohio, Issue 2023/1.

[624] For all Ballot Measures results, see NBC News, *Ballot Measures*, https://www.nbcnews.com/politics/2024-elections/ballot-measures, accessed November 12, 2024.

Communal Democracy

Alongside States' referendums, another institution has been sustaining American democracy since its early days: communal democracy and, in particular, the direct democracy of town meetings[625]. The colonies of New England managed themselves autonomously for centuries before Independence. Tocqueville describes one of these community gatherings that bring together the entire population:

"If, for instance, a school is to be established, the selectmen convoke the whole body of the electors on a certain day at an appointed place; they explain the urgency of the case; they give their opinion on the means of satisfying it, on the probable expense, and the site which seems to be most favorable. The meeting is consulted on these several points; it adopts the principle, marks out the site, votes the rate, and confides the execution of its resolution to the selectmen."[626]

By doing so, the selectmen return, in Tocqueville's own words, to "the source of their power". During his stay in Boston, the city in the United States where he spent the longest time during his travels, Tocqueville became aware of town meetings, thanks notably to the historian Josiah Sparks[627]. As he concluded, "England formerly governed the mass of the colonies, but the people were always sovereign in the township where its rule is not only an ancient but a primitive state[628]". Local democracy is at the origin of democracy itself, just as civil association is at the root of political association. Practicing in is deeply educational for citizens:

"Town-meetings are to liberty what primary schools are to science; they bring it within the people's reach, they teach men how to use and how to enjoy it. A nation may establish a system of free government, but without the spirit of municipal institutions it cannot have the spirit of liberty."[629]

That insight remains highly relevant, and local democracy is experiencing renewed vitality today. Town meetings are still active in Vermont, Massachusetts and

[625] Town meetings seem to have played an important role in medieval and pre-Revolution Europe as analyzed by Alain Follain, *Le village sous l'Ancien Régime [Village in the pre-Revolution period]*, 2008, Fayard, Paris, chapter VIII ("Assemblée de village" *["Town meetings*"], pp. 650 and following.
[626] Alexis de Tocqueville, *Democracy in America*, *op. cit.*, p. 80.
[627] Leo Damrosch, *What Boston's Brahmins Taught Tocqueville About Democracy*, Radio Boston, May 12, 2010.
[628] Alexis de Tocqueville, *op. cit.,* p. 86.
[629] *Ibid.*, p. 78.

Connecticut, where they "continue to play a significant role in local government and the nation's democratic imagery[630]". Alternatives exist in other States. The example provided by the school system in Wisconsin can be read as an exact transcription of the practice that Tocqueville described. Before 1993, local schools could directly raise their funding from taxpayers with proportional public participation. The Wisconsin Congress soon imposed caps to control the increase in local taxation. As a result, income became insufficient over the years to meet public investment needs. Since 2016, the 421 school districts have been authorized to hold referendums. Residents vote on school equipment and maintenance plans and a corresponding increase in property tax. More than 70% of the districts have used that instrument and an average of two-thirds of budgets have been adopted[631]. Instead of lamenting the degradation of their schools, residents discuss directly the budgets and decide collectively whether or not to fund them with their own taxes. Contrary to town meetings, referendums do not require citizens to be physically present at a local assembly. Town meetings are powerful institutions that promote public debate at the local level, and they have inspired modern versions such as the "neighborhood assemblies[632]" proposed by Barber. However, physical assemblies pose the risk of discriminating between citizens according to their availability and possibility to attend, implicitly favoring specific populations[633]. The advantage of the referendum is to include citizens lacking availability or the will to attend physical or online debates in the decision-making process.

Other experiences of direct democracy at the local level have proven successful in improving the quality of decisions, such as, for example, initiatives on urban growth boundaries, which tend to move policies further from the status quo than growth boundaries adopted by legislatures[634]. Interestingly, the study shows that the votes are

[630] Benjamin Barber, *op. cit.*, p. 268.
[631] Drew Dawson, *Voters approve $77.4 million Nicolet High School facilities referendum*, Milwaukee Journal Sentinel, April 5, 2022.
[632] Benjamin Barber, *op. cit.*, p. 269.
[633] Laurence Monnoyer-Smith, *Le débat public en ligne: ouverture des espaces et des acteurs de la délibération? [Do online public debates enlarge the scope and public of deliberation?],* in *Le débat public : une experience française de démocratie participative [Public debate: a French experience of participative democracy]*, M. Revel, C. Blatrix, L. Blondiaux, J.-M. Fourniau, B. Heriard Dubreuil, and Rémi Lefebvre (dir.), 2007, Recherches, La Découverte, Paris, pp. 155-166.
[634] Elisabeth R. Gerber and Justin H. Phillips, *Evaluating the Effects of Direct Democracy on Public Policy: California's Urban Growth Boundaries*, March 2005, American Politics Research, Vol. 33, n°2.

not more time inconsistent than legislative decisions, contradicting the idea that voters are "mercurial[635]".

Other innovative mechanisms have been developed at the communal level. In his book *Vote for US*, constitutionalist Joshua Douglas lists experiments conducted at the local level over the past decade to improve democracy and electoral rules[636]. The decentralization of the American electoral system allows for great flexibility at the State and the municipality level. First example: to combat gerrymandering, many American cities have created local councils, independent of political parties, to review districting. Second example: the residents of San Francisco adopted ranked-choice voting (RCV) in 2002 by a referendum that garnered more than 55% of the popular vote. RCV has been adopted by several other cities since then, including Minneapolis, Memphis, Oakland, New York, Portland (Maine), and Alaska. We will analyze the potentialities and shortcomings of RCV and the role of e-voting in respect to RCV in section 3.

The third and most striking example of grassroots democracy is the funding of electoral campaigns. The Supreme Court has always protected a candidate's ability to self-fund without limits, and the ability for voters to independently group together in support associations for specific candidates named PACs (Political Action Committees)[637]. To counterbalance that power, several cities have devised compensatory public funding systems. Since the 1980s, New York City has co-financed electoral campaigns by giving $6 for every dollar of private funding (limited to $175 per donor). The system became so popular that in 2018, residents decided by referendum to increase the contribution to $8 (approved by 80% - the State of New York has no provisions in place for referendums at the State level but allows them at the municipal level). As proposed by Lawrence Lessing[638], or other supporters of democratic vouchers like Edward Foley and his "Equal-Dollars-per-Voter" principle[639], the Municipality of Seattle introduced

---

[635] Benjamin Barber, *op. cit.*
[636] Joshua A. Douglas, *op. cit.*
[637] Richard Briffault, *Ballot Propositions and Campaign Finance Reform,* 2012, Journal of Legislation and Public Policy, n°10, New York University, New York.
[638] Lawrence Lessing, *Republic, Lost*: *How money corrupts Congress – and the way to stop it*, 2012, Twelve, New York.
[639] Edward B. Foley, *Equal-Dollars-Per-Voter: A Constitutional Principle of Campaign Finance*, 1994, Columbia Law Review n°1204, New York.

Democracy Vouchers in 2015, after they were approved by referendum[640]. The Municipality grants a $25 credit to each citizen that they can freely allocate to any of the competing candidates. Not only did the vouchers increase the number of actual donors by tenfold, but they also led to an increase in participation rates.

Generalizing referendums, initiatives, and communal democracy in the United States seems a long-term task. Nevertheless, the idea that democratic institutions and the constitution should evolve frequently was at the core of the Founding Fathers' program. Washington and Jefferson thought the American Constitution should be rewritten every twenty years[641].

*

The experience of direct democracy in the American States that practice it allows us to test how it can perform as a "political technique". As Simondon modelized it, the strength of a technique lies in its indetermination rather than its automation. The outcome of direct democracy is utterly undetermined. The analysis of more than a century of initiatives and referendums in California shows that it can neither be qualified as a conservative or progressive instrument. The recent series of referendums and initiatives on abortion across the United States, some of which taking every observer by surprise, recalled that voters judge independently from their party affiliation when it comes to crucial subject.

The indetermination of direct democracy is precisely its political strength. Analyzing direct democracy as a technique means assessing how it can increase legitimacy and efficiency incrementally rather than in absolute terms. How do representative democracy and direct democracy react to the new political context that the U.S. democracy (and, in general, Western democracies) are facing? Representative democracy is challenged by general distrust and lower efficiency of public policies in an unprecedented way. Polarization, in turn, erodes the very bases of the democratic

[640] Tom Latkowski, *Democracy Vouchers – How bringing money into politics can drive money out of politics*, 2021, Democracy Policy Network Books, New York.
[641] Thomas Jefferson, *Letter to James* Madison, September 6, 1789, in *Jefferson Papers,* Vol. 15, 1958, Princeton University Press, Princeton, pp. 392-398.

system: blocked institutions, voters' disenfranchisement, excessive influence of corporations and interest groups, or gerrymandering. In reaction, popular votes have been able to install bipartisan committees to oversee re-districting, create innovative funding mechanisms, or bypass institutions to impose decisions. In return, the two traditional parties have tried to reign in these instruments: from Democrats in the 1990s suspicious about the ability of the popular vote to pass efficient environmental laws to Republicans today trying to restrain referendums and initiatives by creating new thresholds or limiting signature collection. As a technique in constant perfecting, direct democracy tools need nevertheless to be adjusted. We will discuss in section 3 what these amendments should be.

2.1.2. Digital Democracy in Taiwan

While the United States has a long tradition of direct democracy, dating back to the last years of the 19th century, Taiwan provides the opposite example of a country that has been engulfed only recently in such practices. Analyzing the Taiwanese example is helpful since the country took stock of the lessons learned from long-trained democracies and technical instruments and digital tools of the 21st century.

Taiwan's direct democracy process stems from the occupation by students in 2014 of the island's Parliament (the Legislative Yuan) for over three weeks. While the Capitol riot shook American democracy, the "Sunflower Movement" sparked a new momentum for direct democracy.

Taiwan is a recent democracy with a successful transition from the single-party regime (the Kuomintang – KMT) in place until the late 1980s[642]. Although martial law was lifted in 1987, real political alternatives only began with the 2000 election of the first president not from the KMT. Taiwan, therefore, offers a typical example of "elite-led transition[643]" (Gandhi). A semi-presidential system was established, where the Parliament plays a significant role in a highly polarized landscape between the pro-independence Democratic Progressive Party and the KMT (still favoring reunification

[642] Linda Chao and Ramon Myers, *The First Chinese Democracy: Political Life in the Republic of China on Taiwan*, 1997, Johns Hopkins University Press, Baltimore.
[643] Jennifer Gandhi, *The Institutional Roots of Democratic Backsliding*, *op. cit.,* p.13. Based on Haggard and Kaufman's survey of 100 countries, Gandhi demonstrates that elite mobilization accounts for half of the democratic transitions, while popular mobilization accounts for the other half.

with China and now pro-Beijing). As summarized by Richard Bush, that situation has resulted in (i) eschewing compromise, (ii) no shared consensual position, (iii) a "you live, I die" (*nihuo, wosi*) attitude toward the opposition party, (iv) sporadic emergence of third parties trying to break the duopoly (as during the 2024 election), (v) implementation of hurdles to harden transition, and (vi) tumultuous and sometimes violent attitude with Parliament[644]. This last characteristic is particularly striking, with MPs obstructing legislative discussion by seizing physical control of the speaker's dais. A parliamentary discussion on commercial tariffs resulted in MPs throwing pig guts in the House[645]. Nearly two-thirds of Taiwanese find these incidents problematic and contrary to their interests[646].

In 2014, another incident ignited tensions. KMT deputies, having regained power in 2008, attempted to force through a trade agreement with China despite the opposition of the Democratic Progressive Party. The government's refusal to dialogue led to the occupation of the Yuan by students demanding the complete withdrawal of the bill. For twenty-four days (from March 18 to April 11, 2014), the occupants and supporting protesters organized workshops on various themes raised by the trade deal in the streets ("deliberation in the street" or "dstreet"). This innovative deliberation mechanism helped generate alternative proposals[647]. The government eventually abandoned the trade deal, but the movement had profound consequences. The KMT lost the following elections in 2016 (and again in 2020 and 2024) to the Democratic Progressive Party, its pro-independence rival, within which many figures from the movement continued their political careers.

Taiwan ranks within the top ten countries in The Economist's Democracy Index[648], behind the Scandinavian countries and New Zealand but ahead of Australia, the U.K., Germany, or France[649]. Taiwan scores exceptionally high worldwide in the "functioning

[644] Richard C. Bush, *Taiwan's democracy and the China challenge*, 2021, Brookings Institute, New York.
[645] Nathan Batto and Shelley Rigger, *Legislators threw pig guts in Taiwan's parliament. Here's what you need to know about legislative brawls*, Washington Post, December 11, 2020.
[646] *Ibid*.
[647] Wu Jieh-min, *Taiwan's Sunflower Occupy Movement as a Transformative Resistance to the « China Factor »,* pp. 215-240 in Ching Kwan Lee and Ming Sing, *Take Back Our Future: An Eventful Political Sociology of Hong Kong's Umbrella Movemen*t, 2019, Cornell University Press, Ithaca (NY).
[648] 10th in The Economist Democracy Index 2023 and 8th in The Economist Democracy Index 2021.
[649] The Economist Intelligence Unit, Democracy Index 2023, Age of Conflict, https://www.eiu.com/n/campaigns/democracy-index-2023/, accessed July 10, 2024.

of government" category, which assesses administrative effectiveness, balance of powers, and citizens' involvement. Three main features of the Taiwanese system explain this score: the central role of referendums and initiatives, innovations in public debate, and civil society's combat against misinformation.

Referendum Democracy in Taiwan: Decentralizing Decision

The first impact of the Sunflower Revolution was the revitalization of Taiwan's direct democracy instruments. The 2003 Referendum Act[650] introduced the possibility for citizens to propose a law (initiatives) or repeal an existing law (referendum). However, the excessively high thresholds for initiation, validation, and vote rendered it ineffective. In 2017, the Parliament amended the Referendum Act and reduced the threshold to initiate a vote to 1,900 signatures (0,01% of eligible voters compared to 0,1% before). For a referendum or an initiative to be organized, it must pass an additional threshold of 282,000 voters (1.5% of eligible voters, down from 5% before 2017). Furthermore, for a proposal to be adopted, it should have garnered the votes of at least 25% of the registered voters (down from 50% before 2017). A significant improvement was made in 2024 with the possibility of collecting these different signatures electronically via a government portal[651], providing a technological framework to ease the process of referendum initiatives.

A referendum set one key feature of the Taiwanese system. The original law mandated that any issue be put to voters at the first national election following its validation. With the new electoral law of 2019, the government limited referendums to once every second year (without limiting the number of questions that could be asked), setting the date in August so it does not coincide with a general election. The DPP government aimed to rationalize the use of referendums after it opposed the initiative and outcome of the referendum organized in 2018. The KMT, which had supported the main provisions adopted in 2018, challenged that choice and proposed, in a 2021 referendum, to return to the previous syste, more frequent and flexible. A majority of

[650] Referendum Act, June 21, 2019 (amended), https://law.moj.gov.tw/Eng/LawClass/LawAll.aspx?PCode=D0020050, accessed June 10, 2024.
[651] *Taiwan Launches New Electronic Referendum Campaign*, Taiwan Plus, April 8, 2024, https://www.taiwanplus.com/news/taiwan-news/politics/240408026/taiwan-launches-new-electronic-referendum-campaign-system, accessed May 10, 2024.

voters rejected the proposal. The result may be interpreted as showing that the Taiwanese, collectively, deemed it inappropriate to link the election of representatives (indirect democracy) with votes on substantive issues (direct democracy) and that these latter required their own time and space, neither too frequent nor too close to general elections. Such a result is an interesting empirical counterargument against those who fear, as we will see in section 3, that bottom-up direct democracy instruments can be used too frequently in an uncontrollable and contradictory manner if citizens were allowed to use them freely[652].

Taiwan has already held five referendums, totaling twenty proposals submitted to vote. Seven of these proposals were validated, all during the 2018 referendum, which presented ten questions. Among those, three concerned the topic of energy: agreement to reduce by 1% per year the production of electricity from thermal sources, agreement to eliminate new investments in electric power production using coal, and removal of the clause phasing out nuclear energy by 2025[653]. Almost 60% of the Taiwanese voted to cancel the phase-out of nuclear power. The result contrasted sharply with the referendums held in other countries regarding nuclear power, should it be Switzerland in 2016 (58% in favor of a ban on new reactors[654]) or Sweden in 1980 (39% in favor of a ban on new reactors and gradual phase-out[655]). In Italy, three technical measures that prevent the construction of new reactors were accepted by referendum in 1987, a result that the government interpreted as a phasing-out. A new referendum took place in 2011, with 94% of Italians in favor of canceling the 2011 law restarting nuclear projects, a result that the government interpreted as an exit[656]. The Taiwanese example has emboldened other countries to consult their citizens on new nuclear plants, as it will be the case in 2024 for Kazakhstan[657] and Slovenia[658]. The Swiss government is contemplating a new referendum in 2025 to reverse the ban on new reactors[659].

---

[652] See Loïc Blondiaux et al., *Le referendum d'initiative citoyenne délibératif [Deliberative Citizen Initiated Referendums]*, Terra Nova, February 18, 2019, Paris: "Multiplying referendum consultations can have potentially uncontrolable and contradictory effects" (my translation).
[653] Article 95.1. of the Electricity Act that reads: "Nuclear-energy-based power-generating facilities shall wholly stop running by 2025".
[654] BBC*, Switzerland votes to phase out nuclear power*, May 21, 2017
[655] Reuters, *Swedish parliament clears way for possible nuclear energy expansion*, November 29, 2023.
[656] Barry Moody*, Italians say no to nuclear energy in referendum*, Reuters, June 13, 2011.
[657] Reuters, *Kazakhstan to hold referendum on nuclear plant construction*, September 2, 2023.
[658] World Nuclear News, *Slovenia aiming for referendum on new nuclear this year*, January 31, 2024.
[659] Simon Bradley, Pauline Turuban, *Could Switzerland build new nuclear power plants?* Swissinfo.ch, August 30, 2024. It is not clear whether the government aims at a simple vote in Parliament (which could be subject to a citizen-led referendum) or if it aims at consulting directly with the citizens. The

The 2018 referendum is all the more interesting since energy in general, and nuclear in particular, are often deemed too technical topics to be put to the popular vote. It has notably been the case in Sweden, where the phasing out decided in the 1980 referendum has been gradually reconsidered by the Parliament without using the referendum tool again, first by the 2010 law allowing for the replacement of old reactors by new ones and second by the 2023 law allowing for new reactors[660]. The 1980 referendum was already ambiguous as it presented three options, splitting the vote for the phase-out (no new plants) between two options, instead of the third option of closing down of existing plants. There was no option in favor of continuing nuclear power.

The Taiwan 2018 vote received numerous criticisms. On the one hand, the average voter's level of information has been questioned. A study by Taiwan's Research Center for Society and Risk Policy showed that voters predominantly and erroneously thought nuclear was the predominant energy source - it actually provides less than 10% of national consumption. The economic risk of a nuclear exit could thus have been overestimated[661]. On the other hand, voters could have been influenced by political rather than technical considerations, as the KMT promoted the vote against the DPP. Three years later, in 2021, voters were asked to decide on resuming work on the two Lungmen nuclear reactors, which had been mothballed following the Fukushima nuclear incident. After the 2018 vote eliminating the nuclear exit clause, it seemed logical to resume the work. It was at least the position of the KMT, against the advice of the DPP government that had already opposed the 2018 referendum and continued its anti-nuclear orientation. Voters did not follow the KMT, and the resumption of work was rejected by 53%.

Another interpretation of those two results (2018 and 2021) is possible. The Taiwanese are split 50/50 between anti- and pro-nuclear, as shown by the surveys conducted before the 2018 vote[662]. The threat posed by the PRC on Taiwan's sovereignty and the

latter option seems more plausible: "As a next step, the government will submit a proposal to amend nuclear legislation by the end of 2024 so it can be debated in parliament next year. If it goes ahead, the public will very likely have to vote again on the issue." (*Ibid.*)

[660] Reuters, November 29, 2023, *op. cit.*

[661] Roy Ngerng, *No Consensus, Mass Confusion After Taiwan's Energy Referendums*, The New Lens, December 18, 2018.

[662] Survey from the Taiwan Institute for Governance and Communication Research, 2018, indicating that 52% of Taiwanese are in favor of nuclear and 48% against or indifferent (quoted by Shangpo

unresolved issues concerning dismantling and waste weigh in different directions (the regions earmarked to host the waste overwhelmingly voted for the nuclear exit in 2018[663]). In the context of polarization between DPP and KMT, voters seem to have preferred a pragmatic, case-by-case response, much like the votes on abortion in Kansas, Kentucky, and other Republican States. When asked about nuclear energy in relation to other sources of energy, in particular coal, the Taiwanese voted for nuclear, but when asked about new plants in absolute terms, they voted against it. The results of 2018 and 2021 are not contradictory, since one is a relative choice and the other an absolute one. As we will see in section 3, multiple-option or multichoice referendums are more effective in defining citizens' positions – the 2018 referendum is, therefore, a better barometer of the popular will than the 2021 one. As Shyu demonstrated, "the results show that referendum is an effective and socially integrated policy instrument for enhancing energy democracy and guiding governmental energy transition in Taiwan, particularly by resisting the government's dominant coal-based energy agenda and facilitating a restructuring of the energy sector against various social and contextual pressures on energy preferences and contested policy goals[664]". The questionable implementation by the DPP government of the 2018 and 2021 referendums shows, nevertheless, that the polarization of representative democracy is hard to circumvent. In 2019, despite the 2018 refusal of a phase-out in 2025, the government maintained its original target[665]. In 2024, despite the 2021 refusal of new reactors, it stated that it was "very open" to new nuclear plants "as long as there is a consensus within Taiwan"[666]. Taiwanese referendum democracy is therefore not immune from critics. The attitude of the DPP regarding the result of the 2018 and 2021 referendums points to the lack of implementation guarantees – a general problem of referendums, which we will discuss in section 3.

Hsieh, *Is Taiwan's nuclear policy dividing the nation?*, Asia and the Pacific Policy Society, March 3, 2020).

[663] *Ibid.*

[664] Chian-woei Shyu, *Referendum as a policy instrument to enhance energy democracy in formulating energy transition path, agenda, and policies: A case study of Taiwan's referendums in 2018 and 2021*, 2024, Energy Policy, vol. 184.

[665] World Nuclear Association, *Nuclear Power in Taiwan,* updated July 30, 2024, https://world-nuclear.org/information-library/country-profiles/others/nuclear-power-in-taiwan, accessed October 10, 2024.

[666] Matthew A. Winkler, Miaojung Lin, and Debby Wuv, *Taiwan signals new openness to nuclear power,* Bangkok Post, October 21, 2024.

The current referendum framework in Taiwan has another important default: it does not prohibit votes on minority rights, thus infringing the third principle. The Referendum Act sets only two limits on the topics that can be addressed by referendum or initiative: tax and public revenue, on the one hand, and salaries and personnel matters, on the other hand[667]. All other topics are allowed, even those concerning civil and minority rights. The issue of same-sex marriage is a striking example. In 2017, Taiwan's Supreme Court deemed unconstitutional the Civil Code's restriction of marriage to heterosexual couples and gave the government two years to find an adequate status for same-sex couples. The Court proposed three options: extending marriage rights to same-sex couples, a specific status in the civil code, or an ad-hoc law[668]. A group of conservative Christians submitted three referendum proposals: the first maintained the restriction of marriage to heterosexual couples as defined by the civil code, the second proposed creating an ad hoc status for homosexual couples, and the third limited gender theory education in schools. Those three proposals were adopted in the referendum of November 24, 2018.

The Taiwanese process raises several questions. Contrary to most Western countries, the Supreme Court decided not to rule itself on the question of same-sex marriage, merely invalidating the previous legislation and asking the government to choose from several options more in line with the constitution. In Europe and North America, supreme courts have reasoned differently, ruling that the law, whether passed by parliament or approved by referendum, cannot deny rights to a specific part of the population. As per the third principle we outlined in the introduction, the majority cannot sideline a minority group. Slovenia offers an insightful counterexample. The popular vote rejected, in the 2015 referendum, extending marriage to same-sex couples by a 63% majority. Such a precedent did not prevent the Slovenian Supreme Court from granting marriage rights to same-sex couples in 2022, in a decision that did not even reference the 2015 vote. That decision was all the more critical since the Slovenian constitution, following the 2013 constitutional amendment, explicitly prevents referendums in four areas: urgent security and defense matters, tax and budget, ratification of treaties and laws “eliminating an unconstitutionality in the field of

[667] Referendum Act, *op. cit.*, article 2: “No proposal of referendum may be raised for any matters regarding budgeting, taxation, salary, and personnel affairs”.
[668] Judiciary Yuan of Taiwan, interpretation n°748, May 24, 2017 (https://www.loc.gov/item/global-legal-monitor/2017-06-05/taiwan-constitutional-court-rules-same-sex-marriage-prohibition-unconstitutional/, accessed June 10, 2024).

human rights and fundamental freedoms or any other unconstitutionality[669]". It took the Supreme Court's 2022 decision to make it explicit that preventing same-sex couples from benefiting from the same civil rights as all couples was unconstitutional.

Taiwan's referendum framework is, however, more robust regarding constitutionally protected rights. Unlike citizen-initiated referendums, a constitutional amendment must be accepted by 75% of the members of the Legislative Yuan before being submitted to the voters, who must approve it by more than 50% of registered voters—a threshold nearly impossible to reach. In November 2022, the Taiwanese were asked by referendum whether to lower the voting age from 20 to 18 years. Despite a consensus between the two major parties and the fact that Taiwan is one of the last democracies in the world not to grant voting rights at 18, voters only approved the measure at 53%. Given the 59% voter turnout, it would have required an 85% approval to meet the quorum. Such a threshold is a legacy from the 2005 constitutional revision, which wanted to enshrine the status quo vis-à-vis the People's Republic of China by making it very difficult to declare independence or, conversely, to relinquish sovereignty[670]. As we have defended in the introduction, individual and civil rights deserve qualified majoritarianism, and supermajority is legitimate. As Qvortrup and Trueblood defended, "There is always a case for turnout thresholds in referendums[671]". The argument is based on the need to protect minority groups, an objective that requires having a larger vision of majoritarianism. As the authors comment, "Requiring agreement across minority groups and communities helps ensure that referendums have achieved their purpose of achieving broad legitimacy across population". 85% seems indeed a very high threshold, but one should also question why the turnout was only around 50% when it usually reaches 75% in presidential elections. A referendum on constitutional matters that does not attract substantially more voters than general elections raises questions of legitimacy (as we will further discuss in section 3).

[669] Constitution of the Republic of Slovenia of December 23, 1991, Article 90 (https://www.constituteproject.org/constitution/Slovenia_2013, accessed June 10, 2024)
[670] Wu Jieh-min, *Taiwn: The Paradox of Preserving the Status Quo,* The Diplomat: Asia, November 15, 2023.
[671] Matthew Qvortrup and Leah Trueblood, *op. cit.*, p. 204.

Online Deliberation Tools: Decentralizing debate and design

Alongside the referendum, the Sunflower Movement introduced another innovative tool to Taiwanese politics: online deliberation. Having grown up with the internet and socialized via Facebook, Instagram, and Twitter, the young generation that took over the Legislative Yuan was the first to use online deliberation alongside physical assemblies. It sparked numerous digital initiatives, two of which now play a central role in Taiwan's democracy: Join, supported by the public authorities, and vTaiwan, managed in a decentralized manner by citizens.

vTaiwan, created in 2015 by digital activists (g0v), is a digital platform aiming at allowing "the entire Taiwan society to engage in 'rational discussion' of public matters at a national scale [...] the 'v' in vTaiwan stands for 'vision', 'voice', 'vote' and 'virtual'[672]". It has been used to debate various national reforms, from the legal status of ride-sharing services (UberX) to the legalization of online alcohol sales. The platform employs multiple types of open-source software such as Pol.is, allowing citizens to weigh in on proposals iteratively: participants first vote on proposals or positions from their network, and the most popular ideas are then expanded to wider circles. The platform aims "to go beyond political polarization, to break out of echo chambers generated by social media and to reach rough consensus among stakeholders[673]".

[672] Yu Tang Hsiao, Shu-Yang Lin, Audrey Tang, Darshana Narayanan, *vTaiwan: An Empirical Study of Open Consultation Process in Taiwan*, July 2018, DOI:10.31235/osf.io/xyhft
[673] *Ibid.*

[Elément sous droit – Diffusion non autorisée]

Figure 1: Screenshot of vTaiwan showing a visualization of two Opinion Groups (in grey clusters) and a majoritarian view during the Uber consultation (source: Pol.is[674])

Opinion groups are thus formed using artificial intelligence, allowing a limited number of proposals to emerge. During the UberX consultation, the initial distribution of participants in four groups (taxi drivers, UberX drivers, taxi users, and UberX users) was reshuffled into two groups (pro- and anti-UberX, two groups representing roughly 50% of the total group each) and then redistributed around more consensual questions (as proposition #7: "I think that the drivers who carry passengers should all keep accident insurance", a proposition that gained 89% support, as illustrated in figure 1). Contributors gaining the most support convene for physical debates. Modeled after the open-source developer communities, where governance rights are proportionate to the

[674] http://pol.is/3phdex2kjf, accessed January 6, 2019.

actual contribution level, the system rewards effective participation. The result: a "coherent blended volition[675]", a term coined by the former hacker turned digital minister, Audrey Tang. The tool's objective is, therefore, aligned with the emergence of pluralistic intelligence, as outlined in section 1.

The scarce number of studies relating to vTaiwan makes it challenging to assess the device properly. Its impact seems limited in scope and participation. According to a study published by the U.K.-based Nesta Foundation, the UberX debate attracted 1,737 active participants, providing 196 different opinions and a total of 47,539 votes (every participant can vote on every proposition)[676]. Two elements mitigate this low participation rate. Firstly, the platform aims not only to have the "entire Taiwan" participate but, more specifically, to involve "stakeholders". The organizers, therefore, go beyond the 200,000 Taiwanese registered on the platform to reach out proactively to specific groups or individuals whose input is deemed necessary (although the role thereby conferred to organizers could be questioned democratically). Secondly, innovative tools should not be judged on their actual functioning but on their potentiality. In that regard, vTaiwan offers a model of what could be a "digital referendum" tool in the future, allowing not only for actual voting but also for proposition submitting and consensus building/clarifying. An anthropological study concludes that vTaiwan allows for "algorithmic empowerment [that] cultivates and amplifies the algorithmically mediated condition(s) that enable (underrepresented) citizens to exercise power over policymaking, consider plural perspectives, and make improvements on issues concerning them[677]". Another research paper asserts that vTaiwan has created a "feasible model of decentralized consultation for society[678]", yet Audrey Tang co-authored the study that can therefore not be considered as fully independent. Other analysts point out at "the drawbacks of [vTaiwan] complexity and tech focus[679]", which explain why the platform, which was at one point "the next big

[675] Yu Tang Hsiao, Shu-Yang Lin, Audrey Tang, and Darshana Narayanan, *op. cit.*
[676] Julie Simon et al., *Digital Democracy: The Tools Transforming Political Engagement*, February 2017, Nesta, https://media.nesta.org.uk/documents/digital_democracy.pdf
[677] Yu-Shan Tseng, *Algorithmic empowerment: A comparative ethnography of two open-source algorithmic platforms – Decide Madrid and vTaiwan*, https://journals.sagepub.com/doi/full/10.1177/20539517221123505, accessed July 20, 2024.
[678] Yu Tang Hsiao, Shu-Yang Lin, Audrey Tang, and Darshana Narayanan, *op. cit.*
[679] Bertelsman Stiftung, *Trailblazers of digital participation: Taiwan's Join platform and vTaiwan*, Shortcut 8, September 2022, https://www.bertelsmann-stiftung.de/en/our-projects/democracy-and-participation-in-europe/shortcut-archive/shortcut-8-trailblazers-of-digital-participation-taiwans-join-platform-and-vtaiwan-3, accessed October 10, 2023.

thing in participatory democracy[680]" started to lose popularity to more simple instruments like Join.

Join operates on the same open-source and participatory principle (also utilizing Pol.is) but functions as a government-led e-petition platform. Citizens can submit a petition and receive responses from the administration once over 5,000 signatures are gathered in 60 days. Upon the government's decision, the issue can be re-labeled as a "collaborative topic", leading to a collaborative discussion involving the sponsors and participants. Unlike vTaiwan, which is limited to digital topics, Join can be used for all public issues, especially at the local level. The same scarcity of academic research makes it equally hard to assess Join properly. The government's numbers show that Join has a more extensive reach than vTaiwan. While only 200,000 people are enlisted on vTaiwan, over five million are registered on Join. Reviewing the petitions posted on Join and the final outcome confirms that the platform allows for more consensual propositions. In 2018, a debate on drunk driving was initiated from a petition proposing to "support 'Caning' as a form of punishment for drunk driving, sexual assaults, and child abuse criminals[681]". Consensus proposals emerged after consultations involving over 10,000 citizens, such as vehicle confiscation. Nevertheless, the platform's objectives regarding public debate are less ambitious. Most participants use it as a pure petition instrument without engaging in any collaborative discussion: "when using the platform, approximately 36% of the participants leave the platform after expressing their opinions based on a specific topic, with only 9.5% who tend to explore other functions on the Join platform as well[682]". Research also stresses that Join suffers from "digital divide", as "the majority of the users are between 20 to 39 years old and have obtained a bachelor's degree or above, which means the Join platform mostly reflects ideas from the young, educated generation being more familiar with technology[683]".

[680] *Ibid.*
[681] Petition submitted on Join on November 3, 2017, quoted by Hsin-Ying Huang, Mate Kovacs, Victor Kryssanov and Uwe Serdült , *Towards a Model of Online Petition Signing Dynamics on the Join Platform in Taiwan*, Eighth International Conference on eDemocracy eGovernment (ICEDEG), Quito, Ecuador, 28-30 July 2021, IEEE, 199-204. DOI: https://doi.org/10.1109/icedeg52154.2021.9530852.
[682] *Ibid.*
[683] *Ibid.*

To counter this criticism, Taiwan has recently engaged in "alignment assemblies"[684]. As defined by its promoters within the Collective Intelligence Project, which runs the project for the Taiwanese government:

"Alignment, so that we can align technology with collective values. And assemblies, because they *assemble* regular people, online and across the country or the world, for a participant-guided conversation about their needs, preferences, hopes and fears regarding emerging AI."[685]

Citizens are randomly chosen through stratified random sampling to select a panel of "representative citizens" who gather to discuss concrete proposals, which will infuse the "Artificial Intelligence Basic Act" that the Legislative Yuan is preparing[686]. We will analyze in depth in section 3 how the larger category of citizens' assemblies and mini-publics, to which alignment assemblies belong, can usefully be articulated with direct democracy and challenges in terms of legitimacy and efficiency be met. The point here is to underscore that such a digital democracy as Taiwan has felt the need to complement online platforms with real-life debate groups. The focus groups of the Join platform initiated that tendency, and the new experiment of alignment assemblies exacerbates it.

*

The analyses of Taiwan's participatory platforms (vTaiwan, Join, and alignment assemblies) thus point in the same direction. They have proven empirically that they can provide an innovative way of answering some of the insufficiencies of direct democracy, allowing participants to go beyond voting by submitting proposals and contributing in the initiation phase. They have only attracted a limited number of participants, partly because of their focus on "stakeholders" and partly because of the digital divide that favors young and educated people. Contrary to the Taiwanese referendum framework, which has produced powerful results over a limited period, those instruments are still in their early phase. Both might suffer from what Simondon called a "divergence of functional directions[687]". vTaiwan, as much as Join, has been

[684] Steve Lohr, *Reimagining A.I. Regulation*, The New York Times, 28-29 September, 2024.
[685] The Collective Intelligence Project, *We should all get to decide what to do about AI*, May 23, 2024, https://www.cip.org/blog/alignment (accessed September 29, 2024).
[686] Taiwan Ministry of Digital Affairs, *Alignment Assemblies*, https://ipfs.allen/en/major-policies/alignment-assemblies/1453.html, accessed September 29, 2024.
[687] Gilbert Simondon*, op. cit.*, p. 28.

created to fulfill two very distinct functions: collaborative debate and proposition design, on the one hand, and increased participation and voting, on the other hand. Writes Simondon:

"This divergence of functional directions is like a residue of abstraction within the technical object, and it is the progressive reduction of this margin between the functions of plurivalent structures that defines the progress of a technical object; it is this convergence that specifies the technical object, because in any given epoch there is no infinite plurality of possible functional systems; there are far fewer technical species than there are usages to which technical objects are destined; human necessity is infinitely diversifiable, but the directions of convergence of technical species are finite in number."[688]

It is most probable that instruments like vTaiwan and Join, as their usage develops, will converge around one of these two functions or a specific mix of the two. We can imagine three scenarios: (i) they become mere instruments of public debate without decision-making (Join is already closer to that evolution than vTaiwan); (ii) they evolve on the contrary into an instrument of decision-making in the form of e-voting platforms (less likely given the fact that they lack critical features of security and verification as we will see in the next chapter); or (iii) they become a mix of debating and decision-making but with a limited scope of participants, as per example the sole stakeholders (and not a mix of registered citizens and participants as for vTaiwan or a mix of sponsors of the petition and registered citizens as for Join).

Fact-checking platforms: decentralizing information

The third domain in which Taiwan innovates is information and misinformation management, a sensitive topic due to the influence of the People's Republic of China (PRC). While PRC media are banned from Taiwan, Beijing's use of alternative channels has been documented. The Taiwan country report of Freedom House lists the following vectors: illegal paid mailings, co-productions or broadcast deals with Taiwanese media (bypassing the ban), funding of pro-Beijing local media or journalist trips to mainland China, disinformation campaigns on social media, journalist intimidation, and

[688] *Ibid.*

cyberattacks[689]. Some authors have talked about the combat between "digital democracy" and "automated autocracy[690]".

To counter these, the government has launched an active communication campaign[691]. Yet, the specificity of Taiwan's fact-checking ecosystem is the role played by non-governmental and non-journalistic actors. Since 2014, several NGOs have emerged to verify information emanating from the PRC[692] or track China-funded activities in Taiwan[693]. Furthermore, Taiwan has developed crowdsourced fact-checking through the platform Cofacts. The platform is not a wisdom-of-the-crowd one based on extensive participation but provides distributed fact-checking performed by dedicated individuals[694]. In that sense, it is more a distributor than a producer of fact-checking. It is coherent with the rest of the fact-checking ecosystem, which involves government, traditional media, and NGOs. Naaman and Zhao outline the efficiency of this mechanism, which can provide counter-information quicker and simpler than professional media or government, with a comparable level of accuracy[695]. As the study reckons: "Our data suggest that, taking professional articles as ground truth (of course, itself a challenging proposition), crowdsourced fact-checking can provide answers almost as reliably as professionals[696]". Nevertheless, Cofacts is not immune to malicious interference and contributions, as recognized by its founders, and does not

[689] Angeli Datt and Jaw-Nian Huang*, Beijing's Global Media Influence 2022, Taiwan Country Report,* Freedom House, https://freedomhouse.org/country/taiwan/beijings-global-media-influence/2022, accessed November 29, 2022.
[690] Nicholas J. Monaco*, Computational Propaganda in Taiwan: Where Digital Democracy Meets Automated Autocracy*, The Computational Propaganda Program, Working Paper No. 2017.2, University of Oxford.
[691] The '2-2-2' rule requires public agencies to respond to any misinformation within 20 minutes, in under two pages and 200 words maximum, using social media extensively and creating original memes in the form of photos or animated GIFs. See Kelsie Nabben, *Hacking the pandemic: How Taiwan's digital democracy holds Covid-19 at bay,* The Conversation, September 11, 2020 and Vaishali Basu Sharma, *Can the Script on Taiwan's International Identity be Changed,* Diplomatist, December 11, 2020
[692] Double Think Lab, Information operations research group (IORG), MyGoPen, Taiwan FastCheck Center, Watchout, see Chiaoning Su and Wei-Ping Li, *Three Musketeers against Mis/disinformation: Assessing Citizen-led Fact-checking Practices in Taiwan*, Taiwan Insight, University of Nottingham, 31 March 2023.
[693]The Research Group on the Impact of China from the Sinica Academy and the Economic Union for Democracy.
[694] Mor Naaman and Andy Zhao, *Insights from a Comparative Study on the Variety, Velocity, Veracity, and Viability of Crowdsourced and Professional Fact-Checking Services*, Journal of Online Trust and Safety, Vol. 2 No. 1, 2023, https://doi.org/10.54501/jots.v2i1.118
[695] *Ibid.*
[696] *Ibid.*

address open networks like social media[697]. Alternative solutions have been developed, such as the Taiwan FastCheck Center, which employs professional journalists, or Watchout, a non-journalistic NGO that is open about its pro-independence bias (which is both an advantage in terms of transparency and a limitation in terms of outreach)[698]. Such a trend aligns with more general research about the importance of alternative channels than professional journalism in misinformation correction, in terms of language, topics covered, and information sourced (a potential nevertheless limited by the fact that contributors are usually homogenous in terms of educational profile[699]).

During the COVID-19 pandemic, when Taiwan maintained one of the lowest contamination rates globally before spring 2022, the synergy between government and civil society materialized[700]. As stressed by Chang and Lin, "what this global pandemic reveals is that only a more transparent and responsive government can effectively deal with a public health crisis and other than legal rules, government capacity, the strength of the science and technology sector, and the vitality of civil society and local community are equally – if not more – important in forging collective effort[701]". It was not the health ministry but a netizen who revealed the first suspected cases in China, prompting Taiwan to inspect flights from Wuhan in early 2020[702]. The NGO Taiwan FastCheck Center and MyGoPen were at the forefront of identifying false rumors about the epidemic, virus transmission, or vaccines[703]. The government also played its part, using humor, as seen during panic buying of toilet paper when it released a drawing of the prime minister shaking his buttock, proclaiming: "We all have just one rear end[704]".

Other measures were less humorous. In the early months of the epidemic, authorities monitored quarantined individuals through the geolocation of their mobile phones,

[697] Raina Davis, Bo Julie Crowley, and Casey Corcoran, *Civil Society: A Key Player in the Global Fight Against Misinformation*, Students Policy Review, Harvard Kennedy School, February 7, 2020.
[698] *Ibid.*
[699] Sakari Niminen, Lauri Rapeli, *Fighting Misperceptions and Doubting Journalists' Objectivity: A Review of Fact-checking Literature*, July 2018, Political Studies Review, Vol. 17, n°1.
[700] Kelsie Nabben, *op. cit*.
[701] Wen-chen Chang and Chun-Yan Lin, *Taiwan: Democracy, Technology, and Civil Society,* in *Covid-19 in Asia*, Victor V. Ramraj (ed.), 2021, Oxford University Press, Oxford.
[702] Shiroma Silva, *Coronavirus: How map hacks and buttocks helped Taiwan fight Covid-19*, BBC, June 7, 20.
[703] The National Bureau of Asian Research, *Interview with Puma Shen,* July 24, 2020, https://www.nbr.org/publication/chinas-disinformation-campaign-in-taiwan-about-covid-19/
[704] Anne Quito, *Taiwan is using humor as a tool against coronavirus hoaxes*, QZ, June 5, 2020.

with a home call or even patrol control in case of any signal interruption[705]. Electronic governance can only function with strict public freedom controls, which still need to be more stringent in Taiwan.

[Elément sous droit – Diffusion non autorisée]

Figure 2: Government meme during the Covid pandemic (Source: QZ[706])

Digital democracy vs. autocracy

The Taiwan case study allows us to go beyond the findings from the U.S. practice. It confirms the crucial role that direct democracy can play against polarization. The Taiwanese society is profoundly divided between an older generation, still broadly considering itself as Chinese and favoring conservative Confucianist values, and a younger generation keener to consider independence and more progressive[707]. The divide is further radicalized by representative democracy, as the images of physical fights in Parliament illustrate. Direct democracy has reunified the country with projects like energy sovereignty or consensual solutions regarding complex subjects like ride-sharing apps. It has also shown shortcomings regarding the non-respect of the third principle regarding minority rights.

Taiwan's example goes beyond the decentralization of decision and voting and encompasses a larger scope, including information through fact-checking and public debate through online petitions, discussions, and design. Technology plays an important role in all those democratic innovations: digital signatures for referendums, open-source software for debate and collaborative design, and distributed online fact-checking. These digital tools face specific hurdles like the digital divide or divergence of functional directions, which will require further improvements. Nevertheless, they

[705] Yimou Lee, *Coronavirus: Tracking citizens' phones to make sure they stay indoors*, The Independent, March 2020.
[706] https://qz.com/1863931/taiwan-is-using-humor-to-quash-coronavirus-fake-news, accessed January 10, 2023.
[707] Kuan-chen Lee and Wan-ying Yang, *Old Taiwanese vs. New Taiwanese: Expolring the Generational Difference of Taiwanese Identity,* November 2016, The Taiwanese Political Science Review, vol. 20, n°2. This does not mean that the young generation is necessarily "anti-China", see Marie-Alice McLean-Dreyfus, *Taiwan: Is there a political generation gap?¸* The Interpreter, June 9, 2017.

are an integral part of the Taiwanese direct democracy ecosystem as they further decentralize or distribute other aspects of the decision-making process, from information to deliberation and proposition design. Paradoxically, none of these digital innovations is related to voting itself. Despite its tech-savvy nature, the new Taiwanese democracy has kept e-voting at a distance. When I asked Audrey Tang, Taiwan's digital minister at the time, their answer was clear-cut. Given the highly polarized environment and the influence of China, any e-voting mechanism would increase mistrust[708]. As we will see in the next chapter, there are no solutions currently available for secured e-voting outside the context of institutional trust in government. However, it does not explain why Taiwan is not devoting more research effort to the subject (given its outstanding position in the tech industry) nor why specific usage is not experimented with for referendums at the local level, or the national level when issues do not concern the nation's interests.

Taiwan's democratic orientation is no accident. It is embedded in the new political opposition between democracy and authoritarianism that Gandhi highlighted[709]. By innovating in democracy, Taiwan asserts its identity against mainland China. As U.S. House Speaker Nancy Pelosi noted during her controversial visit to Taiwan in the summer of 2022, "Today the world faces a choice between democracy and authoritarianism," to which the Taiwanese president replied, placing sovereignty and democracy on the same level[710]. This stance also aims to ensure U.S. military support, explaining why some political and economic elites have embraced these innovations[711].

Nevertheless, the impetus originated from the population itself. If geopolitics played a role, it was in fostering a citizen awareness of the Chinese threat, transforming societal anxiety into a specific menace, and enabling a shift from "apathetic[712]" to active democracy. This situation is reminiscent of Ukraine's dramatic stance against Russia.

[708] Audrey Tang, round-table organized by the Joint European Disruptive Initiative, National Assembly, May 24, 2024, Paris (minutes unpublished).
[709] Jennifer Gandhi, *Political Institutions under Dictatorship*, *op. cit.*
[710] Associated Press, *House Speaker Nancy Pelosi says the U.S. will not abandon Taiwan as China protests*, August 2, 2022.
[711] Gary D. Rawnsley, *Selling Democracy: Diplomacy, Propaganda and Democratisation in Taiwan*, May-June 2003, China Perspectives, n°47.
[712] Jeffrey E. Green, *Apathy: the democratic disease*, 2004, Philosophy and Social Criticism, vol. 30 n°5-6, pp. 745-768.

Before the aggression, Ukraine already advocated for "direct democracy[713]". The law of January 26, 2021, introduced a citizen-initiated referendum into the Ukrainian constitution for the first time. It can be initiated by the President, Parliament, or 3 million citizens from at least 2/3 of the regions, with each region contributing at least 100,000 citizens. The referendum can address any subject except constitutional changes, international treaties, civil liberties, and fiscal matters. After the Russian aggression, the Ukrainian government pledged to hold a referendum on any future peace agreement[714]. Taiwan and Ukraine have decided to base sovereignty on choice rather than history, language, culture, or race. A debate that echoes the one around Alsace-Lorraine at the end of the 19th century. As Fustel de Coulanges wrote: "What distinguishes nations is neither race nor language. People feel in their hearts that they are one people when they share common ideas, interests, affections, memories, and hopes. That is what makes a homeland[715]". That approach was famously captured in the concept of "daily plebiscite" coined by Renan[716].

*

A similar message comes from the United States and Taiwan: our democracies need more direct democracy. It is a matter of legitimacy, given an increasingly contested executive power, a polarized legislature, and a judiciary that cannot and should not replace them. The notion of representation is under attack, as shown by both the takeover of the Capitol and that of the Legislative Yuan in Taipei, both negatively and positively. It is also a matter of effectiveness when public action seems more hindered than ever and while educational, economic, social, and even gender or ethnic inequalities persist or grow. Direct democracy answers these two questions. Not only does it return to the principle of "one person, one vote" that underpins our democracies, but it is also a powerful tool for overcoming divisions and promoting

[713] "We are completing the decentralization reform, restoring the mechanism of democracy, building the institutions of direct democracy", Volodymir Zelensky, address to the Democracy Summit, December 10, 2021. (https://www.president.gov.ua/en/news/odnim-iz-prioritetiv-ukrayini-ye-vidstoyuvannya-cinnostej-sv-71965), accessed March 5, 2022.
[714] Reuters, *Ukraine president says any compromises with Russia will require a referendum*, March 21, 2022.
[715] Numa-Denys Fustel de Coulanges, *Letter to Momsen*, October 27, 1870, https://agora.qc.ca/documents/Theodor_Mommsen--Reponse_de_Fustel_de_Coulanges_a_Mommsen_sur_la_question_alsacienne_ par_Numa-Denys_Fustel_de_ Coulanges, accessed May 12, 2024, my translation.
[716] Ernest Renan, *What is a Nation? And Other Political Writings*, transl. M. F. N. Giglioli, 2018 [1887], Columbia University Press, New York.

concrete solutions on a case-by-case basis. The referendums on abortion in Kansas, Kentucky, and other Republican States, like the one on nuclear power in Taiwan, show that voters are less extremist than their representatives have become. Similarly, many referendums and initiatives at the local level allow a system that is blocked at the national level to function closer to citizens. Referendums are flexible solutions to overcome the dysfunctions of representative democracy.

2.2. E-Voting: Current State and Future Prospects[717]

The push for increased participation, essential to guarantee trust in democratic processes and the epistemological validity of collective intelligence, finds a robust tool with e-voting, which will allow for more frequent voting opportunities. In the current dissertation, we will use "e-voting" as a synonym for "internet voting". I have preferred that term to "electronic voting" (even though many scholars and institutions are using it to refer to internet voting, for example, the Council of Europe[718] or the Swiss Federal Chancellery[719]), which I will reserve to all electronic means of voting, including the voting machines used in many jurisdictions across the world. The reason for this choice is that voting machines offer mere practicality, whereas internet voting, tied with direct democracy, opens a new political field that I will describe in section 3.

The desire for increased participation inspires communities of developers and stakeholders to develop and adopt those new tools. In turn, these tools will likely accelerate democratic demands by enabling voters to not only participate but also co-organize the electoral process and even co-guarantee identity systems through increasingly decentralized verification and control systems. These causes are transversal: the desire for direct democracy in the "real world" is a cause of the development of e-voting systems in the "virtual world" and those e-voting systems are, in turn, a cause of increased demand for participation in the real world. As Isabelle Pariente-Butterlin observes, there can be "real changes from a virtual world[720]". According to her, the screens of our computers and smartphones shall not be seen as

[717] The arguments developed in this chapter are taken from Gilles Mentré, *Démocratie*, *op. cit.*
[718] Council of Europe, Venise Commission, *General Framework of Electronic Voting and Implementation thereof at National Elections in Estonia*, Document: IVXV-ÜK-0.9, May 23, 2016.
[719] Federal Chancellery, *Ordinance on Electronic Voting (OEV)*, May 25, 2022 (Status as of 1 July 2022).
[720] Isabelle Pariente-Butterlin, *Could There Be Real Changes from a Virtual World?, Ocotber 16,* 2015, Canal-U. https://doi.org/10.60527/gwqd-5383, accessed September 14, 2024.

"frontiers" or even "windows" but as "gateways" between two worlds, the real and the virtual world, that are, in fact, only one. Drawing from Daniel Lewis' modal realism[721] and, in particular, the idea that there cannot be "trans-world causation", i.e., the fact that if an element of one world causes an effect in another world, then these two worlds are one, Pariente-Butterlin concludes that the internet world and the world of our ordinary senses are one. It is a powerful argument, as we will see below, against the idea that paper voting should be considered more real (ontologically), more verifiable (instrumentally), or more civic (axiologically) than the virtual one.

Until recently, the consensus among experts was that e-voting could never be secure enough for sovereign elections[722]. The challenge is indeed more complex than securing online banking transactions. In a bank transfer, the user's output is known to the bank, and any errors can be reversed (the bank can trace the fraudster and reimburse the user). The requirement for anonymity in the political sphere remains crucial: Isabelle Pariente-Butterlin refers to an IFOP study indicating that while half of the individuals surveyed are willing to share their age or photos, only one in four is open to disclosing their job or sexual orientation, and one in five feels comfortable revealing their political preferences[723]. Voting requires privacy (eliminating any link between voters and their ballot) and verifiability (enabling voters to verify that their votes have been accurately recorded). At first glance, these two requirements seem contradictory since verification cannot happen without revealing the content of one's vote. As Véronique Cortier posited: "Electronic voting systems aim at two conflicting properties, namely privacy and verifiability [724]". However, the advancements in cryptography over the past two decades have made asymmetric verification (by the voter but not by the organizers or any third party) possible.

---

[721] Daniel Lewis, *On the Plurality of Worlds,* 1986, Wiley-Blackwell, New York, p. 80 : "there cannot be trans-world causation".

[722] See *inter alia* : Sunoo Park, Michael Specter, Neha Narula, Ronald L. Rivest, *Going from Bad to Worse: From Internet Voting to Blockchain Voting*, 2020, MIT Press, Cambridge (MA) ; Ronald Rivest, John Wack, *On the notion of 'software independence' in voting systems*, November 2008, Philosophical Transactions of The Royal Society A Mathematical Physical and Engineering, Sciences, Vol. 366, n°1881, pp. 3759-67; Michael A. Specter, James Koppel et Daniel Weitzner, *The Ballot is Busted Before the Blockchain: A Security Analysis of Voatz, the First Internet Voting Application Used in U.S. Federal Elections*, 14 février 2020, MIT, Cambridge (MA).

[723] Isabelle Pariente-Butterlin, *Philosophie de l'espace connecté : la réalité d'internet [Philosophy of Connected Space],* 2018, Le Bord de l'Eau, Lormont, p. 249, my translation.

[724] Véronique Cortier, Alicia Filipiak and Joseph Lallemand, *BeleniosVS: Secrecy and Verifiability against a Corrupted Voting Device*, 2019, *Institut de Recherche en Informatique et Systèmes Aléatoires (IRISA), Paris, https://people.irisa.fr/Joseph.Lallemand/files/papers/csf19.pdf.*

Following these breakthroughs, the first signs of an e-voting revolution emerged internationally. Since 2005, all Estonians have been able to vote electronically in every election, a method now used by more than half of all voters[725]. Canada uses e-voting at the municipal level in some provinces as well as the provincial level in New Brunswick[726]. France implemented e-voting for parliamentary elections for its overseas citizens in 2007 and has resumed it since 2017 (after a break in 2012 for security reasons),[727] and Mexico started using it for overseas citizens in 2024[728].

Other countries have had less successful experiments, leading them to pause the process, like Norway in 2013 and Switzerland in 2019. During the 2013 parliamentary elections in Norway, an experiment involving 250,000 voters was conducted, with 70,000 voting via the Internet. Despite positive feedback from voters, the Norwegian Parliament chose not to continue the program, citing concerns over potential coercion, marginal possibility to vote twice (1% of voters cast twice a ballot via the Internet and at the poll station), and vulnerabilities in voting devices[729]. However, a new law was adopted in 2022 in Switzerland, paving the way for new usage of e-voting (see above). In Australia, the state of New South Wales has implemented the iVote e-voting system for local and state elections since 2015 for remote electors or citizens with disabilities (and in the case of state elections for electors who are away on election day) but had to halt the system in 2023 after around 150 electors could not vote in 2023 due to outages[730]. Nevertheless, the Electoral Commission of New South Wales has committed publicly to returning to technology-assisted voting[731].

[725] https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia, accessed May 8, 2024.
[726] https://www.elections.ca/res/rec/tech/elfec/pdf/elfec_e.pdf, accessed May 8, 2024.
[727] Xavier Breton (pres.) and Stéphane Travert (rapp.), *Rapport de la mission d'information visant à identifier les ressorts de l'abstention et les mesures permettant de renforcer la participation électorale [Report of the information mission on how to identify the causes of abstention and the measures to strengthen electoral turnout]*, December mo8, 2021, Assemblée Nationale, Rapport n°4790.
[728] Elsa Cantu, *Here's How Mexicans Living Abroad Can Vote in This Year's Election*, The New York Times, February 20, 2024.
[729] BBC, *E-voting experiments end in Norway amid security fears*, 27 June 2014; and Véronique Cortier and Cyrille Wiedling, *A formal analysis of the Norwegian e-voting protocol?*, 2012, INRIA, https://people.rennes.inria.fr/Cyrille.Wiedling/Downloads/Papers/2012_POST_Analysis_EVoting.pdf.
[730] Tom Burton*, Internet election voting under threat after NSW pulls the plug*, The Australian Financial Review, AFR, March 22, 2022.
[731] *NSW Electoral Commission commits to explore technology assisted voting options to replace iVote*, Joint statement between Blind Citizens Australia and the New South Wales Electoral Commission, July 16, 2024.

In the United States, several States have allowed computer or smartphone voting solutions for targeted populations. In 2000, the Democratic primary in Arizona was run by internet voting, making it the first sovereign election to be held online[732]. In 2020, the platform Voatz was deployed in West Virginia for military personnel stationed abroad during the primaries and in a Utah county for military personnel, overseas residents, and individuals with disabilities or COVID-19 during the presidential elections[733]. The solution developed by the company OmniBallot was also used in South Carolina and Colorado in 2018[734]. Several reports from the Massachusetts Institute of Technology (MIT) nevertheless highlighted the vulnerabilities of the two systems and halted the experiments[735]. Other tests are underway, notably led by the Tusk Foundation, which has just spent $10 million to achieve the necessary technological breakthroughs and secure e-voting for high-stakes elections. The discourse of its founder, Bradley Tusk, follows the analysis conducted so far: “we are completely polarized and nothing gets done; I don't see democracy surviving without a radically higher level of participation[736]”. Participation can be understood here in the broad sense of the word: broader participation in elections, and participation in more decisions thanks to more frequent elections. Tusk, a former political affairs manager of Uber, is convinced that adopting e-voting will come from the voters themselves—just as the regulation of ride-sharing apps evolved under consumer pressure. The parallel has its limits but emphasizes the bottom-up character of the demand for participation and direct democracy.

To analyze the potential and challenges of e-voting solutions, we will first review two case studies, Estonia (2.2.1) and Switzerland (2.2.2), before reviewing more systematically the security issues around e-voting (2.2.3) and the possible benefits it can provide in terms of participation, security, and the trial of new democratic forms (2.2.4).

---

[732] Frederic Solop, *Digital Democracy Comes of Age: Internet Voting and the 2000 Arizona Democratic Primary Election,* June 2001, Political Science & Politics, Vol. 34, n°2, pp. 289 – 293.
[733] Michael A. Specter, James Koppel, and Daniel Weitzner, *op. cit.*
[734] Michael A. Specter and J. Alex Halderman, *Security Analysis of the Democracy Live Online Voting System*, 2021, Usenix Security Symposium, M.I.T., Cambridge (MA).
[735] *Ibid*.
[736] Sue Halpern, *The Campaign for Mobile-Phone Voting Is Getting a Midterm Test*, The New Yorker, Octobre 22, 2018.

2.2.1. E-Voting in Estonia: The Role of Trust in Government

Estonia is one of Europe's most digital countries. In particular, Estonia ranks first in the EU Digital and Economy and Society Index for public services[737]. The rate of e-government users reaches 89% (compared to an average of 64% within the EU) and scores above 90/100 for pre-filled forms, digital public services for citizens, and digital public services for businesses[738]. Each citizen has a physical digital ID card that can be used for all administrative procedures online.

In line with digitalization, Estonia introduced e- voting in 2005 for all sovereign elections. In the last parliamentary election in 2023, 51% of voters used that method[739]. The e-voting period is open for two days, from the 6th to the 4th day before the traditional election day (those who chose not to vote online can vote via ballot papers at polling stations in the traditional way). Voters log in via their computer or phone, identifying themselves using their digital ID card (if they have a card reader) or a "mobile ID card", i.e., a specific SIM card requested from the mobile operator. In both cases, a digital signature[740] is issued. Once on the voting application, voters select their candidate from a list and record their vote. Within thirty minutes, they can verify that their vote has been correctly counted (individual verification) via a QR code sent to them.

Estonia is a young country that recovered its independence in 1991 and a sparsely populated one (only 1.3 million inhabitants with 30 inhabitants per km2, four times less than France and nearly twenty times less than the Netherlands), with many scattered villages, particularly in the islands. Furthermore, over 100,000 Estonians live abroad, representing 8 to 10% of the population, and the Estonian consular network is modest in size, making it challenging to install polling stations to reach the entire population – an issue that e-voting addresses efficiently. Indeed, the average turnout has increased by nearly 6 points since the introduction of I-Voting in 2005

[737] European Commission, *Digital Economy and Society Index – Estonia country report 2021*, https://digital-strategy.ec.europa.eu.
[738] *Ibid.*
[739] https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia, *op. cit.*
[740] The term "digital signature" refers to a signature made using online digital identifiers. The phrase "electronic signature" is specifically used for a digital copy of a handwritten signature.

(representing modest but significant progress), as shown by the turnout evolution in parliamentary elections:

Election	1999	2003	2007	2011	2015	2019	2023
Turnout	57,5	58,2%	61,9%	63,5%	64,2%	63,7%	63,5%
Average	**57,8%**		**63,4%**				

Table 11: Turnout in Estonian parliamentary elections (Source: Valamised[741], author's calculation)

Over the elections, even the more reluctant population segments have come to adopt the system. Those over 45, who accounted for 15% of e-voters in 2005, represented more than 30% of the total in 2023 – although they are still under-represented as they accounted for 47% of the total population in 2022[742]. A complete breakdown of e-voters is provided below, showing an important progression in the number of e-voters among senior citizens.

To protect anonymity, I-Voting uses a dual-key cryptography process (a public key and a private key)[743]. Each vote is immediately encrypted using the public key and can only be decrypted by holders of the private key. The encrypted ballot is sent to the server in a "double envelope", one envelope bearing the digital signature and another containing the encrypted ballot (similar to paper mail-in voting, as practiced in Switzerland or the United States, where there is one envelope for identification and another for the vote content). The server stores the digital signatures by timestamping them but does not have the private key to decrypt the ballot. The ballot is sent to another server, without the digital signature, to be mixed with other ballots, ensuring no trace back to the original voter. It is finally decrypted by the central authority, composed of the organizer and other scrutineers, each holding a piece of the private key (threshold cryptography). The private key is destroyed after the election. However, there remains a theoretical

[741] https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia, accessed May 8, 2024.
[742] Individuals aged 45 and above represented 47,2% of the total population in 2022 (Digital 2022: Estonia — DataReportal – Global Digital Insights, consulted on May 27th 2024).
[743]Council of Europe, Venise Commission, *op. cit.*

risk that the private key could be randomly rediscovered if someone were to harness significant computing power over an extended period[744].

[Elément sous droit – Diffusion non autorisée]

Figure 3: Double envelope system of I-Voting (Source: Venice Commission of the Council of Europe, 2016[745])

Despite the advantages, the system is not free from criticism. It allows for "personal verification", each voter being able to check their vote within thirty minutes after casting it. Verification is performed through a second device, e.g., a smartphone, which will receive an image of the ballot in the digital ballot box that the voter can compare with the ballot they cast through the first device, e.g., a computer. A significant drawback is a lack of "universal verification", meaning that individuals cannot independently verify the final tally themselves. There is no assurance that the government will not add extra votes, and only a small group of experts, who could theoretically be corrupted, can access the digital ballot box. Contrary to the Estonian government's claims, the system is not fully end-to-end verifiable[746]. Voters must trust the government and the auditors, a situation technically referred to as a "happy path",

[744] www.valimised.ee/en/internet-voting/i-voting-fact-check-myth-and-reality, accessed May 8, 2024.
[745] Council of Europe, *op. cit.*
[746] Atte Juvonen, *A framework for comparing the security of voting schemes,* Helsinki University, October 9, 2019 (https://www.attejuvonen.fi/thesis-voting-security-2019-10-09.pdf, accessed March 12, 2022).

which depends on a favorable outcome[747]. The Organisation for Security and Cooperation in Europe (OSCE) even issued a recommendation to the Estonian government, following the organization's mission during the 2023 parliamentary election, to better ensure security (ability to revote in case of improper ballot), transparency, reporting and end-to-end verifiability[748]. Thus, I-Voting relies heavily on trust in governmental processes. Trust in government is notably higher in Estonia than the European average, with 38% of Estonians trusting their government vs. 32% on average within the EU[749].

Another criticism that the I-Voting system faces is its resistance to coercion, i.e., the ability of a third party to influence the vote, whether through direct bribery or physical or psychological pressure. To prevent coercion, voters must not be able to prove to any external party how they voted, either at the time of voting or afterward. Estonia addresses the challenge by allowing voters to modify their votes multiple times until the end of the voting period. If pressured, a voter can recast their vote later, and after thirty minutes, the vote is no longer verifiable. Similarly, if a voter sells their vote, the corrupter can never be sure the voter would not change it later (except during the last thirty minutes of voting, significantly reducing the risk of coercion). Paper voting does not provide foolproof protection either. In countries where voters manually fill out ballots (like in Estonia or the U.S.A.), anyone can take a ballot selfie inside the booth, a practice that has proliferated in the U.S. and is protected by the First Amendment[750]. Even in countries with pre-printed ballots, proof of voting can be provided by taking only one ballot from the table or leaving with unused ballots (a practice usually forbidden but difficult to prevent).

Similarly, the absence of a physical booth has been accused of depriving the vote of its presumed "solemnity" or "republican ritual" aspect[751]. While remote e-voting does not prohibit maintaining parallel paper voting, the dichotomy between the "virtual" world

[747] Additionally, there exists the theoretical possibility that, over an extended period and with substantial computational resources, the organizer could decrypt individual ballots even after the private keys have been destroyed.
[748] OECD, Estonia Parliamentary Elections, Election Expert Team Final Report, August 30, 2023, Warsaw, https://www.osce.org/files/f/documents/f/f/551179_0.pdf, accessed September 3, 2024.
[749] https://europa.eu/eurobarometer/surveys/detail/3052, accessed May 8, 2024.
[750] National Conference of State Legislatures, *Secrecy of the Ballot and Ballot Selfies,* February 27, 2020.
[751] Alain Anziani and Antoine Lefèvre, *Vote électronique : préserver la confiance des électeurs [Electronic Voting: Preserve Voter Trust],* Information report, Law Commission, French Senate, 2014.

of e-voting and the "real" world of polling stations is questionable in philosophical terms, as we have seen above (Pariente-Butterlin). The Estonian example proves it empirically. The evolution of e-voters by age is particularly telling:

	Number of e-voters in 2011	**Share in the total in 2011**	**Number of e-voters in 2023**	**Share in the total in 2023**	**Turnout by age in 2023[752]**	**Increase 2023/2011 (%)**
18-24	11 237	11%	24 569	8%	59,7%	119%
25-34	29 889	29%	55005	18%	64,4%	84%
35-44	24 604	24%	66 269	21%	58,0%	169%
45-54	19 557	19%	63 043	20%	55,0%	222%
55-64	12 075	12%	48 947	16%	47,3%	305%
65-74	5 065	5%	32 930	11%	37,3%	550%
+75	1 986	2%	22 751	7%	32,8%	1 046%
Total	**104 413**	**100%**	**313 514**	**100%**	**50,9%**	**200%**

Table 12: Number of e-voters in parliamentary elections in Estonia, 2011 and 2023 (Source: Estonian government – Valamised[753])

While the total number of e-voters has tripled between 2011 and 2023, the number of citizens under 35 has only doubled. We can observe much greater progression for those between 55 and 64 (four-time increase), those between 65 and 74 (more than five-time increase), and those over 75 (nine-time increase). That discrepancy cannot be fully explained by the evolution of the age pyramid (citizens over 65 represented 18% of the total population in 2011 and 21% in 2023, a 15% increase[754]) and shows the convex nature of the adoption curb. One of the main reasons is the fact that physical voting

[752] https://news.err.ee/1608922322/online-voting-most-popular-among-estonians-aged-25-34, accessed March 8 2024.
[753] Valamised, *Statistics about Internet Voting in Estonia*, https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia, accessed March 15, 2024.
[754] World Bank, https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS?locations=EE, accessed March 15, 2024.

continues to be symbolically important, including for young voters, with 45% of voters under 24 still preferring to vote (mainly for the first time) at polling stations, compared to only 35% of Estonians aged 25-34[755].

The Estonian example is thus highly instructive. Firstly, it demonstrates that e-voting can produce positive results regarding adoption and turnout. Secondly, it stresses the importance of the trust environment surrounding e-voting. Estonian I-Voting works in a context of solid institutional trust, likely aided by the small population size, and it has not been transposed elsewhere. It is an important limitation of e-voting today. As we saw in section 1, trust in government is decreasing in most Western democracies. Our thesis is that direct democracy, powered by e-voting, will allow for renewed trust in the form of participation. The transposition of e-voting in Estonia to other countries experiencing lower trust in government could, nevertheless, prove challenging. More importantly, it points to the necessity of a gradual approach to implementing e-voting, otherwise it could prove counter-productive. Simondon writes that "there is work when man cannot entrust the technical object with the function of mediation between the species and nature, and must fulfill this function of relation himself, through his body, his thought, his action"[756]. Until e-voting solutions are entirely entrusted, not only scientifically (which is not the case for Estonia but will soon be for other systems, as we will see below) but also sociologically, there will be a need for physical human verification, as it is the case for ballot voting. As we will see below, new technologies, such as the blockchain, could ease and decentralize verification.

2.2.2. E-Voting in Switzerland: Public Scrutiny on Security

Switzerland is critical to any study of democracy. The country has hosted popular assemblies since the 13th century when citizens gathered in the main square to vote collectively on cantonal laws — a practice still active today in the cantons of Appenzell and Glarus. At the national level, four weekends per year are dedicated to collective voting sessions on federal, cantonal, or municipal matters, addressing topics ranging

[755] ERR, *Online voting most popular among Estonians aged 25-34*, March 21, 2023, https://news.err.ee/1608922322/online-voting-most-popular-among-estonians-aged-25-34, accessed March 25, 2023.
[756] Gilbert Simondon, *op. cit.*, p. 247.

from joining the European Economic Area to regulating minarets and prohibiting dehorning cows. Any law passed by the Federal Council can be put to the popular vote upon the request of 50,000 citizens, and 100,000 citizens can initiate a referendum for a new legislative proposal (known as federal popular initiatives). The system is highly active (314 votes at the federal level since 1848[757]), enjoying consistent approval from about 80% of the citizens. Feld and Kirchgässner have highlighted the positive economic impacts of the voting system, demonstrating that cantons or municipalities that hold financial referendums—whether for approving budgets or for vetoing specific decisions—tend to maintain better fiscal balance[758]. Accordingly, Funk and Gathmann have identified an 8% decrease in expenditures and revenues at the canton level and a 20% increase in expenditures at the local level[759], in line with the findings of Matsusaka in the U.S. (see above).

Fifteen cantons have participated in e-voting experiments to simplify voting. More than 300 e-voting trials have been conducted since 2004, and two systems have been approved for federal votes: the Geneva Canton system and the Swiss Post system (sVote)[760]. However, these experiments faced significant setbacks in 2018. The Geneva system was paused for cost reasons in 2018, and the Swiss Post system was halted after vulnerabilities were discovered[761]. The Swiss Post made its software code public, inviting researchers and developers to identify, for a reward, any flaws in the new system through a "public penetration test"[762]. While that test revealed only minor issues in the new system, researchers further uncovered a critical flaw around possible interferences from the government[763]. New regulations were put in place in 2022[764] and, since 2024, four cantons have participated in new trials of e-voting using an

[757] Micha Germann and Uwe Serdült, *op. cit.*
[758] L. P. Feld and G. Kirchgässner, *Direct democracy, political culture, and the outcome of economic policy: a report on the Swiss experience*, European Journal of Political Economy, 2000.
[759] Patricia Funk and Christina Gathmann, *Estimating the Effect of Direct Democracy on Policy Outcomes: Preferences Matter!*, 2005, Working Paper n° 248, Stanford University, Stanford, p. 4.
[760] Uwe Serdult, Micha Germann, Fernando Mendez, Alicia Portenier and Christoph Wellig, *Fifteen years of internet voting in Switzerland [History, Governance and Use]*, 2015, Second International Conference on eDemocracy & eGovernment (ICEDEG), IEEE, DOI: 10.1109/ICEDEG.2015.7114482.
[761] Swissinfo.ch, *Experts say Swiss e-vote system is improved, but not perfect*, April 20, 2022.
[762] An example of a successful attack by a team of researchers that lead to a modification and a bounty reward of 40k€: Véronique Cortier, Alexandre Debant and Pierrick Gaudry, *A privacy attack on the Swiss Post e-voting system*, April 2022, RWC 2022 - Real World Crypto Symposium, IACR, Amsterdam.
[763] Federal Chancellery of the Swiss Confederation, March 23, 2019 (https://www.bk.admin.ch/bk/fr/home/documentation/communiques.msg-id-74508.html, accessed May 4, 2021).
[764] Federal Chancellery, *Ordinance on Electronic Voting (OEV)*, May 25, 2022, *op. cit*.

updated version of the sVote system (even though experts still identified minor vulnerabilities in the new version[765]). At the time of the current dissertation, no e-voting system was in place at the federal level in Switzerland.

In terms of architecture, the sVote system resembles the double-envelope system of the Estonian I-Voting. The identification process is nevertheless different. In the absence of electronic IDs, such as in Estonia, the Swiss have put in place code voting.

Before voting, the voter receives numerous codes. The first are for authentication; after submitting their vote online, the voter receives a server code to compare against their list of verification codes, with each voting option having a different unique code for each voter. Thus, any unauthorized change by the device would result in mismatched code. Procedural complexity ensures that votes are cast as intended and prevents any malware on the device. If the device falsifies the vote, then the system's return codes will not match those the voter has in their possession. For example:

Vote	**Response code (different for each voter)**
Yes	A34C
No	18F5
Blank	76BC

Figure 4: Example of Swiss code-voting ballot (Source: Haenni et al.[766])

Experts nevertheless found a critical issue in 2019, as the individual verification does not prevent the organizing authority from altering the vote in an undetectable manner[767]. Furthermore, the system appears cumbersome and requires trust in the system for making the codes available, whether the issuer (which must be separate from the counting software) or the distributor of the codes (the postal service). Lastly,

[765] Rolf Haenni, Reto E. Koenig, Philipp Locher, Eric Dubuis, *Switzerland Examination of the Swiss Post Internet Voting System Scope 1: Cryptographic Protocol*, Fachhochschule (BFH), March 28, 2022.
[766] Rolf Haenni, Reto E. Koenig, Philipp Locher, Eric Dubuis,*CHVote Protocol Specification version 4.2*, September 30, 2024, https://eprint.iacr.org/2017/325.pdf, accessed October 10, 2024.
[767] Federal Chancellery of the Swiss Confederation, March 23, 2019, *op. cit.*

code voting, by definition, does not allow encryption at the individual device level. Voting by codes also presents the confidentiality limits analyzed above[768].

The Swiss and Estonian systems exhibit distinct strengths and weaknesses. The Swiss system offers more robust security regarding personal computers and smartphones since code voting is specifically designed to counter any malware of the device[769]. However, it falls short of personal verification. It also does not guard against coercion since voting codes can be transmitted. However, Switzerland has a long tradition of non-anonymous public voting stemming from cantonal assemblies. In contrast, Estonia employs a far more robust digital identification system than the Swiss codes mailed to voters but does not prevent malware of the device. The Swiss parliament enacted digital identity legislation in 2019 to address those shortcomings. Nevertheless, a citizen-initiated referendum repealed the law[770], mainly due to concerns about private sector involvement in personal data aggregation. A second attempt, based on a public-sector solution, was underway in the Swiss Parliament in 2024[771].

2.2.3. The Conditions of Secure and Trustable E-Voting: Not Yet, but Soon

After analyzing the examples of Estonia and Switzerland and their vulnerabilities, we can discuss, in general, the necessary conditions for secure and trustable e-voting. A review of the literature already mentioned above[772] leads us to identify four strong conditions: identification, malware of the device, software independence[773] and end-to-end verifiability[774]. Bruce Schneier, interviewed during the current PhD work, confirmed that "all experts agree that no internet-voting solution is secured enough today because of four factors: identification, malware of the device, software

[768] Richard Carbak, David Chaum, Filip Zagorski et al., *Remotegrity: Design and Use of an End-to-end Verifiable Remote Voting System*, 11th conference on applied cryptography, Banff, Canada, July 2013.
[769] Atte Juvonen, *op. cit.*
[770] The Swiss rejected the law with 64.4% of the vote on March 7, 2021, with a high turnout of 51.3%.
[771] Swissinfo.ch, *Parliament gets closer to finalising new digital ID scheme*, September 10, 2024, https://www.swissinfo.ch/eng/swiss-politics/parliament-gets-closer-to-finalising-new-digital-id-scheme/87522181, accessed September 15, 2024.
[772] See in particular Ronald Rivest et al., *op. cit.*, Atte Juvonen, *op. cit.*, Drew Springall et al., *op. cit.,* Alain Anziani et al., *op. cit.*, Rolf Haenni et al., *op. cit.*, Sunoo Park et al., *op. cit.*
[773] Ronald Rivest and John Wack, *op. cit*.
[774] Josh Benaloh, Ronald Rivest, Peter Y. A. Ryan, Philip Stark, Vanessa Teague, and Poorvi Vora, *End-to-End Verifiability*, Overseas Vote Foundation's End-to-End Verifiable Internet Voting: Specification and Feasibility Assessment Study (E2E VIV Project), February 2, 2014.

independence and end-to-end and opposable verification[775]". Other challenges can be listed such as denial of service (the fact that some voters might not be able to access the system in due time) or coercion (the fact that voters might not be able to protect the secrecy of their vote)[776]. Other typologies exist that can be paralleled with the one proposed here[777].

We will not go into detail on the question of identification, which will be progressively addressed by the development and deployment of electronic IDs and of the malware of the device. This latter problem can be solved with code voting, as we have seen in Switzerland. Device resistance to external attacks is becoming increasingly robust with the development and deployment of trusted module platforms (TPM), although research shows that current devices still present important vulnerabilities[778].

The current chapter will concentrate on end-to-end verifiability and software independence. The two notions are entangled as software independence supposes verification. As Rivest and Wack defined it, "A voting system is software-independent if an undetected change or error in its software cannot cause an undetectable change or error in an election outcome[779]". The two scholars identify two means of ensuring independence: "A software-independent approach is able to detect errors via voter-verification (if used) and via audits of its cast ballot records". Verification is a central aspect of e-voting integrity in its dual aspect: personal verification and universal verification, which applied together provide "end-to-end verification[780]". As Josh Benaloh and Donald Rivest write: "producing the right result is not enough; voters must have convincing evidence that this is the case[781]". Personal verification allows each voter to verify that their vote has been taken into account and at the correct value

[775] Bruce Scheier, interview via e-mail with Gilles Mentré (unpublished), Dec 14, 2022.
[776] Atte Juvonen, *op. cit.*
[777] Davide Casaleggio limits the notion of integrity to that of immutability (impossibility of destroying or modifying votes) and lists seven other criteria ensuring security (equality of votes, eligibility of voters, non-publication of the result before the end of the vote, absence of fraud of the ballots and verifiability) to which is added anonymity. Availability is not taken into account. See D. Casaleggio, V. Di Nicola, M. Marchesi, S. Missineo et R. Tonellli, *A Digital Voting System for the 21st Century,* February 15, 2021, National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health.
[778] Petr Svenda, Antonin Dufka, Milan Broz, Roman Lacko, Tomas Jaros, Daniel Zatovic, and Josef Pospisil, *TPMScan: A wide-scale study of security-relevant properties of TPM 2.0 chips*, 2024, International Association for Cryptographic Research, n°2.
[779] Ronald Rivest and John Wack, *op. cit.*, p. 3.
[780] Josh Benaloh, Ronald Rivest, Peter Y. A. Ryan, Philip Stark, Vanessa Teague, and Poorvi Vora, *End-to-End Verifiability*, *op. cit.*
[781] *Ibid.*

(counted-as-intended), that is to say, that their device have entered it according to their intention (cast-as-intended), that the system then recorded the content of the vote according to the input on the device (recorded-as-cast), and that the ballot appears on the final table at the correct value (counted-as-recorded)[782]. For example, personal verification is made possible by zero-knowledge proofs[783] which allow the voting operation to be proven without revealing its elements. Universal verification allows the voter or any external third party to redo the tally, in totality or partially through audits. It is made possible, for example, by the open-source protocols Civitas[784], developed in the United States by Cornwell University, and Bélénios[785], developed in France by Inria. As Peter Ryan contends: "What is at stake for technology-supported elections is voter verifiability, the ability of voters to check themselves that their vote has been properly recorded"[786].

Currently, four different verification schemes are available[787]. We have described the two first above: the Estonian system exemplifies the "second device approach" and the Swiss system uses the "return code-based approach". Two additional personal verification schemes are available. The "Benaloh challenge" [788] allows a voter to decide whether to cast their vote or decrypt it themselves with their private key and delete it – the voter can repeat that process to test the system's reliability numerous times before actually voting. The "tracking code-based approach" gives the voter a tracking code or digital print of their vote when casting it, which the voter can compare with the tracking code of their bulletin once the bulletin board has been published. These four approaches are not exclusive; one can imagine systems combining some or all of those. Detection rates of all of these approaches are high, with studies showing success

[782] *Ibid*.
[783] Manuel Blum, Paul Feldman, and Silvio Micali, *Non-interactive zero-knowledge proof systems and applications*, 1988, 20th ACM symposium on information theory, Chicago, pp. 103-112.
[784] Michael R. Clarkson, Stephen Chong and Andrew C. Myers, *Civitas: Toward a Secure Voting System*, May 2007 (revised May 2008), Department of Computer Science Cornell University, Computing and Information Science Technical Report.
[785] Véronique Cortier, Pierrick Gaudry, Stephane Glondu (Institut national de recherche en informatique et en automatique – Inria), *Belenios: a simple private and verifiable electronic voting system*, Foundations of Security, Protocols, and Equational Reasoning, 2019, Fredericksburg (VI), pp.214-238.
[786] Peter Ryan, Leo Fel, *Cast your vote: making e-voting safer and verifiable*, University of Luxemburg News, May 2024.
[787] *Examining Voters' Ability to Detect Different Types of Vote Manipulation*, E-vote ID conference, October 1, 2024. All following references of this paragraph are quoted from that study.
[788] Josh Benaloh, *Ballot Casting Assurance via Voter-Initiated Poll Station Auditing*, Microsoft Research, June 28, 2007.

numbers of respectively 99% (second device)[789], 96% (return code)[790], 77% (Benaloh challenge)[791], and 84% (tracking code)[792].

The perspectives of Blockchain voting

Blockchain was born with Satoshi Nakamoto's seminal article on Bitcoin[793]. The term "blockchain" (for "chain of blocks") designates a process of recording information and transactions on the same register shared with all the participants. Information can only be added to the chain by incorporation within a new block through a consensus mechanism. By extension, blockchain can also designate a protocol like Bitcoin or Ethereum using blockchain technology. In the case of a permissionless or public blockchain, i.e., open to all participants without permission, consensus can take the form of mining or proof of work (solving a mathematical puzzle using the computing power of computers), proof of stake (designation of the validator at random among those who have staked a sufficiently large sum of cryptocurrencies) or delegated proof of stake (similar to the proof of stake but with the possibility for those below the threshold to vote in favor of one of the candidates who have staked the necessary sum). Validation is entirely decentralized, and there is no need for a trusted third party, building "trustless trust".

Blockchain technology could redefine e-voting verification. The question is highly debated, with many leading cryptography scholars expressing doubts about the advantages this technology could bring, warning that it could go "from bad to worse"[794]. However, others are more optimistic. Vitalik Buterin, a co-founder of the Ethereum blockchain, assessed that "introducing a blockchain can significantly

[789] K. Marky, V. Zimmermann, M. Funk, J. Daubert, K. Bleck, and M. Mühlhäuser, *Improving the usability and ux of the swiss internet voting interface*, 2020, Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems, pp. 1–13. CHI '20.
[790] T. Hilt, B. Berens, T. Truderung, M. Udovychenko, S. Neumann, and M. Volkamer, *Systematic user evaluation of a second device based cast-as-intended verifiability approach*, 2024, Voting'24, https://publikationen.bibliothek.kit.edu/1000169360, accessed May 10, 2024.
[791] P. Realpe-Muoz, C. A. Collazos, J. Hurtado, T. Granollers, J. Muoz-Arteaga, and J. Velasco-Medina, *Eye tracking-based behavioral study of users using e-voting systems*, Comput. Stand. Interfaces, 2018, Vol. 55-C, pp. 182–195.
[792] O. Kulyk, J. Henzel, K. Renaud, and M. Volkamer, *Comparing 'challenge-based' and 'code-based' internet voting verification implementations*, 2019, 17th IFIP TC 13 International Conference INTERACT, Cham Publisher, Springer.
[793] Satoshi Nakamoto, *Bitcoin: a Peer-to-Peer Electronic Cash System*, https://bitcoin.org/bitcoin.pdf, 31 octobre 2008.
[794] See Sunoo Park, Michael Specter, Neha Narula, and Ronald L. Rivest, *op. cit.*

increase the level of security of the system"[795]. Other scholars, like Thomas Sear from the University of New South Wales (where e-voting was used between 2015 and 2023), assert that "[t]here are people developing the blockchain model, and that's probably going to be the most secure" (although for Sear the technology is better suited for countries where voting can be frauded than countries where paper-voting is trusted like Australia)[796]. These opposite views are linked to the scope of the debate. Blockchain cannot respond to all of the challenges of e-voting and, in particular, has no particular solution for identification (in the absence of secure decentralized identity), malware of the device, and denial of service[797]. Buterin adds that blockchain does not provide any further security for privacy and coercion.

Blockchain can provide enhanced security for verification, allowing for the inscription of encrypted bulletins on an immutable register in the same way that paper bulletins can be kept for recount[798]. That property is all the more potent since new cryptographies allow for asymmetric encryption and decryption, guaranteeing that the bulletins published on the blockchain cannot be deciphered individually. Homomorphic encryption makes it possible to count all the ballots without decrypting the ballots individually (only the result is decrypted)[799]. It, therefore, makes it possible to publicize all the ballots, allowing universal verification (see below) without being able to decrypt them from the outside individually. If one couples such a device with traceability of their ballot by each voter thanks to a tracker (personal verification), then the organizer of the election, who also issues the tracker, cannot deduce the vote of each voter individually because they also are only able to decipher the sum. That result, true in a short time after the election, is no longer necessarily accurate over a longer time where homomorphic encryption risks being cracked (thwarted) at the individual level. This prospect is all the more credible with the development of quantum computing, which makes it possible to decrypt at considerably higher speeds than

[795] Vitalik Buterin, *Blockchain voting is overrated among uninformed people but underrated among informed people*, May 25, 2021, https://vitalik.eth.limo/general/2021/05/25/voting2.html
[796] Quoted by Tom Burton, *op. cit.*
[797] Susan Greenhalgh, Susannah Goodman, Paul Rosenzweig and Jeremy Epstein, *Email and Internet Voting: The Overlooked Threat to Election Security*, 2018, ACM US Technology Policy Committee, p. 13, https://www.commoncause.org/wp-content/uploads/2018/10/ElectionSecurityReport.pdf.
[798] Vitalik Buterin, *op. cit.*
[799] Craig Gentry, *Fully Homomorphic Encryption Using Ideal Lattices*, in Proceedings of the 41st Annual ACM Symposium on Theory of Computing (STOC'09), 2009, ACM Press, New York, pp. 169-178.

current computers. However, coded cryptography devices invented in the 1970s and 80s are the subject of new developments because they have interesting properties that resist these new forms of attacks[800].

The importance of verification: the example of Venezuela

The controversial example of Venezuela illustrates the crucial importance of verification. Venezuela has been voting exclusively by electronic machines since 2004, starting with the recall referendum against Hugo Chávez[801]. Electronic machines ensure confidentiality through a double-envelope mechanism[802]. The system also issues a printed receipt that the voter verifies and deposits into a sealed ballot box, providing paper proof of vote for added security. However, these measures have never sufficed to earn the trust of the opposition parties and international observers. Initially, voter identity was verified via fingerprint, but due to opposition fears that it could compromise voter anonymity, the government reverted to a traditional electoral register — however, it did not alleviate opposition concerns, leading to the opposition's withdrawal from the 2005 parliamentary elections[803]. Chávez's successor, Nicolás Maduro, won the 2013 presidential election by just 200,000 votes. Opposition candidate Henrique Capriles demanded a manual recount, which the government-controlled electoral commission partially granted but refused to review voter registers, leading to violent disputes over the results[804]. Distrust increased further during the 2024 presidential elections when the government refused to hand over the printed paper voting proofs for an official recount[805], despite an independent and partial

[800] See E. Berlekamp, R. McEliece, and H. van Tilborg, *On the Inherent Intractability of Certain Coding Problems*, 1978, IEEE Transactions on Information Theory, Vol. 24, n°3; and H. Niederreiter, *Knapsack-type Cryptosystems and Algebraic Coding Theory*, 1986, Problems of Control and Information Theory, Vol. 15, n°2, pp.159–166.
[801] The Venezuelan Constitution of December 30, 1999 indeed provides for the possibility of recalling any elected official through a referendum if 20% of the voters registered in the relevant district request it. This provision applies to the President of the Republic if a petition is signed by 20% of the voters registered on the national electoral rolls. As mentioned in footnote 1 of this dissertation, we have left recall referendums outside the scope of our work.
[802] See Smartmatic's white paper, December 2017 (https://www.nass.org/sites/default/files/events/2017%20Winter/Smartmatic-white-paper-nass-winter17.pdf, accessed September 10, 2024).
[803] Juan Forero, *Chávez's Grip Tightens as Rivals Boycott Vote, The New York Times,* December 5, 2005.
[804] Brian Ellsworth and Diego Ore, *Protests flare as Venezuela government rejects vote recount*, Reuters, April 16, 2013.
[805] Mayela Armas and Vivian Sequera, *Opposition seeks voting tallies in contested Venezuela presidential race*, Reuters, July 29, 2024.

recount showing important discrepancies with the official results, confirmed by cross-analyses conducted by international media[806].

Leaving aside the identification issue, which we will discuss below, the Venezuelan example points in the same direction as the Swiss and Estonian ones, highlighting how a central authority can be trusted to manage identification and voting. While Estonia enjoys sufficient governmental trust to sustain its system, it is not universally the case, as even Switzerland had to halt its experiments. The disclosure of the sVote's source code revealed that it could not prevent fraudulent behavior from the organizing authorities themselves. Most existing remote voting systems share this challenge, as none can currently ensure integrity in the case of malicious authorities[807].

Such a negative assessment is balanced by the fact that all the elements needed to ensure the four criteria set forth by Scheier are already available: cryptographic processes protecting anonymity, end-to-end verifiability and audits providing software independence, digital identity systems, ability to revote to reduce coercion risks, trusted platform module to reduce malware of devices. That assessment can be generalized by examining all theoretical vulnerabilities of an e-voting system and the solutions available to address each. These combined measures allow us to conclude that we should be able to have robust, secure, and verifiable e-voting systems. While some scholars like Ronald Rivest defend that there might never be a secure internet-voting scheme[808], others like Dan Wallach are confident that it will "eventually happen"[809].

This technical time horizon does not consider the behavioral nature of verification. Extensive personal and universal verification (end-to-end verification) will be a core component of e-voting security. No remote electronic system can guard against election organizer fraud without active participation from assessors and a statistically significant number of voters. It is also true for paper voting, where fraud risk is

[806] Anatoly Kurmanaev and Ethan Singer, *Election Results Presented by Venezuela's Opposition Suggest Maduro Lost Decisively,* The New York Times, July 31, 2024.
[807] Cf. Atte Juvonen, *op. cit.*
[808] Ronald Rivest, interview by e-mail with Gilles Mentré (unpublished), July 26, 2022: "E-voting should be evaluated on its own merits. In my opinion, e-voting is not 'ready for prime time' and may never be".
[809] Dan S. Wallach, Department of Computer Science Rice Scholar, Baker Institute for Public Policy Rice University, *Testimony Before the Texas Senate Select Committee on Election Security*, February 21, 2018, Texas.

managed by continuous scrutineer verification throughout the process. E-voting will only be secure if it is accompanied by decentralized verification. A voter can thus personally assure the election's integrity, with each verifying voter enhancing the collective credibility of the results. Studies have shown that usability and risk perception influence greatly the voter's ability to perform the verification correctly. In Switzerland, improving the accompanying instructions' clarity has increased the detection rate from 47% to 74%[810]. It could even be envisaged that such voter-verification becomes compulsory[811] or that voters get rewarded financially or symbolically for performing such tasks, resulting in citizen-controlled voting. Such elements are crucial for the technical and social acceptability of e-voting systems, fostering what might be termed "behavioral democracy". They help create, in the sense of Simondon, a new democratic culture "adequate to the reality which it expresses and regulates[812]". This new culture of verification might take longer to develop than purely technical elements.

*

Once all these requirements are met, e-voting systems will fulfill the four conditions proposed by Scheier and be sufficiently secure to be trusted "objectively", i.e., to be trustworthy. Nevertheless, trust is not objective but subjective, and trustworthiness does not necessarily lead to trust. As per Diego Gambetta's definition of trust:

"Trust is a particular level of subjective probability with which an agent will perform a particular action both before he can monitor such action (or independently of his capacity of ever to be able to monitor it) and in the context in which it affects his own action."[813]

Trusting an e-voting system is not about monitoring it but about the subjective probability of malfunctioning of that system that each citizen will accept while voting. Therefore, transparency of the architecture and of the code is critical to enhancing that subjective probability. Whether the source codes of e-voting applications should be

[810] Oksana Kulyk et al., *Individual Verifiability with Return Codes: Manipulation Detection Efficacy*, 2022, Proceedings of the 7th International Joint Conference on Electronic Voting, E-Vote-ID 2022, ed. R. Krimmer, Bregenz, Austria, October 4–7, 2022, p. 139.
[811] Atte Juvonen, *op. cit.,* p. 20.
[812] Paul Simondon, *op. cit.*, p. 21.
[813] Diego Gambetta, *Can we trust trust*, in *Trust: Making and Breaking Cooperative Relations*, 1988, Basil Blackwell, Oxford, pp. 213–237.

made open has been debated extensively from a security point of view. While some scholars raise concerns about the vulnerability of open-source codes[814], most research finds that both systems are equivalent[815], or both offer advantages and drawbacks[816], with some research pointing at the greater resilience of open-source codes[817]. Open-source codes seem like a question of transparency and acceptance rather than a security issue[818]. In practice, Estonia has made its I-Voting code available on GitHub since 2013 (it was before then a proprietary solution from the Estonian company Cybernetica). Other countries, like France, work with closed-source solution providers.

Sustainable trust can only be built under several conditions: voting solutions must be developed openly and transparently; citizens must be informed of existing problems and various improvement stages; everyone must be aware and educated that the security of these solutions will ultimately be everyone's responsibility; and voting must involve more than just casting a ballot, requiring active participation in verifying the system. Such an approach is similar to paper voting, where open participation is part of the process integrity. No technique can deploy its full potential without creating a "culture".

Trust also requires a general understanding that there will never be 100% security. I asked Bruce Schneier: "do you believe that we should wait for a 100% proofed e-voting solution to start using it for low-stakes elections"? His answer was straightforward: "Of course not. There is never, never never, 100% security for anything – ever. That's never the criteria, in anything[819]". There will always be imperfections, such as voters registered at two different polling stations or deceased individuals on the electoral roll. If we consider that a close result is a sign of consensus, assuming that the democratic

[814]Frank Nagle and Jenny Hoffman, *The Hidden Vulnerabilities of Open Source Software*, Working Knowledge, February 24, 2020, Harvard Business School, Cambridge (MA).
[815] Ross Anderson, *Open and closed systems are equivalent (that is, in an ideal world)*, in *Perspectives on Free and Open Source Software*, J. Feller, B. Fitzgerald, S.A. Hissam, and K.R. Lakhani (eds.), MIT Press, Cambridge, MA, pp. 127-142; and Guido Schryen, *Is open source security a myth?*, 2011, Communications of the ACM, Vol. 54, n°5, pp. 130 – 140.
[816] Steve Lipner, *Security and source code access: Issues and realities*, February 2000, Proceedings of the Conference on Security and Privacy, IEEE.
[817] Brian Witten and Carl Landwehr, *Does open source improve system security?*, October 2001, IEEE Software, Vol. 18, n° 5, pp. 57-61.
[818] Virginie Duby-Muller, Gilles Mentré, Jean-Michel Mis, and Franck Nouyrigat, *Pour un vote électronique citoyen et souverain [For citizen and sovereign e-voting],* L'Opinion, August 10, 2021, https://www.lopinion.fr/politique/pour-un-vote-electronique-citoyen-et-souverain-par-virginie-duby-muller-gilles-mentre-jean-michel-mis-franck-nouyrigat, accessed November 10, 2023.
[819] Bruce Scheier, interview via e-mail with Gilles Mentré (unpublished), December 14, 2022.

debate has taken place appropriately, then the issue of fraud on a few hundred votes becomes less critical. It is also true for e-voting. The real question is not the ability of some voters to acquire two mobile phones to have two SIM numbers and vote twice but the assurance that the system cannot be hacked on a large scale as part of a fraud capable of shifting significant masses of voters. Conversely, it renders harmless the system's vulnerabilities that would not be scalable.

The concept of “low-stakes” elections could, nevertheless, be seen as problematic. Do all elections not represent high stakes for the voters that turn out to vote, and do they not deserve the same level of security as other elections? There is no easy theoretical answer to those questions. However, practical experiences, notably at the local level, provide examples of elections that do not seem to present the same level of risk as a national presidential election, while still delivering important outcome results. We mentioned above school budgeting in Wisconsin or local referendums on city management, whose turnout is hindered by traditional means of voting. E-voting can provide an adequate solution to foster participation. This is just one of the advantages that e-voting can provide, which we will analyze in the following chapter.

2.2.4. New Possibilities Opened by E-Voting: Participation and Innovation[820]

The discussion of the previous chapter has allowed us to lay down the requirements for secure e-voting systems and conclude that there was a credible time horizon for these systems to be deployed, immediately for low-stakes elections (local level) and within some years for medium-stake elections (national referendums on non-critical matters). In the current chapter, we will review the main advantages that e-voting can bring to democracy and, in particular, to direct democracy. I have grouped them into four main topics: inclusivity and participation, flexibility and cost, and security.

[820] This chapter was presented at the PhD session of the E-vote ID conference in Tarragona (October 1st, 2024) and reviewed by Jordi Barat (Professor of Constitutional Law, University Rovira i Virgili - URV) whom I thank for his comments, integrated in the present document.

Inclusivity and participation

According to research, the effect of e-voting on turnout is still to be determined. Germann and Serdült have found that the experiments of e-voting in the Swiss cantons of Geneva (2003-2017) and Zürich (2005-2011) have had no effect on turnout, but as they note "[i]n both Geneva and Zurich, i-voting was introduced in the presence of postal voting, which decreases chances for an i-voting turnout effect[821]". The parliamentary report on the experiment of e-voting in Norway did not identify any effect on turnout, although it was based on a limited number of citizens (70,000)[822]. Older research based on e-voting experiments in the U.K. for local elections in 2003 showed that e-voting does not affect turnout, contrary to postal voting[823]. However, as Trechsel commented, "context makes a difference" and the effects of e-voting used regularly cannot be inferred from occasional experiments[824]. Countries where e-voting is practiced regularly provide, therefore, the most significant datasets. As we have seen in the previous paragraph, e-voting in Estonia has led to a +6% increase in turnout. The effect seems higher among abstainers and, to a lesser extent, occasional voters[825] as demonstrated by 10 years of data collected in Estonia by Solvak and Vassil[826].

We can make an anecdotal, yet not insignificant, focus on weather. Hansen showed that bad weather can have a measurable effect on turnout globally, particularly on voters aged 21-30, with an average reduction in turnout of 0.95% per cm of rain[827]. Fujiwara et al., looking at elections between 1952 and 2012, found that abstention due to weather conditions can have effects on future elections through habit formation (a 1% decrease in past turnout lowers current turnouts by 0.6-1.0%)[828]. In both studies, the voters most likely to abstain because of bad weather are independent and

[821] Micha Germann and Uwe Serdült, *Internet voting and turnout: Evidence from Switzerland*, June 2017, Electoral Studies, Vol. 47, pp. 1-12.
[822] BBC, 27 June 2014, *op. cit.*
[823] Pippa Norris, *Experiments in E-Voting v. All-Postal Voting Facilities in UK Local Elections*, August 2003, HKS Working Paper, n°RWP03-03, Harvard University Press, Cambridge (MA).
[824] Alexander Trechse, *Inclusiveness of Old and New Forms of Citizens' Electoral Participation*, July 2007, Representation, Vol. 43, n°2, pp. 111-121.
[825] Adrien Petitpas, Julien M. Jaquet, and Pascal Sciarini, *Does E-Voting matter for turnout, and to whom?*, June 2021, Electoral Studies, Vol. 71, n°102245.
[826] Mihkel Solvak and Kristjan Vassil, *E-voting in Estonia: technological diffusion and other developments over ten years (2005-2015)*, 2016, Tartu University.
[827] Søren Damsbo-Svendsen, Kasper M. Hansen, *When the election rains out and how bad weather excludes marginal voters from turning out*, February 2023, Electoral Studies, Vol. 81.
[828] Thomas Fujiwara, Kyle Meng, and Tom Vogl, *Habit Formation in Voting: Evidence from Rainy Elections*, 2016, American Economic Journal in Applied Economics, Vol. 8, n°4, pp.160–188

occasional voters. Although partially offset by early voting, weather "can affect close elections" and be "a deciding vote"[829]. The same effect can be attributed to good weather when elections happen in spring or summer or to external factors like sporting events. Whether one deems such influence legitimate or not, it is clear that e-voting provides a more neutral voting tool.

For those various effects on turnout to materialize, the Internet and electronic devices need to be generalized. As we have seen in the analysis of the Taiwanese online platforms, the "digital divide" remains important, and young urban educated individuals are over-represented among the participants. However, this effect wanes over time. The example of Estonia demonstrates that older people, although under-represented in the first years of I-Voting, have caught up in the usage of e-voting with younger generations. Cianco and Kämpfen even reached a counter-intuitive conclusion by analyzing the dataset of e-voting in the canton of Geneva, as they found that e-voting had a significant influence on the turnout of voters over 80, particularly male voters[830]. Far from being a Generation X, Y, or Z phenomenon, e-voting appears to have a larger participation effect on generations facing specific difficulties when it comes to paper voting, in particular in terms of mobility. It does not mean there is no digital divide issue to address, and that e-voting should always be employed together with traditional paper voting in hybrid systems (as is always the case in countries that have implemented it for sovereign elections).

Beyond the discussion on numbers, a broader consensus has emerged around the positive effect of e-voting on accommodating disabilities and physical hurdles that can prevent citizens from voting – a factor with an important legitimacy value. The structural conditions of paper voting *de facto* disenfranchise deveral categories of citizens. As we have outlined in the introduction, it is the case for very varied categories, from prisoners in jail or hospital (when allowed to vote) to people with disabilities or personal hindrances the day of the elections, not to mention military posted abroad or more generally overseas or traveling citizens (in particular when the country cannot deploy a sufficient number of polling stations in the absence of a large consulate network). In the United States, a debate has arisen about people under guardianship

[829] Judson Jones, *Weather as a deciding vote*, The New York Times, October 28, 2024.
[830] Alberto Ciancio and Fabrice Kämpfen, *The heterogeneous effects of internet voting*, September 2023, European Journal of Political Economy, Vol. 79.

or conservatorship who are factually excluded from the vote[831]. The legal protection from which these populations can benefit in the exercise of their right to vote varies from one jurisdiction to another. In Switzerland, article 6 of the federal law on political rights obliges the cantons to assist people with disabilities in such exercise[832]. In Norway, disabled people can vote from home in the same way as in a polling station with the visit of an equipped election worker, a fair yet costly solution[833].

Typical answers to that imperative are proxy voting and absentee ballot or vote-by-mail (in-mail voting). France permitted incarcerated individuals to vote by mail in 2022, marking significant progress on an issue long disregarded and an important exception to the total ban of vote-by-mail. Vote-by-mail was introduced in 1946[834] for military posted overseas, people with professional obligations or limited health reasons, but it was suppressed in 1975[835] for security reasons and replaced by proxy voting. However, proxy voting, allowed in a limited number of jurisdictions worldwide (France is the only country within the EU to allow it), imperfectly responds to the inclusivity issue as all citizens do not have the same ability to designate available and trusted proxies. In the United States, vote-by-mail was largely extended due to Covid, and 84% of voters were able to use that modality of vote in 2020[836], with eight States (California, Colorado, Hawaii, Nevada, Oregon, Utah, Vermont, and Washington being "postal-first" (i.e., voters automatically receive ballot or ballot-application by mail[837]). However, in-mail voting is recognized as very uncertain in terms of security. Atte Juvonen's research indicates that Switzerland's paper-based mail voting system is less reliable than all tested examples of e-voting, including Estonia's I-Voting and the Swiss sVote, across various evaluated criteria—except, of course, for the risks specific to electronic devices[838]. Furthermore, in-mail voting leaves aside people who are unable to read and mark a paper ballot. A U.S. jurisdiction in Wisconsin has ruled that people

[831] Rachel Nostrant, *In Some States, Having a Guardian Means Not Having a Vote*, The New York Times, August 29, 2024.
[832] Jan Gerlach and Urs Gasser, *Three Case Studies from Switzerland: E-Voting*, Internet & Democracy Case Study Series, March 2009, Berkman Center Research Publication, No. 2009-03-1.
[833] https://www.valg.no/en/for-voters/municipal-and-county-council-elections-2023/voting-from-home/, accessed May 12, 2024.
[834] Law n°46-667 on vote-by-mail for absent or requested voters, April 12, 1946.
[835] Law n°75-1329, December 31, 1975.
[836] Kate Rabinowitz and Brittany Renee Mayes, *At least 84% of American voters can cast ballots by mail in the fall*, The Washington Post, Sept. 25, 2020
[837] https://ballotpedia.org/All-mail_voting, accessed October 11, 2024.
[838] Atte Juvonen*, op. cit*.

self-certifying that they are unable to process in-mail voting should be allowed to vote electronically[839].

E-voting appears to be a safer and easier solution for those types of citizens. It is the reason why the first authorized e-voting schemes, as presented in the previous chapter, have targeted militaries posted overseas and disabled people. It, therefore, serves directly the objective of legitimacy.

Flexibility and cost

After participation and inclusivity, the second advantage offered by e-voting is flexibility and reduced costs. The physical constraints of paper voting — mobilizing voters and poll workers, utilizing public buildings — inherently limit how often votes can be held. Costs are significant: a Senate report evaluated the cost of a French presidential election, which is estimated to cost over 170 million euros, with around 40 million euros just for proxy voting expenses[840]. That amount, corrected from proxy voting costs, is in line with the cost of general elections in other European countries: 115 million GBP for the U.K. 2015 general election[841] and 85 to 90 million euros for the 2017 and 2021 parliamentary elections in Germany[842], two countries that have no proxy voting but allow vote-by-mail upon request and without justification.

E-voting, whose cost is inferior, can progressively reduce these expenses. France introduced e-voting for the vote of overseas residents at parliamentary elections in

[839] Todd Richmond, *Judge allows disabled voters in Wisconsin to electronically vote from home*, AP News, June 25, 2024.
[840] Total cost including the direct cost for the Ministry of Interior, excluding the reimbursement of candidates' campaign spendings, and the indirect costs. The organization of the 2012 French presidential and legislative elections incurred direct costs of 342 million euros to the State, with an additional 95 million euros in indirect expenses not accounted for by the Ministry of the Interior. Out of these, a flat-rate reimbursement to candidates for their campaign expenditures accounted for 82.8 million euros. The costs for packaging and sending campaign materials, as well as reimbursing candidates for printing, amounted to 180 million euros. The total cost excluding reimbursement of campaign expenditures is therefore 340 million euros for both elections, equaling an average 170 million euros per election. See Hervé Marseille, *Rapport d'information fait au nom de la commission des finances sur le coût de l'organisation des élections [Report to the Finance Commission on the cost of organizing elections]*, n°123, October 28, 2015.
[841] U.K. Government, *The Costs of the 2015 UK Parliamentary General Election*, June 2018, https://assets.publishing.service.gov.uk/media/5b1e95cf40f0b634d557afc6/The_Costs_of_the_2015_UK_Parliamentary_General_Election.pdf, accessed June 2, 2022.
[842] Paula L. Trautmann, *Wie viel kostet die Bundestagswahl? [How much do elections to the Bundestag cost?]*, https://www.ovb-online.de/weltspiegel/politik/wie-viel-kostet-die-bundestagswahl-90949843.html, accessed February 11, 2023.

2007 and again since 2017 (after a suspension for security reasons in 2012) in a hybrid mode where voters can choose to vote electronically or by paper. The cost of the e-voting solution used in the 2017 election was 5,46m€, reduced to 3,04m€ for the 2022 elections (change of supplier). A majority of voters have chosen e-voting at all legislative elections since 2012, with a maximum of 73% for the second round of the 2022 election[843]. In that election, the number of voters was c. 550,000, leading to a cost of 7,6€ per overseas e-ballot, to be compared to a cost of 15,6€ per overseas paper ballot in the 2012 presidential election[844] (an exceptionally high cost due to the specificity of overseas voting, the average cost of the paper ballot, both home and overseas, for that election when no e-voting was proposed, was 4,7€).

The same analysis can be carried out in Estonia, comparing the costs of I-Voting with those of other voting channels. E-voting appears to be at least 50% cheaper than paper voting:

Voting Channel[845]	**Voting Channel Cost per ballot (in Euro)**
Early Voting in country centers	5,07
Advance Voting in country centers	6,24
Election Day Voting in country centers	4,61
Advance Voting in Voting District Committee (VDC)	20,4
Election Day Voting in VDC	4,37
I-Voting	2,32

Table 13: Costs for the different voting channels for Estonian Local Elections in 2017 (Source: Krimmer et al.[846])

[843] Assemblée des Français de l'étranger, answer to the written question from Nadine Fouques-Weiss on the cost of e-voting, counselor for Germany, Switzerland, Slovenia, Slovakia and Austria, April 28, 2023, https://www.assemblee-afe.fr/cout-du-vote-internet.html, accessed March 5, 2024.
[844] Cour des comptes, L'organisation des élections pour les Français établis hors de France *[The organization of the elections for overseas French citizens]*, 2016, Référé n° S2016-3241, https://www.ccomptes.fr/sites/default/files/EzPublish/20170110-refere-S2016-3241-organisation-elections-hors-france.pdf, accessed May 15, 2023.
[845] Voting District Centers are regular polling stations (549 VDCs in Estonia) that only allow advance voting (6th to 4th day before election day) and election day voting whereas country centers are advanced polling stations that also allow early voting (10th to 7th day before election day).
[846] Robert Krimmer, David Duenas-Cid, Iuliia Krivonosova, Priit Vinkel, and Arne Koitmae, *How much does an e-vote cost? Cost Comparison per Vote in Multichannel Elections in Estonia*, E-Vote-ID conference 2018, Springer, pp.117-131.

The cost itself is not a compelling argument alone to shift general elections to e-voting (assuming a secure system should be available for that type of high-stakes elections, which is not the case as of today, as we have seen in the previous chapter). Saving a maximum of 50 million euros in one election would be considered minimal given the context. It is all the more the case since the table above is based on the 2017 elections, where I-voters already represented 31,7% of participating voters and 60,6% of advance votes[847]. A country launching e-voting would probably face a much higher e-voting cost per voter in its first years of usage[848]. However, the cost reduction becomes stronger when applied to more frequent voting as in the case of regular referendums like in Switzerland. This perspective gives a decisive advantage to e-voting in relation to the increasing demand for direct democracy that we have highlighted. A counter-example can be found in the consultation organized by the municipality of Paris, in 2023, when Parisians were asked whether or not to ban shared-drive scooters. The consultation cost, above 300,000 euros, stirred a polemic in light of the actual turnout of 7,6%, amounting to almost 4 euros per voter[849]. The same question was raised by the vote organized by the municipality in 2024 on the ban on over-weighted vehicles[850].

The cost reduction also concerns the funding requirements that apply to the candidates themselves. In some countries, candidates or candidate lists have to pre-finance themselves the bulletins placed for voting in the polling stations as well as bulletins and/or electoral propaganda sent by mail to the voters' postal addresses. It is notably the case in France for European elections, where each candidate list[851] has to pre-finance and print their material, the lists that get more than 3% of the votes being reimbursed[852]. Such a system presents an entry barrier for newcomers given the

---

[847] Valamised, *op. cit.*

[848] I thank David Duenas-Cid for drawing my attention to this point during the PhD session of the E-Vote ID conference in Tarragona, October 1, 2024.

[849] Marie-Anne Gairaud, *Trottinettes à Paris : la votation a coûté 390 692 euros pour un peu plus de 103 000 électeurs [Scooters in Paris: the consultation costed 390 692 euros for a little more than 103 000 voters]*, Le Parisien, April 6, 2023.

[850] Gilles Mentré, *Consultation sur les SUV à Paris : comment abîmer la démocratie, mode d'emploi [Consultation on SUVs in Paris: how to endamage democracy]*, Atlantico, February 6, 2024, https://atlantico.fr/article/decryptage/consultation-sur-les-suv-a-paris-comment-abimer-la-democratie-mode-d-emploi-anne-hidalgo-gilles-mentre, accessed March 3, 2024.

[851] As of 2013, only seven member States (including the U.K. which was part of the EU at that date) allowed for single-member lists (see Piret Ehin, Ülle Madise, Mihkel Solvak, Rein Taagepera, Kristjan Vassil, and Priit Vinkel, *Independent candidates in national and European elections*, January 2013, European Commission, Brussels).

limitations on electoral funding and an unfair advantage to existing parties that benefit from public funding in France, similar to the deposit that exists in some countries for general elections, although with a much higher amount (c.1m€ for a European campaign in France[853]). E-voting solves that issue by eliminating the marginal cost of adding new candidates to the ballot (other solutions exist, such as a single ballot listing all the candidates). In Estonia, e-voting has allowed independent candidates to run, with some being elected[854].

Such flexibility offers two crucial advantages. The first is to facilitate the organization of elections at a lower cost and with less administrative burden. Not only does it allow for more frequent voting, in particular more frequent referendums or initiatives at the local or national level, but it also makes it easier to use democratic tools outside the political sphere. E-voting instruments can be easily implemented within organizations and communities, providing the "everyday democracy" that the defenders of "participatory democracy" advocate for[855]. The second advantage is to favor experimentation. The last possibility opened by e-voting is experimentation. Which voting system is most desirable can be debated at length theoretically (as we will see in section 3), yet only practical experiments can truly demonstrate the effectiveness of each voting method in various scenarios. Most of these systems have not been tested, or only in a minimal way. E-voting presents an opportunity to challenge certain electoral dogmas. This evolution can come from institutions, civil society, or opposition parties. It was a non-profit organization that organized the first test of approval voting in France in 2022[856]. Those grassroots experiments are confronted with the same security issues as e-voting but might be faced with more adverse circumstances. Identification also comes as a main challenge for the non-government-led

---

[852] Gilles Mentré and Bertrand Pancher, *Le vote électronique aux élections européennes: sauver cent mille arbres et vingt millions d'électeurs [E-voting at European elections: let's save one thousand trees and twenty million voters]*, Opinion Internationale, June 6, 2024, https://www.opinion-internationale.com/2024/06/06/le-vote-electronique-aux-elections-europeennes-sauver-cent-mille-arbres-et-vingt-millions-delecteurs-la-tribune-de-gilles-mentre-et-bertrand-pancher_122788.html.

[853] *Ibid.*

[854] *Nine parties, six independents apply to run in Estonia's EU elections*, ERR.ee, April 21, 2024, https://news.err.ee/1609319850/nine-parties-six-independents-apply-to-run-in-estonia-s-eu-elections.

[855] Carole Pateman, *op. cit.*

[856] Alexandre Horn, *Le vote en ligne de la primaire populaire est-il sécurisé ? Une fraude possible, mais pas de gros risque [Is online voting for the popular primary secured? Fraud is possible but no important risks]*, Numerama, January 25, 2022. The journalist managed to register under three different names for the vote using online phone numbers, fake emails and different credit cards, proving that frauds are possible but not scalable.

experiments, as shown during the French "popular primary". E-voting nevertheless empowers those organizations in a new way, allowing them to run their own election in a manner that was previously limited to sovereign entities.

Security

The third possibility offered by e-voting is security. It might sound paradoxical considering the security issues around e-voting that we have listed above and are not yet solved. Nevertheless, e-voting should not be considered in absolute terms but in relative terms in comparison with other voting modes.

E-voting is universally more secure than other remote voting schemes, particularly vote-by-mail. As mentioned above, vote-by-mail scores worse than e-voting in any risk category in Atte Jovonen's study[857]. An alternative is a hybrid form between paper and electronic voting allowing remote ballot printing (remote ballot marking or RBM, the principle of RBM being to vote privately from home after obtaining a code by telephone or email, then to print the ballot with a unique QR code before sending everything by post using a system of double envelopes). If it reduces the risk by separating the input channel from the output one, it is nevertheless subject to the same criticism regarding the postal flow of the bulletin. Limited research is available on RBM.

Empirical research has not evidenced any increase in fraud in States that have implemented postal voting, whether ballots are sent to voters by mail or not[858]. Nevertheless, ballots sent by mail face a potentially greater risk of alteration, as witnessed in the context of the 2024 presidential election[859]. Furthermore, vote-by-mail leads by design to a much higher number of invalid ballots than votes cast in person at the polls due to specific requirements (double envelope, privacy sleeves, and handwritten date on the outer envelope[860]). In the 2020 presidential elections, around 34,000 ballots were rejected in Pennsylvania, 22,000 in Michigan, 7,700 in Arizona, 5,600 in Nevada, and 3,000 in Wisconsin[861], just to name some swing States where

---

[857] Atte Juvonen, *op. cit.*
[858] *Ibid*.
[859] Lisa Hagen, *Ballots set on fire in three states as Election Day approaches*, National Public Radio, October 28, 2024.
[860] Michael Wines, *Vote-by-mail issue: Which ballots should count?*, The New York Times, October 11, 2024.

margins of victory can potentially come to such small numbers[862]. The difference in numbers is due to very diverse counting rules in the respective States, as Pennsylvania still "lets partisan election boards in 67 counties interpret many already murky laws on accepting mail ballots, and even lets them decide whether voters should be allowed to fix mistakes"[863]. It spurred judicial battles between political parties on whether ballots should be accepted and if voters with invalid votes should be offered the possibility to correct their errors. This possibility is, in any case, more and more difficult to implement due to the increasing number of votes cast by mail[864]. E-voting does not allow for such human errors and interpretation by design. Additionally, a research paper analyzing vote-by-mail in Maine showed that almost 10% of the votes sent by mail arrived on Election Day or the day after due to postal delivery disruptions[865] – a problem that e-voting circumvents as long as denial of service issues are solved.

E-voting can also be considered more secure than paper voting when security guarantees at the polling stations are not met. Paper voting is, in theory, a very robust and benchmark voting mode, yet not in contexts and jurisdictions where the usual security features of paper voting are not guaranteed. The same applies to electronic voting machines when security conditions are unmet. As mentioned, after the 2024 presidential elections in Venezuela, the government refused to hand over ballot receipts. Such an obstruction could have been circumvented, for example, if a blockchain-based e-voting system had been used, making all encrypted ballots accessible in an immutable way on a distributed ledger. In Venezuela, Juan Guaido, the allegedly defeated candidate from the opposition in the 2020 presidential election, challenged the result by organizing his own plebiscite through a blockchain-based e-voting platform. The Venezuelan opposition had to halt the plebiscite mainly because of denial-of-service attacks from the government[866].

---

[861] *Ibid*.

[862] As commented by Charles Stewart III, head of the Election Data and Science Lab at the M.I.T.: "It's quite possible that the election will come down to Pennsylvania, and, if it does, it could be a couple of thousands votes" (*Ibid.*).

[863] *Ibid.*

[864] *Ibid.*

[865] Michael C. Herron and Daniel A. Smith, *Postal delivery disruptions and the fragility of voting by mail: Lessons from Maine*, January 18, 2021, https://doi.org/10.1177/2053168020981434, accessed October 11, 2021.

[866] *Venezuela's Guaido launches 'popular consultation' as Maduro tightens grip on power*, France 24, December 8, 2020.

Conversely, e-voting presents specific features that are absent from other voting modes and provides increased security. Its digital technology prohibits incorrect ballots and avoids any doubt about incorrect ballot counting, while the automatic coalition of results precludes any tampering with the final tallying[867]. Blockchain technology can add a layer of control upon the implementation by allowing the automatic execution of the vote result through a smart contract[868] (see below chapter 3.5 for a definition of smart contracts).

Beyond immediate costs, e-voting offers more flexibility to organize votes, as paper voting implies numerous hidden difficulties and possible extra spending. It requires the mobilization of public premises and a large number of volunteers. With the increased suspicion around voting, election officials are more often threatened[869]. The 2024 U.S. presidential elections saw a surge in potentially hostile attitudes, leading to "drones and snipers" being deployed at some polling stations[870].

*

The examples of Estonia and Switzerland show that e-voting is already a feature of the democratic debate. Although academics concur in believing that no secure e-voting system exists today for sovereign elections, Estonia has been practicing it regularly for nearly twenty years, and Switzerland is testing it again despite the vulnerabilities identified in its previous system. If both countries are using e-voting, it is because of the crucial advantages it brings to democracy regarding inclusivity, flexibility, and innovation.

E-voting increases participation and favors pluralistic intelligence. It also enhances participation in the broader sense, which can be called "ontological". As an ontological

[867] Jan Gerlach and Urs Gasser, *op. cit*.
[868] Gilles Mentré, Franck Nouyrigat, Thomas Mignot, and Lena Melcher, *Electis.app – white paper*, 2022, Tartu University, https://doi.org/10.15157/diss/037.
[869] Glenn Thrush, Adam Goldman, Alan Feuer, and Eileen Sullivan, *U.S. officials face torrent of threats over voting,* The New York Times, October 28, 2024.
[870] *Ibid.*

concept, participation has a long philosophical history, from Plato to Schelling[871]. As per the definition proposed by Louis Lavelle:

"The essence of participation is to discover an act which, at the moment I perform it, appears to me at once as mine and not mine, as universal and personal together, as seen in the mathematician, in the very operation of the demonstration, which is an act performed by him, but executable by all."[872]

Such a definition, which we can refer to as setting the "ontological characteristic of participation"[873], applies to democracy and voting. When I participate in a public deliberation and cast my vote, I do the same as performing a mathematical demonstration: an act performed by me but executable by all. This is precisely the way Hugo presented it, equalizing the ability of the citizen to take part in the country's life with the ability of each of us to feel internally the "grandeur of sovereignty" and the "soul of the nation".

It is true for traditional paper voting as much as for e-voting, as we have opted for an ontology unifying the real and the virtual world. However, e-voting goes further. On the one hand, quantitatively, it allows us to vote more frequently and inclusively. On the other hand, qualitatively, it renovates our relationship toward voting by proposing to process differently, creating a new experience. By breaking the habit of traditional voting, e-voting helps us consider the act of casting one's vote in a new way, questioning its legitimacy and efficiency with a new glance. The same can be said for other tools of direct democracy, such as mini-publics or online debates (as we will see in 3.1., individual empowerment is a key outcome of mini-publics), although e-voting makes it possible on a larger scale.

This ontological aspect can be found in Paul Simondon's concept of technical objects. For Simondon, four modes of collective organization can be identified: magical, religious, technical, and aesthetic. The technical mode is paired with the religious mode and has two aspects of the lost magical mode – and they can only be reconciled by the

[871] *Participation: From Ontology to Social Networks*, 38th Congress of the Association of French-Language Philosophical Societies (ASPLF), Paris, June 25-26, 2021.
[872] Louis Lavelle, *De l'acte [On Act]*, Aubier, 1946 [1937], p. 93, my translation.
[873] *Ibid.,* p. 366.

aesthetical mode. Applying the same scheme to our direct democracy would lead to the following diagram:

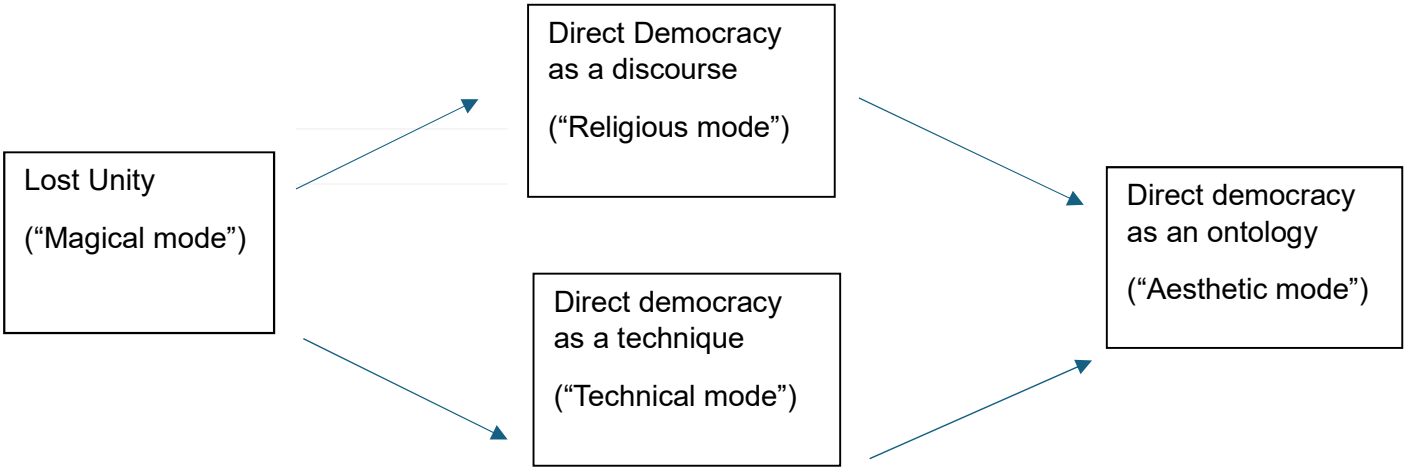


Figure 5: The four modes of political organization (Source: Simondon[874], author)

In the above figure, we have applied Simondon's scheme to our subject.

Direct democracy can be analyzed as a discourse, as we have done in section 1. Religion is to be understood in its etymological sense of joining people between themselves. It is the way the pragmatic philosophers used it. As we mentioned in section 1, James referred to democracy as a "kind of religion". Dewey further analyzes religion in *A Common Faith*, drawing a distinction between "religion" with its supernatural beliefs and "religious" as an experience that does not imply those beliefs. Writes Dewey:

[874] Gilbert Simondon, *op. cit.*

"the democratic ideal as a vital moral and spiritual ideal in human affairs is possible without surrender of the conception of the basic division to which supernatural Christianity is committed. Whether or not we are, save in some metaphorical sense, all brothers, we are at least all in the same boat traversing the same turbulent ocean. The potential religious significance of this fact is infinite."[875]

Direct democracy can also be analyzed as a technique, in line with our reading in the current section. It applies to all tools of direct democracy, with a particular focus on e-voting for the reasons we have outlined above.

Considering the dual aspect of direct democracy, religious and technical, we can continue the analogy with the four modes proposed by Simondon to see how direct democracy can be analyzed in an aesthetic mode. "Aesthetic" is not to be understood, in Simondon's terms, as related to art but more generally as "a certain contact with matter that is being transformed through work". As he wrote to Derrida:

"Aesthetics is not only, nor first and foremost, the sensation of the 'consumer' of the work of art. It is also, and more originally so, the set of sensations, more or less rich, of the artists themselves: it's about a certain contact with matter that is being transformed through work. One experiences something aesthetic when one is doing a soldering or driving in a long screw."[876]

Direct democracy acquires, therefore, an aesthetic dimension by the very fact of the citizen performing it, in the form of ontological participation. The universal aspect of direct democracy encounters personal experience in the very act of voting. The same can be said of other aspects of the decision-making process (deliberation and control), although they involve fewer citizens than voting itself. E-voting plays a specific role among the direct democracy tools as it brings a new texture to that experience by demanding a renewed aptitude and technicity to perform it.

2.3. Conclusion: The Self-Institution of Direct Democracy

The empirical approach we adopted in the second section has led us to understand direct democracy not only as a regime but also as a technique. With such a perspective,

[875] John Dewey, *A Common Faith*, in *The Later Works of John Dewey, 1925-1953*, ed. J. A. Boydston, 1986 [1934], Southern Illinois University Press, Carbondale and Edwardsville, p. 56.
[876] Gilbert Simondon, *On Techno-Aesthetics*, transl. A. De Boever 2012, Parrhesia Number 14, p. 3.

we have focused on how direct democracy can improve incrementally and adapt to new circumstances (in particular, polarization, partisan alignment, and issue alignment) to meet the legitimacy and efficiency challenge. By doing so, we have identified additional advantages of direct democracy.

The first one is its ability to keep a margin of indetermination, which is, as we saw, an aspect of the perfecting process of any technique for Simondon. The lessons of a century of referendums and initiatives in California have proven that these instruments have neither a conservative nor progressive bias and better reflect the majority's position than representative democracy. Its outcome goes beyond the intentions of its initiator (as demonstrated by Serdült et al., see below). The use of referendums in the context of increased polarization has further taken observers by surprise by overpassing the issue alignment trend that can be identified in representative elections, as the votes on abortion in Kansas, Kentucky, and other Republican States, have shown. The referendums held in Taiwan have managed to build consensus on specific and practical issues in a country so divided that members of parliament often resort to public violence.

The second one is the functionalization of instruments. If voting is at the core of democratic participation, other activities are crucial, notably deliberating and controlling. Oregon, which has implemented referendums and initiatives like 23 other U.S. States, has gone beyond voting to create a function-specific tool for information, debate, and design: the CIR. Technology plays an essential role in the development of these new tools. Platforms like vTaiwan, Join, or Cofact allow for larger and more interactive participation. vTaiwan and Join nevertheless suffer from a divergence of functional directions as they encompass too large a scope. The rapid development of e-government in Taiwan has also created a digital divide that needs to be addressed through proper education and training, as well as the ability to keep "hybrid systems" by pairing new digital tools with more traditional ones. Democratic tools should also avoid the "divergence of functional direction": online deliberation platforms should not be e-voting or fact-checking instruments, and reciprocally.

Thirdly, direct democracy instruments bear an ontological dimension in addition to their participatory and collaborative effects. By voting more frequently, citizens rediscover the essence of participation, which is to perform at an individual level an

action that is universal in its application. This is even more the case with digital tools, as they lead citizens to learn how to participate again. That dimension applies to information, debate, design, and control, performed in a more decentralized and virtual way, but it is most critical for voting itself.

Lastly, e-voting appears as an instrument whose scope and potential of reinvention supersedes the others. A careful analysis of the requirements for a safe and trustable e-voting system shows that none is ready now for sovereign election. However, solutions are already in place to tackle each of the issues identified: identification, malware of devices, software independence, and end-to-end verifiability. Other issues like resistance to coercion or denial of service need to be covered. Once the right solutions are in place, in the foreseeable future, then e-voting will allow for large participation, inclusivity, and innovation. Concerning lower-stake votes like referendums, particularly at the local level, e-voting systems could be implemented sooner.

After demonstrating in section 1, theoretically, that direct democracy is best suited to answer the legitimacy and efficiency challenge of democracy and provide equal participation and outcome (from a procedural as well as instrumental perspective), we have therefore identified, in section 2, four additional advantages of direct democracy instruments from an empirical and technical perspective, which open both static and dynamic perspectives.

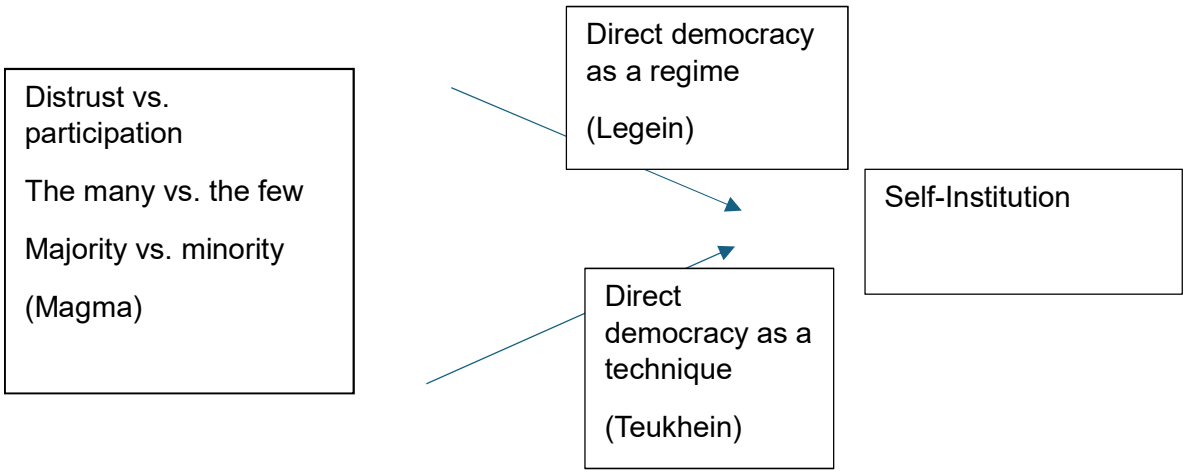
Statically, direct democracy implies more tools than just referendums. The examples of the U.S. and Taiwan have highlighted several innovations, from the Oregon CIRs or Seattle's democratic vouchers to online platforms such as vTaiwan, Join, or Cofact. Design and implementation of these tools also play a crucial role. vTaiwan and Join show that information, deliberation, campaigning, voting, and controlling are distinct functions that deserve distinct instruments. E-voting has a specific transformational power in terms of participation and experimentation, which requires auto-limitation, given the remaining security concerns.

Dynamically, these different tools prove positively adaptable to circumstances, and particularly to the evolution of trust in government and polarization. If e-voting requires strong institutional trust for sovereign elections, it appears adequate to increase participation in contexts of lower trust. Referendums also demonstrate their

plasticity, adapting to a polarized political environment where they offer sufficient indetermination to allow for the recreation of project majorities where program majorities are difficult to identify.

The rise of direct democracy as a claim and the development of technology-powered decentralizing tools, among which e-voting plays a transformational role, therefore, converge. At first glance, these two elements seem to belong to two separate fields: political philosophy on the one hand and computer sciences on the other hand. Yet the two are entangled: not only are direct democracy tools instrumental to the development of direct democracy, and direct democracy is enzymatic to the development of innovative tools, but also, since, more dynamically, both elements transform each other. Direct democracy transforms the purpose of voting, which in return enhances the possibilities of direct democracy.

The pair direct democracy as a discourse / direct democracy as a technique, acting as a legein / teukhein, institutionalizes the participation desire that was only floating as a social imaginary scheme in our societies' "magma" ("by which I mean not chaos but the mode of organization belonging to a non-ensemblist diversity, exemplified by society, the imaginary or the unconscious"[877]). Applying it to democracy, we can propose the following scheme inspired by Castoriadis:



[877] Cornelius Castoriadis, *The Imaginary Institution of Society*, *op. cit.*, p. 182.

Figure 6: Direct democracy's Self-Institution (Source: Castoriadis[878], author)

The conjunction of the legein and teukhein of direct democracy, i.e., its dual aspect as a discourse and a technique, allows it to self-institute itself. By "auto-institution" or "self-institution", Castoriadis designates a process of "autonomy" that is "indissociable from the institution of the social individual"[879], relating to the distinction between autonomy and heteronomy that we draw in the introduction (Gandhi) and what Girard defines as the "democratic ideal of people's self-government[880]". Self-institution, as a revolutionary process, is not anarchist. "There must be no confusion between the question of the possibility of a radical revolution and an explicit self-institution of society, and the question of the possibility of a society without explicit institutions[881]". However, self-institution is not fully conscious. Indeed, all human making is "conscious, and yet none could continue one second longer if a prior exhaustive knowledge were required if a total clarification of its object and of its mode of operation were necessary[882]". We can clarify the distinctive aspects of the legein and the teukhein, of direct democracy as a discourse and as a technique, but not their complete objectives and modes, and how they combine to allow for an auto-institution. Castoriadis insists on the processual aspect, on "the explicit (even if partial) self-institution of the polis as a permanent process[883]", which implies both "hubris" and "auto-limitation".

To understand how direct democracy can contribute to society's self-institution, we need to determine how direct democracy, as a process, provokes its own institutional amendments. We will do so in the next section by analyzing pragmatically the institutional arrangements that the current practice of referendums should provoke, before proposing an interpretation, through the use of two processual utopias, of such a self-institution. By doing so, we will see that democracy can complement representative democracy, but with a view to replacing it, and that such a perspective requires auto-limitation.

878 Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.,* p. 260.
879 *Ibid.*, p. 298.
880 Charles Girard, *op. cit.*
881 Cornelius Castoriadis, *Crossroads in the Labyrinth*, *op. cit.*, p. 317.
882 *Ibid.*, p. 73.
883 Cornelius Castoriadis, *The Greek Polis and the Creation of Democracy, op. cit.,* p. 97.

3. Propositions for a Digital Direct Democracy

In the current section, we will review the concrete institutional forms that direct democracy can take and propose a framework for a concrete implementation of direct democracy instruments within democratic regimes. To do so, we will systematically examine the objections made toward direct democracy, in general, and referendums, in particular, to determine how they should be implemented to answer these objections in the form of a "digital direct democracy".

Some authors have argued that referendums are too different tools from one regime to another to be analyzed as such[884]. Instead, we will here take Qvortrup's views that some general features can be identified and discussed. Write Qvortrup and Trueblood: "just as claims can be made about the regulation of elections, it is also productive to identify trends across the use of referendums[885]". The authors, nevertheless, "concede that context is essential". In our analysis, though, context is not a concession, as we are testing the adaptability of those instruments as a technique.

If we are to pick one example of a referendum that best encapsulates the objections that one can make against direct democracy, the 2016 British referendum on Brexit is relevant. It stirred numerous criticisms, which can be re-ordered into four categories.

The first category of criticisms concerns the voters' qualifications and level of information about the complexity of the relationship between the EU and the U.K. The debate has been notably accused of being founded on misinformation and fake news[886] and some research defended the idea that the cognitive ability to resist misinformation and disinformation was strongly linked to voting Remain[887].

[884] See Gordon Smith, *The Functional Properties of the Referendum*, 1976, European Journal of Policy Research, n°4, pp.1- 2: "the 'referendum' label includes a variety of situations and usages which bear only a superficial similarity to one another."
[885] Matthew Qvortrup and Leah Trueblood, *op. cit.*, p. 200.
[886] Vittorio Orlando, *Post-Truth Politics, Brexit, and European Disintegration*, in *Europe in the Age of Post-Truth Politics*, 2022, Palgrave Studies in European Political Sociology, pp. 103–127
[887] Chris Dawson, Paul L. Baker, *Cognitive ability and voting behavior in the 2016 UK referendum on European Union membership*, https://doi.org/10.1371/journal.pone.0289312, accessed June 10, 2022.

The second criticism relates to majority rule and its inability to express the variety of positions and, in particular, those of certain minorities or groups with specific interests regarding the U.K.'s relation with Europe, which would not have been adequately taken into account (e.g., British citizens living in other European countries, EU citizens residing in the U.K., not to mention Scots, Irish and Welsh voters). The referendum's binary choice between Remain and Leave did not represent the whole variety of attitudes toward the EU and the implied trade-offs and compromises[888]. Richards et al. found that Europhiles (16% of the population, out of which 79% voted for Remain) and Hard Brexiters (21% of the total population (out of which 75% voted for Leave) altogether only accounted for a third of the total electorate. The rest of the population was in favor of a negotiated deal on specific issues, the redlines varying between "Cake and Eat it" (29%, out of which 62% voted for Remain), "Negotiators" (11%, out of which 68% voted for Remain) and "Deal-makers" (13%, out of which 64% voted for Remain)[889]. No referendum could encapsulate such a variety of opinions.

The third criticism underlined that the referendum campaign had been driven away from the original question. The sincerity of the initiative and David Cameron's alleged hidden agenda of using the referendum to consolidate his legitimacy within the Conservative Party was questioned. Some have spoken of "politics on a monopoly board[890]", although it could also be argued that such a decision was coherent with the "people's control" [891] he advocated for. Others suggested that alternative topics, such as immigration, globalization, and social policies, confiscated the debate on Europe[892]. Colantone and Stanig evidenced that regions more affected by trade and globalization

[888] C. Rohr, A. R. Pollitt, D. Howarth, H. Lu, and J. Grant, *What sort of Brexit do the British people want? A proof-of-concept study using stated preference discrete choice experiments*, 2017, Policy Institute, King's College London, London.
[889] Lindsay Richards, Anthony Heath and Noah Carl, *Red lines and compromises: Mapping underlying complexities of Brexit preferences*, April–June 2018, The Political Quarterly, Vol. 89, n°2**,** pp. 280-290. The authors identify that "hard Brexiters" represent 21% of the total population (out of which 75% voted for Leave) and "Europhiles" 16% (out of which 79% voted for Remain), the rest being divided into five other categories from "Cake and Eat it" (29%, out of which 62% voted for Remain) to "Negociators" (11%, out of which 68% voted for Remain) including "Deal-makers" (13%, out of which 64% voted for Remain).
[890] Christopher Loizou-McGill, *David Cameron's Decision to Hold a Referendum on Membership of the EU,* May 2019, Dossiers Bibliothèque Sciences Po, Paris.
[891] During a Technology Entertainment Design - TED conference in February 2010, David Cameron stated that the age of central control, which had followed local control, was outdated, and that we had now moved to control by the people, see Kevin Anderson, "*TED: David Cameron promises to unleash 'people power'*", The Guardian, February 10, 2010.
[892] Michael Goodhart, *The Road to Somewhere – The Populist Revolt and the Future of Politics*, 2017, Hurst, London.

gathered more Leave votes[893]. In June 2016, a week before the final vote, immigration was the top concern influencing the vote (33%), surpassing the economy (28%), legal independence (12%), impact on public services (11%), and employment (10%)[894]. As Sarah Fine commented, "The Brexit side clearly considered free movement to be a central concern for the electorate. With their appealing tagline of 'take back control', the Leave campaign put migration at the heart of the argument in favor of withdrawing from the EU[895]." Reversely, Becker et al. found that exposure to immigration and trade had little impact and that the vote was characterized by more fundamental characteristics such as education, income, and age[896].

The last series of criticisms pointed to the consequence of the referendum itself and the fact that the vote did not solve any of the concrete issues it was supposed to decide on. Historian Pieter Lagrou recalls that it is a common feature of referendums on territorial evolutions, from the Upper Silesia referendum in 1921 to the self-organized referendum on the independence of Catalonia in 2017. He concludes: "The fallout of the Brexit referendum proves, above all, that a plebiscite creates infinitely more problems than it can solve[897]".

These arguments recur with every significant referendum - the Dutch and French referendums of 2005[898] provide other examples of similar criticisms, which we will detail in the current chapter. We can group these objections into four categories[899]:

(3.1) the competence of voters and the very purpose of consulting them (agency objection, or who should vote?);

---

[893] Italo Colantone and Piero Stanig, *Global Competition and Brexit*, 2016, BAFFI CAREFIN Centre Research Paper, n° 44.
[894] Survey by Ipsos-Mori, June 2016.
[895] Sarah Fine, *Whose Freedom of Movement Is Worth Defending?*, in *Debating European Citizenship*, ed. R. Bauböck, 2018, IMISCOE Researche Series, Springer, London, p. 130.
[896] Sascha Becker, Thiemo Fetzer and Dennis Novy, *Who voted for Brexit? A comprehensive district-level analysis*, 2017, Economic Policy, vol. 32, n°92, pp. 601-650.
[897] Pieter Lagrou, *Plebiscite or Parliament? Brexit and the End of the History of the British Political Model*, February 2019, Contemporary European History, Vol. 28, n°1, pp. 10 – 13.
[898] Antoine Schwartz, *Bonne Europe et mauvaise France. Les éditorialistes français interprètent la victoire du « non » au traité constitutionnel européen [Good Europe and Bad France – French Columnists Interpret the Victory of the « No » to the Treaty on the European Constitution]*, 2008, Politique et Sociétés, Vol. 27, n°2, pp. 137–159.
[899] Other classification of objections to referendums have been proposed. Tierney lists three objections: elite control and manipulation (here in (iii)), the absence of deliberation (here in (i)), and the question of individual and minority rightd (here in (iii)) – see Stephen Tierney, *Constitutional Referendums – The Theory and Practice of Republican Deliberation*, 2012, Oxford University Press, Oxford, p. 56.

(3.2) the rationale of deciding by simple majority and directly (formal objection, or how should one vote?);

(3.3) the limits on the scope of issues that can validly be addressed by referendum and the agenda-setting (material objection, or what should one vote on?);

(3.5) and finally, the objections concerning the actual consequences of the vote (finalist objection, or why should one vote?).

We will use this template to answer objections against the referendum in a systematic manner and propose institutional solutions. In conclusion, we will propose two utopias, "datatorship" and "pancracy", to help us analyze how this institutionalization of the referendum can lead to a self-institution of direct democracy (3.5).

3.1. The Agency Objection: Who Should Vote?

The primary objection to referendums is voter competence. It has been often argued that citizens, unlike representatives, lack the means to understand complex issues fully. What does the average British or French citizen know about the intricacies of EU procedures? In section 1, we analyzed the debate around the "ignorance of the masses" and showed that the ball is on the experts' camp to prove that they can deliver adequate (if not infallible) decision-making.

However, is that argument still right in the Internet, social media, and fake news era? We saw in section 1 how the 2005 campaign witnessed the first surge in widespread internet information and bots in France's political debate. Can we still presume the competence of citizens? Research has demonstrated that social networks snowball fake news faster than accurate information[900], creating "filter bubbles[901]" and '"echo chambers[902]". Social networks circulate information within homogeneous groups ("clustering"), promoting "intellectual isolation[903]". The investigation by the British Parliament following the scandal caused by Cambridge Analytica demonstrated the

[900] Adam Zewe, *Systems scientists find clues to why false news snowballs on social media*, MIT News Office, December 15, 2021.
[901] Eli Pariser, *The Filter Bubble: What Internet is Hiding From You*, 2012, Penguin Books, New York.
[902] Cas Sustein, *#Republic: Divided Democracy in the Age of Social Media*, 2018, Princeton University Press, Princeton.
[903] *Ibid*.

ability to deliberately target information based on individual profiles, vividly raising the question of whether targeted information on social networks could influence votes, especially when that information was biased or even falsified[904].

Fake news is all the more problematic since it seems to invalidate the presumption of citizens' competency. However, as Lupia rightly posited, competence is not the same as information. In his definition, competence is casting a vote that would be unaltered if the voter had the best available information about the option they voted for. Such a standard might be seen as a "metastandard", a judgment on judgment, opening an infinite regression on how to judge it[905]. Nevertheless, its interest relies on the fact that, contrary to many definitions of competence, it is not based on a material (content of knowledge) nor formal (judgment abilities) but on a finalist perspective. As he proves both theoretically and empirically, non-informed voters prove as competent as informed ones when they correctly identify which third parties or institutions support each of the options put to the vote. As Lupia sums up in a joint article with Matsusaka:

"If voters have access to reliable advisers, then they can vote competently despite not knowing many details about the choice at hand. Indeed, voters are incentivized to seek advice from credible people and avoid information providers who provide vague or misleading reports. But how do they do this? [...] Therefore, voters can be competent while lacking information about those who provide them with information. Seen in this light, the requirements for voter competence in direct democracy can be quite minimal."[906]

The issue is whether voters accurately select their proxy or not. It is both an information and deliberation question. What happens if incentives to be known as trustworthy become looser and if it gets harder to discriminate between credible information providers and those who disseminate misleading reports? What are the consequences if there is not enough open deliberation and the proxies that would correspond to someone's opinion are not heard and, therefore, cannot be identified?

---

[904] Information Commissioner's Office*, Investigation into the use of data analytics in political campaigns, A report to Parliament*, November 6th 2018.
[905] Philippe. E. Tetlock, *Expert political judgment: How good is it? How can we know?*, 2005, Princeton University Press, Princeton.
[906] Arthur Lupia and John G. Matsusaka, *Direct Democracy: New Approaches to Old Questions*, 2004, Annual Review of Political Sciences, n°7, University of Southern California, Los Angeles, p. 469, emphasis mine.

We will analyze this question by examining the issues around information and deliberation separately. The two aspects are intricate since the quality of information determines deliberation, and deliberation has an informational role. However, some tools are generic and are necessary in the presence or absence of deliberation (3.1.1), while others are deliberation-based (3.1.2).

3.1.1. Nuancing, Yet Combating, Fake News

The first prerequisite to selecting a trusted proxy is to rely on sufficient information and a variety of points of view. This role is primarily exerted by the media, which can be considered "the Pnyx and the Forum[907]" of democracies (Mill). In theory, this objective can be attained by objective media displaying the largest number of political views, or by a sufficient variety of opinion-driven media. The media industry's economy does not necessarily play in that direction. As Chomsky pointed out the increasing role played by advertising revenues creates an uneven playing field for media targeting audiences with lower revenues, especially working-class audiences[908]. In addition to this "advertising license to do business", he underlines three other filters: size, ownership, and profit orientation; the sourcing of mass-media news; and the increasing deterrent power of "flak" (or negative response to a media statement or program)[909].

To respond to those filters, Julie Cagé, stressing that "the media are not a commodity", proposes to create "non-profit media organizations (NMO)[910]". NMO, an "intermediate in status between a foundation and a corporation" will "provide media with secure capital while imposing statutory constraints on the power of outside shareholders". Julie Cagé takes the example of The Guardian, the Frankfurter Allgemeine Zeitung, or The Irish Times, all owned by ad-hoc foundations.

---

[907] John Stuart Mill, *Considerations on the Representative Government*, chapter I, https://www.gutenberg.org/files/5669/5669-h/5669-h.htm, accessed March 15, 2022.
[908] Noam Chomsky, *Manufacturing Consent,* 2002 [1988], Pantheon, New Yorkarat, p. 75: "From the time of the introduction of press advertising, therefore, working-class and radical papers have been at a serious disadvantage".
[909] *Ibid.*
[910] Julie Cagé, *Sauver les médias – Capitalisme, financement participatif et démocratie [To save the media- Capitalism, participatory financing and democracy]*, 2015, Seuil, Paris, Introduction.

Analyzing the economics of media corporations, particularly in the Internet age, goes beyond the scope of the current dissertation. Specific measures need to be considered and deliberated politically, such as "limits on the economic [shareholder] concentration of news corporations, independent administrative control on privately owned platforms[911]", "public financing of generalist websites, incitative measures to redirect toward sites providing opposing views[912]", "truth-in-advertising laws, perjury penalties, or incentives to be known as trustworthy[913]". They could undoubtedly contribute to reducing the general trust gap that affects the media. In 2014, only 22% of Americans trusted their newspaper, 19% the internet, and 18% televised news[914].

In the current chapter, we will focus on fake news, as it has become a prominent question in the contemporary debate on democracy. To do so, I will theoretically examine how fake news can or cannot affect the public debate before empirically assessing some solutions to (partly) address the issue.

Nuancing the impact of fake news

Should fake news lead us to lose faith in "the good sense of common people" (Jefferson). Is a voter at a referendum necessarily a non-expert fed online with false information? Several studies suggest a more nuanced view.

The first question is whether the Internet and social media accelerate the diffusion of fake news. Bruce Etling et al., from Harvard's Cyberspace Institute, showed that fake news during the 2020 U.S. elections was not primarily spread by social networks but by traditional media[915]. Garrett analyzed fake news during the 2016 campaign and concluded that, contrary to frequent claims, Facebook played a modest yet positive role as "frequent use by Facebook users did more to promote accuracy"[916]. Similarly, Gentzkow showed in another research that although the Internet has reduced the

[911] Charles Girard, *op. cit.*, p. 307.
[912] *Ibid.*, p. 319.
[913] Arthur Lupia and John G. Matsusaka, *op. cit.*
[914] Gallup, 2014, quoted by Julie Cagé, *Saving the Media: Capitalism, Crowdfunding, and Democracy,* 2016, Harvard University Press, Cambridge (MA).
[915] Bruce Etling et al., *Mail-in Voter Fraud: Anatomy of a Disinformation Campaign*, Berkman Kelin Center for Internet and Society, October 1, 2020, Harvard University Press, Cambridge (MA).
[916] R. Kelly Garrett, *Social media's contribution to political misperceptions in U.S. Presidential elections*, 2019, PLoS ONE, Vol. 14, n°3.

diversity of viewpoints compared to traditional media, that diversity has increased compared to our face-to-face social interactions[917].

A second question is whether fake news can influence the beliefs of voters. Garett showed that social media had "no measurable aggregate influence on issue beliefs" in the 2016 elections[918] and calls the notion of echo chambers "a distraction[919]". A study by Dan Kahan concluded that, if fake news has an effect, it is not linked to cognitive limitations[920]. Kahan tested a panel of students from Yale and asked them to assess the effectiveness of gun control on crime rates. As expected, given confirmation bias, Democratic students tended to overestimate the effectiveness and Republicans to underestimate it. The Yale experiment observes that the bias increases, rather than decreases, with the level of mathematics and IQ: the more analytical a person is, the more they tend to transform reality to conform to their opinions. Daniel Perkins indicated in a similar study from the 1990s: "people invest their IQ to reinforce their own position rather than explore the issue in its entirety in a balanced manner[921]". Generally, the stronger one's political knowledge and awareness, the more that knowledge tends to be "weaponized", leading to "epistocratic irrationality"[922]. Michael Sandel develops the same approach analyzing the political debate around climate change, highlighting that the level of education does not abate polarization: "The more people know — the better-educated people are and the more scientific background they have — the greater the disagreement about whether climate change is a problem or not, not less[923]". Republicans with a high school degree are 57% to believe that global warming is generally exaggerated, while Republicans with a college degree are 74% to think so[924]. Reversely, "if the primary source of opposition to action on climate change

[917] Matthew Gentzow, Jesse M. Shapiro, *Ideological Segregation Online and Offline*, The Quarterly Journal of Economics 126, 2011, pp. 1799–1839.
[918] R. Kelly Garrett, *op. cit.*
[919] R. Kelly Garrett, *The "Echo Chamber" Distraction: Disinformation Campaigns are the Problem, Not Audience Fragmentation*, 2017, Journal of Applied Research in Memory and Cognition, Vol. 6, pp. 370-376.
[920] Dan M. Kahan et *al.*, « *Motivated Numeracy and Enlightened Self-Government* », May 2017, Behavioral Public Policy, n°1, pp. 54-86, quoted par Ezra Klein, *op. cit.,* pp. 90-92.
[921] David Perkins, Michael Farady, Barbara Bushey, *Everyday Reasonning and the Roots of Intelligence*, in J. F. Voss, D. N. Perkins, & J. W. Segal (eds.), *Informal reasoning and education*, 1991, Hillsdale, Erbaum (NJ), (83-105), quoted by Ezra Klein, *op. cit.,* p. 92.
[922] Michael Hannon, *Are knowledgeable voters better voters?*, Politics, February 2022, Philosophy & Economics, Vol. 21, n°1, pp. 29-54
[923] Michael Sandel quoted By Kevin A. Simauchi, *Sandel Debates The Future of Truth in Politics at IOP*, The Harvard Crimson, February 21, 2020, https://www.thecrimson.com/article/2020/2/21/sandel-williams-politics-truth-iop/, accessed April 13, 2022.
[924] Michael J. Sandel, *The Tyranny of Merit, op. cit*.

were the lack of information or a refusal to accept science, one would expect opposition to be stronger among those with less education[925]".

Hugo Mercier highlights the difficulty of influencing individuals' votes beyond a family or friendly circle. Mercier does not hesitate to label Cambridge Analytica as a "scam", with no evidence of the effectiveness of targeted political campaigns. Provocatively, he contends that "even if the influence of the Cambridge Analytica campaign had been as significant as that measured in experiments on beauty products, it would probably have shifted only a few thousand votes. In reality, its influence was probably null."[926] He recalls, in that regard, that rumors and false news, from witch-hunts to anti-Semitic fables, were older than democracy.

"In general, it is not because people rely on false beliefs that they make erroneous or bad decisions, but because people seek to justify making erroneous or bad decisions that they rely on false beliefs. [...] If Voltaire's maxim that "those who can make us believe absurdities can also make us commit atrocities" is often repeated, it is rarely true. Generally, it is the desire to commit atrocities that makes us believe in absurdities."[927]

A third question arises. Even in the hypothesis of the influence of fake news on individuals's beliefs, does it translate into a measurable effect on the results of elections? Hunt Allcott and Matthew Gentzkow surveyed a sample of voters following the 2016 election of Donald Trump and concluded that fake news influenced the result by less than 0.1% (each voter being exposed to an average of only 1.14 false pieces of information during the campaign)[928]. Guess et al. found that a selected and limited number of voters consume fake news:

"We also find evidence of substantial selective exposure; a narrow subset of Americans with the most conservative information diets were disproportionately likely to visit fake news websites. These results contribute to the ongoing debate about the problem of "filter bubbles"

[925] *Ibid*.
[926] Hugo Mercier, *Not Born Yesterday – The science of* Who *we trust and* What *we believe*, 2021, Princeton University Press, Princeton, p. 139.
[927] *Ibid.,* p. 164.
[928] Hunt Allcott and Matthew Gentzkow, *Social Media and Fake News in the 2016 Election*, Spring 2017, Journal of Economic Perspectives, Vol. 31, No.2, pp. 211-236.

by showing that the "echo chamber" is deep (33.16 articles from fake news websites on average) but narrow (the group consuming so much fake news represents only 10% of the public)."[929]

A last question is whether fact-checking and fact-tracking are valuable tools in our debate. Do voters change their opinion when confronted with more accurate facts? Research conducted by a team of Sciences Po and the Paris School of Economics on fake news based on the 2017 French presidential campaigns shows that correcting facts often does not change political belief and candidate preference, even if the respondents correctly update their knowledge[930]. A study from the Royal Society on Brexit nuances that position and shows that voters confronted with fact-checked information significantly revise their position, in line with other studies conducted in the U.S. and Australia[931]. Interestingly, the study tests the two hypotheses of partisan and issue alignment in measuring how voters react to misinformation, concluding that partisan affiliation is more important than voters' position on Brexit in processing misinformation. After being confronted with evidence that politicians have provided wrong information, voters' negative attitude is stronger when it relates to information supplied by a party-congruent politician than by a Brexit-congruent politician. This attitude could nevertheless change with the development of artificial intelligence (AI). A recent study in *Nature* showed that respondents were more prone to revise their beliefs when confronted with information delivered to them by AI rather than when it was done by human experts, as if AI bots were presumably more independent[932].

This selective research survey does not settle the debate on whether fake news poses a threat to democracy. The point here is that the phenomenon did not appear with social

---

[929] Andrew Guess, Brendan Nyhan, and Jason Reifler, *Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign*, January 9, 2018, European Research Council, my emphasis.

[930] Oscar Barrera, Sergei Guriev, Emeric Henry, Ekaterina Zhuravskaya*, Facts, alternative facts, and fact checking in times of post-truth politics*, 2020, Journal of Public Economics, Vol. 182.

[931] Toby Prike, Robert Reason, Ullrich K. H. Ecker, Briony Swire-Thompson and Stephan Lewandowsky, *Would I lie to you? Party affiliation is more important than Brexit in processing political misinformation*, Royal Society Open Science, February 2023, Vol. 10, n°2. The article quotes several studies related to the U.S.: B. Swire, A. J. Berinsky, S. Lewandowsky and U. K. H. Ecker, *Processing political misinformation: comprehending the Trump phenomenon*. 2017, Royal Society Open Science 4, 160802; B. Nyhan, E. Porter, J. Reifler, and T. J. Wood, *Taking fact-checks literally but not seriously? The effects of journalistic fact-checking on factual beliefs and candidate favorability*, 2020, Political Behavior, n°42, pp. 939-960; B. Swire-Thompson, U. K. H. Ecker, S. Lewandowsky, A. J. Berinsky, *They might be a liar but they're my liar: source evaluation and the prevalence of misinformation*, 2020, Political Psychology, n°41, pp. 21-34.

[932] Helena Kudiabor, *This AI chatbot got conspiracy theorists to question their convictions - Large-language-model trial suggests facts and evidence really can change people's minds*, Nature, September 12, 2024.

networks and that the extent of its actual impact remains to be debated. The very idea that political facts can be judged separately from political opinions is not evident. Writes Sandel:

"The idea that we should all agree on the facts, as a pre-political baseline, and then proceed to debate our opinions and convictions, is a technocratic conceit. Political debate is often about how to justify and characterize the facts relevant to the controversy in question. Whoever succeeds in framing the facts is already a long way to winning the argument."[933]

There seems to be some lordliness and contempt around the focus on fake news. Personally, I have never met someone who believes they have been misled by false information. No one reckons they voted for Donald Trump because they were misinformed about his receiving Pope Francis' endorsement, nor refused to vote for Jean-Luc Mélenchon after seeing a photomontage of his supposed Rolex. Fake news is always someone else's problem. It is not to deny its existence or possible influence. The diffusion of a deepfake portraiting a leading candidate as trying to rig the elections, as happened during the 2024 elections in Slovakia[934], does not fall into the regular democratic discussion on facts that Sandel highlighted. In the next paragraph, we will examine concrete options to address the issue. However, there is not enough theoretical or practical evidence to justify that we should wait for the fake news issue to be solved to promote more citizen participation in decision-making. It should not be used as an excuse for the status quo. As Martin Luther King wrote, "Wait has almost always meant Never[935]".

From Fact-checking to fact-tracking

To limit the spreading and influence of fake news, the most common answer is the promotion of fact-checking. Both traditional media and online platforms have taken numerous initiatives to develop capacities to detect and correct false information[936].

[933] Michael J. Sandel, *The Tyranny of Merit*, *op. cit.*
[934] Curt Devine, Donie O'Sullivan, and Sean Lyngaas, *A fake recording of a candidate saying he'd rigged the election went viral. Experts say it's only the beginning*, CNN, February 1, 2024.
[935] Dr. Martin Luther King Jr., *Letter from Birmingham Jail*, April 16, 1963, https://www.africa.upenn.edu/, accessed April 10, 2023.
[936]Tanja Pavleska, Andrej Skolkay, Bissera Zankova, and Nelson Costa Ribeiro, *Performance analysis of fact-checking organizations and initiatives in Europe: a critical overview of online platforms fighting fake news*, February 2018, CSA H2020 COMPACT Project, https://www.researchgate.net/publication/327121444_Performance_analysis_of_fact-

We have seen, in the example of Taiwan, that this effort can be supported by non-profit organizations or even crowd-sourced through dedicated platforms (Cofact). Research is nevertheless ambiguous about the effect of fact-checking on the spreading of fake news (we have examined the effect on beliefs and on actual votes), with strong deterrents such as account freezes, suspensions, or bans being the more effective[937]. Opinion polls show that citizens are ambiguous about fact-checking. In France, 56% of respondants believed that fact-checkers play a useful role, yet 45% thought they are biased and 43% that they create divisions within society[938].

Progress has also been made in terms of traceability. If voters are capable of verifying, not the accuracy, but the exact origin of information, an image, or data, then the objectivity test will target the messenger rather than the message. Paul Ash, the New Zealand minister of cybersecurity, contends that, instead of censoring fake news, institutions should focus on origin transparency[939]. Tracing the origin of information is what the Daily Herald did in 1929 to refute Winston Churchill. On June 4, 2029, the newspaper published a photo of Churchill holding a book titled *War*, which had sparked controversy over his supposed bellicosity. Churchill attached the newspaper on the basis that it was a "fake"[940]. The Daily Herald defended itself by asking the Morning Post (a rival newspaper where Winston Churchill began his career as a correspondent) to certify the negative of the photo.

checking_organizations_and_initiatives_in_Europe_a_critical_overview_of_online_platforms_fighting_fake_news, accessed July 10, 2024.

[937] Ben Wasike, *You've been fact-checked! Examining the effectiveness of social media fact-checking against the spread of misinformation*, September 2023, Telematics and Informatics Reports, Vol. 11.

[938] Survey Verian, in Guillaume Caline and Laurence Vardaxoglou, *Regard des Français sur la lutte contre la désinformation [French views on fighting misinformation]*, Fondation Jean Jaurès, November 5, 2024.

[939] Paul Ash, Special Representative to the Prime Minister for Cybersecurity and Digital, Paris Peace Forum, November 12, 2022.

[940] Richard Toye, *Winston Churchill, a Life in the News,* 2020, Oxford University Press, Oxford.

[Elément sous droit – Diffusion non autorisée]

Figure 7: Photograph of Sir Winston Churchill in front of 11 Downing Street (Source: June 4, 1929 © Daily Herald)

The question is not here to decide whether Churchill can be alleged to have coined the term "fake news", but to wonder if the same traceability is still possible today, when negatives have long disappeared, and a photo montage can be done instantly?

Several paths are possible. Like email services that detect spam, we can envision protections against news whose origin is unknown[941]. More ambitiously, electronic signatures can be attached to a text or visual object, ensuring that the content is not altered. It would, therefore, be impossible to republish a piece of news by altering part of it or to make a photo or video montage without the signature being altered. The Coalition for Content Provenance and Authenticity initiative has been launched by a consortium led by Microsoft, Adobe, The New York Times, Twitter/X and the BBC, aiming to develop global standards[942].

[941] Hiawatha Bray, *Can fake news go the way of spams?,* The Boston Globe, October 15, 2018.
[942] *Project Origin*, *Content Authenticity Initiative* (CAI) and *Coalition for Content Provenance and Authenticity* (C2PA) developed by Microsoft and Adobe together with The New York Times, Twitter/X and the BBC.

[Elément sous droit – Diffusion non autorisée]

Figure 8: The different levels of image provenance verification (Source: Coalition for Content Provenance and Authenticity[943])

Using blockchain and decentralized technologies, alternative systems have been proposed where information is not vested by a central authority but by all participants in the system[944]. As Wang et al. contend, "blockchain technology has many features, such as decentralization, traceability, and non-tamperability, which can better provide confidentiality and integrity for news data, and realize data rights confirmation and other services[945]".

Such a quick overview doesf not sum up the complex current debate on fake news and the means to prevent it, yet it shows that progress in tracking (in particular thanks to blockchain technology) can open new avenues to be explored.

[943] https://c2pa.org/specifications/specifications/2.1/specs/C2PA_Specification.html, accessed March 10, 2022.
[944] Xiaowan Wang, Huiyin Xie, Shan Ji, Liang Liu, and Ding Huang, *Blockchain-based fake news traceability and verification mechanism*, 2023, Helyon, Vol. 9, n°7, Cell Press, Cambridge (MA).
[945] *Ibid.*, p. 2.

3.1.2. Organizing Deliberation

As per Lupia's definition, information is not the most important aspect in enhancing voters' competency. What is crucial is the ability to identify the right proxies, which requires public deliberation. For Girard, deliberation is different from discussion in the sense that it is agonistic, confronting opposing views[946]. It is also distinct from a mere public debate as it is necessarily concluded by a decision (by a vote as a reference procedure). Deliberation is, therefore, an essential condition of the equal character of the vote. We will review how it can be organized in the media and through new online tools before analyzing specifically the role that it can play in citizens' assemblies.

Public deliberation on the media and online

Public deliberation is crucial to ensure legitimacy, as demonstrated in section 1. Representative democracy allows for the manifestation of minority opinions in the form of the deliberative assembly - Cohen and Roger defend, in that regard, that proportional representation enhances the public expression of minority views in parliament[947]. As presented above, democratic deliberation can nevertheless not be restricted to parliament, and the conditions for public deliberation need to be considered. For Habermas, such a deliberation happens spontaneously without the need for any regulation. As he contends in *The New Structural Transformation of the Public Sphere* (a 2023 actualized version of *The Structural Transformation of the Public Sphere* from 1962, where he famously defined his concept of the public sphere):

"The egalitarian and unregulated character of the relationships between participants and the equal authorization of users to make their own spontaneous contributions constitute the communicative pattern that was originally supposed to be the hallmark of the new media."[948]

To him, the development of social media can actually empower marginalized groups. However, this does not mean that regulation is not needed. As Habermas himself notes, this new public sphere is fragmented into "communication circuits that

[946] Charles Girard, *op. cit.*, p. 120 : "[collective] confrontation of reasons can lead to revise the shared understanding of shared goals, the list of contemplated options, or even the terms of the question asked" (my translation).
[947] Joshua Cohen and Joel M. Roger, *On Democracy*, 1983, Penguin Books, New York, pp. 156-157.
[948] Jürgen Habermas, *A New Structural Tranformation of the Public Sphere and Deliberative Politics,* transl. C. Cronin, 2023, Polity Press, New York, emphasis mine.

dogmatically seal themselves off from each other". Hence the need to organize public deliberation[949]: regulation of speaking times in the media[950], ex-ante or ex-post authorization mechanisms for spokespersons[951], possibility for auditors and viewers to express their views online.

The public debate can also take forms that go beyond traditional media. New digital tools make it empirically possible to extend the characteristics of a deliberative assembly to the entire population. Join and vTaiwan have become central instruments of Taiwanese democracy. On the one hand, they allow citizens to directly question their representatives, with elected officials confronting questions via video conference as soon as a petition reaches a certain quorum. Neblo, Esterling, and Lazer speak of "directly representative democracy", in line with the experiments conducted in the United States with members of Congress through online deliberative town halls[952]. On the other hand, they allow for direct citizen contributions. By confronting opinions from close quarters, they crowd-source proposals and enhance their coherence (see the concept of "blended coherent volition" coined by Audrey Tang), although the representativeness of the participants can be insufficient (see section 2). Other open-source not-for-profit deliberative platforms can be mentioned, like the Decidim and Consul software developed by the municipalities of Barcelona and Madrid[953]. Research nevertheless shows that they perform a role of information and proposition collection rather than effective deliberation and transfer of sovereignty[954].

Citizens' assemblies as a deliberative tool?

Beyond traditional and online media, a specific discussion can be carried out on citizens' juries (also called citizens' assemblies, mini-publics, or alignment assemblies like in Taiwan). The importance of this new concept in contemporary political science and the numerous and visible experiments carried out in Germany, the U.S., Iceland, Ireland, and France, justify that we develop it at length.

---

[949] Charles Girard, *op. cit.*, p. 324.
[950] *Ibid.*, p. 319.
[951] *Ibid.*, p. 303.
[952] Michael A. Neblo, Kevin M. Esterling, and David M. J. Lazer, *Politics with the People: Building a Directly Representative Democracy*, 2019, Cambridge University Press, Cambridge (MA).
[953] Rosa Borge, Joan Balcells, and Albert Padró-Solanet, *Democratic Disruption or Continuity? Analysis of the Decidim Platform in Catalan Municipalities*, May 2022, American Behavioral Scientist, vol. 67, n°7.
[954] *Ibid.*

Robert Dahl, in *Democracy and Its Critics*, was one of the first philosophers to propose a theoretical conceptualization of citizens' juries. As we saw in section 1, Dahl recognizes a "maximal" instrumental/epistemic value of citizens' judgment in comparison to experts, with the condition that these citizens would be "informed" and "broadly participating". However, Dahl believes that every citizen should not necessarily "be informed and active on every major issue". An "attentive public" would be enough, providing it is itself "highly informed and representative":

"Suppose an advance democratic country were to create a 'minipopulus' consisting of perhaps a thousand citizens randomly selected out of the entire demos. Its task would be to deliberated, for a year perhaps, on an issue and to announce its choice. One mini-populus could decide on the agenda of issues, while another might concern itself with a major issue. [...] It could be attended [...] by an advisory committee of scholars and specialists and by an administrative staff. It could hold hearings, commission research, and engage in debate and discussion."[955]

The mini-populus is, for Dahl, the key institution of what he calls the "Third transformation", after the first transformation (Athenian democracy) and the second transformation (representative democracy). Note that Dahl advocates for very large assemblies of around 1,000 jurors, as has been the case in Iceland (see below), but this is rarely the case in past or existing citizens' assemblies. In Dahl's perspective, mini-populus or citizens' juries are not instruments of direct democracy but new forms of representative democracies. As Dahl contends, "the judgment of the mini-populus will 'represent' the judgment of the demos"[956], the quotation marks stressing that it is a representation of a new kind. For Landemore and Fourniau, citizens' assemblies offer "representation beyond the election"[957].

One key objective of the mini-populus is to organize public deliberation (Dahl mentions "debate and discussion"). As Manin defended, deliberation should imply an "adversarial principle", which he defends for four distinctive reasons: 1) improving the quality of collective decisions 2) Counteracting the fragmentation of the public sphere 3) Facilitating the comprehension of choices 4) Treating the minority with respect[958].

[955] Robert A. Dahl, *op. cit.,* p. 340.
[956] *Ibid.,* p. 340.
[957] Hélène Landemore and Jean-Michel Fourniau, *Citizens' assemblies, a new form of democratic representation?*, 2022, Participations n°34, De Boeck, Paris.
[958] Bernard Manin, *Political Deliberation & the Adversarial Principle*, 2017, Daedalus, Vol. 146, No. 3, *The Prospects & Limits of Deliberative Democracy*, pp. 39-50.

Citizens' assemblies, by organizing a public debate, clearly respond to the first and third objectives and, to a certain extent, the fourth one (depending on how many dissident opinions are represented in the assembly, considered, and publicized). The ability of citizens' assemblies to deliver on the second objective is more debated. Analyzing the citizens' jury that took place in 2000 in Australia around a touristic road project stirring environmental concerns, Goodin stressed that most of the evolution in jurors' opinions took place during the information phase rather than the deliberative phase. Goodin measured the changes in the attitude of the jurors on the 42 propositions submitted to them during the information and deliberation phases. The mean value of these changes in absolute terms was 2.1 during the information phase and 1.2 during the deliberative phase. Goodin concludes that juries' primary importance relies on the information phase, although he reckons that a 1.2 change in attitude is not negligible[959]. Landemore responds that the information phase already included a deliberative component informally[960]. The point here is not to detail this debate and discriminate between the two sets of arguments but rather to stress the importance of the information role of the jury, at least stirred (if not made possible) by its deliberative component.

Given the theoretical interest of citizens' assemblies, we will now examine how they can be combined with direct democracy. We will first assess their historic implementation at the local and national levels before analyzing how they can be articulated with direct democracy tools like the referendum.

Citizen juries at the local level: a valuable tool for information-sharing and empowerment[961]

Citizen juries originated in Schwelm (Germany) in 1973 with Peter Dienel's Planungszelle (planning cells or PZ). PZs involve randomly selected citizens tasked with proposing or adjudicating public policies[962]. They gained momentum in the 1980s, especially under Johannes Rau, the Minister-President of North Rhine-

[959] Robert E. Goodin, *Innovating Democracy: Democratic Theory and Practice After the Deliberative Turn*, 2008, Oxford University Press, Oxford, pp.48-50.
[960] Hélène Landemore, *Democratic Reason, op. cit.*, p. 134.
[961] This section draws from the development in Gilles Mentré, *Démocratie*, *op. cit.*
[962] Peter Dienel, *Der Bürger als Chance [The citizen as a chance]*, 5th edition, 2002, Westdeutscher Verlag, Wiesbaden.
.

Westphalia and later President of the Federal Republic. Significant projects prepared by PZs include rehabilitating Cologne's city center and Berlin's Wrangel neighborhood, and renovating Hanover's transport system. While the model varies, it typically consists of a panel of citizens (ideally thirty to facilitate deliberation), randomly selected based on socio-professional criteria, who are convened and compensated for about four days to set the broad directions of a project or choose among several options. Some experiences also involve allocating a local budget. Between 2001 and 2003, the City of Berlin conducted an experiment involving citizen juries in the city's seventeen districts. Thirteen citizens, either randomly selected or representatives of associations, were responsible for allocating a budget of 500,000 euros to local projects.

The Jean Jaurès Foundation analyzed fifty-four projects conducted between 1973 and 2008, involving over three hundred juries. Most of these juries dealt with local issues like urban planning, sanitation, and transportation. The study concluded that PZs demonstrated that the jurors acquired expertise, making them feel "competent to make a rational decision[963]". Panels were balanced in age and gender, but there is a structural bias in profile selection due to a low response rate from initially solicited individuals (20%). It is important to note that their conclusions were recommendations with no guarantee of implementation. According to the report, PZs primarily serve as a platform for public deliberation, facilitating the sharing and questioning of information openly. The debate extends beyond the four days of the jury, as the process empowers the jurors themselves, continuing to spread through their social circles afterward. As Peter Dienel wrote:

"Citizen juries are like icebergs: the visible upper part they offer is minimal, and the lower part, though invisible at first glance, is much more significant. Citizen juries are a civic, political, and human adventure that impacts each participant and the society they evolve in."[964]

Investing in about thirty citizens that then disseminate through the rest of the population (the submerged part of the iceberg) is another interest of PZs. They are valuable tools for managing local issues where the stakes of representativeness and legitimacy are lower (contrary to the national level, as discussed in the next paragraph).

[963] Antoine Vergne, *Les jurys citoyens : une nouvelle chance pour la démocratie ? [Citizens' juries: a new opportunity for democracy?],* Notes de la Fondation Jean Jaurès, n°12, 2008.
[964] Peter Daniel, *op. cit.*

The success of PZs has led to their adoption worldwide, including American citizens' juries (Ned Crosby and the Jefferson Center the first project in 1975 focused on federal grain reserves[965]) and French public debates on environmental projects under the supervision of the National Commission of Public Debate (Commission nationale du débat public)[966]. In all of these cases, the conclusions of the juries are non-binding.

Citizens' assemblies at the national level: the implementation issue[967]

Citizens' Assemblies have also been used at the regional or national level, either to inform the parliamentary process (Denmark) or as an innovative representation instrument (Iceland, Ireland, and France).

The consensus conferences held by the *Danish Board of Technology* of the Danish Parliament since 1987 on technological issues offer an example of citizens' assemblies not selected by lot. The concept is imported from consensus conferences of experts in the medical sector, developed in the U.S. after 1977, and used in Scandinavian countries[968]. Participants are chosen through written applications. A consensus conference garners 150 to 500 jurors divided into categories to ensure representativeness. That approach has proven helpful for transparently evaluating information on diverse topics such as GMOs, the future of personal vehicles, infertility, and remote working. As a survey-based study concludes, "participation should be understood as a facilitating mechanism of rather than a substitute for, technology assessment by the representative decision-making institutions[969]". Consensus conferences have been widely adopted worldwide. In France, for example, four consensus conferences have been organized: on GMOs under the Parliamentary Office for the Evaluation of Scientific and Technological Choices in 1997; on the prevention of recidivism organized under the Ministry of Justice in 2013; on euthanasia under the National Consultative Ethics Committee in 2014; and on housing under the Senate in

[965] Ned Crosby et al., *Citizens Panels: a new approach to citizen participation*, Public Administration Review, vol. 46, #2, March/April 1986.
[966] Law n°85-101 relative to the strengthening of environmental protection, February 2, 1995, article 1 and 2.
[967] This section draws from the development in Gilles Mentré, *Démocratie*, *op. cit.*
[968] Niels Lynöe, *Consensus and Consensus Conferences*, Scandinavian Journal of Social Medicine, 1988, Vol. 16, n°4, pp. 193-195
[969] Simon Joss, *Danish consensus conferences as a model of participatory technology assessment: An impact study of consensus conferences on Danish Parliament and Danish public debate*, February 1998, Science and Public Policy, Vol. 25, n°1, pp. 2–22

2018. Similar usage can be found in other European countries (e.g., in Austria for the nationwide consensus conference of 2011 on genetic data[970]).

Citizens' assemblies composed of randomly selected citizens have more recently been used at the national level. In 2004, British Columbia convened a "citizens' assembly" of 160 near-randomly selected citizens (weighted sortition) to review the provincial electoral system[971]. Landemore and Fourniau put forward three illustrative and impactful citizens' assemblies at the national level: Iceland (2012), Ireland (2016), and France (2020)[972]. While these three examples share a lot regarding purpose and methodology, they differ dramatically regarding their outcome and legislative results. Each of them raises the question of the value of the citizens' assemblies' recommendations and their place of citizens' assemblies in the legislative process.

In Iceland, the government gathered in 2010 a National Forum of 950 randomly selected citizens, by weighted sortition based on age, gender, and geography, to redraft its constitution. The 2010 National Forum drew from the experience of the 2009 National Assembly (Þjóðfundur), which garnered 1,500 members (circa 0,5% of the total population), out of which 1,200 were randomly selected citizens, that drafted the list of the nation's core values. It is worth noting that trust, equality, and family came first, three concepts that can be paralleled with our three democratic principles. The work of the Forum then developed into an actual constitutional process with the election[973] of a Constitutional Assembly of twenty-five citizens (MPs were excluded from the vote) that deliberated on a new constitution. That experience was the first example of the involvement of randomly selected citizens at the national level for constitutional matters, breaking from the traditional "hourglass-shaped[974]" constitutional processes where the public debate is limited to the upstream and the downstream but where the actual writing process takes place behind closed doors as

[970] Franz Seifert Austria, *Local steps in an international career: a Danish-style consensus conference*, 2006, Public Understanding of Science, Vol. 15, n°1, pp.73-88.
[971] Mark E. Warren and Hilary Pearse (ed.), *Designing Deliberative Democracy: The British Columbia Citizens' Assembly*, 2008, Cambridge University Press, Cambridge (U.K.).
[972] Hélène Landemore and Jean-Michel Fourniau, *op. cit.*
[973] The election was canceled by the Supreme Court due to electoral operational reason, but the elected members were subsequently appointed to the Committee by government.
[974] *Ibid.*, p. 7.

recommended by scholars like Jon Elster[975]. The constitutional draft was subsequently submitted to a non-binding referendum on October 20, 2012, asking citizens for general approval of the draft as a whole, as well as five specific questions on the most contentious questions raised by the draft (separation of church and the State, nationalization of environmental resources or citizen-initiated referendums). After popular approval, the draft was passed to parliament. However, due to filibustering, the bill could not be voted on by the parliament before the subsequent legislative elections won by opposition parties that interrupted that process[976]. The Icelandic experience has attracted a lot of interest from scholars and democracy activists as the first country to engage in "crowdsourcing the very writing of its new constitution[977]". Its failure in terms of results should nevertheless not be ignored. The fact that the validation referendum was non-binding and that the parliament refused to validate its results can be seen as a vassalization of direct democracy toward representative democracy. It raises the question of how a citizens' assembly should be effectively articulated with either parliament or referendum.

In contrast, Ireland offers an example of regular and institutionalized citizens' assemblies. The 2018 referendum on abortion was preceded by a Citizens' Assembly ("We the Citizens"), set up in 2016 and composed of ninety-nine people drawn by lot. Their highly publicized hearings helped to forge (or reveal) a consensus in public opinion, with the "yes" vote winning by 68% thanks to a large turnout (64%). The Citizens' Assembly followed the Constitutional Convention of 2012-2014, which had notably prepared the referendum on legalizing same-sex marriage (adopted by 62% with a turnout of 61%). It should be noted that one-third of the 2012-2014 convention was composed of parliamentarians, while the two other thirds were citizens drawn by lot. This balanced solution contributed to the Irish parliament's acceptance of the new mechanism, contrary to Iceland.

In 2019, the government established a third Citizens' Assembly on Gender Equality, which recommended amending the constitution to include a new definition of family,

[975] Jon Elster, *The Optimal Design of a Constituent Assembly*, in H. Landemore and J. Elster (eds*), Collective Wisdom: Principles and Mechanisms*, 2012, Cambridge University Press, Cambridge (U.K.), pp. 148-172.
[976] For a complete description of the process, see Hélène Landemore, *Inclusive Constitution-Making: The Icelandic Experiment*, March 2014, Journal of Political Philosophy, Vol. 23, n°2.
[977] Hélène Landemore, *Democratic Reason, op. cit.*, p. xxi.

complementing the traditional one with the notions of stable relationships outside marriage and a gender-neutral obligation of supporting care in the family (and removing the reference to "women's life in the home"). The referendum, which took place in March 2024, did not follow the recommendation, and the "no" garnered a majority of around 70%. Exit polls showed that the "no" was motivated by resentment against the government (as the risk always exists for government-initiated referendums, by opposition to citizen-initiated referendums, as we will see in the next chapter), and by the lack of clarity of the new wording. Some commenters qualified the vote as a "fiasco[978]", although such a position seems based on expectations rather than the legitimacy and efficiency of the process itself. Far from invalidating the use of citizens' assemblies, that result shows that the jurors' recommendations are not necessarily in line with the popular vote. This conclusion is not specific to citizens' assemblies and concerns any type of representation (as we will see from the Chilean example). As we will analyze in the following chapters, referendums have a critical value as "the people's veto". The negative vote is, therefore, no condemnation of the citizens' assembly as an institution as long as it does not offer a substitute for legitimate decision-making. The Irish government has been requested by members of parliament, just a month after the vote[979], to organize a referendum on biodiversity, following the recommendations made by the fourth citizen's assembly on biodiversity loss gathered in 2023, which included potential constitutional changes[980].

The March 2024 referendum also casts a new light on the debate on whether citizens' assemblies work as consensus-building or consensus-clarifying instruments. While Doyle and Walsh sustain the former analysis regarding Ireland, in line with the general literature on deliberative democracy[981], Carolan and Glennon proposed the latter in January 2024 (ahead of the March 2024 vote), maintaining that, in each Irish experience, "there has been clear evidence of an enduring pre-existing public

[978] Rory Carroll, *Irish referendum fiasco puts future of lauded citizens' assemblies in doubt*, The Guardian, March 20, 2024.
[979] Shauna Corr, *Government urged to consider referendum on rights of nature in current Dail term*, Irish Mirror, April 19, 2024. The citizens' assembly advised itself that its conclusions be put to a referendum (and not only the potential constitutional changes). The government claimed in April 2024 that implementation of 80% of the recommendation was in progress.
[980] The Citizens' Assembly, Final Report of the Citizens' Assembly on Biodiversity Loss Launches, April 5, 2023, https://citizensassembly.ie/report-of-the-citizens-assembly-on-biodiversity-loss-report-launches/, accessed May 15, 2024.
[981] Oran Doyle and Rachael Walsh, *Constitutional Amendment and Public Will Formation: Deliberative Mini-Publics as a Tool for Consensus Democracy*, 2022, International Journal on International Law, n°20, p. 398.

consensus over the core of the amendment proposed"[982]. As the two scholars assert, "our examination of the Committee's proceedings demonstrates that the majority of the members appear to have made their mind up about the topic in advance of their participation". It is nevertheless a fact that the 2016 citizens' assembly corresponded to a shift in public opinion regarding abortion, which the assembly might not have caused alone but that it clearly favored[983]; and another fact that the same process did not materialize regarding the definition of family and care for reasons yet to be established by research (which could include a weaker normative aspect or a more contentious or polarized political environment in general). This discussion is a reformulation of the Goodin/Landemore debate on the Australian 2000 citizens' assembly mentioned above. The point here is (i) to underline, minimally, the informative importance of citizens' juries; and (ii) to stress that their recommendations need to be put to the popular vote.

In France, the Citizen's Convention for Climate, formed in October 2019, gathered fifty randomly selected citizens for six months. The CCC has developed 149 recommendations. The exact assessment of the implementation of these recommendations is complex since there was no pre-defined execution channel. The CCC members conducted their own assessment in February 2021, giving a final score of 3.1 out of 10 and criticizing delays and a lack of ambition[984]. The main disappointments included the rejection of a moratorium on 5G, banning advertising for polluting products, stricter pesticide regulations, and reducing thresholds for heavy vehicle taxes and airplane alternatives, with three measures immediately vetoed by the government[985]. As of March 2021, a (narrow) majority of French citizens believed the CCC's recommendations should be mandatorily implemented[986].

---

[982] Eoin Carolan and Seána Glennon, *The consensus-clarifying role of deliberative mini-publics in constitutional amendment: A reply to Oran Doyle and Rachael Walsh,* January 2024, International Journal of Constitutional Law*,* Vol. 22, n°1, pp. 191–203.

[983] Oran Doyle and Rachael Walsh, *op. cit.*.

[984] Rémi Barroux and Audrey Garric, *La convention citoyenne pour le climat se sépare sur une note sévère au gouvernement [The citizens' assembly on climate change splits up on a severe score for the government]*, Le Monde, February 28, 2021.

[985] The proposals included reducing the highway speed limit to 110 km/h, implementing a 4% tax on corporate dividends to fund ecological transitions, and rewriting the preamble of the Constitution to prioritize environmental protection over public freedoms.

[986] CEVIPOF Trust Barometer, *op. cit.,* wave 12th, February 2021: When asked the question: "Overall, do you think that recommendations made by these assemblies or citizens conventions (of randomly selected citizens) should be mandatorily implemented by governments?", 52% responded yes, 15% no, while the rest remained undecided or did not answer.

E. Macron had, nevertheless, a more nuanced, if not ambiguous, initial position about implementing the future recommendations of the CCC. When auditioned by the CCC[987], he advised the jurors to make propositions "without filter"; otherwise, they would be subject to "the filter of others" (parliament, administration) to be effective. E. Macron also declared himself open to organizing one or several referendums, particularly on possible constitutional amendments. He drew a non-traditional distinction between recommendations that would be immediately implementable (detailed and financed), which could be decided by a regular referendum, and other recommendations, which would be subject to a non-binding referendum before being discussed in parliament. Finally, he suggested that the CCC (or a group of jurors selected by lot) would continue its work after delivering its recommendations, including controlling the implementation and being part of the French delegation in various international negotiations. The idea that the jurors could have a control function is innovative, although never implemented. The government's position about the effectiveness of the recommendations was nevertheless ambiguous, with four possible channels mentioned by E. Macron: immediate; through a binding referendum; or through parliament, with or without a prior non-binding referendum. He later commented that the CCC's conclusions were "neither the Bible nor the Quran"[988]. It is unclear, in the end, how much of the recommendations have actually been implemented (40 and 75% as claimed by the government[989], 25% as implicitly assessed by the CCC jurors). That uncertainty would have been avoided with a referendum on the totality of the recommendations, with a possible multiple-choice vote as in Iceland in 2012: one on the comprehensive text and one for each of the most contentious measures, possibly selected by the CCC itself (for example the three measures vetoed by the government). As Charles Girard pointed out, the CCC faced three ambiguities: on the consultative or binding nature of its proposals, on the implementation procedure, and on the scope of its task, all three "interrelated", which

[987] Émilie Massemin, *Macron soupèse l'idée d'un référendum sur le climat, Reporterre [Macron weighs the idea of a referendum on climate change],* 11 janvier 2020.
[988] Interview with Brut, December 4, 2020, https://www.elysee.fr/emmanuel-macron/2020/12/04/le-president-emmanuel-macron-repond-aux-questions-de-brut, accessed September 2, 2022.
[989] The minister Barbara Pompili declared that 40% of the measures were included in the new environmental bill, 20% in the 2021 budget, 10% will be adopted by decrees and 5% after international negotiations (Europe 1, December 7, 2020).

"created uncertainty regarding the role the Convention, weakened its ability to impact public policy, and set expectations that could hardly be met"[990].

Despite these controversies, the government organized a second citizens' assembly in 2023 around the end of life and euthanasia, initially announcing that it would organize a referendum on its conclusions before abandoning it for a legislative bill that did not go through due to anticipated parliamentary elections – the implementation of the assembly's recommendations remained unclear at the date of the current dissertation.

What these three experiences (Iceland, Ireland, and France) have in common is to raise a question about the value of citizens' assemblies' recommendations and question the means to make them valuable and effective. While Ireland provides a clear institutional framework articulating citizens' assemblies with referendums, this has not been the case in France and Iceland. We will now establish why citizens' assemblies' recommendations should always be validated by a referendum.

Why citizens' assemblies should always be validated by a referendum

To carry on with the demonstration, we will examine two points: first, why recommendations of citizens' assemblies have no normative power in themselves, and then, why the only legitimate instrument to validate them is the referendum.

For some of the promoters of citizens' assemblies, the jurors' recommendations should have a normative power equal or superior to a parliamentary or popular vote. For example, Alexander Guerrero defends a lottocracy where randomly selected citizens make most decisions[991], Arash Abizadeh proposes to replace the second chamber with a randomly selected assembly[992], and John McCormick suggests revisiting Machiavelli's propositions around lottery to grant an assembly of randomly selected citizens some veto and legislative power[993]. Most citizens' assemblies vote on their recommendations, signaling their normative quality.

---

[990] Charles Girard, *Lessons from the French Citizens' Climate Convention*, Verfassungsblog, July 28, 2021, https://verfassungsblog.de/lessons-from-the-french-citizens-climate-convention, accessed September 12, 2021.
[991] Alexander Guerrero, *Against elections: The lottocratic alternative*, 2014, Philosophy & Public Affairs.
[992] Abizadeh, Arash, *Representation, bicameralism, political equality, and sortition: Reconstituting the second chamber as a randomly selected assembly,* 2020, Perspectives on Politics, pp. 1–16.
[993] James P. McCormick, *Machiavellian Democracy, op. cit.*

The legitimacy of these assemblies is primarily linked to the question of their representativeness. As Gil Delannoi contends, lottery aims at selecting citizens that are representative in the double sense of the term: because they speak in the name of the citizens; and because they resemble them[994] - what can be called "mirror" or descriptive representation[995]. It is what Robert Dahl encompassed in his concept of "mini-populus": a miniature version of the people. The unfair advantages given at birth can thus be balanced by lot, and the resulting selection will not be biased in favor of those benefiting from these advantages. As Barbara Goodwin argues, qualities and wealth are also random distributions at birth: "The problem for liberalism is that the biggest chance distribution of all takes place when we are born, and is beyond our control — the distribution of health, beauty, intelligence, and other natural endowments[996]". Writes Goodwin: "Some people would continue to draw fortunate or unfortunate once-and-for-all tickets in the birth lottery – for example, great beauty or disablement – but the effects of such arbitrary but influential endowments would be moderated and minimized by the lottery principle operating in their lives"[997]. A position summed up by Sandel: "the distribution of talents given by nature is no less arbitrary [than artistocratic or caste societies][998]".

However, achieving resemblance poses a specific challenge. Sortition faces a conundrum, as analyzed by Annabelle Lever[999]. Suppose an unweighted lottery select the jurors. Then, the assembly has little chance of looking like the population as a whole since the small number of jurors makes it improbable that the diversity of groups will be part of the final picture (a phenomenon worsened by the fact that, in general, only 15% of randomly selected citizens accept to participate in the assembly[1000] - unless the selected jurors are all volunteers registered in advance, as for the French CCC, which introduces a bias in terms of impartiality). If the jurors are selected by weighted lottery, then the principle of equal choice to be selected is not respected. The question of the criteria on which the ponderation of a weighted lottery will be built is itself a matter of debate. For Landemore and Fourniau, jurors will resemble the citizens if they

[994] Gil Delannoi, *op. cit.*, p. 53.
[995] Hélène Landemore and Jean-Michel Fourniau, *op. cit.*, p. 12.
[996] Barbara Goodwin, *Justice by Lottery*, 2005, Imprint Academics, New York, p. 73.
[997] Barbara Goodwin, *op. cit,* p. 135.
[998] Michael Sandel, *Public Philosophy*, *op. cit.*, p. 235.
[999] Annabelle Lever, *Democracy: Should We Replace Elections with Random Selection?*, 2023, Danish Yearbook of Philosophy, Copenhagen.
[1000] *Ibid.*

share their traits regarding "social class, level of education, geographic and ethnic origins…[1001]" The French CCC was selected by introducing criteria of age, gender, education level, socio-economic background, territorial diversity (inhabitants of large cities, medium cities, and countryside), and geographic diversity[1002]. How to fix the list of criteria? As Parkinson argues, if the assembly is involved in decision-making, then the representativeness of the jurors should also be attitudinal, with both sides being fairly represented[1003], which is unnecessary if the citizens' assemblies have a mere informative role (Goodin and Dryzek[1004]). Level concludes that citizens' assemblies should not be advocated based on equality, which they cannot respect in its dual form (equal chance to be selected and equal representation of groups), but based on their deliberative capacities: building consensus or clarifying disagreements. It is also the position of Charles Girard, who considers that:

"The vertical inequality of impact between representatives and voters is replaced by another inequality, just as radical, between the jurors selected by lot and the other citizens. The horizontal equality of impact between voters is replaced, nevertheless, by a total lack of impact on the choice of representatives."[1005]

Within such a framework, citizens' assemblies cannot implement the power of each, by each, and for each, which defines democracy, and therefore, their decisions must be submitted to the parliament or the popular vote. There are compelling reasons why it should only be a referendum. Practically, it has always been the case in Ireland. In Iceland, the referendum's non-binding aspect led to the process' failure. The CCC's governance committee and the guarantors' college also recommended the organization of a referendum. The CCC jurors were split over the question (some fearing that the general public would not be as "enlightened" as the jurors had become[1006]). However, they came to a consensus that at least three of their propositions should be put to the

[1001] Hélène Landemore and Jean-Michel Fourniau, *op. cit.*, p. 12.
[1002] Convention citoyenne pour le Climat [Citizen convention on climate change]*, Comment ont-ils été sélectionnés ? [How were they selected ?]*, https://www.conventioncitoyennepourleclimat.fr/comment-sont-ils-selectionnes-2/, accessed November 14, 2023.
[1003] John Parkinson, *Legitimacy Problems in Deliberative Democracy*, 2003, Review of Political Studies n°50, pp. 180-190.
[1004] Robert E. Goodin and John S. Dryzek, *Deliberative Impacts: The Macro-Political Uptake of Mini-Publics*, 2006, Policy and Society, n°34, p. 219.
[1005] Charles Girard, *Délibérer entre égaux*, *op. cit.*, p. 251 (my translation).
[1006] Adrien Fabre, Bénédicte Apouey, Jean-Michel Fourniau, and Louis-Gaetan Giraudet. *Who are the citizens of the French convention for the climate?*, 2021, https://halshs.archives-ouvertes.fr/halshs-03265053, accessed March 27, 2022.

popular vote: two constitutional amendments (enshrining the protection of the environment, biodiversity, and fight against climate change) and one status (giving legal strength to the crime of ecocide)[1007]. Theoretically, citizens' assemblies being a new form of representation, the representatives' decision can only be referred to the represented (the citizens) and not to the representatives they mandated – it is the etymology of the term referendum, which is to refer the decision of the mandated to the principals that initiated the electoral mandate. The fact that the jurors lack the legitimacy to be granted full normativity, as we have analyzed above, does not mean that they should be under the validation of another level of representation. Once randomly selected citizens gather, it is difficult for the parliament to ignore their conclusions – even the opposition parties in the Icelandic parliament, when they regained the majority, did not vote against the citizens' projects but delayed their vote, a sign that they did not feel legitimate enough to contradict the jurors explicitly.

It does not mean that citizens' assemblies do not have specific advantages that parliament or direct democracy tools do not have. For Gil Delannoi the benefits of random selection are impartiality and serenity in addition to equality [1008]. Impartiality comes from jurors not being influenced by future political careers (no impact on the likelihood of being selected again). This argument can nevertheless be reversed by the fact that jurors face no repercussions for their decisions, potentially making these decisions cost-free, whereas the vote allows for a negative retrospective decision, fulfilling a controlling function[1009]. Serenity is another advantage of citizens' assemblies, linked to the lack of electoral competition, but it could also dampen the debate and foster "apathy" as a "democratic desease": as Green recalls, "Herodotus' account of the first debate on constitutions as well as the ancient democratic practice of election by lot reveal an ancient egalitarian interest in using democracy to quell, rather than encourage, political behavior[1010]". Regardless of their consequences,

[1007]Arnaud Gossement, *Convention citoyenne pour le climat : un référendum est-il possible ? [Citizen convention on climate change : is a referendum possible ?]*, June 2020, La grande bibliothèque du droit, https://www.lagbd.org/Convention_citoyenne_pour_le_climat:_un_r%C3%A9f%C3%A9rendum_est-il_possible_%3F_(fr)#Les_trois_propositions_de_r.C3.A9f.C3.A9rendum_de_la_Convention_citoyenne_pour_le_climat, accessed April 15, 2023.
[1008] Gil Delannoi, *Le tirage au sort – Comment l'utiliser ? [Selection by lot – how to use it?]*, 2019, Presses de Sciences Po, Paris, p. 105.
[1009] Bernard Manin, *The Principles of Representative Government, op. cit.*, p. 158.
[1010] Jeffrey E. Green, *op. cit.*

impartiality and serenity need, to materialize, that citizens' assemblies provide citizens' control over the agenda and the debate, and equality of voice in the discussion[1011].

Under these conditions, citizens' assemblies constitute a solid and innovative device whose development has only started, providing that they are inserted in the institutional framework and their recommendations are submitted to a referendum. Citizens' assemblies and referendums, therefore, go hand in hand. One is an instrument of (renewed) representative democracy, while the other is the main instrument of direct democracy. Citizens' assemblies cannot, therefore, substitute for referendums, as they are not, as analyzed by Level and Girard, able to answer the claim for equality and horizontality that we have highlighted in section 1. They cannot ensure the universal participation needed to revitalize trust nor have the epistemic value of a broader vote. In that respect, like Laurent Drouvot, one can conclude that "the marginalization of the referendum [...] in favor of citizens' assemblies creates a major rupture in the democratic pact[1012]". Nevertheless, they can usefully inform the debate and favor consensus ahead of a referendum, both in terms of consensus-clarifying and consensus-building, as the example of Oregon's CIRs proves (see section 2). It is all the more the case for government-initiated referendums, as we will see in chapter 3.3, and one could argue that any referendum initiated by the executive should benefit from a debate within both traditional representation (parliament) and innovative one (citizens' assemblies). Citizens' assemblies' discussions could be open to a wider audience through technological tools, as it has been the case in Icelan. Reversely, no citizens' assemblies should be organized without a legal provision or commitment that their recommendations will be submitted to a referendum.

The complementarity between citizens' assemblies and referendums is equally valid at the local level. If the normativity of local citizens' assemblies has been less problematic at the local level due to lower stakes, the theoretical necessity to articulate the two instruments is as stringent as for the national level. The fact that, in the PZ model, jury decisions were submitted to local authorities and not to local referendums is a sign that

[1011] Oran Doyle and Rachael Walsh, *op. cit.*
[1012] Laurent Drouvot, *Les conventions citoyennes à l'aune de la démocratie du XXIème siècle en France : vraie novation ou « ersatz » de démocratie ? [Citizens' assemblies in the light of 21st century democracy in France: true innovation or democratic ersatz?]*, June 2023, 11st French congress of constitutional law (CFDC), https://cfdc2023.univ-tln.fr/wp-content/uploads/Atelier-6-DROUVOT-Laurent.pdf, accessed April 15, 2023.

this instrument was designed for different political circumstances, at a time when political compromise was the norm and before the rise of distrust in government and polarization. The Council of Europe has adopted a recommendation to systematically use citizens' assemblies in the context of local referendums, explicitly referring to Oregon, advising to "make more use of citizens' assemblies and similar deliberative democracy tools to accompany the holding of local referendums in order to alleviate tensions and better inform citizens' decisions"[1013].

3.2. The Formal Objection: How Should One Vote?

The second objection relates to the binary nature of the referendum, which aims to reveal the majority's position. Is there a risk of discriminating against one or more minorities, a category of citizens, or even some individuals? Right after the Brexit vote, the Scots expressed their desire to remain European, and the Northern Irish expressed their fears of a resurgence of civil war. Not to mention the million Britons living in another European country who had to obtain a new residence permit. The risk of discrimination is all the higher because the referendum traditionally relies on a binary choice of "yes" or "no" which reduces the diversity of interests and opinions, often creating an artificial majority in favor of one choice or another. The rejection of the European Constitution project in 2005 thus aggregated heterogeneous opinions, from the rejection of immigration to that of free trade, to fishermen worried about their future, and traditionalists regretting that the notion of the "Christian heritage" of Europe had been removed from the text[1014].

To ensure a referendum vote does not target a minority, it is crucial to respect the methodological and logical principles that we have formulated in our introduction: a referendum cannot deal with the rights of a minority group. Neither can it deal with individual and civil rights outside a framework of qualified majoritarianism. We will see in chapter 3.3. why it is legitimate to hold a referendum on abortion or assisted suicide but not on the rights of same-sex couples. However, how do these principles apply to minorities of opinion? While parliamentary democracy allows for discussion,

[1013] The Congress of Local and Regional Authorities, *Holding referendums at local level*, 2021, Recommendation 459, Council of Europe, Strasbourg.
[1014] Eddy M. Haben Jansen, *Hétéroclite non néerlandais [The heteroclit 'no' in Netherlands]*, Libération, 9 juin 2005.

with minorities of opinion making their voices heard, is the referendum condemned to silence minority views under the principle that "the winner takes it all"? As Rousseau famously contended, "when, therefore, the opinion opposed to my own prevails, that simply shows that I was mistaken, and that what I considered to be the general will was not so[1015]". However, we have good reasons to believe, as we have demonstrated in section 1 after James, Dewey, Manin, or Girard, that opinions emerge dynamically through public deliberation and social inquiry, and that plurality and diversity increase epistemic efficiency.

Despite the domination of majority rule, numerous alternative voting methods exist. The purpose of the current paragraph is not to discuss in detail the different voting methods that have been proposed since Borda and Condorcet in the field of social choice theories, but to show how e-voting provides an unprecedented opportunity to engulf in far larger experimentation of each of these methods.

The theoretical debate around the best voting method has been ongoing since the beginning of the modern era and still needs to be solved. We will provide a bird's eye view of the topic that would deserve much longer development. First-past-the-post vote, used in most U.S. States and 43 other countries in the world, has long been criticized for favoring spoilers[1016]. Ranked-choice voting (RCV) allows voters to rank all candidates, distributing points in descending order. In its instant-runoff voting form (IRV), voters who choose the candidate with the lowest score see their vote reallocated to their second choice, and the process continues until a candidate gets more than 51%. In a single-transferable vote system (STV), a proportional variant for multi-seat elections, a quota is assigned to be elected, and the votes that the winning candidate received above that quota are reassigned to other candidates according to the voters' second or more choices[1017]. However, RCV allows for the election of a candidate who is not consistently preferred when compared one-on-one against all others[1018]. Condorcet proposed a ranking system where each candidate is compared in one-to-one with all other candidates. If no "Condorcet-winner" is identified, then the

[1015] Jean-Jacques Rousseau, *The Social Contract*, *op. cit.*, pp. 108-109.
[1016] Phil Mckenna, *Why first-past-the-post voting is fundamentally flawed*, The New Scientist, April 9, 2008.
[1017] Jesse Clark, *The Effect of Ranked-Choice Voting in Maine*, MIT Election Data and Science Lab, March 18, 2021.
[1018] Jeanne N. Clelland, *Ranked Choice Voting And Condorcet Failure in the Alaska 2022 Special Election: How Might Other Voting Systems Compare?*, 11 Apr 2024, arXiv:2303.00108v2 [cs.CY]

winner is selected using a complementary method (Borda, Copeland, Schulze). It can even be improved into a "randomized Condorcet system" by selecting the candidate who accumulates the best relative probabilities if no one is preferred over all others. None of these methods nevertheless resist Condorcet's paradox and Arrow's impossibility theorem that proves that one cannot have the primary conditions of a voting system (universal domain, transitivity, independence of irrelevant alternatives, social ordering, and Pareto efficiency) without providing non-dictatorship. In practice, the pivotal voter in a system guaranteeing the first four conditions acts like a dictator[1019]. Arrow's impossibility theorem can nevertheless be circumvented if, instead of ranking candidates, the preferences are expressed as an approval/disapproval, or as a score or a range as in the "majority judgment" scheme proposed by Balinski and Laraki[1020].

To illustrate the importance of those theoretical assumptions, one can revisit several recent elections that were marred by spoiler and vote-splitting effects. It was notably the case in the U.S. 2000 presidential election, with the independent candidacy of Ralph Nader and its potential effect on the results in Florida[1021]. In the French 2002 presidential election, the Socialist candidate Lionel Jospin slightly trailed Jean-Marie Le Pen by 0.8% of the votes in the first round, notably due to Jean-Pierre Chevènement's candidacy, which garnered 5.5% of the vote. The 2007 French elections saw the victory of Nicolas Sarkozy even though the centrist candidate, François Bayrou, would have been the Condorcet winner[1022]. Different voting methods (majoritarian, Condorcet, Borda, approval voting, majority judgment) provide very different results

[1019] "The proof falls into two parts. It is first shown that if an individual is decisive for some pair of alternatives, then he is a dictator, which is excluded by Condition 5; the impossibility theorem itself then follows very easily from the first result and the Pareto principle" (see Kenneth J. Arrow, *Social Choices and Individual Values: Third Edition,* 2012 [1951], Yale University Press, p. viii).
[1020] Michel Balinski and Rida Laraki, *Jugement majoritaire versus vote majoritaire [Majoritarian judgment vs. Majoritarian vote]*, 2012, Revue française d'économie, Vol. 4, pp. 11-44; and Michel Balinski and Rida Laraki , *Majority Judgment vs. Approval Voting*, 2018, Center for Research on Economics and Statistics – CREST, Working Documents, n°5.
[1021] Michael C. Herron and Jeffrey B. Lewis, *Did Ralph Nader Spoil Al Gore's Presidential Bid? A Ballot-Level Study of Green and Reform Party Voters in the 2000 Presidential Election*, 2007, Quarterly Journal of Political Science, Vol. 2, n°3.
[1022] Lucas Nussbaum, *Condorcet Method and the French Presidential Election*, Blog, March 19, 2007, Condorcet method and the French presidential election – Lucas Nussbaum's Blog, accessed on March 5, 2023.

depending on the number of candidates, preference splitting, and possible bias in favor of the centrist candidate (with Borda and Condorcet)[1023].

Beyond these theoretical developments stands the question of the practicality of the different voting methods and the ability to test them in real life. Majoritarian one- and two-round elections are generally the norm and alternative voting methods have rarely been used. The use of RCV has been expanding significantly in the U.S. since it was adopted first in the San Francisco municipal election of 2004 and now covers hundreds of municipalities and four States for federal elections (Hawai, Alaska, Maine and Nevada). Approval voting is not in practice in sovereign elections (although it was used to elect the Pope in the Vatican between 1294 and 1621[1024]) nor majority judgment, although it was successfully used during the "popular primary" in France in 2022[1025].

Empirical research on alternative voting schemes has focused on RCV with mixed results. A study from the State University of San Francisco links RCV with a 3-5% decrease in turnout[1026] while another one from the University of Pennsylvania identifies a 14 times increase in improper marking and a 10 times increase in ballots rejection due to RCV[1027]. The MIT analysis of elections in Maine offers a more balanced view as RCV allowed a 5-point increase in the vote for non-major parties' candidates while producing "significantly lower levels of voter confidence, voter satisfaction, and ease of use[1028]". Another survey from FairVote compared the use if RCV in New York City in 2021 and 2023, showing that voters were slightly keener to rank multiple candidates in 2023 than in 2021 (+2 points for contests with more than three candidates). It also revealed that targeted advertising and explanatory material had a minor yet effective effect on turnout (+2%). The error rate was lower in 2023 than in

[1023] Michel Balinski and Rida Lariki, *op. cit.*
[1024] Frederic J. Baumgartner, *Behind locked doors, a history of the Papal Elections*, 2003, Palgrave Macmillan, London.
[1025] Romain Brunet, *Présidentielle : qu'est-ce que le jugement majoritaire utilisé par la Primaire populaire ? [Presidential electin: what is majority judgment used by the Popular Primary?]*, France 24, January 15, 2022.
[1026] Jason A. McDaniel*, Electoral Rules and Voter Turnout in Mayoral Elections: An Analysis of Ranked-Choice Voting*, 2019, the Election Systems, Reform, and Administration Conference in Philadelphia, Pennsylvania, July 11–12, 2019: the paper finds a 3-5% decrease in turnout following the introduction of RCV.
[1027] Stephen Pettigrew and Dylan Radley, *Ballot Marking Errors in Ranked-Choice Voting*, 2023, https://ssrn.com/abstract=4670677 or http://dx.doi.org/10.2139/ssrn.4670677, accessed May 2, 2024.
[1028] Jesse Clark, *op. cit.*

2021 and in line with previous choose-one error rates (at 0,5%)[1029]. It is all the more significant since the 2021 election stirred controversy due to lengthy validation (it took almost a month to certify the results[1030]). E-voting appears effective in solving usability and tallying issues and ease of adoption.

E-voting also enables even more complex voting mechanisms. Eric Posner and Glen Weyl advocate for "quadratic voting" (QV), a system in which each voter does not just have one vote but a budget of votes to distribute among various candidates or options[1031]. Thus, individuals can stress the issues most important to them. As the voter allocates more votes to an issue, the additional votes' costs increase exponentially to discourage excessive focus on a single topic. Although challenging to popularize broadly, QV was successfully trialed in 2019 in the Colorado Senate to improve the voting process[1032] - a test that was conducted electronically as no paper voting could support its complexity. We will not discuss whether QV is an appropriate voting scheme to ensure our three democratic principles. As Rawls warned long before the publication of *Radical Markets:* "No special weight is or should be given to opinions that are held with greater confidence[1033]". Our point here is merely instrumental: QV perfectly illustrates a voting system that would be extremely difficult to test and implement without resorting to e-voting.

Such an experimentation perspective reconnects with the very spirit of democracy, which is to renew itself through self-critique, as demonstrated by Dewey:

"Democracy is the faith that the process of experience is more important than any special result attained [...]. Democracy as compared with other ways of life is the sole way of living which believes wholeheartedly in the process of experience as end and as means [...] the task of

[1029] FairVote, *What We Learned from New York City's Second Ranked Choice Voting Election*, 2023, https://fairvote.app.box.com/s/64k7196cqg7vxz0fm7duk72b2y351225, accessed February 11, 2024.
[1030] Tarren Bragdon and Madeline Malisa, *NYC shows states why ranked-choice voting is a liberal disaster*, The New York Post, February 16, 2023.
[1031] Eric A. Posner and E. Glen Weyl, *Radical Markets – Uprooting capitalism and democracy for a just society,* 2018, Princeton University Press, Princeton.
[1032] Adam Rogers, *Colorado Tried a New Way to Vote: Make People Pay—Quadratically*, Wired, April 16, 2019.
[1033] John Rawls, *A Theory of Justice*, *op. cit.*, p. 361. This position is not incompatible per se with QV, as voters who have a greater confidence in their choice and therefore allocate more votes to one option do not have overall a greater weight in total, since on the contrary the quadratic function makes that overweighting in one particular question costly in terms of total weight.

democracy is forever that of creation of a freer and more humane experience in which all share and to which all contribute."[1034]

This stance may have seemed light-hearted or even frivolous at a time when the international situation was dire—the fall of Poland to the German offensive. Was it the time to try new mechanisms, or wouldn't it have been better to rely on tested rules or, if possible, a decisive command? Dewey responded that democracy only triumphs by being fully itself, that is, an experience. Experience in the dual sense: continuous experimentation and an experience lived daily by everyone.

3.3. The Material Objection: What Should One Vote on?

After the "who" and the "how", the following question about referendums is what one should vote on. It relates to two different criticisms: firstly, that not all issues should be subject to referendums, notably to preserve the role of the parliament (3.3.1); secondly, that referendums are never "just referendums" (Landemore) and citizens vote on something other than the question asked, notably for or against their government (3.3.2).

3.3.1.Can All Matters Be Subject to Referendum?

In a Rousseauian perspective, citizens should be able to express their vote on any matter (except particular situations: "the law considers subjects collectively, and actions as abstract, never a man an individual nor a particular action[1035]"). The opposition between popular and representative sovereignty is at the core of the effort of some philosophers to restrict the scope of referendums to avoid depriving the legislative power of some of its prerogatives. The risk of doing so would be to destabilize the balance of power and strengthen the executive power. Pierre Ronsanvallon underscores "the paradoxical democratic dispossession of the referendum[1036]". To avoid that risk, many constitutions limit the topics that can be subject to referendum, as in the French constitution[1037].

[1034] John Dewey, *Creative Democracy*, *op. cit.*
[1035] Jean-Jacques Rousseau, *The Social Contract*, *op. cit.*, p. 38.
[1036] Pierre Rosanvallon, op. cit., p. 192 ;
[1037] Articles 11 and 89 of the Constitution of the Fifth Republic.

This destabilizing risk can be nuanced if a clear division of competence is drawn. Decentralization and devolution architectures provide a theoretical model. Local governments do not weaken central government if their areas of action are listed, if clear principles like proportionality, subsidiarity, and flexibility are defined, and if a general competence principle is given to one level[1038]. In the same vein, it can be argued that the general legislative competence principle could be given to parliament and that the popular vote should be limited to some areas (or some areas should be excluded) but should benefit from full subsidiarity in the areas left.

Two questions then need to be solved: what divisions of competencies can be proposed (material division), and what are the relationships between the laws voted by parliament and the ones voted by referendum (formal division)?

Civil rights, fiscal issues, and international treaties

Many countries exclude specific questions from the field of referendum (for all types of referendums or for citizen-initiated referendums only). We will examine three topics that are commonly banned: civil rights, tax and budget, and international treaties.

The first area generally outside the scope of regular referendums is civil rights. As discussed in the introduction, there is no philosophical reason to exclude civil rights as such from the popular vote, except minority rights for the logical reasons we have identified. Deliberations on civil rights are deliberations on moral values. As we stressed in the introduction, the fact that there should be no agreement beforehand on a difficult moral question is not a reason for not addressing that disagreement. An example is given by physician-assisted suicide. In 1997, the Supreme Court ruled that the right to receive medical suicide for suicide was not constitutionally protected and that the state laws that prohibited it were to be upheld[1039]. Ahead of the decision, a group of philosophers that included Rawls, Dworkin, Nagel, Nozick, and Jarvis Thomson filed a friend of the court brief to support the legalization of physician-assisted suicide based on public neutrality on moral and religious questions (individuals should have the right to "make these grave judgments for themselves, free

[1038] Salvador Parrado, *Assigning Competences and Functions to Local Self-Government in Four EU Member States: A Comparative Review*, 2005, Support for improvement in government and management – Sigma, OECD and European Union.
[1039] U.S. Supreme Court, *Washington v. Glucksberg*, Decision n°65 LW 4669, June 24, 1997.

from the imposition of any religious or philosophical orthodoxy by court or legislature")[1040]. As Sandel rightly responded, such a claim to neutrality is "attractive but mistaken[1041]". A society should be able to deliberate on complex moral issues and decide collectively. Such a decision need not be jurisdictional, and a law or referendum on these issues is legitimate. It is the path taken in many European countries, as illustrated by the 2023 citizens' convention on euthanasia and the end of life, whose conclusions were initially supposed to be decided by referendum before the government turned them into a parliamentary bill (see above).

The same approach should not apply to minority rights. To define the concept of minority, we can refer to the definition given by Louis Wirth in 1945: ""any group of people who, because of their physical or cultural characteristics, are singled out from the others in the society in which they live for differential and unequal treatment, and who therefore regard themselves as objects of collective discrimination[1042]". Such a definition can be enlarged to include any group with social, ethnic, racial, or religious characteristics[1043]. The reason for the exclusion of any questions related to minorities from the referendum is primarily logical, as highlighted in the introduction, by analogy with the model of national minorities and the right to "self-determination of peoples[1044]" enshrined in the Charter of the United Nations. It also has an axiological and epistemological value (for example, as a sub-case of "epistemic appropriation[1045]"). Other institutional mechanisms are better suited to deal with these rights, including third chambers, advisory bodies, ombudsmen, and mediators of rights ("défenseur des droits[1046]"). As we have analyzed in the case of Taiwan, the rights of same-sex couples should not be dealt with by referendum. The Australian referendum of October 14, 2023, notably recognizing the First People of Australia and proposing the creation of an advisory council that would have been named the Aboriginal and Torres Straits Islander Voice, was therefore not grounded philosophically either. The text was rejected by 60,1% of the voters with a turnout of 89,9% and all six States voting against

[1040] Michael Sandel, *Public Philosophy*, *op. cit.*, p. 113.
[1041] *Ibid.*
[1042] Louis Wirth, *The Problem of Minority Groups*, in *The Science of Man in the World Crisis*, Linton, Ralph (ed.), 1945, Columbia University Press, New York, p. 347–372.
[1043] Krystal Perkins and Shaun Wiley, *Minorities*, in *Encyclopedia of Critical Psychology*, 2014, Springer, New York, pp. 1192–1195.
[1044] *Charter of the United Nations*, article 1.2., October 24, 1945, https://www.un.org/en/about-us/un-charter.
[1045] Emmalon Davis, *On Epistemic Appropriation,* 2018, Ethics, Vol.128, n°4, pp. 702-727.
[1046] https://defenseurdesdroits.fr, accessed October 9, 2021.

it - a referendum needs 4 out of 6 States to vote in favor in addition to the majority of voters. This refusal could have been motivated by legitimate concerns, such as the institutional framework resulting from the text and its possible effect on government effectiveness[1047]. Nevertheless, the question should never have been submitted to a referendum as a minority right question. Such a general ban on referendums on the rights of minority groups has not been implemented by any country, despite our third principle.

Returning to referendums on civil rights, they must be subject to qualified majoritarianism. Those principles can be concretely applied by specific provisions regarding constitutional amendments (as civil rights are generally constitutionally protected, most countries apply a constitutional check before the question is put to the vote[1048]). As proposed by Qvortrup and Trueblood, such qualified majoritarianism (or "supermajority") usually take two general forms: turnout thresholds (for which they believe that there is always a case) and "consociationalism" (a majority of different groups or regions, depending on the context). In Taiwan, 50% of eligible voters should vote in favor of a constitutional amendment for it to be adopted. As we have seen in section 2, analyzing the 2022 referendum on lowering the voting age, such a threshold has proven very restrictive, yet its principle remains valid. Australia has no turnout threshold as voting is compulsory, but a double majority, including a majority of States, is required for constitutional matters[1049]. In sharp contrast, constitutional referendums in most European countries are not subject to any turnout quorums, a tradition embedded in an extensive conception of popular sovereignty. In Italy, whereas regular citizen-led referendums are subject to a 50% turnout quorum, this is not the case for constitutional amendments. In line with Qvortrup and Trublood, our third principle imposes, in any case, a turnout threshold for referendums on individual and civil rights and a possible double majority when objective differences can appear between different communities within the same State (as in the example given by the

[1047] Praveen Menon, Lewis Jackson and Wayne Cole, *Australia rejects Indigenous referendum in setback for reconciliation*, Reuters, October 14, 2023
[1048] Some countries like France provide a counter-example where the popular vote is deemed constitutional by essence and not subject to any check – a solution that does not respect the third principle that we have introduced (Conseil Constitutionnel, Decisions n° 62-20 DC, November 6, 1962, and n° 92-313 DC September 23, 1992: "The expression of a decision by the people is not subject to legal scrutiny because the people are sovereign", my translation).
[1049] Article 128 of the *Constitution* of the Commonwealth of Australia.

authors of a country divided between 49% of the people speaking language A and the 51% remaining speaking language B, and where a simple-majority referendum could lead to language A being banned). Schwartberg apposes a strong argument against supermajority, which is the indeterminacy and arbitrary aspect of the rules: why 3/5 and not 2/3 or 5/7[1050]? This is why the simple majority of registered voter thresholds and the simple majority of region consociationalism rules are arguably the most understandable and legitimate rules.

The second area that is generally excluded from referendum relates to fiscal issues (tax and budget), as is the case in most EU countries. It was one of the reasons why some scholars and politicians deemed the 2015 Greek bail-out referendum (see below) unconstitutional[1051]. Such a ban has a solid theoretical rationality. Firstly, taxation always entails possible discrimination, linking the question to the one on civil rights – as Popper ironically stressed, there will always be a majority to tax those over six ft[1052]. Secondly, tax and budget request a comprehensive vision of public policies and necessary trade-offs. Both reasons explain how tax and budget competence is embedded in the very historical definition of parliaments.

The last area where referendums are questioned is international affairs. Many countries pose a ban on international treaties for citizen-initiated referendums only, as in the Netherlands or Italy. The question is whether there is a justification for allowing it for government-initiated and not for citizen-initiated. The argument that a national vote cannot undo an international negotiation has some rationale in terms of efficiency. The 2005 negative votes in France and the Netherlands on the European Constitution and the subsequent ratification by parliaments of most of the provisions of the Constitution through the Lisbon Treaty was a practical (yet deeply illegitimate) response to such a conundrum. The practical impossibility of renegotiating the treaty between the European States and the necessity to modify the institutions to accommodate the entry of new member States led to institutional arrangements that

[1050] Melissa Schwartzberg, *Counting the Many – The Origins and Limits of Supermajority Rules*, 2013, Cambridge University Press, Cambridge (U.K.).
[1051] Afroditi Marketou, *Is the Greek referendum unconstitutional?*, 2015, ffhal-04358373, https://hal.science/hal-04358373/document, accessed May 10, 2024. Article 44.2 of the Greek constitution states: "A referendum on Bills passed by Parliament regulating important social matters, with the exception of the fiscal ones shall be proclaimed by decree by the President of the Republic, if this is decided by three-fifths of the total number of its members", quoted and translated by Marketou.
[1052] Karl Popper, *The Open Society and Its Ennemies,* op. cit.

did not consider the results of the popular vote, fueling resentment that was still manifested ten years after[1053]. Jacques Rancière commented: "This referendum [on the European Constitution project] was not intended to be the subject of political debate; it was more about the need for approval, the official recording of consent. The question was posed within the framework of a consensual ideology that expressed the futility of debate because there would be 'necessary and desirable developments' to which one must adapt"[1054]. As stated in an open editorial signed by several politicians and academics in 2023 (among which philosophers Marcel Gauchet and Michel Onfray): "the popular vote has been flouted and circumvented by the parliamentary ratification of the Lisbon treaty, a mere copy-paste of the treaty rejected by the French"[1055].

Depriving the people of the possibility to vote on international treaties seems indeed an illegitimate position given the legal strength of international law in most jurisdictional orders (commonly above the law and below the constitution, with the notable exception of the European treaties and EU legislation). It is why most constitutions allow for government-initiated referendums on international treaties. As argued by Robert Putnam, a domestic referendum can also reinforce the position of a government in an international negotiation[1056]. From a legitimacy perspective, there is no reason not to extend it to citizen-intiated referendums, especially since the ability to have a citizen-initiated referendum is a crucial condition for the referendum instrument not to turn into a plebiscitary one, as we have analyzed in the previous chapter).

Therefore, the efficiency reason is not sufficient to ban citizen-initiated referendums on international treaties. Allowing voters in France and the Netherlands to trigger a citizen-initiated referendum on the Lisbon Treaty would have allowed for a legitimation of the treaty's provision. Various political parties requested such a referendum in 2008 in France, ranging from the Left to the extreme right, mostly former defenders of the "no" against the European constitution but also some

[1053] Yves Bertoncini, *Dix ans après le « Non » : Crever l'abcès, pour l'Union européenne et pour la Gauche [Ten Years After the « No »: Moving Forward for the EU and for the Left]*, Note n° 7 - Fondation Jean-Jaurès (Observatoire Europe), May 26, 2015.
[1054] Jacques Rancière, interview with Regard.fr, *Rendre à la démocratie son scandale [Making Democracy Scandalous Again]*, November 1, 2005, my translation.
[1055] Marcel Gauchet, Michel Onfray et al., April 23, 2023 (updated April 29, 2024), Le Figaro, my translation.
[1056] Robert Putnam, *Diplomacy and Domestic Politics: the Logic of Two-Level Games*, 1988, International Organization, Vol. 42, n°3, pp. 427–460.

defenders of the "yes". Polls showed that the result would have been very tight[1057]. Their position concurred with our analysis despite being based on arguments I refute. The first one was that the Lisbon Treaty would have been a "copy-paste" of the European Constitution treaty. This argument is incorrect as the former focuses on the sole institutional arrangements[1058]. Nevertheless, it is incorrect to assert that the Lisbon Treaty covered the same issue as the European Constitution Treaty. The second one, implicit in the op-ed co-signed by Gauchet and Onfray, was that only a referendum can re-authorize what a referendum refused. This argument has no efficiency nor legitimacy reason, as we will now analyze in the general context of the relationship between referendums and parliamentary laws.

Veto referendums

Independently of which topics should be or not be decided by referendum or by parliament, the question remains whether a referendum can undo what the parliament has already decided and vice versa.

Most countries exclude any popular vote on issues that are already discussed or voted on by parliament. It is, in particular, the case in France, where the shared-initiative referendum ("référendum d'initiative partagée" or RIP) was designed, when introduced in 2008, to avoid any interference of the referendum process with the parliamentary procedure. Article 11 of the Constitution of the Fifth Republic states that the object of a RIP cannot be "the abrogation of a legislative provision promulgated less than a year before"[1059].

That situation is not defendable either empirically or theoretically. Veto referendums exist in many countries. In the United States, as we have mentioned in section 2, 23 out of the 24 States that allow for direct democracy instruments have a veto referendum mechanism in place[1060]. In Switzerland, veto referendums are common and easily actionable practice, requiring 50,000 signatures (1% of registered voters)

[1057] A survey conducted by Ifop for Sud-Ouest showed a 53% majority against (Ifop, June 23, 2008) while another survey conducted by CSA for Le Parisien showed a 56% in favor (CSA, June 24, 2008).
[1058] Jean Quatremer, *Pourquoi il ne faut en aucun cas faire de référendum sur le traité de Lisbonne [Why there should be no referendum on the Lisbonne treaty whatsoever]*, Libération, December 13, 2007.
[1059] Constitution of October 4, 1958, article 11 as modified by the constitutional law n°2008-724 of July 23, 2008, my translation.
[1060] Ballotpedia, *op. cit.*

within 180 days of a law promulgation. With one-third of successful veto referendums since 2000[1061], it is both an effective and mastered process. Theoretically, the veto referendum is rooted in the conception of the referendum itself, which Albert Venn Dicey defended in 1915 as "the people's veto"[1062], a position more contemporarily reasserted by Matthew Qvortrup[1063]. It can also be linked to more recent theories, such as Pettit's neo-republicanism, which states that the people can govern themselves only if it is able to contest and amend decisions that are in disagreement with their interests and opinions[1064]. Pettit nevertheless proposes that the contestatory power be entrusted to independent professionals rather than to referendum, a position in contradiction with our first legitimacy principle. Exercised by the people, that control power can also have an indirect spillover effect beyond the sole issues decided by referendum. Le Bihan hence demonstrated that "elected officials are induced to implement the policies preferred by the voters not only on those issues that are subject to a possible citizen-initiated referendum, but also on those that are not[1065]".

Reversly, in most Western democracies, a parliament cannot undo, from a legal point of view, what a referendum has decided. As Dicey wrote in 1915: "Parliament … shall, in the long run, give effect to the will of … the true political sovereign of the State, the majority of the electors"[1066]. This rule seems straightforward regarding the establishment of a constitution or constitutional amendments. However, it bears many exceptions when applied to non-constitutional matters. As we have mentioned in section 2, eleven States in the U.S. allow their Congress to repeal or overpass a decision taken by referendum.

Giving parliament the possibility to overcome referendum decisions can have two types of justifications.

[1061] Laurence Morel, *« Si la demande de référendum sur les retraites avait été formulée plus tôt, cela aurait pu inciter Macron à promouvoir une réforme plus consensuelle » [« If the referendum on pensions had been requested earlier, Macron would have been enticed to promote a more consensual reform »]*, Le Monde, April 11, 2023.
[1062] Albert Venn Dicey, *An Introduction to the Law of the Constitution*, 8th Edition, 1915, MacMillan and Cie, London, p. cix.
[1063] Mads Qvortrup, *A. V. Dicey: The Referendum as the People's Veto*, 1999, History of Political Thought, Vol XX, n°3.
[1064] Philip Pettit, *Republicanism – A Theory of Fredom and Government,* 2001, Oxford University Press, New York, quoted by Charles Girard, *op. cit.*, p. 263.
[1065] Patrick Le Bihan. *Popular Referendum and Electoral Accountability*, 2018, Political Science Research and Methods, Vol. 6, n°4, pp.715 - 731.
[1066] A. V. Dicey, *op. cit.*, p. 285.

The first one is that giving referendums a supra-legislative force would grant them a form of irreversibility. It, therefore, weakens the flexibility and adaptability of democracy and suppresses decision-makers' accountability at the core of the democratic system. Qvortrup and Trueblood notably defend such a position:

"Referendums tend to be irreversible, at least in the medium-to-long term. They are meant to be the last word on a subject, at least for a while. This presents challenges that are distinct from elections. Referendums may happen *repeatedly*, but they do not happen *periodically*. The repeated nature of elections builds an accountability mechanism into the process. If representatives do not keep their promises, they will not survive the next election. There is no such possibility with referendums."[1067]

Such a position implicitly refers to a conception of direct democracy limited to constitutional issues, which might have historical grounds but no axiological or epistemological reasons. Giving referendums a supra-legislative power (as we saw in France's case) is not compatible with a more frequent use of direct democracy tools. On the contrary, popular and parliamentary sovereignties should be seen as complementary – yet competing – powers.

The second reason such a parliamentary veto can be justified is that referendums are rarely self-implementing and that a parliamentary is most of the time necessary to take the appropriate execution measures. However, this second reason can turn against itself. If a majority in the parliament is opposed to the result of the referendum, how can it be forced into implementing it? The question was notably asked after the Brexit vote, given the positions of most members of the House of Commons, and precedent exists of parliaments never implementing decisions they disagree on or that affect them directly, as was the case in Iceland. One example is the popular vote of November 27, 1999, in New Zealand in favor of reducing the number of members of Parliament, which the Parliament itself resisted implementing - in New Zealand, a referendum has no legal consequence per se, and its results must be implemented through a bill in Parliament. The argument is strong yet not sufficient. If the parliament vetoes a referendum decision, two countermeasures are still possible: voters can sanction retrospectively members of parliament at the next election, or a citizen-initiated referendum can be organized again to overrun the parliament's decision. If a two-stage

[1067] Matthew Qvortrup and Leah Trueblood, *op. cit.*, p. 198.

referendum is organized from the beginning, then the force of the referendum will be strengthened, and the parliament will be less prone to veto its result.

In conclusion, it is appropriate to consider referendums and parliamentary votes as the expression of two different sovereignties, "popular sovereignty" on the one hand, and "national sovereignty" on the other hand[1068]. Neither should have the upper hand on the other, except in certain legislative domains, as we have analyzed above.

3.3.2.Who Should Initiate the Vote

A common argument against the referendums is that it is a tool in the hand of the executive power and, therefore, always a form of "plebiscite". The definition of plebiscite varies from one jurisdictional order to another (past or present), and "a general agreement on the distinction between plebiscite and referendum is lacking." In the Australian constitution, for example, a plebiscite designates any referendum on non-constitutional manners ("referendum" being used only for constitutional reforms[1069]). In many countries from Latin America, on the contrary, it is a synonym to a referendum (initiated by the government) that applies to sovereignty[1070]. In the current dissertation, we will refer to the term plebiscite in case of a referendum initiated by the executive power asking to validate its power. Two cases can be identified. In the first case, the question put to the vote is explicitly the validation of that power (as for the French plebiscites of February 1800, following the coup d'Etat of Napoléon I of November 9, 1799, and of December 20 and 21, 1851, following the coup d'Etat of Napoléon III from December 2, 1851). In the second case, the executive power explicitly announces its departure from power in case of a particular result of the vote (as for the French referendum of April 27, 1969, which led to the resignation of De Gaulle on April 29, 1969). Can referendums be implicitly plebiscitary? Such a possibility needs to be discussed separately whether a referendum is initiated by the government or by citizens.

[1068] Raymond Carré de Malberg, *Contribution à la théorie générale de l'Etat [Contribution to the general theory of the State]*, 1962 [1922], CNRS Editions, Paris, p. 20.
[1069] Parliament Education Office, *Referendums and Plebiscites*, https://peo.gov.au/understand-our-parliament/having-your-say/elections-and-voting/referendums-and-plebiscites, accessed April 20, 2024.
[1070] Claudia Gamboa Montejano and Maria de la Luz Gracia San Vincente, *Democracia Directa: Referéndum, Plebiscito e Iniciative Popular [Direct democracy: referendum, plebiscite and popular initative,* November 2007, Camara de Diputados, LX Legislatura, Mexico D.F., Mexico.

Government- vs. citizen-initiated referendums

The identification of the referendum with a plebiscite is stronger in case the government initiates it. Penadés and Velazco even consider that "referendums initiated by the executive" is the exact definition of "plebiscites"[1071]. Their data suggest that 54% of the countries that experienced an authoritarian regime between 1946 and 2008 held at least one plebiscite under that regime. They argue that plebiscite is an effective political tool for dictators, resulting in a 27% decrease in the hazard rate and a 46% increase in longevity (likewise, the time elapsed since the last plebiscite is positively correlated with the risk of a *coup d'Etat* and with social turmoil).

Historical precedents support this analysis, as in France with Napoléon Ier and Napoleon III, and explain why referendums have been put aside between 1870 and 1958. As Jacques Chapsal underlines: "The memories of the Bonapartist plebiscites had linked the referendum with the abdication of the sovereign people into the hands of the providential man; therefore, it was up to the deputies elected by universal suffrage to embody national sovereignty[1072]." For him, that attitude was best summed up by Paul Reynaud when opposing De Gaulle's constitutional amendment to allow direct election of the President: "The representatives of the people, collectively, are the Nation, and there is no higher expression of the will of the people than the vote they issue after public deliberation[1073]." Jennifer Gandhi gives the example of Yemen where "the president can dissolve the assembly after a referendum, but the president, himself, can call a referendum[1074]".

The plebiscitary character of referendums can be mitigated when some form of automaticity and/or regularity is in place. It can be the case when the constitution requires a referendum on specific topics such as amending the constitution, ratifying treaties, or ceasing territories. The scope of mandatory referendums could be enlarged

[1071] Alberto Penadés and Sergio Velasco, *The Effect of Referendums on Autocratic Survival: Running Alone and Not Finishing Second*, April 2024 , Government and Opposition, Vol. 59, n°2, pp. 405 – 424.
[1072] Jacques Chapsal, *Droit, institutions et systèmes politiques [Law, institutions and political systems]*, 1988, P.U.F., Paris, p. 51, my translation.
[1073] Paul Reynaud, speech at the National Assembly, October 5, 1962.
[1074] Jennifer Gandhi, *Coordination among Opposition Parties in Authoritarian Elections*, in *Dictatorships: Their Governance and Social Consequences*, conference at Princeton University, April 25-26, 2008, p. 9, https://www.princeton.edu/~piirs/Dictatorships042508/Gandhi.pdf, accessed July 11, 2024.

as proposed by Hélène Landemore, who envisions how such referendums should be coupled with e-voting:

"Mandatory referendums are more plausible, however, if they are meant to be triggered on important and salient issues (although we would have to define what or who determines this, perhaps via constitutional law) and paired up with procedures and technologies to make participation as little burdensome to citizens as possible. In the event that we can eventually all vote on our phones by sliding left or right on some applications, maybe it would not be unreasonable to expect people to vote on a regular basis in these mandatory referendums (with the same frequency, say, that we update software on our electronic devices or change passwords)."[1075]

Alternatively, the government can commit in advance to organizing referendums with a certain periodicity.

The plebiscite aspect of a referendum seems, on the contrary, circumvented when initiated by other powers, such as a certain number of local authorities (like the Italian referendum that at least five regions can trigger) or the citizens themselves. Citizen-initiated referendums have been introduced notably in the former European communist countries after gaining independence (Bulgaria, Croatia, Latvia, Lithuania, North Macedonia, Slovakia, Slovenia, Hungary, Serbia, and Albania). In total, fifteen European countries allow it (the above and Switzerland, Italy, Liechtenstein, Saint-Martin, and Malta). France has an intermediate formula with the "shared initiative referendum", which subjects the triggering of the referendum to a mixed quorum of parliamentarians and citizens.

As we have seen in the comprehensive study by Serdült and Welp, 32 countries in the world have bottom-up direct democracy tools in place: citizen-initiated referendums or initiatives and vetoes[1076]. The two scholars have classified all the bottom-up referendums according to their effective initiators: civil society, opposition parties, or the government "controlling" a tool meant to be bottom-up. They showed that bottom-up referendums are most of the time effectively initiated by individuals or civil society

[1075] Hélène Landemore, *Referendums Are Not Merely Referendums*, *op. cit.*
[1076] Uwe Serdült and Yanina Welp, *op. cit.*, p. 82. Serdült and Welp include recalls in their analysis that we have left aside the scope of this dissertation.

groups (47% in the 1989-2009 period) compared to opposition parties (38%). In contrast, the government's interference with these mechanisms is marginal (14%).

If the people can directly seize that instrument, might they not use it too often? Their decisions would then be difficult to predict (unlike elected representatives whose programs are known in advance) and could prove time inconsistent. The referendum would be a "Pandora's ballot box[1077]", although this is not evidenced in the countries that practice direct democracy regularly[1078]. In these circumstances, it may be reasonable to impose temporal limits on its use, as in the United States and Taiwan where mandatory delays exist between consultations.

Can we conclude that citizen-initiated referendums fully circumvent the plebiscitary aspect of direct democracy? A counterargument against citizen-initiated referendums is agenda-setting. As argued by Hwang and Malleström, voters reckon their own time-inconsistency and bias for the present and, therefore, "use the election of the agenda setter as a commitment device and appoint an agent who is more patient than the median voter in order to avoid full procrastination and to achieve efficiency-maximizing gradualism[1079]". If citizens initiate the referendum, time inconsistency could prevail given the absence of an agenda-setter. A way to circumvent that objection is to allow citizens to set the agenda themselves. Whereas organizing a referendum on the referendum seems an infinite regression, multichoice referendums constitute a workable proxy, particularly if preferential vote or ranked-choice voting is applied, and the list of options remains open for amendments. The same effect can be attained if the government sets the agenda through a multi-votation scheme or multi-stage referendum. An alternative is to limit the participation in the agenda-setting to a limited number of citizens possibly selected by lot, as in the Athenian Boulè, or in the CIR institutionalized in Oregon.

[1077] Peter Buisseret and Richard Van Weelden, *Pandora's Ballot Box: Electoral Politics of Direct Democracy*, August 12, 2022, American Journal of Political Science.
[1078] See Elisabeth R. Gerber and Justin H. Phillips, *op. cit.*, which found no time inconsistency in initiatives on urban growth boundaries.
[1079] Jisoo Hwang and Johanna Möllerström, *Design of reforms with time-inconsistent voters*, 2017, Journal of Public Economic Theory, Vol. 19, n° 3, pp. 748-761.

The case for turnout threshold in referendums (beyond individual rights)

Conversely, isn't there a risk that voters will vote too infrequently, with only a handful of voters turning out? We have analyzed turnout thresholds in the case of individual rights and constitutional amendments but many countries aset a turnout threshold for regular referendums. In Taiwan, the turnout threshold is only 25% of registered voters. In Italy, the threshold is higher, with 50% of eligible voters required to vote (excluding referendums on constitutional matters)[1080], like in Slovakia[1081], Hungary[1082], Portugal[1083], and Lithuania[1084], the latter even adding a second criterion of 33% of registered voters voting "yes" for the "yes" to be enforced. In the Netherlands, the threshold is lower at 33%, which seems a more reasonable threshold[1085].

There is a risk that the quorum should not be met. In Slovakia, none of the referendums organized since the country's independence were adopted due to insufficient turnout, except the 2003 referendum on the EU membership. The same can be said of Latvia, a country that had already introduced citizen-led referendums in its 1922 constitution. Other constitutions impose supermajorities (a minimum of "yes" for the referendum to be adopted), as in Denmark[1086], where 30% of eligible voters should be in favor.

We will nevertheless argue in favor of turnout thresholds in referendums, beyond the case of individual rights, for at least two reasons: avoid political manipulation and resist legislative inflation and the power of interest groups.

Firstly, turnout thresholds are a deterrent against referendum manipulation.

The recent example of Tunisia and Hungary highlights in different directions how quorums can help or not resist nonconsensual government-initiated referendums. These two examples could arguably fall under the qualified majoritarianism requirement that we have discussed in the introduction (and we will detail below), yet they could apply to any manipulated attempt by the government.

[1080] Article 75(4) of the Constitution of the Italian Republic.
[1081] Article 98 of the Constitution of the Republic of Slovakia.
[1082] Article 8 of the Constitution of the Republic of Hungary.
[1083] Article 115 (11) of the Constitution of the Portuguese Republic.
[1084] Articles 7(1) and 8(1) of the Law on Referendums, 2002, Republic of Lithuania.
[1085] Wet Ranndgewend Referendum (Consultative Referendum Act) of April 15, 2014.
[1086] Article 42 of the Constitution Act of the Kingdom of Denmark, 1953.

The referendum held on April 5, 2022, by Viktor Orban's government, which controversially aimed at restricting LGBT+ rights in the context of child education, did not gather enough valid votes (50% of eligible voters) to be adopted. The government was seeking a popular validation of the law passed in 2021 by the parliament, and opposition movements managed to stir a grass-root campaign, resulting in 1.7m Hungarians spoiling their ballots (marking 2 "X" instead of one for each question)[1087]. Such a result is believed to have emboldened the Hungarian president to veto in 2023 another law restricting the rights of same-sex couples[1088].

In Tunisia, the newly elected president submitted a new constitution for a referendum in 2022, raising questions abount the separation of powers[1089] (extended legislative powers for the president) and the protection of civil rights (suppression of the mention of the "civil State" - *Etat civil* - that existed in the 2014 constitution[1090]). Voters approved the referendum with a turnout below 30%, in the absence of any turnout threshold. Arnold Zurcher explicitly referenced the authoritarian use of constitutional referendums without threshold in his analysis of direct democracy and the Nazi regime. Writes Zurcher: "The Nazi adaptors have also made at least one important change of a technical character in the republican regulations governing the operation of the referendum. This is to repeal the former rule that an amendment to the Constitution could not be considered adopted in a referendum unless at least one-half of the registered voters had endorsed it. In the new Reich, a simple majority of the participants are competent to decide."[1091]

Secondly, turnout threshold prevents excessive or abusive legislation. The inability to gather sufficient participation is not necessarily a default of the system but can be

[1087] Dóra Oprics, *How Hungary's so-called child protection referendum was invalidated through a grassroots campaign*, The Loop, The European Consortium for Political Research, April 2, 2024, https://theloop.ecpr.eu/how-hungarys-so-called-child-protection-referendum-was-invalidated-through-grassroots-activism/, accessed October 10, 2024.
[1088] Tamas Csonka, *Hungarian president vetoes controversial anti-LGBT law*, BNE Intellinews, April 24, 2023, https://www.intellinews.com/hungarian-president-vetoes-controversial-anti-lgbt-law-276655/, accessed October 10, 2024.
[1089] The Economist, *Dictators and Utopians are Fond of Fiddling with Constitutions*, August 25, 2022.
[1090] Fédération international pour les droits humaines – FIDH, *Tunisie : le référendum constitutionnel menace les droits acquis depuis la révolution [Tunisia: the constitutional referendum poses a threat to the rights granted since the revolution],* July 12, 2022, https://www.fidh.org/fr/themes/droits-des-femmes/tunisie-referendum-constitution-menace-droits-democratie-revolution, accessed October 10, 2024.
[1091] Arnold Zurcher, *The Hitler Referenda*, 1991 [1935], American Political Science Review, n°29, quoted by Matthew Qvortrup and Leah Trueblood, *op. cit.*, p. 200.

linked to the substance of the questions put to the vote. Voters might consider that a topic is not worth a new law, not turning out to referendums. Compared to parliament, turnout thresholds or supermajorities make the referendum inherently more resistant to legislative inflation or captation by interest groups. Generally, referendums on matters of low importance do not have the positive effects on information and deliberation that can be found with high-stakes votes, eventually attracting fewer voters and producing results that do not represent the majority's preferences. A study by Lutz on 144 popular votes in Switzerland between 1981 and 1999 shows that "the outcomes of popular votes are most likely to be biased when voters think an issue is unimportant and both levels of turnout and information are low"[1092]. In France, the 2003 law allowing municipal referendums has gained momentum in recent years, imposing a turnout threshold of 50% of registered voters. Since 2020, 143 referendums and consultations have been organized on various subjects but only a dozen have become legally binding, the others turning into mere consultations with no legal effect due to insufficient turnout. That lack of effectivity can appear "deceptive" for citizens[1093], all the more since a third of these referendums have gathered more voters than the previous local election[1094]. As we have discussed in section 2, e-voting offers a tool to foster turnout at the local level.

Participatory budgeting (PB) offers a relevant example[1095]. In recent years, many municipalities have adopted mechanisms for allocating part of their budgets to citizen-initiated projects, inspired by the example of Porto Alegre, Brazil, where participatory budgeting was first developed. Globally, around 11,500 local authorities had engaged in PB by 2022[1096]. By the end of 2019, 150 French localities had implemented participatory budgets, including major cities like Paris, Rennes, and Grenoble[1097].

[1092] Georg Lutz, *Low Turnout in Direct Democracy*, 2007, Electoral Studies, Vol. 26, n°3, pp. 624-632.
[1093] *Ibid.*
[1094] Paul Cébille, *Référendums locaux : peut-on faire confiance aux citoyens ? Ce que nous disent 350 référendums et consultations locales depuis 30 ans [Local referendums: can we trust citizens? What we can learn from 350 local referendums and consultations in 30 years]*, 2024, Génération Libre, https://www.generationlibre.eu/wp-content/uploads/2024/07/NOTE-Referendums-locaux-GenerationLibre-juillet-2024-VF.pdf.
[1095] See Gilles Mentré, *Démocratie*, *op. cit.*
[1096] Michiel S. De Vries, Juraj Nemec, and David Špaček (eds.*), International trends in participatory budgeting: Between trivial pursuits and best practices*, 2021, Palgrave Macmillan, London.
[1097] *Gestion municipale : le développement des budgets participatifs [Local management: the development of participatory budgeting],* Vie-publique.fr, December 12, 2019, https://www.vie-publique.fr/eclairage/271797-gestion-municipale-le-developpement-des-budgets-participatifs, accessed March 12, 2020.

However, Bézard found that citizen participation in these budgets averaged only 4% in 2018[1098]. The study questions whether the term "participatory budget" is still appropriate, noting that the amount allocated per inhabitant has consistently decreased, which risks turning this tool of participatory democracy into mere "political marketing".

Porto Alegre's seminal participatory budgeting suffered from equally low turnouts, with less than 2% of the total population involved[1099]. However, the nature of the process was fundamentally different. It involved not only voting but active participation over several days in designated locations and workshops, primarily targeting underprivileged populations (where participation rates were higher). Initially, the allocated share was significant, accounting for 30 to 40% of the investment budget. Voters did not merely choose secondary projects; they prioritized the general budget (for example, deciding whether to focus on road improvements or sanitation). They also elected representatives to ensure that the voted priorities were incorporated into the following year's budget, even though the final decision rests with the city council. These representatives formed the participatory budget council, elected by sector delegates and thematic groups, who could be revoked at any time. They ensured deliberation and oversight in implementation.

The participatory budget in Porto Alegre thus represented a pathway to genuine citizen engagement. As commented by Milosavijevic et al., Porto Alegre's PB represented a "democratic innovation that promotes citizen empowerment, increases transparency, drives equity and innovativeness, and enables civic education[1100]". In this line of view, participatory budgeting should not be considered as a direct democracy tool but as an innovative form of representative democracy.

[1098] Antoine Bézard, *Budgets participatifs : la nouvelle promesse démocratique ? [Participatory budgeting: the new democratic promise?]* , October 2, 2018, Fondation Jean Jaurès, Paris.
[1099] Association of Local Authorities, *Case study: Porto Alegre, Brazil*, December 12, 2016, https://www.local.gov.uk/case-studies/case-study-porto-alegre-brazil, accessed July 10, 2022.
[1100] Milos Milosavljević, Željko Spasenić, and Jovan Krivokapić, *Bibliometric review of participatory budgeting: Current status and future research agenda*, International Journal Financial Studies, Vol.1, pp. 1–14.

3.4. The Finalist Objection: Why Should One Vote?

The final common objection against the referendum is its finality. By deciding with a simple "yes" or "no", without considering the vote's consequences, does the referendum truly produce applicable policies? What is the use of a referendum if uncertainty remains on the possibility and means to translate it into substantive policies afterward? We will answer these questions by analyzing the uncertain implementation of referendums from recent examples (3.4.1) before making proposals to improve execution certainty (3.4.2).

3.4.1. The Uncertain Implementation of Referendums: Recent Examples

As we have analyzed, implementation has been a significant concern during the Brexit campaign and has stirred lasting criticisms. It has also been the case for the French and Dutch 2005 referendums on the European Constitution. We have seen in the Taiwanese example how the DPP government, despite being at the origin of the development of the referendum practice, did not feel constrained in its nuclear policy by the 2018 and 2021 referendums. We can list other examples. The most obvious ones are the "non-binding" or "consultative" referendums that exist in certain constitutions (e.g., Spain, Greece, Luxemburg, Finland, and Austria) or which can be organized outside of any constitutional provision (e.g., Belgium and the U.K.), and can lead to no implementation at all (as we have seen above in the cases of New Zealand or Iceland).

In 2014, the Swiss voted "against mass immigration" to impose immigration quotas and national preferences. The referendum was narrowly adopted by 50.3% of voters but could not be enforced due to international treaties. On July 5, 2015, the Greek Prime Minister Alexis Tsipras organized a consultative referendum[1101] on the proposal made by the European Union (EU), the European Central Bank (ECB), and the International Monetary Fund (IMF) regarding Greek debt restructuring. Despite a majority of 61.3% against the bailout, the Greek government, having no alternative, eventually accepted an agreement less favorable to Greece, raising constitutionality,

[1101] The consultative character of referendums in Greece is inferred from article 44.2 of the Greek constitution, see *ibid.*

legitimacy, and credibility issues[1102]. Research has shown that potentially non-cooperative external actors, such as the EU, the ECB, and the IMF in the Greek case, create expectations that influence voters' behavior[1103]. The Greek referendum seemed to contradict other rules, such as the ban on referendums on fiscal issues (see above), or some of the non-binding rules set by the Council of Europe, including a minimum two-week period between the announcement and the vote so that voters can properly make up their minds[1104].

Non-binding referendums do not fulfill the legitimacy and efficiency test we have set, and there is little philosophical reason for maintaining them as democratic practices. Buisseret and Van Weelden's article on *Pandora's Ballot Box* shows that the benefits recognized to referendums "by unbundling policies and forcing policymakers to take the majority-preferred position" are not obtained in the case of non-binding referendums (the article is one of the first to pitch binding against non-binding referendums). For Maskin and Tirole, the binding character of a referendum is a defining feature of its accountability role[1105].

3.4.2. Propositions to Improve Execution Certainty

Propositions to improve the implementation of the results of referendums go in three directions: experimenting with non-binary voting methods, setting up multiple votation schemes, and setting up specific follow-up and control entities.

Multiple-option or multichoice referendums (with more than three options) can provide a more comprehensive picture of the alternatives[1106]. Such an instrument was contemplated during the 2010-2012 parliamentary discussion preceding the referendum on the separation of Scotland, with the Scottish executive favoring a three-option vote: status quo, independence, and maximal devolution. The main reason for not retaining that option was the risk of not having any option to gain an absolute

[1102] Ioanna Pervo, *The Greek referendum of July 5, 2015: on legitimacy and state credibility*, January 2023, International Journal of Human Rights and Constitutional Studies, Vol. 10, n°1, p.1.
[1103] Stefanie Walter, Elias Dinas, Ignacio Jurado, and Nikitas Konstantinidis, *Noncooperation by Popular Vote*, International Organization, 2018, Vol. 72, No. 4 , pp. 969-994.
[1104] Reuters, *Greek referendum falls short of standards - Council of Europe*, July 1, 2015.
[1105] Eric Maskin and Jean Tirole, *The Politician and the Judge: Accountability in Government*, *op. cit.*, pp. 1034-1053.
[1106] Charlotte C.L. Wagenaar, *Beyond for or against? Multi-option alternatives to a corrective referendum*, December 2019, Electoral Studies, Vol. 62.

majority, thus jeopardizing the legitimacy of the vote[1107]. The same mechanism could have been put in place in France during the 2022-2023 pension reform since a binary referendum on the text proposed by the government would have been too polarized. A choice between different options (such as increasing the age limit, the contribution period or taxes, or lowering pensions) would have provided, if not an implementable decision, at least a more precise political roadmap[1108]. Different models exist for the agenda-setting of the different options put to the vote, involving the promoters of the referendum, counterpropositions by citizens or parliament, or possible filtering by experts[1109].

Alternatives are possible. Rather than an absolute choice, voters can be asked to rank the options (preferential voting), express a judgment on each option (majority judgment), or indicate which option they prefer and which they categorically reject. Benjamin Barber proposes a multichoice system where five options would be proposed to assess a proposition or a question: "yes in principle - strongly for the proposal; yes in principle-but not a first priority; no in principle - strongly against the proposal; no with respect to this formulation - but not against the proposal in principle, suggest reformulation and resubmission; and no for the time being -although not necessarily opposed in principle, suggest postponement[1110]". Each of these mechanisms produces a slightly different result, as we have analyzed above, but they all have in common the provision of a finer mapping of voter preferences. E-voting makes multichoice voting easier to organize and perform, as Barber already envisioned in 1984[1111].

However, such mechanisms still do not provide an absolute majority for any alternative option against the status quo. The effectiveness of a referendum can be enhanced if a

[1107] John Curtice, *The Referendum on Separation for Scotland*, Written evidence submitted to the U.K. Parliament, March 2012, https://publications.parliament.uk/pa/cm201012/cmselect/cmscotaf/writev/referendum/rs17.htm.
[1108] Gilles Mentré, *Oui au référendum d'initiative partagée sur les retraites, mais ne le formulons pas n'importe comment [Yes to the shared initiative referendum on pensions, but let us not formulate it inappropriately]*, Le Figaro, April 5, 2023, https://www.lefigaro.fr/vox/politique/oui-au-referendum-d-initiative-partagee-sur-les-retraites-mais-ne-le-formulons-pas-n-importe-comment-20230405, accessed April 10, 2023.
[1109] Charlotte C. L. Wagenaar and Frank Hendriks, *Setting the voting agenda for multi-option referendums: process variations and civic empowerment*, 2021, Democratization, Vol. 28, n°2, pp. 372-393
[1110] Benjamin Barber, *op. cit.*, p. 286.
[1111] *Ibid.*, p. 290. Barber nevertheless proposes to reserve remote e-voting to people with disabilities or objective constraints and use e-voting within town-meetings (the "neighborhood assemblies" he advocates for).

multi-votation scheme (or multi-stage referendum) anticipates the various possible options. Barber compensates for the risk of no absolute majority on one option by systematically requiring two readings, with a second referendum needed to confirm the first result after a six-month delay[1112]. For him, the second vote should propose the same multichoice as the first one, hence still providing the risk of no absolute majority. One can imagine that the second vote would only pitch the choice that came first in the first vote against the status quo. Such a system was experimented with in 2011 in New Zealand. A two-step process (run-off election) was put in place to decide on the voting method for electing members of parliament. In the first referendum, which was held on November 26, 2011, citizens were asked two questions: "Should New Zealand keep the current system?" and "If New Zealand were to change to another voting system, which voting system would you choose?" New Zealanders voted in favor of the status quo. However, if a majority had preferred a new system, then a second referendum would have been organized, pitching the alternative method that would have gathered the most votes against the status quo. Although such a system gives an advantage to the status quo, it guarantees a winner in absolute votes (without necessarily guaranteeing a Condorcet winner[1113]), contrary to a multichoice referendum.

One can imagine what Brexit would have looked like if, instead of proposing a binary choice between Leave and Remain, two consecutive referendums had been organized: one on Leave or Remain; and one, once the Leave has won and after a specific delay, on hard Brexit or soft Brexit. An alternative would have been to give an advantage to the status quo by presenting a New Zealand-type referendum. Two questions would have been asked from the beginning: "Do you want the U.K. to remain with the E.U.?"; and "If U.K. were to leave the E.U., would you favor a soft or a hard Brexit?". After the Leave had won the first question, a second referendum would have been organized after six months to choose between Remain and either soft or hard Brexit (depending on which one would have won in the second question of the first vote), modeled on the New Zealand referendum in 2011. It is different (yet inspired) by the two-stage referendum proposed by Barber, who proposes that every referendum be followed by a second one on the same question, without any preference to the status quo. Barber poses legitimacy questions: why vote again once a decision has been made? He answers

[1112] *Ibid.,* p. 288.
[1113] John Curtice, *op. cit.*

by pointing to the voters' possible "mercurial[1114]" attitude, an argument that could equally apply to any parliamentary votes. The proposal of the leader of the Liberal-Democrat party in the U.K. to re-run the Brexit referendum was criticized for those reasons, including from inside his own party[1115]. The same can apply to the Labour proposal of a new referendum on soft Brexit against Remain[1116]. Other proposals have been made, such as a preferential vote on the three options (soft Brexit, hard Brexit, and Remain) with a Borda count and a first- and second-preference vote on those three options[1117]. However, they all lack the clarity of a 50%+1 vote in favor of a single final option.

Regardless of the option retained, it would have been more legitimate and efficient than holding a single referendum. Rosanvallon writes that "the political figures who led the campaign to leave the Union then withdrew, abandoning the voters to their sovereignty; they were responsible for nothing[1118]". It would not have been the case if they had had to take a stand in a campaign to decide the possible modalities of Brexit. A staged referendum is more capable of meeting the imperative of "consistency over time" and "building for the long term", which, for Rosanvallon, distinguishes will from the mere decision.

A referendum is also more effective if the various possible consequences are announced in advance. The process of revising the Chilean constitution is an example. The newly elected president, Gabriel Boric, held a referendum in 2020 to redraft the constitution inherited from Pinochet, which gathered 79% approval. A Constitutional Convention was subsequently elected that proposed a new constitution, which was submitted to voters in 2022. However, as the vote approached, the possibility of a rejection became clearer. A large majority, including conservative voters but also a significant portion of left-wing voters, seem to reject a project creating a list of new rights: the right to Internet access, the right to free legal assistance, the right of Indigenous nations (13%

[1114] Benjamin Barber, *op. cit.*, p. 288.
[1115] Heather Stewart and Jessica Elgot*, Lib Dem split emerges over policy of seeking second EU referendum*, The Guardian, September 19, 2016.
[1116] Emilio Casalicchio and Charlie Cooper, *Jeremy Corbyn backs Remain. Almost.*, Politico July 9, 2019.
[1117] Dan Sabbagh and Peter Walker, *Justine Greening endorses second Brexit referendum*, The Guardian, July 16, 2018.
[1118] Pierre Rosanvallon, *op. cit.*, p. 177.

of the population), of nature, and of animals to legal personality[1119]. The question rapidly arose of what would be the consequences of a negative vote: would the Pinochet constitution remain in place, would the project of the convention be amended and put back to the popular vote, or would a new project be drafted? President Boric eventually declared that the last option would be chosen[1120], giving more clarity to the referendum process. After the Chileans rejected the constitution process by 62%, a new constitutional process was initiated that led to a new project put to the vote in 2023. Again, the Chileans rejected the constitutional project in 2023 by a 55% margin, considering it leaned too much to the right. As Soto commented: "In just over a year, Chileans were once again offered a text that was not the product of political consensus[1121]". A parallel can be drawn with the votes on abortion in Kansas, Kentucky, and other Republican States mentioned above, where the "vast middle" appeared less polarized than the political elites. However, the limit of such a multi-referendum process is the risk of "voter fatigue", a phenomenon that was clearly expressed in Chile after three referendum votes and two elections of constitutional assemblies in less than four years[1122].

Lastly, the effectiveness of a referendum could be guaranteed by granting some specific entity a role in controlling the implementation of the results. When a citizens' assembly has been set up to prepare the referendum, it could be used to follow up on its conclusions (as a controlling power or an agenda-setter of further referendums). As we have mentioned above, that proposition was made by Emmanuel Macron when he was auditioned by the French CCC, contemplating two options (either for the CCC as a whole or for a group of selected jurors). That position was nevertheless not institutionalized, and the CCC had no formal follow-up role, although it decided by itself to assess the progress of the administration in implementing its propositions.

[1119] Gilles Mentré, *Face à la polarisation politique croissante, le recours à la démocratie directe permet une décompression salutaire [In the face of increasing political polarization, resorting to direct democracy allows for a necessary venting]*, Le Monde, September 13, 2022.
[1120] *Boric says Chile should draft new constitution if current proposal fails*, Reuters, July 15, 2022.
[1121] Sebastián Soto, *Two Drafts, Three Referendums, and Four Lessons for Constitution-making from Chile*, Constitutionnet, IDEA, December 22, 2023, https://constitutionnet.org/news/voices/two-drafts-three-referendums-and-four-lessons-constitution-making-chile, accessed January 18, 2024.
[1122] *Ibid.*

3.5. Conclusion: Toward a Digital Direct Democracy

Experience from the field allows us to design what could and should be a frequent and intelligent use of the referendum tool, giving direct democracy a place within our current institutions.

(i) Referendums would be organized regularly, initiated by national and local governments or by citizens themselves. Government-proposed referendums could follow a schedule set at the beginning of the term to minimize the risk of government manipulation and plebiscitary use. They would involve multiple stages to take implementation challenges into account. The citizen-initiated referendum would be systematized both locally and nationally, with signature thresholds that are not prohibitive. In all cases, referendums should have a quorum to avoid niche voting on subjects that do not mobilize the general population.

(ii) Referendums only make sense if preceded by public debates, allowing for information and deliberation. Media regulation on impartiality and possibly on ownership rules need to be discussed. Decentralized systems of fact-checking and fact-tracking can be tested. Citizens' assemblies and juries are a helpful tool, provided their conclusions are submitted to a referendum. They should be complemented by public debate platforms that allow all citizens to participate in the ideation phase, similar to Pol.is or Join. The government must be transparent and responsive in communicating information, following the example of Taiwan where administrations must publicly respond to any question that exceeds a certain amount of support.

(iii) Alternative voting methods are available to allow referendums to be more than a binary choice. Multichoice referendums should be experimented with, for example, through preferential voting or RCV, or through run-off elections with a first round to test the preferred alternative option and a second round to test that option against the status quo, to create a final majority.

(iv) The perimeter of referendums could be clearly defined. Certain topics should be excluded, like minority rights (third principle) or tax and fiscal issues (which are the core competence of parliament). Civil and individual rights cannot be off-limits but deserve a qualified majoritarianism process, with qualified majorities and/or

parliamentary veto. Despite evident implementation issues (with potential non-cooperative external actors), international treaties cannot be excluded from the referendum scope. Within this perimeter, the referendum should be given a general subsidiarity clause. There is no reason to protect parliament from veto referendums, both in terms of legitimacy and in terms of efficiency.

(v) E-voting could be allowed for all referendums, in a hybrid mode together with paper voting, at least at the local level – and not at the national level, for which e-voting cannot be introduced before remaining security issues are dealt with. The introduction of e-voting could in itself be the subject of a referendum organized after an open debate (media, online platform and citizens' assembly). E-voting will increase participation and provide flexibility to organize more frequent referendums, and test new voting modes. The trust issue should nevertheless be addressed by promoting open-source codes and favoring a culture of verification.

All those principles can create a "digital direct democracy" that has the potential to complement existing representative democracies and answer the legitimacy and efficiency claim better, while preserving individual and minority rights.

Nevertheless, is this picture definitive? Is the centralizing force of representative democracy contained by direct democracy? Reversely, once the "Pandora's ballot box" of direct democracy is open, is it durably limited by representative democracy? To conclude the current section, we will present two utopias: "datatorship" and "pancracy"[1123]. We will first describe them separately. In the datatorship scenario, centralized artificial intelligence (AI) would cause an increased threat to democracy (3.5.1). In the pancracy scenario, an open-source and potentially decentralized AI, linked with blockchain technology, could promote new usages that could make a full direct democracy possible (3.5.2). As such, datatorship and pancracy present an extreme version of the opposition between heteronomy and autonomy. After describing these two models, and identifying on which current tendencies they are built, we will analyze what philosophical use can be made of these two utopias as a way

[1123] The developments on "datatorship" and "pancracy" presented in this chapter are building on the corresponding analyses in Gilles Mentré, *Les Deux Pouvoirs, op. cit.*

of criticizing current ideologies and favoring the self-institution of direct democracy (3.5.3).

3.5.1. Datatorship

Machine learning is a strong centralizing trend sweeping through the world of technology. AI algorithms that have experienced the most significant development and success over the past twenty years are not computers executing pre-established rules (so-called “symbolic” or “weak” AI) but those operating in machine learning mode (known as “sub-symbolic” or “strong” AI):

[Elément sous droit – Diffusion non autorisée]

Figure 9: Symbolic vs Sub-symbolic AI (source: Ilkou and Koutraki[1124])

Twenty years from now, those possessing sufficient computing power and data capacity, probably a few large multinational companies and some sovereign States, might thus hold AI capacities that other actors will not be able to garner. Such a trend is reshaping the concept of expertise. In terms of urban or industrial development, for example, “digital twins” are already revisiting how planning is done by directly

[1124] Eleni Ilkou and Maria Koutraki, *Symbolic vs. Sub-symbolic Methods of AI: Friends or Enemies?*, November 2020, Conference: CSSA'2000, https://www.researchgate.net/publication/345243725_Symbolic_Vs_Subsymbolic_AI_Methods_Friends_or_Enemies, accessed March 19, 2023.

simulating the evolution of a system based on different hypotheses, as it is already performed in Shanghai, Nanjing, or Chongqing[1125].

It is a fair assumption that digital twins of entire regions, communities, or countries will be available twenty years from now. Independent firm Verdantrix predicts that the global market for digital twins will be multiplied by 40 between 2020 and 2040 (a c.20% yearly increase bringing it from $700m in 2020 to c.$3bn in 2040)[1126]. Any decision regarding energy, transportation, education, agriculture, housing, or even individual health might me requested to rely on a digital diagnosis. That expertise could then surpass the opinions of individual experts. Kahneman and his team have already demonstrated that a computer can already provide better justice decisions than a human, whose judgment is notoriously influenced by their mood, the defendant's birthday, or the room's temperature[1127]. As the founder of one of the many Chinese startups in that field candidly puts it, it is nothing more than the modern way of achieving the Marxist goal of an "optimal allocation of resources[1128]". The "New Generation Artificial Intelligence Development Plan", published by the Chinese government in July 2017, envisions that China will be the world's leading center of innovation in AI by 2030, to create $150 billion in value by then[1129]. Such an ultra-centralized model will have its supporters. After all, many environmental advocates call for the immediate implementation of the IPCC recommendations without further political debate[1130]. Will we be able to resist that injunction when modeling has further perfected, and the margin of error of climate scenarios has become minimal? AI is already in a position to provide unprecedented accuracy in areas as varied as identification of risk areas, water resource allocation, selection of high-impact projects,

[1125] Hao Wang, Xiaowei Chen, Fu Jia and Xiaojuan Cheng, *Digital twin-supported smart city: Status, challenges and future research directions*, May 2023, Expert Systems with Applications, Vol. 217,n°1.
[1126] Sebastian Winter and Malvika Tohani, *Market Size And Forecast: Digital Twins For Industrial Facilities 2020 – 2040*, 2020, Verdantrix, https://www.verdantix.com/report/market-size-and-forecast-digital-twins-for-industrial-facilities-2020---2040, accessed March 15, 2023.
[1127] D. Kahneman, O. Sibony, C. Sunstein, *Noise, A Flaw in Human Judgment*, 2021, Little Brown Park, New York.
[1128] Shao Jian, fondateur de Liang Zhi Data Technology, quoted by Nathan Vanderlippe, *Can China use artificial intelligence to perfect central planning?*, The Globe and Mail, June 10, 2021.
[1129] Graham Webster, Rogier Creemers, Elsa Kania and Paul Triolo, *Full Translation: China's 'New Generation Artificial Intelligence Development Plan*', 2017, Digichina, Stanford University, https://digichina.stanford.edu/work/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/, accessed March 16, 2023.
[1130] Greenpeace, *L'espoir malgré l'urgence ? Le GIEC tire (encore) la sonnette d'alarme [Hope despite urgency? The IPCC blows (again) the whistle]*, April 5, 2022.

or prediction of climate disasters[1131]. We could, therefore, shift towards a regime of datatorship — the heteronomous power of data.

AI might still, in the future, be subject to today's errors. Their designers still do not understand the deep neural networks currently used (also called "convolutional networks"). Mitchell recalls that humans who train deep networks generally cannot "look under the hood and explain the decisions their networks made[1132]". Knight talks about "the dark secret at the heart of AI", concluding that it "could become a problem[1133]". Current AIs can be victims of overfitting, are often disarmed in front of rare effects (the hazardous reaction of an autonomous vehicle if a cow crosses the road), and are sensitive to external cyber-attacks. The best current AIs can easily be fooled by playing on a few invisible pixels in a photo[1134].

If AI is deemed infallible, then it would be rational for States to let it guide their decisions. Such a choice is already made by China in the form of "social credit". As per the definition given by Chorzempa et al.:

"The SCS [Social Credit System] has two main components. The first is what may become the world's largest dataset, integrating currently disconnected data held by government and non-governmental entities across China and expanding data collection efforts. [...] The second component is a system of carrots and sticks to make people and organizations more 'sincere' or 'trustworthy'."[1135]

Chinese agencies thus collect data that can or even should be used by other agencies or private entities in their relations with citizens. If there is no evidence until now of a "rating" of citizens, it is mandatory to check a person's social credit files before employing someone or granting a procurement. It has been developed since 2010, but the rise of new technologies has accelerated its ambition[1136]. As stated by the State

[1131] Sylvain Duranton, *Comment l'IA va lutter contre les changements climatiques*, Les Echos, September 28, 2022.
[1132] Melanie Mitchell, *Artificial Intelligence: A Guide for Thinking Humans*, 2019, MacMillan, New York.
[1133] Will Knight, *The Dark Secret at the Heart of AI*, Technological Review, Massachusetts Institute of Technology, April 11, 2017, quoted by Melanie Mitchell, *op. cit.*
[1134] Melanie Mitchell, *op. cit.*
[1135] Martin Chorzempa, Paul Triolo, and Samm Sacks, *China's Social Credit System: A Mark of Progress or a Threat to Privacy?*, June 2018, Peterson Institute for International Economics, Vol.18, n°14.
[1136] Bi Honghai, *Old Regulatory Wine in a New Bottle of Technology – A Critical Analysis of China's Social Credit System*, 2021, University of Pennsylvania Asian Law Review, vol. 16, pp. 283-327

Council on AI, the goal is to "promote the integration of blockchain technology and artificial intelligence and establish a new social credit system[1137]". Social credit is mainly used by local authorities. Rongcheng, a northern Chinese port city of 700,000 inhabitants, is an "early example of this maximum [comprehensive social control mechanism] model[1138]". 1,000 points are awarded to each citizen at the start to cover 600 economic and social activities. That capital is reduced in case of infractions (for example, a traffic code violation) and increased in case of positive social action (for example, donating to a charity)[1139]. Each citizen is given a "grade", with the possibility to be "blacklisted" if they reach grade D, and a possible redeeming "exit mechanism" thanks to "term limits" and "repair"[1140]. In some cases, the social credit system is based on facial surveillance systems — as in Chongqing, which already boasted in 2019 one camera for every six residents[1141]. Other mechanisms, now outside of the social credit system, are deployed voluntarily, following the example of Sesame Credit that tallies the good points, like having children, and the bad points, like playing video games too much[1142]. That score can then be exported to build a positive image on social networks (100,000 people have already publicly communicated their good score[1143]) or even on dating sites.

Diverging views exist on the assessment of social credit, from a "mark of progress" mixed with a "threat to privacy"[1144] to a potential "harm" to "the fundamental human dignity"[1145] or even an "unrestricted government power in terms of mass surveillance[1146]". Minxin Pei points out that such a data-monitoring system only plays a small and probably insignificant part in the Chinese surveillance organization. "If I

[1137] State Council on Printing and Distributing a New Generation of Artificial Intelligence Development Plan, July 8, 2017, n°35, quoted in *ibid.*, p. 312, footnote 86.
[1138] *Ibid.*, p. 301.
[1139] Guilhem Fabre, *China's digital transformation. Why is artificial intelligence a priority for chinese R&D?*, FMSH-WP-2018-136, June 2018.
[1140] Bi Honghai, *op. cit.*, pp. 303, 307.
[1141] Matthew Keegan, *Big Brother is watching: Chinese city with 2.6m cameras is world's most heavily surveilled*, The Guardian, December 2, 2019.
[1142] *Ibid.,* p. 294: Sesame Credit was authorized as a social credit experiment in 2015 but its license as social credit business was not confirmed in 2017 and it continues to function outside the social credit scheme.
[1143] Nicole Kobie, *The complicated truth about China's social credit system*, Wired, June 7, 2019.
[1144] Martin Chorzempa et al., *op. cit.*
[1145] Bi Honghai*, op. cit.*, p. 318.
[1146] Huw Roberts, Josh Cowls, Jessica Morley, Mariarosaria Taddeo, Vincent Wang, and Luciano Floridi, *The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation*, 2021, AI & Society, pp. 36-59.

had to bet, grid management [i.e., direct surveillance by informers based on a grid system] will probably be more successful than the social credit system because social credit is technologically much more challenging to implement"[1147]. Social credits might only be used to monitor non-political activities, such as traffic behavior, social attitudes, and hygiene. Singapore has decided to equip its buses with AI-driven cameras to prevent traffic offenses[1148]. It might not make AI less problematic. Data collection could become increasingly accepted because it is fueling "useful" expertise. Citizens might accept more easily the automatic identification of dangerous drivers, gender-biased behaviors, or improper littering. These data will be easier to cross-check and potentially used to build consistent profiles of individuals.

There is a epistemological continuity between expertise and authoritarianism, fueled by technology and new generational attitudes. Young people under 35, who are overwhelmingly in favor of delegating power to experts, are also the least resistant to a strong leader who would govern without worrying about Parliament or elections. The sentence "That it be experts and not a government who decide what they think is best for the country" receives 63% of "very good" or "quite good" judgments among those under 35, at the same level as "that it be the citizens and not a government who decide what they think is best for the country[1149]". For the general population, the ratio is at 51%[1150]. And 38% of those under 35 agree "completely" or "somewhat" with the idea that "we should have a strong leader who does not have to worry about elections or Parliament", compared to 23% for the general population[1151].

3.5.2. Pancracy

Another approach toward AI is possible, aligned with the general debate on expertise that we presented in section 1. Because AI will probably continue to err, often or occasionally, it is not only legitimate but also efficient for the ordinary citizen to have

[1147] Rachel Cheung, *Minxin Pei on China's Surveillance State*, The Wire China, March 3, 2024. See also Minxin Pei, *The Sentinel – Surveillance and the Survival of Dictatorship in China*, 2024, Harvard University Press, Cambridge (MA).
[1148] Esther Loi, *LTA looking for ways to detect traffic offences, structural defects using bus cameras*, The Straits Times, October 19, 2024.
[1149] Frédéric Dabi, *La fracture [The fracture]*, with Stewart Chau, 2021, Les Arènes, Paris, p. 101.
[1150] CEVIPOF Trust Barometer, *op. cit.*, wave 15th, February 2024.
[1151] Study from Fondation pour l'innovation politique (Fondapol) and International Republican Institute with 36 395 citizens from 42 countries, 2019.

a say in public affairs. Girard's fallibility argument stands for artificial intelligence. In contrast, it could be used to develop new democratic tools.

Some futuristic alternatives have been contemplated by scholars and researchers: liquid democracy, avatar voting, and open-question votes.

Liquid democracy allows voters to delegate their vote to another voter on a given subject. Liquid Feedback and Democracy.Earth, two platforms based on open-source e-voting software, have developed such a system[1152], which is also used by several pirate parties in Europe (Sweden, Germany, Iceland, Czech Republic)[1153]. It functions like a network of decentralized experts, where the designation of the competent person is no longer carried out vertically (by an authority or by co-option within a group) but horizontally by the voters themselves. The U.K. Pirate Party states that liquid democracy is about "seeing the collaborative, the distributed and the non-hierarchical advantages of the internet in relation to policy[1154]". Variants can be imagined, depending on whether one delegates one's vote generally or on a particular question, whether it is possible to take it back, and whether the proxy (the delegate) can, in turn, pass the delegated vote to a new proxy.

If the practice of liquid democracy within pirate parties has led to some organizational dysfunction (or at least not been able to prevent them), a phenomenon that der Spiegel has named "liquid democrazy"[1155], that modality has already been successfully used by blockchain communities. Some blockchain protocols use "liquid proof of stake"[1156], allowing all participants to delegate their tokens to a more significant validator who will stake the total amount to validate the transaction. Blockchain provides a technical architecture to implement e-voting systems supporting liquid democracy in the real world.

[1152] https://democracy.earth, accessed November 10, 2023.
[1153] Bart Cammaerts, *Pirates on the Liquid Shores of Liberal Democracy: Movement Frames of European Pirate Parties*, 2015, European Institute for Communication and Culture, Vol. 22, n°1, Brussels, pp. 19-36.
[1154] U.K. Pirat Party, 2012, quoted by *Ibid.*
[1155] Der Spiegel, *Liquid Democrazy – Pirat Party Sinks amid Chaos and Bickering*, February 21, 2013.
[1156] https://opentezos.com/tezos-basics/liquid-proof-of-stake/, accessed September 12, 2024. Note that Electis, the non-for-profit organization that I have cofounded, has benefited from a grant from the Tezos Foundation.

In addition, decentralized autonomous organizations (DAOs) present an advanced framework of contract self-execution. A contract coded on the blockchain is named a "smart contract", defined by its inventor Nick Szabo as "a set of promises, specified in digital form, including protocols within which the parties perform on these promises"[1157]. A smart contract allows automating the execution of a transaction when all pre-set conditions, immutably registered on the blockchain, are met and digitally verified. In other words, "it is a computer protocol – a set of rules for the transmission of data between computers; it executes according to *how it is coded*, without any downtime, fraud, control, or interference from a third party"[1158]. The extension of these properties in the real world ("off-chain") takes the form of "hybrid smart contracts" which combine off-chain data (pushed to the blockchain by a trusted third-party or "oracle"[1159]) and on-chain automation[1160]. It will take time to transfer such a mechanism to direct democracy in the real world, but one can already imagine a participatory budgeting referendum which will automatically trigger the payment of the subsidies to the respective beneficiaries in crypto currencies through a smart contract (the authority organizing the election being the "oracle" transferring the result to the blockchain). As we have commented, DAOs can provide a model for rethinking organizations, allowing for the coordination of "autonomous actors in a decentralize way"[1161].

An alternative way to delegate one's vote, more futuristic, was launched by César Hidalgo at a TED conference[1162]. Hidalgo proposes that each citizen train their own

---

[1157] Nick Szabo, *Smart Contracts: Building Blocks for Digital Markets,* 1996, https://www.truevaluemetrics.org/DBpdfs/BlockChain/Nick-Szabo-Smart-Contracts-Building-Blocks-for-Digital-Markets-1996-14591.pdf.

[1158] Yi-Ling Teo, *Coming to Terms with Smart Contracts*, 2021, Singapore Academy of Law, https://journalsonline.academypublishing.org.sg/Journals/SAL-Practitioner/Technology/ctl/eFirstSALPDFJournalView/mid/595/ArticleId/1642/Citation/JournalsOnlinePDF, accessed July 1, 2023.

[1159] Stuart D. Levi and Alex B. Lipto, *An Introduction to Smart Contracts and Their Potential and Inherent Limitation*s, Harvard Law School Forum on Corporate Governance, posted Saturday, May 26, 2018, https://corpgov.law.harvard.edu/2018/05/26/an-introduction-to-smart-contracts-and-their-potential-and-inherent-limitations/, accessed July 1, 2023. As per the authors' definition, "Oracles are trusted third parties that retrieve off-chain information and then push that information to the blockchain at predetermined times".

[1160] Tommaso Frassetto, Patrick Jauernig, David Koisser, David Kretzler, Benjamin Schlosser, Sebastian Faust and Ahmad-Reza Sadeghi, *POSE: Practical Off-chain Smart Contract Execution*, Network and Distributed System Security (NDSS) Symposium 2023, February 27 – March 3, 2023, San Diego (CA).

[1161] Fabrice Lumineau et al.*, op. cit.*

[1162] Cesar Hidalgo, *A Bold Idea to Replace Politicians*, TED Conference, March 5, 2019, https://www.ted.com/talks/cesar_hidalgo_a_bold_idea_to_replace_politicians.

artificial intelligence (their personal "avatar"), based on their opinions, discussions, and positions. The avatar will analyze any referendum question on their behalf and offer a summary of the most convincing arguments and a voting option. Each citizen will have the choice to follow their avatar's recommendation. The development of human digital twins makes such a scenario realistic. One can further develop that idea by involving other digital twins like those of people we trust (a liquid democracy of avatars). It is crucial, of course, that each citizen should be able to select their own AI to train their avatar out of "an open marketplace"[1163].

Lastly, advances in AI suggest the possibility of "open referendums" in which the voter would no longer have to choose between several responses but could contribute with their words. Voting by choosing between a limited and closed list of options is an imperfect way to capture the voter's opinion. As Lippmann wrote:

"[W]hat in fact is an election? We call it an expression of the popular will. But is it? We go into a polling booth and mark a cross on a piece of paper for one of two, or perhaps three or four names. Have we expressed our thoughts . . . ? Presumably we have a number of thoughts on this and that with many buts and ifs and ors. Surely the cross on a piece of paper does not express them. . . . [C]alling a vote the expression of our mind is an empty fiction."[1164]

Text semantic analysis techniques already exist. A research experiment was conducted by the London School of Economics with 422 French voters in 2024 through interviews analyzed by AI, identifying the main areas of concern and showing that voters feel more confident interacting with an AI than with an expert[1165]. The conclusions of the Grand National Debate organized in France by Emmanuel Macron in 2019, which took the form of *Cahiers de doléances* (lists of grievances), were fed by an AI analysis of the contributions received across France. Controversy arose around the concrete use of data, "the greatest corpus of citizen expression that has been analyzed in France and maybe in the world"[1166]. The method used has been criticized as it assumed defining in advance a nomenclature of keywords to identify and the government questioned for

[1163] Johannes Himmelreich, *Should We Automate Democracy?* Draft for the Oxford Handbook of Digital Ethics, Carissa Véliz (ed.), https://johanneshimmelreich.net/papers/automate-democracy.pdf, accessed October 3, 2024.
[1164] Walter Lippmann, *The Phantom Public, op. cit.*, quoted by Balinski and Lariaki, *Approval voting vs. Majority Judgment, op. cit.*
[1165] Friedrich Gelecke and Xavier Jaravel, *op. cit.*
[1166] Gilles Proriol in Lea Jacquet, *Gilets jaunes: que sont devenus les cahiers de doléances [Yellow vests: what have become of the lists of grievance]*, France 3, February 26, 2024.

not publishing all the contributions in an open-source way[1167]. However, that first experiment opens new avenues. Citizens need not be restricted to a close choice between pre-set options but could be asked to provide an open comment that could be later analyzed, using artificial intelligence to identify the most common problems or propositions. Statistics could be inferred from such electoral results while preserving privacy: voters could be dispatched to virtual polling stations according to other personal characteristics than is currently the case based on geographic residency, identifying how certain groups voted in the same manner as current paper voting reveals each county's or region's political preference. Such a perspective has been contemplated by the Swiss Federal Council as early as 2002 in a report that highlighted the "opportunities for better evaluation of votes" that could be triggered by such technology:

"Electronic voting systems can provide the option for voters to answer questions and express opinions at the same time as they cast their vote on the proposal. This creates the possibility for voting results to be interpreted electronically. This would allow voters' attitudes to be taken more into account. Subject to strict anonymization of voting, evaluations of votes would be possible that could provide very precise data. This could lead to an increase in the influence of citizens on political decisions. This potential gain in democracy should not be underestimated."[1168]

The AI algorithms must be open-source and put in competition within an open marketplace, as proposed by Hidalgo. Decentralized artificial intelligence has matured, as some projects are beginning to achieve initial successes. This is mainly the case in the medical field, where the stakes of data protection are strong enough to deter centralizing approaches. A recent study published in *Nature* proposes for the first time decentralized and federated health data models that respect the protection of private data[1169].

[1167] *Ibid.*

[1168] Federal Council of Switzerland, Bericht über den Vote électronique Chancen, Risiken und Machbarkeit elektronischer Ausübung politischer Rechte *[Report on the chances, risks and feasibility of an electronic exercise of political rights]*, January 9, 2002, p. 655, quoted by Jan Gerlach and Urs Gasser, *op. cit.*

[1169] T. V. Nguyen, M. A. Dakka, S. M. Diakiw, M. Perugini, J. M. M. Hall, and D. Perugini, *A novel decentralized federated learning approach to train on globally distributed, poor quality, and protected private medical data*, Nature, May 25, 2022.

Liquid democracy, avatars, and open referendums pave the way for a direct digital democracy. With such tools, citizens could be asked to deliver political priorities, as well as select implementation options – both "downstream" and "upstream". Downstream, most public policies have several possible implementation options, even with a fixed budget. Once the general framework of major budget allocations is set, concrete questions can be decided, whether on a specific measure or between several possible instruments. Upstream, citizens may also choose between several priorities or even rank public policy issues. Rather than voting yes or no or even ranking pre-established themes, technology makes it possible to produce comprehensive texts, which will then be analyzed to identify common convergences, or even comprehensive sets of coherent choices. The think-tank Demos proposes a conceptual and technical framework of "combined choice", in which citizens continuously vote for competing comprehensive sets of policies[1170]. In this model, a new policy is not voted on separately, as in a referendum, but rather as part of a policy set that might replace the status quo once it receives a majority of votes. The election of representatives, whether at the executive or legislative power level, might take on a whole new meaning. It could no longer be a matter of choosing one's candidate based on the priorities they carry, since these priorities can be decided by an open referendum, nor on a program of concrete measures, since these can be the subject of ad-hoc consultations. The rise of direct democracy might inevitably reduce the role of representative democracy. It is already the case today, where countries that practice direct democracy have provisions that effectively reduce the role of representation. For example, term limits in the U.S. are strongly correlated with direct democracy tools, as 61% of the 24 States allowing referendums and initiatives have term limits. In contrast, only one State without direct democracy tools has such a provision in place (Louisiana)[1171]. The question of maintaining any representation can eventually arise.

A final question is who the driving force in that transformation could be. Until recently, the States and institutional powers have been the most evident and frequent drivers of political change, although not necessarily in a continuously and often through power

[1170] Jon Nash, *Combined Choice: A modern method of democratic decision making*, Demos, November 19, 2020, https://demos.co.uk/research/combined-choice-a-modern-method-of-democratic-decision-making/, accessed September 29, 2024.
[1171] Jeffrey R. Lax and Justin H. Phillips, *The Democratic Deficit in the States 2011*, Midwest Political Science Association, p. 160.

transfers[1172]. Analyzing the process of "democratization", Jean Louise Cohen and Andrew Arato found that "entrust[ing] such process to the elites presently ensconced in the relevant pluralistic institutions, including the parties of the political system [...] would be a reason enough for pessimism; the work of democratization cannot ordinarily be entrusted to the beneficiaries of less democratic or even nondemocratic arrangements"[1173]. Within States, non-governmental social forces are more likely to stir such an evolution toward direct democracy, as the Yellow Jacket movement envisioned.

There is no reason to confine our analyses to the national framework. Within the next twenty years, new communities could be in a position to harness technologies and organize their own governance, probably outpacing States. Beyond voting, many if not most internal rules could become automated. Decentralized autonomous organizations (DAOs) present an advanced framework of such an organization, built on a network of relationships governed by smart contracts, with participants sharing a common digital currency that facilitates exchanges (similar to local currencies), and benefiting from an identity validated by the community itself, granting the right to participate in the governance of the whole. Under these conditions, trust is decentralized among individuals who do not have to share the same territory anymore.

In their article on "decentralized society", Vitalik Buterin and Glenn Weyl propose the notion of a "digital soul"[1174]. Everyone would hold one or more souls- wallets that store their attestations of identities, qualifications, or relationships linked to a given community— Buterin and Weyl coin the term "soul-bound tokens" (SBTs). If a person lost the key to their identity, an election would be held within the community to restore it. The potential of such a system is clear. It creates new trust in the exchange of personal information (the fact of holding a diploma, knowing another person, or having been in a certain place at a certain time) in a way that gives each individual ownership of their data and the freedom to disclose it. It also allows for objectifying

[1172] See Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.,* p. 16: "Institutions, once created, tend to maintain themselves and their own logic. They incorporate a set of explicit or implicit rules that, while organizing society, also function to reproduce it as it is".
[1173] Jean L. Cohen and Andrew Arato, *op. cit.*, p. 173.
[1174] Eric Glenn Weyl, Puja Ohlhaver, and Vitalik Buterin, *Decentralized Society: Finding Web3's Soul*, May 10, 2022.

relationships, affiliations, and dependencies between individuals and organizations, thwarting conflicts of interest and invisible coalitions.

[Elément sous droit – Diffusion non autorisée]

Figure 10: Use cases of Soul Bound Tokens (Source: Pintu ©Jex Exmundo[1175])

In *A Political Economy of Justice*, Danielle Allen introduces the concept of "polypolitanism": the fact that "each of us can have affiliations toward multiple political communities and different political roles", and that we can be "members of several polities simultaneously[1176]". Allen gives examples of such affiliations, from national, local, or political communities to transnational corporations or international associations of migrant workers (whose emergence she predicts, on the model of ancient guilds).

Such a perspective confirms the possible future disconnect between citizenship and territory. It relates to the concept of "topolitics", coined by Derrida, which refers to the links between politics and the local scale. Technology "deconstructs" those topolotics through a "third revolution" that encompasses "cyberspaces, computer science, and robotics" and "moves places around: frontier is not frontier anymore, images pass through customs, the link between politics and the local space, topolitics, is dislocated in a certain way[1177]". Writes Derrida:

[1175] https://pintu.co.id/en/academy/post/what-is-soulbound-token, accessed March 3, 2022.
[1176] Danielle Allen, *Polypolitanism*, in Danielle Allen, Yochai Benkler, Leah Downey, Rebecca Henderson, Josh Simons (eds.), *A political economy of Justice*, 2022, University of Chicago Press, Chicago, p. 383.
[1177] Jacques Derrida, *L'université sans condition [University without condition]*, 2001, Galilée, Paris, p. 57, my translation.

"What produces the accelerating development of technologies, of cyberspace, of new topologies of the 'virtual world' is a practical *deconstruction* of the traditional and dominant concepts of State and citizen (and therefore of "the political") in their link with the actual reality of a territory."[1178]

For Allen, the underlying principle of these plural affiliations is that of "difference without domination". Because we will be tomorrow in a "connected society", each of us situated at the confluence of several affiliations, no domination will be exerted within any of them (since they will compete), nor from one of them over the others (since we will have the flexibility to change). Allen's focus on domination is linked to her analysis of the duality of domination/exclusion. Domination, in the Marxist tradition, is "horizontal", while exclusion, in the context of race and racism, is "vertical"[1179]. For Allen, the critical combat against injustice should be the one against domination. If that position has been criticized as "monist" in the same collective book[1180], it is coherent with Allen's view of a more horizontal society. Digital souls could facilitate such a connected society —Buterin and Weyl refer to Danielle Allen's polypolitanism as a horizon for the decentralized society. In a utopian way, pancracy could thus be, not the power of all in a given society, but the power of each in all the communities in which one participates. However, such a process also poses the risk of fragmenting society, which contradicts direct democracy's current legitimacy as a re-unifying tool in a polarized society.

3.5.3. The Role of Processual Utopia

We will now define more precisely the use of the concepts of datatorship and pancracy that we have introduced. The word concept is not appropriate since, as Raulet stated, utopia "is not a concept" but a "principle"[1181].

[1178] Jacques Derrida, *Echographies de la television [Echographies of Television]*, with B. Stiegler, 1996, Galilée, p. 45 (my translation).
[1179] Danielle Allen, *Invisible Citizens: Political Domination and Exclusion in Arendt and Ellison,* in Melissa Williams and Stephen Macedo (eds.), *Political Domination and Exclusion*, 2005, New York University Press, New York, p. 31.
[1180] Veit Bader, *Against Monism: Pluralistic Critical Comments on Danielle Allen and Philipp Pettit*, *ibid.*, p. 164.
[1181] Gérard Raulet, *Chronique de l'espace public. Utopie et culture politique (1978-1993) [Chroniques of the public space. Utopia and political culture (1978-1993)]*, 1994, Paris, L'Harmattan, p. 276, my translation.

Utopia is not to be taken here in the traditional term. Utopias, as illustrated by the seminal utopia written by Thomas More, are static and visual descriptions. As Ruyer wrote, "The utopian seems incapable of rising above the purely optical solutions and understanding the statics and dynamics of social systems. [...] [Utopias] have, as we do, 'good looks' on paper, but, in reality, they would collapse instantly[1182]." And to conclude: "Drawing the design of an institution without taking into account the relative intensity of the axiological forces [...] such is the madness that the makers of utopia never cease to commit."

Following a proposed terminology by Raulet, I will rather consider here "processual utopias[1183]", which are dynamic, temporal, and inscribed in a causal chain: pure processes without a point of arrival. Writes Raulet: "The only fallback position that utopia still has undoubtedly consists of seeing in processual figures to which it is appropriate to no longer ask the question of their truth or falsity – which must be addressed hermeneutically as such without imposing on them the fear of a concept[1184]". Processual utopias aim at constituting a world based on different principles than those at work in the real world, without the possibility of providing in advance a description of the final state (as the very idea that this process will eventually stabilize in a final state is itself subject to indetermination). In that sense, utopias are characterized by their invisibility rather than their visibility, as Foucault paradoxically demonstrated in *The Utopian Body*, where the impossibility of seeing one's body gives it its utopian structure[1185].

Utopia is close to Deleuze's and Guattari's "deterritorialization": "Etymologically [utopia] stands for absolute deterritorialization[1186]". Write Deleuze and Guattari:

[1182] Raymond Ruyer, *L'utopie et les utopies [Utopia and utopias]*, 1988, Nancy, Ed. Gérard Monfort, pp. 83-84, my translation.
[1183] Gérard Raulet, *L'utopie comme texte et structure processuelle [Utopia as a text and as a processual structure]*, Recherches et documents du Centre Thomas More de Sciences humaines des religions, 1978, Paris, L'Arbresle, my translation.
[1184] Gérard Raulet, *L'utopie est-elle un concept ? [Is utopia a concept ?]*, Lignes, 1992/3 n°17, Paris, Hazan, 1993, pp. 102-117, my translation and emphasis mine.
[1185] Michel Foucault, *Le Corps utopique [The utopian body]*, radio conference, France-Culture, December 21, 1966, in Michel Foucault, *Le Corps utopique, suivi de Les Hétérotopies [The utopian body, followed by Heterotopies]*, 2009, Paris, Ed. Nouvelles Lignes.
[1186] Gilles Deleuze and Felix Guattari, *What is Philosophy?*, transl. H. Tomlinson and G. Burchell, 1994 [1991], Columbia University Press, New York, p. 99.

"Utopia is what links philosophy with its own epoch, with European capitalism, but also already with the Greek city. In each case it is with utopia that philosophy becomes political and takes the criticism of its own time."[1187]

To do so, utopia has to become a process rather than an ideal. Deleuze and Guattari elaborate: "Utopia is not a good concept because when opposed to History it is still subject to it and lodged within it as an ideal or motivation[1188]". As they add: "becoming is the concept itself" on which "philosophy reterritorializes[1189]", and it is what processual utopia or "immanent utopia[1190]" captures. Utopia can be neither a starting nor an arrival point; it becomes a process of experimentation. "To think is to experiment, but experimentation is always that which is in the process of coming about the new, remarkable and interesting that replace the appearance of truth and is more demanding than it is, [...] neither beginning nor end but only a milieu[1191]". We can even use the term of "improvisation", referring to a series that would be neither a suite (synthesis of the present) nor a variation (synthesis of the past) but a synthesis of the future[1192]. Contrary to the suite (external rule of totality) and the variation (internal rule of the theme), the improvision will thus be a "divine game" that invents its own rules: "The system of the future, by contrast, must be called a divine game, since there is no pre-existing rule, since the game bears already upon its own rules and since the child-player can only win, all of the chances being affirmed each time and for all times."[1193] Between the suite of the regular elections of representative democracy and the variation of the social movements claiming more participation, direct democracy offers a third series of unpredictable yet self-sustained political events – a "game" where citizens can only win.

Experimentation is also at the center of Nozick's definition of utopia as a "framework" allowing the experimentation of different types of communities. Society's ideal should not be determined positively ex-ante by a "master plan" but negatively and ex-post

[1187] *Ibid.*, p. 99.
[1188] *Ibid.*, p. 110.
[1189] *Ibid.*, p. 97.
[1190] *Ibid.,* p. 96.
[1191] *Ibid.* p. 110.
[1192] Gilles Mentré, *La suite et la variation chez Deleuze [Suite and variation in Deleuze's work]*, Implications philosophiques, June 23, 2021, https://www.implications-philosophiques.org/la-suite-et-la-variation-chez-deleuze/, accessed October 15, 2024.
[1193] Gilles Deleuze, *Difference and Repetition,* transl. P. Patton, 2004 [1968, 1994 for the English edition], Continuum, London, p. 142.

through “filtering devices”. “Utopia is a framework of utopias, a place [...] where no one can impose his own utopian vision upon others. The utopian society is the society of utopianism[1194]”. Nozick explicitly refers to the “utopian process”, which is “substituted for the utopian end state of other static theories of utopias[1195]”.

Ricoeur points in the same direction when he suggests a possible shift from utopia as a “picture” toward utopia as a “fiction”. Ricoeur recognizes the role of utopia in the social imagination: “The utopian mode is to the existence of society what invention is to scientific knowledge[1196]”. However, he also underlines its tendency to “escapism” and the “schizophrenic” risk that is inherent in any traditional utopia: “a tendency to submit reality to dreams, to delineate self-contained schemas of perfection severed from the whole course of the human experience of value. Such pathology can be described as ‘escapism’ and it may develop traits which have often been compared to those of schizophrenia: a logic of all or nothing which ignores the labor of time”[1197]. These risks of utopia are nevertheless mitigated when utopia is understood as a process rather than an ideal, a fiction rather than a picture. With that reformulation, utopia can appear as “the clearing where man is revealed”[1198]. Reversely, as Mannheim wrote in *Ideology and Utopia*: “With the relinquishment of utopias, man would lose his will to shape history and therewith his ability to understand it [...]. The disappearance of utopia brings about a static state of affairs in which man himself becomes no more than a thing.”[1199]

By quoting Deleuze, Foucault, Nozick, and Ricoeur together, in a perhaps provocative manner, we have chosen three philosophers from three very different political horizons. The fact that these three thinkers propose a similar vision of utopia is additional proof that democracy as a process, powered by the duality of discourse and technique, is a way to escape the current polarization of politics.

[1194] Robert, Nozick, *Anarchy, State, and Utopia,* 1974, Basic Books, New York, p. 312. Nozick adds that “some of course may be content where they are. Not everyone will be joining special experimental communities”.
[1195] *Ibid.*, p. 332.
[1196] Paul Ricoeur, *Ideology and Utopia as Cultural Imagination*, Philosophic Exchange, Vol. 7, No. 1, Article 5, p. 24.
[1197] *Ibid.*, p. 27.
[1198] Emmanuel Levinas quoted in *Ibid.*, p. 27.
[1199] Karl Mannheim, *Ideology and Utopia*, 1997 [1936], Routledge, New York, p. 236.

We can apply that scheme to datatorship and pancracy. The two systems that we have presented need a more precise institutional description. They are not utopias or dystopias in the traditional sense of the term as they do not picture alternative regimes but tell us, in a fictional way, how two opposite processes, centralization, and decentralization, can profoundly affect our political systems. According to Ricoeur, utopia has a "subversive function" that makes apparent the "dissimulations" and "distortions" of ideology[1200]. As such, datatorship and pancracy are necessary critics of our current democracies. Representative democracy and the legitimacy and efficiency of a decision made by elected representatives share some of the characteristics of an ideology, in particular its "integrative function". The distortions of representative democracy have been described in the current dissertation: inability of conflict to produce compromise; justification of consensus based on the sole expertise; exclusion of an increasing number of voters from the apparent consensus. Pancracy, with its extreme propositions of an integral direct democracy, and datatorship, with its caricature of centralized expertise, play a subversive role to help us understand the necessary evolution of our representative systems. At the same time, both utopias present the risk of "escapism" that can be reigned in by the integrative function of our current institutions.

These utopias help us understand how direct democracy and its social imaginary can be interpreted as a self-institution. As Castoriadis analyzed, the self-institution of society requires both "hubris" and "auto-limitation". Hubris is the intrinsic character of autonomy, "the ultimate problem of autonomous man: the self-limitation of the individual and of the political community[1201]". The radical autonomy embedded in pancracy allows us to measure the potential of direct democracy as an egalitarian strength. As such, it has a destructive power toward our current institutions and in particular toward representative democracy. Society as instituted is always self-destructed by society as instituting[1202]. Doing so, direct democracy also faces the risk of fragmenting society – a risk it was precisely suppose to prevent by reuniting around project-based consensuses. It therefore requires auto-limitation, which can take the form of institutional arrangements as the ones we proposed.

[1200] *Ibid.,* p. 27.
[1201] Cornelius Castoriadis, *Aeschylean Anthropogony and Sophoclean Self-Creation of Man*, in Anon (ed.), *Figures of the thinkable*, 2005, p. 27.
[1202] Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.*, p. 215.

Conclusion

In the modern era, democracy has always been synonymous with indirect democracy. Since electing representatives was the only practical way to make democracy function in larger States than the medieval cities, it has been systematically adopted and justified in terms of legitimacy and efficiency. Its ability to handle the dialectic of conflict and consensus, as well as the tension between desire and reason that underpin them, to broker compromise and deliver ambitious public policies has guaranteed its long-term success.

Representative democracy faces new challenges. Consensus-based approaches have disenfranchised large parts of the population who do not see any more the benefits of democratic public policies in the context of external competition, constrained fiscal levers, and increasing public good demand. Voters turn away from traditional parties to protest through abstention or support to parties or candidates with no governmental experience. Polarization is fueled by lower political involvement that leaves parties in the hands of their most radical members and interest groups. Conflict has become antagonistic, and compromise is more difficult to deliver. The legitimacy and the efficiency of representative democracy are questioned as declining trust in government evidences.

Direct democracy offers an alternative. It reconnects democracy with its core legitimacy, which is to guarantee the participation of an ever-greater number of citizens in an ever-greater number of decisions. Deliberating and voting more directly and frequently is a universal aspiration, a foundation of trust, and a condition of human fulfillment. This intrinsic legitimacy would give direct democracy a priority even if it were established that experts are statistically more accurate than citizens, as the only reason to grant expertise a priority would be its (impossible) infallibility.

Nevertheless, there are good reasons to believe that pluralistic intelligence can deliver more efficient decisions, particularly in terms of equality. Even when ill-informed, voters are able to identify the right proxies. Experiences of direct democracy in the U.S., from initiatives and referendums at the state level to local votes on school budgets

or urban growth boundaries show no political bias or time inconsistency. Reviews of bills passed by referendum over a long period in Europe or in the Global South reveal a tendency toward pro-equality policies. Research has not identified any correlation between the level of expertise and resistance to fake news or a significant effect of fake news on electoral results.

Moreover, direct democracy can foster new majorities or even consensus on specific questions. Initiatives have revealed a majoritarian preference for pro-abortion policies in the U.S., even in Republican States, which representative democracy has not been able to deliver. The Taiwanese have expressed a majoritarian desire for a status quo on nuclear energy that neither of the two parties supports. Unbunding issues allows to break the polarization vicious cycle by circumventing partisan alignment before it solidifies into issue alignment.

It does not mean that referendums pose no risks. Minority rights should be off-limits, and individual rights should be subject to qualified majoritarianism. Certain areas, such as tax and fiscal issues, need to be excluded. Turnout thresholds must be put in place. Citizen-initiated referendums should always be allowed, to counter the plebiscitary threat. Multichoice, multi-stage, and open referendums could be tested. Citizens' assemblies can help deliberating, prepare voting and provide controling.

Technology can facilitate that transition. Decentralized fact-checking and fact-tracking will improve the quality of information. Online platforms can facilitate deliberation and bridge the gap between the general public and active citizens (including the jurors of citizens' assemblies).

E-voting has greater transformative potential. Estonia has been using it for twenty years without any security concerns, stirring participation in an inclusive way and proving that it works in highly trusted environments. Following that example, e-voting could be more universally used at the local level, where paper voting limits turnout and possibilities of experimenting with new ways of voting. It could also be made available, in sovereign elections, to citizens facing objective difficulties in voting. Switzerland, on the contrary, had to halt its experiments, underlining that current technologies are not ready to support all risks and that no high-stakes national referendum should be organized electronically for now.

However, research gives us valid reasons to believe that those issues, mainly identification, devices, and verifiability, will be solved in the coming years. E-voting could facilitate more frequent voting on an increasing number of subjects, unleashing the potential of direct democracy in terms of scale and experimentation. The underlying force of direct democracy, which is the claim for ever-greater equality, is already put into practice by the adaptability and margin of uncertainty of referendum and initiative tools. E-voting has the potential to accelerate this movement, catalyzing the underlying social imaginary into a new type of (self-)institution.

The current debate around the few and the many might become, in the near future, a debate around centralized vs. decentralized artificial intelligence. Being democratic would become synonymous with being able to resist the centralized plan established on our behalf by an almost infallible machine – with democracy dwelling in this "almost". We can envision two utopias. At one end, "datatorship" would see centralized intelligence decide on our behalf on most subjects, inspired by the current experiments with digital twins and social credit in China. At the other end, "pancracy" would allow us to decide on every issue, thanks to decentralized trust and delegated voting. Those are not futuristic predictions but processual utopias that help us understand the limits of today's ideology of representative democracy and expertise – and prevent us from falling into an ideological democracy.

Despite surveys that prove the universal will for more distributed powers, citizens might decide, eventually, to move toward more centralized regimes which they will deem, rightly or wrongly, better suited for delivering results. The theoretical and empirical data that many scholars have gathered and that I have tried to summarize in this dissertation might not sound convincing to many, and not even to a majority. At the 2023 edition of the Athens Democracy Forum, Serge Schmemann drew attention to the apparent success of Salvador's president Nayib Bukele, who cracked down on crime by making his country the most incarcerated in the world while enjoying high levels of popularity – he was reelected in 2024 by more than 80% of the votes. Many environmental activists also advocate for more urgent top-down action on climate regardless of citizens' preferences.

The attraction of such models might seem irresistible. Arguments about the long-term inefficiency of authoritarian models and democracy's superiority in terms of

innovation, human development, or peace might not be sufficient. After all, we might be political animals until the moment when we are not anymore. As Véronique Munoz-Dardé recalls in the introduction of *Social Justice,* we live in the "unsocial sociability" that Kant identified, which is "the tendency to enter in a society, a tendency nevertheless always linked to a constant resistance to do so that threatens endlessly to scind this society"[1203].

As Mercier and Sperber demonstrated, we are animated by intuition rather than reason. All the reasonings of the world might not be able to convince the majority. Is it enough to lose hope? As I quoted in the introduction, Popper's answer is: "True, we need hope. But we do *not* need more, and we should not be given more. We do not need certainty[1204]." As he further elaborated:

" History as no meaning, but we can give it a meaning. [...] Men are not equal; but we can decide to fight for equality. Human institutions such as the state are not rational, but we can decide to fight to make them more rational. We ourselves and our ordinary language are, on the whole, emotional rather than rational; but we try to become a little bit more rational, and we can train ourselves to use our language not as an instrument for self-expression (as our romantic educationists would say) but of rational communication."[1205]

Beyond legitimacy and efficiency, direct democracy has a final ethical advantage. All the three democratic principles that we presented in the introduction are linked to equality: equal rights, equal dignity, equal access to commonly agreed solidarity. As we mentioned, Véronique Munoz-Dardé demonstrates that this egalitarian approach is best captured by fraternity as a political concept[1206]. She builds it after Rawls, but it could be argued that this concept of fraternity would be hospitable to other conceptions of justice and the common good. Fundamentally, it is linked to another conception of power. A theory of political power would go beyond the scope of the current work, but could constitute a prolongation. The utopia that we have proposed allows us to understand how direct democracy offers an escape from the culture of power and success that our societies have indulged in:

[1203] Immanuel Kant, 1784, *4th proposition*, 482, quoted by Véronique Munoz-Dardé, *op. cit.*, p. 9.
[1204] *Ibid.*, p. 264.
[1205] *Ibid.,* p. 264.
[1206] Véronique Munoz-Dardé*, Fellow Feelings: Fraternity, Equality and the Origin and Stability of Justice, op. cit.*

"The life of the forgotten, of the unknown individual man; his sorrows and his joys, his suffering and death, this is the real content of human experience down the ages. If that could be told by history, then I should certainly not say that it is blasphemy to see the finger of God in it. But such a history does not and cannot exist; and all the history that exists, our history of the Great and Powerful, is at best a shallow comedy; it is the opera buffa played by the powers behind reality (comparable to Homer's opera buffa of the Olympian powers behind the scene of human struggles). It is what one of our worst instincts, the idolatrous worship of power, of success, has led us to believe to be real."[1207]

A few pages later, Popper concludes: "We need an ethic that defies success and reward."[1208] Michael Sandel comes to the same conclusion when he defines "meritocracy" as "a kind of providentialism without God[1209]". Of course, Popper and Sandel would reckon that there will always be individuals and groups in the quest for power that will try to preserve elitism, restraining participation and control, or on the contrary, using direct democracy in a plebiscitarian way to comfort their grasp. There will always be emotions and desires, as rightly described by Hobbes, that will make little case for the axiological and epistemological arguments that we have laid in favor of direct democracy and will not consider the empirical evidence of existing referendum tools and future electronic means.

In an earlier work, Sandel made the case against genetics with arguments that went beyond security and fairness. He argued that genetic technologies are about mastery and dominion that fail to appreciate the gifted nature of powers and achievements[1210]. He concluded: "My concern with enhancement is not as individual vice but as habit of mind and way of being". The same can be said of our choice between the worship of power and success and the value we give to equality. This choice is not only about legitimacy and efficiency but essentially about a habit of mind and a way of being. Direct democracy represents its most advanced form.

[1207] *Ibid.,* p. 258-259.
[1208] Karl Popper, *The Open Society and Its Enemies,* vol. 2, *op. cit.*, p. 264.
[1209] Michael J. Sandel, *The Tyranny of Merit, op. cit.*, p. 41.
[1210] Michael J. Sandel, *The Case Against Perfection: Ethics in the Age of Genetic Engineering,* 2007, Harvard University Press, Cambridge (MA), p. 83.

Bibliography

Books

ALTMAN, David, *Direct Democracy Worldwide*, 2011, Cambridge University Press, Cambridge (MA).

APEL, Karl-Otto, *The Response of Discourse Ethics to the Moral Challenge of the Human Situation as Such and especially Today*, March 1999, in Mercier Lectures, 2001, Peeters, Bruxelles.

ARENDT, Hannah, *The Human Condition*, 1998 [1958], The University of Chicago Press, Chicago.

ARENDT, Hannah, *Between Past and Future*, 2006 [1961], Penguin Books, New York.

ARENDT, Hannah, *The Origins of Totalitarianism*, 1985 [1966], Harvest Books, New York.

ARENDT Hannah, *Lectures on Kant's Political Philosophy*, 2015 [1982], University of Chicago Press, Chicago.

ARROW, Kenneth J., *Social Choices and Individual Values*, 2020 [1951], Yale University Press, New Haven.

BARBER, Benjamin R., *Strong Democracy: Participatory Politics for a New Age*, 1984, Cambridge University Press, Cambridge (U.K.).

BAUMGARTNER, Frederic J., *Behind locked doors, a history of the Papal Elections*, 2003, Palgrave Macmillan, London.

BEITZ, Charles, *Political Equality: An Essay on Democratic Theory*, 1990, Princeton University Press, Princeton.

BENHABIB, Seyla, *Situating the Self: Gender, Community and Postmodernism in Contemporary Ethics*, 1992, Polity Press, Cambridge (U.K.).

BOBBIO, Norberto, *The Future of Democracy*, 1984, University of Minnesota Press, Minneapolis.

BOBBIO, Norberto, *Liberalism, and Democracy*, transl. M. Ryle and K. Soper, 2006 [1985], Verso, New York.

BRENNAN, Jason, *Against Democracy*, 2016, Princeton University Press, Princeton.

BRENNAN, Jason and LANDEMORE, Hélène, *Debating Democracy*, Oxford University Press, Oxford, 2021.

BRODER, David, *Democracy Derailed: Initiative Campaigns and the Power of Money*, 2000, Harcourt, Inc., New York.

BUDGE, Ian, *The New Challenge of Direct Democracy*, 1996, Polity Press, Cambridge (U.K.).

CAGÉ, Julie, *Sauver les médias – Capitalisme, financement participatif et démocratie [To save the media- Capitalism, participatory financing and democracy],* 2015, Seuil, Paris.

CAHUC, Pierre, and ALGAN, Yann Algan, *La société de défiance : comment le modèle français s'autodétruit [The mistrust society: how the French model destroys itself]*, 2008, Ed. Rue d'Ulm, Paris.

CAMPBELL, Angus, CONVERSE, Philip, MILLER, Warren, and STOKES, Donald E., *The American Voter*, 1960, University of Chicago Press, Chicago.

CANOVAN, Margaret, *Hannah Arendt: A Reinterpretation of Her Political Thought*, 1994, Cambridge University Press, Cambridge (UK).

CASTORIADIS, Cornelius, *Crossroads in the Labyrinth*, transl. M. Ryle and K. Soper, 1984 [1978], Harvard University Press, Cambridge (MA).

CASTORIADIS, Cornelius, *The Imaginary Institution of Society*, transl. K. Blamey, 1987 [1975], MIT Press, Cambridge (MA).

CASTORIADIS, Cornelius, *Philosophy, Politics, Autonomy*, 1991, Oxford University Press, Oxford.

CASTORIADIS Cornelius, *Figures of the Thinkable*, transl. H. Arnold, 2007, Stanford University Press, Stanford.

CASTORIADIS, Cornelius, *Séminaires 1983-1984 [Seminaries 1983-1984]*, 2008, Seuil, Paris.

CHAO, Linda, and MYERS, Ramon, *The First Chinese Democracy: Political Life in the Republic of China on Taiwan*, 1997, Johns Hopkins University Press, Baltimore.

CHAPSAL, Jacques*, Droit, institutions et systèmes politiques [Law, institutions and political systems]*, 1988, P.U.F., Paris.

CHOMSKY, Noam, Manufacturing Consent, 2002 [1988], Pantheon, New York.

DAVIS, Angela Y., *Women, Race and Class*, 1981, Random House, New York.

COHEN, Daniel, *Homo numericus*, transl. S. Rendall, 2022, Wyley, New York.

COHEN, Jean Louise, and ARATO, Andrew, *Civil Society and Political Theory*, 1992, MIT Press, Cambridge (MA).

COHEN, Joshua, and ROGER, Joel M., *On Democracy*, 1983, Penguin Books, New York, pp. 156-157.

CONDORCET (de), Nicolas, *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix [Essay on the application of analysis to the robability of majority decisions]*, 1785, Imprimerie nationale, Paris.

DABI, Frédéric, *La fracture [The fracture]*, with CHAU, Stewart, 2021, Les Arènes, Paris.

DAHL, Robert, *Democracy and Its Critics*, 1989, Yale University Press, New York.

DICEY, Albert Venn, *An Introduction to the Law of the Constitution*, 8th Edition, 1915, MacMillan and Cie, London.

DELANNOI, Gil, *Le tirage au sort – Comment l'utiliser ? [Selection by lot – how to use it?]*, 2019, Presses de Sciences Po, Paris.

DELEUZE, Gilles, *Difference and Repetition*, transl. P. Patton, 2004 [1968, 1994 for the English edition], Continuum, London.

DELEUZE, Gilles and GUATTARI, Felix, *What is Philosophy?*, transl. H. Tomlinson and G. Burchell, 1994 [1991], Columbia University Press, New York.

DERRIDA, Jacques, *L'université sans condition [University without condition]*, 2001, Galilée, Paris.

DERRIDA, Jacques, *Echographies de la television [Echographies of Television]*, with B. Stiegler, 1996, Galilée, Paris.

DEWEY, John, *Creative Democracy*, Progressive Education Booklet No. 14, 1939, American Education Press, Columbus.

DEWEY John, *Philosophical Papers*, Second Series n°1, 1888, The University of Michigan, Andrews and Cie, Chicago.

DEWEY, John, *The Public and Its Problems: An Essay in Political Inquiry*, 2012 [1927], Penn State Press, Philadelphia.

DEWEY, John, *The Quest for Certainty*, 1929, Minton, Balch and Co., New York.

DEWEY, John, *Art as an Experience*, 1980 [1934], Perigee Books, New York.

DEWEY, John, *The Later Works* (1925-1953), Vol. 5, ed. J. A. Boydston, 1986 [1934], Southern Illinois University Press, Carbondale and Edwardsville (IL).

DIENEL, Peter, *Der Bürger als Chance [The citizen as a chance]*, 5th edition, 2002, Westdeutscher Verlag, Wiesbaden.

DWORKIN, Ronald, *Taking rights seriously*, 1997 [1977], Bloomsbury, New York.

DWORKIN, Ronald, *Sovereign Virtue – The Theory and Practice of Equality*, 2000, Harvard University Press, Cambridge (MA).

ENGELHARDT, Hugo Tristram, *The Foundations of Bioethics*, 1986, Oxford University Press, New York.

FOISNEAU, Luc, *Hobbes – La vie inquiète [Hobbes – The Anxious Life],* 2016, Gallimard, Paris.

FOLLAIN, Alain, *Le village sous l'Ancien Régime [Village in the pre-Revolution period]*, 2008, Fayard, Paris.

FOUCAULT, Michel, *The Archeology of Knowledge – And The Discourse on Language*, transl. A. M. Sheridan Smith, 2010, Vintage Books, Random House, New York.

FOUCAULT, Michel, *Le Corps utopique, suivi de Les Hétérotopies [The utopian body, followed by Heterotopies]*, 2009, Paris, Ed. Nouvelles Lignes.

FRANK, Thomas, *What's the matter with Kansas? How conservatives won the heart of America*, 2004, Picador, New York.

FRIEDMAN, Lawrence M., *The Horizontal Society*, 2014, Yale University Press, New Haven.

GANDHI, Jennifer, *Political Institutions under Dictatorship*, 2008, Cambridge University Press, Cambridge (U.K.).

GAUCHET Marcel, *Macron, les leçons d'un échec – Comprendre le malheur français II [Macron, lessons from a failure – Understanding the French discontent II],* with E. Conan and F. Azouvi, 2021, Stock, Paris.

GOODHART, Michael, T*he Road to Somewhere – The Populist Revolt and the Future of Politics,* Hurst, 2017.

GOODIN, Robert E., *Innovating Democracy: Democratic Theory and Practice After the Deliberative Turn,* 2008, Oxford University Press, Oxford.

GOODWIN, Barbara, *Justice by Lottery*, 2005, Imprint Academics, New York.

HABERMAS, Jürgen, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy,* William Rehg (transl.), MIT Press, Cambridge (MA).

HABERMAS, Jürgen, *Kultur und Kritic [Culture and Critic],* 1973, Suhrkamp, Francfort-am-Main.

HABERMAS, Jürgen, *Moral Consciousness and Communicative Action*, trans. C. Lenhardt and S. Weber Nicholsen, 1999, MIT Press, Cambridge (MA).

HABERMAS, Jürgen, *A New Structural Tranformation of the Public Sphere and Deliberative Politics*, transl. C. Cronin, 2023, Polity Press, New York, emphasis mine.

HAMILTON, Alexander, *The Papers of Alexander Hamilton*, H.C. Syrett (ed.), vol. 4, Columbia University Press, New York, 1962.

HEGEL, G. W. F., *Natural Law*, trans. T. M. Knox, 1975, University of Pennsylvania Press, Philadelphia.

HONNETH, Axel, *The Struggle for Recognition: The Moral Grammar of Social Conflicts*, transl. J. Anderson with T. McCarthy, 1996, MIT Press, Cambridge (MA).

HOBBES, Thomas, *Leviathan*, 1909 [1651], Oxford University Press, Oxford.

HOBBES, Thomas, *De Cive*, 1651, Royston, London.

JARDIN, André, *Tocqueville: A Biography*, transl. by L. Davis with R. Hemenway, 1988 [1984], The Johns Hopkins University Press, Baltimore.

HUGO, Victor, *Discours à l'Assemblée nationale sur la loi réformant la loi électorale de 1848 [Speech at the National Assembly on the law reforming the electoral law of 1848]*, May 21, 1850, https://www2.assemblee-nationale.fr/decouvrir-l-assemblee/histoire/grands-discours-parlementaires/victor-hugo-21-mai-1850.

HUMBERT, Fabrice, *Les mots pour le dire – De la haine et de l'insulte en démocratie [Words to say it – on hatred and insult in democracy]*, 2021, Gallimard, Paris.

KAHNEMAN, Daniel, SIBONY, O., SUNSTEIN, Cas, *Noise, A Flaw in Human Judgment*, 2021, Little Brown Park, New York.

KLOPPENBERG, James T*., Toward Democracy: The Struggle for Self-Rule in European and American Though*t, 2017, Oxford University Press, Oxford.

LAGASNERIE (de), Geoffroy, *Sortir de notre impuissance politique [Moving away from our Political Impotence]*, 2020, Fayard, Paris.

LAMARTINE (de), Alphonse, *The Past, the Present and the Future of the Republic*, transl. unknown, 1850, Harpers, New York.

LAMBERTH, David C., *William James and the Metaphysics of Experience*, 1999, Cambridge University Press, Cambridge (U.K.).

LAMBERTI, Jean-Claude, *Tocqueville et les deux démocraties [Tocqueville and the two democracies],* 1983, PUF, Paris.

INGLEHART, Ronald, *Culture Shift in Advanced Industrial Society*, 1990, Princeton University Press, Princeton.

JAMES, William. Principles of Psychology, 1918 [1890], H. Holt, New York.

JAMES, William. *Pragmatism: A New Name for Some Old Ways of Thinking,* 1907, Longmans, Green and Co., New York.

JAMES, William, *Essays, Comments, and Reviews*, 1987, Harvard University Press, Cambridge (MA).

JAMES, William, *Humanism and Truth Once More*, 1912, Longman Green and Co, New York.

JEANPIERRE, Laurent, *In Girum – Les leçons politiques des ronds-points [In Girum – The political lessons of roundabouts],* 2019, La Découverte, Paris.

JEFFERSON, Thomas, *The Papers of Thomas Jefferson*, ed. Julian P. Boyd et al., 1950, Princeton University Press, Princeton.

JEFFERSON, Thomas, *The Living Thoughts of Thomas Jefferson*, J. Dewey (ed.), 1957 [1940], Fawcett Publications, New York.

JEFFERSON, Thomas, *Political Writings*, ed. J. Appleby and T. Ball, 1999, Cambridge University Press, Cambridge (MA).

KANT, Immanuel, *Fundamental Principles of the Metaphysic of Morals*, 2017 [1795], transl. T. Abbott, Project Gutenberg.

KANT Immanuel, *Towards Perpetual Peace*, transl. David L. Colclasure, 2006, Yale University Press, New Haven.

LANDEMORE, Hélène. *Democratic Reason - Politics, Collective Intelligence, and the Rule of the Many,* 2012, Princeton University Press, Princeton.

LARMORE, Charles, *What is Political Philosophy?*, 2020, Princeton University Press, Princeton.

LATKOWSKI, Tom, *Democracy Vouchers – How bringing money into politics can drive money out of politics*, 2021, Democracy Policy Network Books, New York.

LAVELLE, Louis, *De l'acte [On Act]*, 1946 [1937], Aubier, Paris.

LENOWITZ, Jeffrey A., *Constitutional Ratification without Reason*, 2022, Oxford University Press, Oxford.

LESSING, Lawrence, *Republic, Lost: How money corrupts Congress – and the way to stop it*, 2012, Twelve, New York.

LEWIS, Daniel, *On the Plurality of Worlds*, 1986, Wiley-Blackwell, New York.

LEWIS, Daniel C., *Direct Democracy and Minority Rights – A Critical Assessment of the Tyranny of Majority in the American States*, 2017, Routledge, New York.

LIPPMANN, Walter, *Public Opinion*, 1922, Harcourt, Brace and Company, New York.

LOCKE, John, *Second Treatise of Civil Government*, 1690, Awnsham Churchill, London.

MANIN, Bernard, *The Principles of Representative Government*, 1997, Cambridge University Press, Cambridge (U.K.).

MANN, Thomas E., and ORSTEIN, Normann J., *It's Even Worse Than It Looks: How the American Constitutional System Collided with the New Politics of Extremism*, 2012, Basic Books, New York.

MANNHEIM, Karl, *Ideology and Utopia*, 1997 [1936], Routledge, New York.

MARQUER, Éric, *Léviathan et la loi des marchands – commerce et civilité dans l'œuvre de Thomas Hobbes [Leviathan and the merchant law – trade and civility in the work of Thomas Hobbes]*, 2012, Classiques Garnier, Paris.

MATSUSAKA, John G., *Let the People Rule*, 2020, Princeton University Press, Princeton.

MATSUSAKA, John G., *For the Many or the Few: The Initiative, Public Policy, and American Democracy*, 2004, University of Chicago Press, Chicago.

MCCORMICK, James P., *Machiavellian Democracy*, Cambridge University Press, 2011.

PEI, Minxin, *The Sentinel – Surveillance and the Survival of Dictatorship in China*, Harvard University Press, 2024.

MENTRÉ, Gilles, *Démocratie – Rendons le vote aux citoyens [Democracy – Let's give the vote back to citizens]*, 2021, Odile Jacob, Paris.

MENTRÉ, Gilles, *Les deux pouvoirs : la démocratie directe au secours de la démocratie représentative [The two powers: direct democracy rescuing representative democracy]*, M. Gauchet (ed.), 2024, Gallimard, Le Débat, Paris.

MERCIER, Hugo, and SPERBER, Dan, *The Enigma of Reason: A New Theory of Human Understanding*, 2017, Harvard University Press, Cambridge (MA).

MERCIER, Hugo, *Not Born Yesterday – The science of Who we trust and What we believe*, 2021, Princeton University Press, Princeton.

MILANOVIC, Branko, *Capitalism, Alone – The Future of the System that Rules the World*, 2019, Harvard University Press, Cambridge (MA).

MILL, John Stuart, *Considerations on Representative Government*, 2001 [1861], Batoche Books, Kitchener (Ontario).

MILLER, Sheldon, and WOLIN, Joshua I., *Democratic Temperament: The Legacy of William James*, 1997, University Press of Kansas, Topeka.

MITCHELL, Melanie*, Artificial Intelligence: A Guide for Thinking Humans*, 2019, MacMillan, New York.

MOUNK, Yasha, *The People vs. Democracy - Why Our Freedom Is in Danger and How to Save It*, 2018, Harvard University Press, Cambridge (MA).

MUNOZ-DARDÉ, Véronique, *La justice sociale –Le libéralisme égalitaire de John Rawls [Social justice – the egalitarian liberalism of John Rawls],* 2000, Armand Colin, Paris.

MUTZ, Diana C., *Hearing the Other Side: Deliberative versus Participatory Democracy*, 2006, Cambridge University Press, Cambridge (U.K.).

NAIR, Anil, and AHLSTROM, David, *Balancing Hamiltonian and Jeffersonian Contradictions Within Organizations*, 2008, Sage Publications, Newbury Park (CA).

PARIENTE-BUTTERLIN, Isabelle, *Philosophie de l'espace connecté : la réalité d'internet [Philosophy of Connected Space],* 2018, Le Bord de l'Eau, Lormont (France).

PARIJS, Philippe van, *Just Democracy- the Rawls-Machiavelli Program*, ECPR Press, 2011, Colchester (U.K.).

PARISER, Eli, *The Filter Bubble: What Internet is Hiding From You*, 2012, Penguin Books, New York.

PATEMAN, Carole, *Participation and Democratic Theory*, 1970, Cambridge University Press, Cambridge (U.K.).

PEIRCE, Charles Sanders. *Collected Papers*, C. Hartshorne and P. Weiss (eds.), 1932, Harvard University Press, Cambridge (MA).

PLATO, *The Republic*, transl. T. Griffith, 2000, Cambridge University Press, Cambridge (U.K.).

PLATO, *Apology of Socrates*, transl. G. Nagy, 2013, Harvard University Press, Cambridge (MA).

PLATO, *Gorgias*, transl. W. Hamilton, ed. C. Emlyn-Jones, 2004, Penguin Classics, London.

POPPER, Karl, *The Open Society and Its Enemies*, 1962, Routledge, London.

PROUDHON, Pierre-Joseph, *1848, La solution du problème social [Solution to the social problem]*, 1848, Pilhes Ed., Paris.

PRZEWORSKI, Adam, *Democracy and the Market: Political and economic reforms in Eastern Europe and Latin America*, 1991, Cambridge University Press, Cambridge (MA).

PUTNAM, Robert, *Bowling Alone: The Collapse and Revival of American Community*, 2020 [2000], Simon and Schuster, New York.

RAULET, Gérard, *Chronique de l'espace public. Utopie et culture politique (1978-1993) [Chroniques of the public space. Utopia and political culture (1978-1993)]*, 1994, L'Harmattan, Paris.

RAWLS, John, *A Theory of Justice*, 1971, Harvard University Press, Cambridge (MA).

RENAN, Ernest, *What is a Nation? And Other Political Writings*, transl. M. F. N. Giglioli, 2018 [1887], Columbia University Press, New York.

RICOEUR, Paul, *Parcours de la reconnaissance [The Course of Recognition]*, 2004, Stock, Paris.

RICOEUR, Paul, *History and Truth*, transl. C. Kelbey, 1965, Northwestern University Press, Boston.

RICOEUR Paul, *From Text to Action: Essays in Hermeneutics II*, 1991, Northwestern University Press, Boston.

ROBERT, Nozick, *Anarchy, State, and Utopia*, 1974, Basic Books, New York.

RORTY, Richard, *Take Care of Freedom and Truth Will Take Care of Itself*, 2006, Stanford University Press, Stanford.

RORTY, Richard, *Philosophy and Social Hope*, 2000, Penguin Books, New York.

ROSANVALLON, Pierre, *Le siècle du populisme [The century of populisme]*, 2020, Seuil, Paris.

ROUSSEAU, Jean-Jacques, *The Social Contract*, transl. H. J. Tozer, 1998, Woodsworth Ed., London.

ROUSSEAU, Jean-Jacques, *Basic Political Writings*, trans. Donald A. Cress, Hackett Publishing Company, 1987, Cambridge.

RUYER, Raymond, *L'utopie et les utopies [Utopia and utopias]*, 1988, Ed. Gérard Monfort, Nancy.

SANDEL, Michael J., *Public Philosophy – Essays on Morality and Politics*, 2005, Harvard University Press, Cambridge (MA).

SANDEL, Michael J., *The Case Against Perfection: Ethics in the Age of Genetic Engineering*, 2007, Harvard University Press, Cambridge (MA).

SANDEL, Michael J., *Justice: What's the Right Thing To Do?*, 2009, Farrar, Strauss and Giroux, New York.

SANDEL, Michael J. *The Tyranny of Merit – What's Become of the Common Good*, 2020, Allen Lane, New York.

SANDERS, Bernie, *Our Revolution*, 2016, Thomas Dunne Books, New York.

SARTORI, Giovanni, *The Theory of Democracy Revisited*, vol. 1, 1987, Chatham House, Chatham (N.J.).

SCHATTSCHNEIDER, Earl Warren, *The Semi-Sovereign People*, 1960, Holt, Rinehart, and Winston, London.

SCHNAPPER, Dominique, *Les désillusions de la démocratie [The disillusions of democracy]*, 2024, Gallimard, Paris.

SCHUMPETER Joseph A., *Capitalism, Socialism, and Democracy*, 2004 [1942], Routledge, London.

SCHWARTZBERG, Melissa*, Counting the Many – The Origins and Limits of Supermajority Rules*, 2013, Cambridge University Press, Cambridge (U.K.).

SILVA, Jennifer, *Coming Up Short: Working-Class Adulthood in an Age of Uncertainty*, 2013, Oxford University Press, Oxford.

SIMONDON, Gilbert*, On the Mode of Existence of Technical Objects*, transl. C. Malaspina and J. Rogove, 2017 [1958], Univocal, Minneapolis.

SKINNER, Quentin*. Machiavelli's Political Morality*, 1998, Cambridge University Press, Cambridge (U.K.).

SOMIN, Ilya, *Democracy and Political Ignorance*, 2013, Stanford University Press, Stanford.

STIEGLER, Barbara, *"Il faut s'adapter" - Sur un nouvel impératif politique [We Need to Adapt - On a New Political Imperative]*, 2019, Gallimard, Paris.

SULLIVAN, James W., *Direct Legislation by the Citizenship Through the Initiative and Referendum*, 1893, Nationalist Pub. Co, New York.

SUROWIECKI, James, *The Wisdom of Crowds: Why the Many are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies, and Nations*, Doubleday, New York, 2004.

SUSTEIN, Cas, *#Republic: Divided Democracy in the Age of Social Media*, 2018, Princeton University Press, Princeton.

TETLOCK, Philipp E., *Expert political judgment: How good is it? How can we know?,* 2005, Princeton University Press, Princeton.

TIERNEY, Stephen, *Constitutional Referendums – The Theory and Practice of Republican Deliberation*, 2012, Oxford University Press, Oxford.

TOCQUEVILLE (de), Alexis, *Democracy in America*, vol. 1, transl. H. Reeve, 2002 [1835], Penn State Electronic Classics Series Publication, Pennsylvania State University, http://seas3.elte.hu/coursematerial/LojkoMiklos/Alexis-de-Tocqueville-Democracy-in-America.pdf.

TOCQUEVILLE (de), Alexis, *Correspondance et Œuvres posthumes [Correspondence and Posthumous Works],* 1866, Ed. Michel Lévy Frères, Paris.

TOCQUEVILLE (de), Alexis, *Selected Letters on Politics and Society*, transl. J. Toupin, R. Boesche, 1985, University of California Press, Berkeley.

TOYE, Richard, *Winston Churchill, a Life in the News*, 2020, Oxford University Press, Oxford.

TURNER, Frederic, *From Counterculture to Cyberculture*, 2006, The University of Chicago Press, Chicago.

VILLA, Diana, *Arendt*, 2021, Routledge, New York.

WEYL, Glen, and POSNER, Eric A., *Radical Markets – Uprooting capitalism and democracy for a just society,* 2018, Princeton University Press, Princeton.

ZUBOFF, Shoshana, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, 2019, Public Affairs, New York.

Collective Books

McMurrin S Tanner Lectures on Human Values, Volume 1, 1980, Cambridge University Press, Cambridge (MA).

ALLEN, Danielle, BENKLER, Yochai, DOWNEY, Leah, HENDERSON, Rebecca, and SIMONS, Josh (eds.), *A Political Economy of Justice*, 2022, University of Chicago Press, Chicago.

BAUBÖCK, R. (ed.), *Debating European Citizenship*, 2018, IMISCOE Research Series, Springer, London.

BHERER, Laurence, DUFOUR Pascale, and MONTAMBEAULT Françoise (eds.), *The Participatory Democracy Turn*, 2018, Routledge, New York.

CANEVARO, Mirko (ed.)*, Ancient Greek History and Contemporary Social Science*, 2018, Edimburgh University Press, Edimburgh.

CHOUILLET, A.-M., and CREPEL, P. (eds.), *Condorcet, homme des Lumières et de la Révolution [Condorcet, a Man of Enlightenment and the French Revolution]*, 2023, ENS éditions, Paris.

ELSTER, Jon and LANDEMORE, Hélène (eds.), *Collective Wisdom: Principles and Mechanisms*, 2012, Cambridge University Press, Cambridge.

FELLER, J. FITZGERALD, B., HISSAM, S.A., LAKHANI, K.R. (eds.), *Perspectives on Free and Open Source Software*, MIT Press, Cambridge, MA

GALLAGHER, Michael, and ULERI, Pier Vincenzo (eds.), *The Referendum Experience in Europe,* 1996, Palgrave Macmillan, London.

GOLDIN, R., and SCHAMBRA, W. (eds.), *How Democratic is the Constitution?*, 1980, American Enterprise Institute for Public Policy Research, Washington.

LINTON, Ralph (ed.), *The Science of Man in the World Crisis*, 1945, Columbia University Press, New York.

PUTNAM, Robert (ed.), *Democracies in Flux*, 2002, Oxford University Press, Oxford.

QVORTRUP, Matthew (ed.), *Referendums Around the World: The Continued Growth of Direct Democracy*, 2014, Basingstoke, Palgrave Macmillan, London.

RAMRAJ, Victor (ed.), *Covid-19 in Asia*, 2021, Oxford University Press, Oxford.

REVEL, M., BLATRIX, C., BLONDIAUX, L., FOURNIAU, J.-M., HERIARD-DUBREUIL, B., LEFEBVRE, Rémi (ed.), *Le débat public : une experience française de démocratie participative [Public debate: a French experience of participative democracy],* 2007, Recherches, La Découverte, Paris.

SHAPIRO, Ian, and HACKER, Casiano (eds.), *Democracy's Value*, 1999, Cambridge University Press, Cambridge (U.K.).

WARREN, Mark E. and PEARSE, Hilary (ed.), *Designing Deliberative Democracy: The British Columbia Citizens' Assembly*, 2008, Cambridge University Press, Cambridge (U.K.).

WILLIAMS, Melissa, and MACEDO, Stephen (eds.), *Political Domination and Exclusion*, 2005, New York University Press, New York.

Scientific Articles

ALLCOTT, Hunt, and GENTZKOW, Matthew, *Social Media, and Fake News in the 2016 Election*, Spring 2017, Journal of Economic Perspectives, Volume 31, No.2, pp. 211-236.

ANDERSON, Elizabeth, *The Epistemology of Democracy*, 2006, Episteme: A Journal of Social Epistemology, Volume 3, Issue 1-2, Edinburgh University Press, Edinburgh, pp. 8-22.

ASSAYAG, Laure, *Penser la confiance avec Paul Ricoeur [Thinking Trust with Paul Ricoeur]*, 2016, Études Ricœuriennes, Vol 7, No 2.

AUSTRIA, Franz Seifert, *Local steps in an international career: a Danish-style consensus conference*, 2006, Public Understanding of Science, Vol. 15, n°1, pp.73-88.

ABIZADEH, Arash, *Representation, bicameralism, political equality, and sortition: Reconstituting the second chamber as a randomly selected assembly*, 2020, Perspectives on Politics, pp. 1–16.

BALDASSARI, Delia, and GELMAN, Andrew, *Partisans without Constraint: Political Polarization and Trends in American Public Opinion*, 2008, AJS Vol. 114, n° 2, The University of Chicago Press, Chicago.

BALINSKI, Michel, and LARAKI, Rida, *Jugement majoritaire versus vote majoritaire [Majoritarian judgment vs. Majoritarian vote]*, 2012, Revue française d'économie, Vol. 4, pp. 11-44;

BALINSKI, Michel, and LARAKI, Rida, *Majority Judgment vs. Approval Voting*, 2018, Center for Research on Economics and Statistics – CREST, Working Documents, n°5.

BANERJEE, Arnab. *Blockchain Technology: Supply Chain Insights from ERP*, 2018, Advances in Computers, Vol. 111, pp. 69–98.

BARRERA, Oscar, GURIEV, Sergei, HENRY Emeric, ZHURAVSKAYA, Ekaterina, *Facts, alternative facts, and fact-checking in times of post-truth politics*, February 2020, Journal of Public Economics, Vol. 182.

BECKER, Sascha, FETZER, Thiemo, and NOVY, Dennis, *Who voted for Brexit? A comprehensive district-level analysis*, 2017, Economic Policy, vol. 32, issue 92, pp. 601-650.

BENALOH, Josh, RIVEST, Ronald, RYAN, Peter Y. A., STARK, Philip, TEAGUE, Vanessa, and VORA, Poorvi, *End-to-End Verifiability, Overseas Vote Foundation's End-to-End*

Verifiable Internet Voting: Specification and Feasibility Assessment Study (E2E VIV Project), February 2, 2014.

BENHABIB, Seyla, *Deliberative Rationality and Models of Democratic Legitimacy*, 1994, Constellations, An International Journal of Critical & Democratic Theory, Vol. 1, n°1.

BESLEY, Timothy, and COATE, Stephen, *Issue Unbundling via Citizens' Initiatives*, 2008, Quarterly Journal of Political Science, Vol. 3, n°4, pp. 379–397.

BEYLEVELD, Deryck, Marcus Düwell, Andreas Spahn, *Why and How Should We Represent Future Generations in Policymaking?,* September 2015, Jurisprudence, Vol. 6, n°3, pp. 549-566.

BLUM, Manuel, FELDMAN, Paul, and MICALI, Silvio, *Non-interactive zero-knowledge proof systems and applications*, 1988, 20th ACM symposium on information theory, Chicago, pp. 103-112.

BOLTON, Marie, and UNGER, Nancy C., *The Case for Cautious Optimism: California Environmental Propositions in the Late Twentieth Century*, Santa Clara University, 2004.

BORGE, Rosa, BALCELLS, Joan, and PADRO-SOLANET, Albert, *Democratic Disruption or Continuity? Analysis of the Decidim Platform in Catalan Municipalities*, May 2022, American Behavioral Scientist, vol. 67, n°7.

BOXELL, Levi, GENTZKOW, Matthew, SHAPIRO, Jesse M., *Cross-Country Trends in Affective Polarization*, August 2021, Review of Economics and Statistics.

BOYLES, Deron R., *Dewey's Epistemology: An Argument for Warranted Assertions, Knowing, and Meaningful Classroom Practice*, 2006, Educational Policy Studies Faculty Publications, n°7.

BRIFFAULT, Richard*, Ballot Propositions and Campaign Finance Reform*, 2012, Journal of Legislation and Public Policy, n°10, New York University, New York.

BUISSERET, Peter, and VAN WEELDEN, Richard, *Pandora's Ballot Box: Electoral Politics of Direct Democracy*, August 12, 2022, American Journal of Political Science.

CAMMAERTS, Bart, *Pirates on the Liquid Shores of Liberal Democracy: Movement Frames of European Pirate Parties*, 2015, European Institute for Communication and Culture, n°22 (1), Brussels, pp. 19-36.

CAROLAN, Eoin, GLENNON, Seána, *The consensus-clarifying role of deliberative mini-publics in constitutional amendment: A reply to Oran Doyle and Rachael Walsh*, January 2024, International Journal of Constitutional Law, Vol. 22, n°1, pp. 191–203.

CASTORIADIS, Cornelius, *The Greek Polis and the Creation of Democracy*, Fall 1983, Graduate Faculty Philosophy Journal 9, no. 2, New School of New York.

CHENEVAL, Francis and EL-WAKIL, Alice, *The Institutional Design of Referendums: Bottom-Up and Binding*, 2018, Swiss Political Science Review, Vol. 24, n°3, pp. 294–304.

CIANCIO, Alberto, and KÄMPFEN, Fabrice, *The heterogeneous effects of internet voting*, September 2023, European Journal of Political Economy, Vol. 79.

COLLINS, Richard, and OESTERLE, Dale*, Governing by Initiative: Structuring the Ballot: Initiative Procedures That Do and Don't Work*, 1995, University of Colorado Law Review n°47, pp. 94-95.

CONSTANTINIDES, Panos, HENFRIDSSON, Ola, PARKER, Geoffrey G. *Introduction—Platforms and Infrastructures in the Digital Age*, 2018, Information Systems Res. Vol. 29, n°2, pp. 381–400.

CONVERSE, Philip E., *The nature of belief systems in mass publics*, 2006 [1964], Critical Review, Vol. 18, n°1-3, Routledge, New York, pp. 1-74.

CORTIER, Véronique, GAUDRY, Pierrick, GLONDU, Stéphane, *Belenios: a simple private and verifiable electronic voting system*, Foundations of Security, Protocols, and Equational Reasoning, 2019, Fredericksburg (VI), United States. pp. 214-238.

COURTEL, Yannick, *La lutte pour la reconnaissance dans la philosophie sociale d'Axel Honneth [Struggle for recognition in the social philosophy of Axel Honneth]*, 2008, Questions d'éthique sociale n°82/1.

CROSBY, Ned, et al., *Citizens Panels: a new approach to citizen participation*, Public Administration Review, vol. 46, #2, March/April 1986.

DAMSBO-SVENDSEN Søren, HANSEN, Kasper M., *When the election rains out and how bad weather excludes marginal voters from turning out*, February 2023, Electoral Studies, Vol. 81.

DAVIS, Emmalon, *On Epistemic Appropriation*, 2018, Ethics, n°128 (4), pp. 702-727.

DECHAINE, Cynthia, *The NIMBYism in Modern Suburbia: The Case of Pomona*, 1998, International Science Review, n°73.1.2.

DENG, Lin. *Research on the Application of Blockchain Technology in Digital Asset Managemen*t, 2024, Learning and Analytics in Intelligent Systems, pp. 199–208.

DIAMOND, Larry, *Facing up the Democratic Recession*, January 2015, Journal of Democracy Volume 26, Number 1, Johns Hopkins University Press, Baltimore.

DING, Qinxu, LIEBAU, Daniel, WANG, Zhiguo, and XU, Weibiao, *A Survey on Decentralized Autonomous Organizations and Their Governance*, March 2023, World Scientific Annual Review of Fintech, Vol. 1, n°2.

DOYLE, Michael W., *Ways of War and Peace: Realism, Liberalism and Socialism*, 1997, W. W. Norton and Cie, New York.

DOYLE, Oran and WALSH, Rachael, *Constitutional Amendment, and Public Will Formation: Deliberative Mini-Publics as a Tool for Consensus Democracy*, 2022, International Journal on International Law, n°20.

DWORKIN, Ronald, *Réponse aux articles [Answer to articles]*, Revue internationale de philosophie, 2005/3 n°233, pp. 435-440.

ELLIS, Richard J., *The Opportunist: James W. Sullivan and the Origins of the Initiative and Referendum in the United States*, 2022, American Political Thought, Volume 11, n°1, The University of Chicago Press Journal, Chicago.

ESAIASSON, Peter, GILLJAM, Mikael, and PERSSON, Mikael, *Which Decision-Making Arrangements Generate the Strongest Legitimacy Beliefs? Evidence from a Randomised Field Experiment*, 2012, European Journal of Political Research, Vol. 51, n°6, pp. 785–808.

FABRE, Adrien, APOUEY, Bénédicte Apouey, FOURNIAU, Jean-Michel, GIRAUDET, Louis-Gaetan, *Who are the citizens of the French convention for the climate?*, 2021, https://halshs.archives-ouvertes.fr/halshs-03265053

FELD, L. P., and KIRCHGÄSSNER, G., *Direct democracy, political culture, and the outcome of economic policy: a report on the Swiss experience*, 2000, European Journal of Political Economy.

FINE, Sarah, *Democracy, citizenship, and the bits in between*, 2011, Critical Review of International Social and Political Philosophy, Vol. 14, n°5, Routledge, London.

FISCHER, K., REEDY, J., PIERCY, C., and THAPALIYA, R., *A Typology of Reasoning in Deliberative Processes: A Study of the 2010 Oregon Citizens' Initiative Review*, 2022, Journal of Deliberative Democracy, Vol.18, n°2.

FOISNEAU, Luc, *Hobbes et la théorie machiavélienne de la "VIRTÙ" [Hobbes and the Machiavellian theory of "VIRTÙ"],* 1987, Archives de Philosophie, Vol. 60, No. 3, Centre Sèvres – Facultés jésuites de Paris.

FOISNEAU, Luc, *Rawls et la justification de la règle de la majorité [Rawls and the justification of the majority rule],* 2014, Raisons politiques n°53, Les presses de Sciences Po, Paris, pp. 63-79.

FOLEY, Edward B., *Equal-Dollars-Per-Voter: A Constitutional Principle of Campaign Finance*, 1994, Columbia Law Review n°1204, New York.

FOUETILLOU, Guilhem, *The Web and the European Constitutional Treaty - Ecology of a Competitive Thematic Locality*, Réseaux 2008/1, n° 147, pp. 229–257.

FOURQUET, Jérôme, and MANTERNACH, Sylvain, *Départementales de mars 2015 (2): le premier tour [Local elections March 2015 (2): the first round]*, August 2015, Fondation pour l'innovation politique, Paris.

FRASER, Nancy, *Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy*, 1990, Social Text, n° 25/26.

FUJIWARA, Thomas, MENG, Kyle, and VOGL, Tom, *Habit Formation in Voting: Evidence from Rainy Elections*, 2016, American Economic Journal in Applied Economics, Vol. 8, n°4, pp.160–188

GALTON, Francis, *Vox Populi*, Nature, n°75, 1949 [1907], pp. 450–451.

GAMBETTA, Diego, *Can we trust trust, in Trust: Making and Breaking Cooperative Relations*, 1988, Basil Blackwell, Oxford, pp. 213–237.

GANDHI, Jennifer, *The Institutional Roots of Democratic Backsliding*, 2018, The Journal of Politics, Vol. 81, n°1.

GANDHI, Jennifer, *Elections and Political Regimes*, July 2015, Government and Opposition Vol. 50, No. 3, Cambridge University Press, Cambridge, pp. 446-468.

GANDHI, Jennifer and ONG, Elvin, *Committed or Conditional Democrats? Opposition Dynamics in Electoral Autocracies*, June 2019, American Journal of Political Science, Vol. 63, n°3.

GEISSER, Vincent, and PÉREZ, Déborah, *De la difficulté à « faire parti » dans la Tunisie post-Ben Ali [On the difficulty to 'take party' in post-Ben Ali Tunisia],* 2016, Confluences Méditerranée, n° 98, pp. 21–44.

GENTZOW, Matthew, and SHAPIRO, Jesse M., *Ideological Segregation Online and Offline*, 2011, The Quarterly Journal of Economics 126, pp. 1799–1839.

GERBER, Elisabeth R. and PHILLIPS, Justin H., *Evaluating the Effects of Direct Democracy on Public Policy: California's Urban Growth Boundaries*, March 2005, American Politics Research, Vol. 33 No. 2.

GERLACH, Jan, and GASSER, Urs, *Three Case Studies from Switzerland: E-Voting, Internet & Democracy Case Study Series*, March 2009, Berkman Center Research Publication, No. 2009-03-1.

GOODIN, Robert E. and DRYZEK, John S., *Deliberative Impacts: The Macro-Political Uptake of Mini-Publics*, 2006, Policy and Society n°34.

GRANT, Wyn, *Direct Democracy in California: Example or Warning?*, 1996, Democratization Vol. 3, n°1., Routledge, New York, pp. 147-148.

GREEN Jeffrey E., *Apathy: the democratic disease*, 2004, Philosophy and Social Criticism, vol. 30 n°5-6, pp. 745-768.

GUERRERO, Alexander, *Against elections: The lottocratic alternative*, 2014, Philosophy & Public Affairs, Vol. 42, n°2, pp.135-178.

HANNON, Michael, *Are knowledgeable voters better voters?,* Politics, Philosophy & Economics, Volume 21, Issue 1, February 2022, pp. 29-54

HEIDER, Fritz, *Attitudes and Cognitive Organization*, 1946, The Journal of Psychology, n°21.

HERRON, Michael C., LEWIS, Jeffrey B. Lewis, *Did Ralph Nader Spoil Al Gore's Presidential Bid? A Ballot-Level Study of Green and Reform Party Voters in the 2000 Presidential Election*, August 2007, Quarterly Journal of Political Science, Vol. 2, n°3.

HONGHAI, Bi, *Old Regulatory Wine in a New Bottle of Technology – A Critical Analysis of China's Social Credit System,* 2021, University of Pennsylvania Asian Law Review, vol. 16, pp. 283-327

HUDSON, Bob, HUNTER, David and PECKHAM, Stephen, *Policy failure and the policy-implementation gap: can policy support programs help?,* 2019, Policy Design and Practice Volume 2, Issue 1.

HUMPHREYS, Stephen, *Against Future Generations*, November 2022, European Journal of International Law, Volume 33, Issue 4, pp. 1061–1092.

HWANG, Jisoo, and MÖLLERSTRÖM, Johanna, *Design of reforms with time-inconsistent voters*, June 2017, Journal of Public Economic Theory, Volume 19, Issue 3, pp. 748-761.

JOSS, Simon, *Danish consensus conferences as a model of participatory technology assessment: An impact study of consensus conferences on Danish Parliament and Danish public debate*, February 1998, Science and Public Policy, Volume 25, Issue 1, pp. 2–22

KAVADA, Anastassia, *Creating the Collective: Social Media, the Occupy Movement and its Constitution as a Collective Actor*, 2015, Information, Communication & Society 18, pp. 872–886.

KOZLOWSKI, Austin C., and MURPHY, James P., *Issue alignment and partisanship in the American public: Revisiting the 'partisans without constraint' thesis*, February 2021, Social Science Research, Volume 94, University of North Carolina, Charlotte.

KRÄMLING, Anna, GEISSEL, Brigitte, PAULUS, Lars, et al., *Direct democracy and equality: A global perspective*, International Political Science Review, Vol. 44, n°4.

KRÄMLING, Anna, GEISSEL, Brigitte, PAULUS, Lars, *More or less equality? Direct democracy in Europe from 1990 to 2015*, December 2019, Zeitschrift für Vergleichende Politikwissenschaft, Vol. 13, n°4, pp. 491-525.

LAGROU, Pieter, *Plebiscite or Parliament? Brexit and the End of the History of the British Political Mode*l, Contemporary European History, Volume 28, Issue 1, February 2019, pp. 10 – 13.

LANDEMORE, Hélène, *Inclusive Constitution-Making: The Icelandic Experiment*, March 2014, Journal of Political Philosophy, Vol. 23, n°2.

LANDEMORE, Hélène, *Referendums Are Never Merely Referendums: On the Need to Make Popular Vote Processes More Deliberative*, 2018, Swiss Political Science Review, Vol. 24, n°3, pp. 320-327.

LANDEMORE, Hélène and FOURNIAU, Jean-Michel, *Citizens' assemblies, a new form of democratic representation?*, 2022, Participations n°34, De Boeck, Paris.

LARDEUX, Laurent, and TIBERJ, Vincent, *Le vote et l'abstention des jeunes au prisme de leurs valeurs et de leur situation sociale [Voting and abstaining for young voters in the light of their values and social situation],* 2022, INJEP analyses & synthèses n° 62, Institut national de la jeunesse et de l'éducation populaire, Paris.

LAX, Jeffrey R. and PHILLIPS, Justin H., *The Democratic Deficit in the States*, 2011, Midwest Political Science Association, pp. 148-166.

LEE, Kuan-Chen and YANG Wan-Ying, Old Taiwanese vs. New Taiwanese: Exploring *the Generational Difference of Taiwanese Identity*, November 2016, The Taiwanese Political Science Review, vol. 20, n°2.

LEVER, Annabelle, *Democracy: Should We Replace Elections with Random Selection?*, 2023, Danish Yearbook of Philosophy, Copenhagen.

LUNDBERG, Eric, *Does the Government Selection Process Promote or Hinder Pluralism?: Exploring the Characteristics of Voluntary Organizations Invited to Public Consultations*, 2013, Journal of Civil Society, Vol. 9, n°1, pp. 58-77.

LUPIA, Arthur, *Shortcuts versus encyclopedias: information and voting behavior in California insurance reform elections*, 1994, American Political Science Review, n° 88, pp. 63–76.

LUPIA, Arthur, and MATSUSAKA, John G., *Direct Democracy: New Approaches to Old Questions*, 2004, Annual Review Political Science, University of Southern California, Los Angeles.

LUTRIN, Carl and SETTLE, Allen K., *The Public and Ecology: The Role of Initiatives in California's Environmental Politics*, 1975, Western Political Quarterly, n°28, pp. 352-371.

LUTZ, Georg, *Low Turnout in Direct Democracy*, September 2007, Electoral Studies, Vol. 26, n°3, pp. 624-632.

LYNÖE, Niels, *Consensus and Consensus Conferences*, Scandinavian Journal of Social Medicine, 1988, Vol. 16, No. 4, pp. 193-195

MANIN, Bernard, *On Legitimacy and Political Deliberation*, transl. E. Stein and J. Mansbridge, 1987, Political Theory, Volume 15, Issue 3.

MANIN, Bernard*, Political Deliberation & the Adversarial Principle*, 2017, Daedalus, Vol. 146, No. 3, The Prospects & Limits of Deliberative Democracy, pp. 39-50.

MARQUER, Eric, *Locke: liaison probable et liaison nécessaire [Locke: probable bond and necessary bond]*, 2014, in Asterion, n°12, *Le principe de la folie et de la raison. Association des idées et liaison des idées aux XVIIe et XVIIIe siècles [The principles of madness and reason. Associating and binding ideas in the 17th and 18th century],* Paris.

MARSCHALL, Melissa J., and RUHIL, Anirudh V. S, *Of Models and Methods: A Response to Matsusaka*, 2005, State Politics & Policy Quarterly, Vol. 5., No. 4, Cambridge University Press, pp. 364-372.

MARSCHALL, Melissa J., and RUHIL, Anirudh V.S., *Fiscal Effects of the Voter Initiative Reconsidered: Addressing Endogeneity*, 2005, State Politics and Policy Quarterly, Vol. 5, No. 4, Cambridge University Press, pp. 327–355.

MASKIN, Eric and TIROLE, Jean, *The Politician and the Judge: Accountability in Government*, September 2004, The American Economic Review, vol. 94, n°4.

MATSUSAKA, John G., *Direct Democracy Works*, 2005, Journal of Economic Perspectives, Vol.19, Issue 2, American Economic Association, New York.

MATSUSAKA, John G., *The Endogeneity of the Initiative: A Comment on Marschall and Ruhil,* 2005, State Politics and Policy Quarterly Vol. 5, No. 4, Cambridge University Press, pp. 356–363

MENDELSOHN, Matthew, and CUTLER, Fred. *The Effect of Referendums on Democratic Citizens: Information, Politicization, Efficacy and Tolerance,* 2000, British Journal of Political Science.

MEYER, Thomas, *The Art of Compromise – The Path Towards the Realization of Ideals in a Working Democracy*, 2009, Friedrich Ebert Stiftung, pp. 19-23.

MICHELOT, Vincent, *Le processus référendaire en Californie : un travestissement démocratique ?*, Pouvoirs 2010/2 (n°133), pp. 57-68.

MILOSAVLJEVIĆ Milos et al., *Bibliometric review of participatory budgeting: Current status and future research agenda*, International Journal Financial Studies, Vol.1, pp. 1–14.

MONACO Nicholas J., *Computational Propaganda in Taiwan: Where Digital Democracy Meets Automated Autocracy*, 2017, The Computational Propaganda Program, Working Paper n° 2017/2, University of Oxford.

MUNOZ-DARDÉ, Véronique, *Fellow Feelings: Fraternity, Equality and the Origin and Stability of Justice*, 2018, Daimon: Revista Internacional de Filosofía, pp. 107-123.

NAAMAN, Mor and ZHAO, Andy, *Insights from a Comparative Study on the Variety, Velocity, Veracity, and Viability of Crowdsourced and Professional Fact-Checking Services*, 2023, Journal of Online Trust and Safety, Vol. 17, No. 1.

NAGLE, Frank, and HOFFMANN, Jenny, *The Hidden Vulnerabilities of Open Source Software*, Working Knowledge, February 24, 2020, Harvard Business School, Cambridge (MA).

NEBLO, Michael A., ESTERLING, Kevin M., and LAZER, David M. J., *Politics with the People: Building a Directly Representative Democracy*, 2019, Cambridge University Press, Massachusetts.

NIMINEN, Sakari, and RAPELI, Lauri, *Fighting Misperceptions and Doubting Journalists' Objectivity: A Review of Fact-checking Literature*, July 2018, Political Studies Review, Vol. 17, n°1.

OLKEN, Benjamin, *Direct democracy and local public goods: evidence from a field experiment in Indonesia*, 2010, American Political Science Association n°104, Cambridge University Press, Cambridge (UK).

ORLANDO, Vittorio, *Post-Truth Politics, Brexit, and European Disintegration, in Europe in the Age of Post-Truth Politics*, 2022, Palgrave Studies in European Political Sociology, pp. 103–127

OUSTINOFF, Michaël. *Les avatars du stéréotype depuis Walter Lippmann [Avatars of stereotype since Walter Lippmann],* 2019, Hermès – La revue, no. 83, pp. 48-53.

PAKULSKI, Jan, *Trust and Legitimacy*, 1992, Policy Organisation and Society, Special Trust Issue, Routledge, New York.

PARKINSON, John, *Legitimacy Problems in Deliberative Democracy*, 2003, Review of Political Studies n°50, pp. 180-190.

PELMAN OSTROW, Ashira, *One Person, One Weighted Vote*, November 2016, Florida Law Review, Vol. 68, n° 6.

PERKINS, Krystal and WILEY, Shaun, *Minorities*, Encyclopedia of Critical Psychology, 2014, Springer, New York, pp. 1192–1195.

PERVO, Ioanna, *The Greek referendum of July 5, 2015: on legitimacy and state credibility,* January 2023, International Journal of Human Rights and Constitutional Studies, Vol. 10, n°1.

PENADES, Alberto, and VELASCO, Sergio, *The Effect of Referendums on Autocratic Survival: Running Alone and Not Finishing Second*, April 2024, Government and Opposition, Vol. 59, n° 2, pp. 405 – 424.

PETITPAS, Adrien, JAQUET, Julien M., and SCIARINI, Pascal, *Does E-Voting matter for turnout, and to whom?*, Electoral Studies, Volume 71, June 2021, 102245.

PINON, Stéphane, *La participation populaire directe au pouvoir constituant – Regards sur le droit étranger [Direct popular participation in the constitution-making power – a foreign law perspective]*, 2017, Revue interdisciplinaire d'études juridiques, Vol. 78, pp. 3-35.

PREMAT, Christophe, *Valeurs et normes sociales dans le projet d'émancipation de Cornelius Castoriadis [Valus and social norms in the emancipatory project of Cornelius Castoriadis]*, 2019, Labyrinth, an international Journal for philosophy, pp.49-78.

PRIKE, Toby et al., *Would I lie to you? Party affiliation is more important than Brexit in processing political misinformation*, Royal Society Open Science, February 2023, Volume 10, Issue 2.

PRZEWORSKI, Adam, *Consensus, Conflict, and Compromise in Western Thought on Representative Government*, 2010, Selected Papers of Beijing Forum 2006, Procedia Social and Behavioral Sciences Vol. 2, pp. 7042–7055.

PUTNAM, Robert, *Diplomacy and Domestic Politics: the Logic of Two-Level Games*, 1988, International Organization 42(3), pp. 427–460.

QVORTRUP, Matthew, and TRUEBLOOD, Leah, *The case for supermajority requirements in referendums,* 2023, I•CON, Vol. 21 No. 1, pp. 187–204.

QVORTRUP, Matthew, *A. V. Dicey: The Referendum as the People's Veto*, 2022, History of Political Thought, Vol. 20, n°3.

RAULET, Gérard, *L'utopie comme texte et structure processuelle [Utopia as a text and as a processual structure]*, 1978, Recherches et documents du Centre Thomas More de Sciences humaines des religions, L'Arbresle, Paris.

RAWLS, John, *The Idea of an Overlapping Consensus*, 1987, Oxford Journal of Legal Studies, Vol. 7, n°1.

RAWLS, John, *Justice as Fairness: Political Not Metaphysical*, 1985, Philosophy and Public Affairs, Vol. 14, n° 3.

LE BIHAN, Patrick Le Bihan, *Popular Referendum and Electoral Accountability*, 2018, Political Science Research and Methods, Vol. 6, n°4, pp.715 - 731.

RICHARDS, Lindsay et al., *Red lines and compromises: Mapping underlying complexities of Brexit preferences*, The Political Quarterly, 2018, Vol. 89, n°2, pp. 280-290.

RICOEUR, Paul, *Morale, éthique et politique [Morality, ethics and politics]*, 1993, Pouvoirs, n° 65.

RICOEUR Paul, *Ideology and Utopia as Cultural Imagination*, Philosophic Exchange, Vol. 7, No. 1, Article 5.

ROBERTS, Huw, et al., *The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation*, 2021, AI & Society, pp. 36-59.

RODRIK, Dani, *Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism*, 2021, Annual Review of Economics, Harvard University Press, Cambridge (MA).

ROSS, Cameron, *State against Civil Society: Contentious Politics and the Non-Systemic Opposition in Russia*, March 2015, Europe-Asia Studies, Vol. 67, No. 2, pp. 171-176.

SANDEL, Michael J., *Distinguished Lecture – Justice: What's the Right Thing To Do*, 2011, Boston University Law Review, Vol. 91, pp. 1303-1310.

SCHRYEN, Guido, *Is open source security a myth?,* 2011, Communications of the ACM, Vol. 54, n°5, pp. 130 – 140.

SCHWARTZ, Antoine, *Bonne Europe et mauvaise France. Les éditorialistes français interprètent la victoire du « non » au traité constitutionnel européen [Good Europe and Bad France – French Columnists Interpret the Victory of the « No » to the Treaty on the European Constitution]*, 2008, Politique et Sociétés, Vol. 27, n°2, pp. 137–159.

SCHWEIGHOFER, Simon, and GARCIA, Daniel, *Raising the Spectrum of Polarization: Generating Issue Alignment with a Weighted Balance Opinion Dynamics*, 2023, Journal of Artificial Societies and Social Simulation, n° 27 (1) 15.

SEN, Amartya, *Development: Which Way Now?*, 1983, The Economic Journal, Vol. 93, n°372, Royal Economic Society, London.

SEN, Amartya K., *Welfare, Freedom and Social Choice: A Reply*, 1990, Recherches économiques de Louvain, n°56.

SEN, Amartya K., *Democracy as a Universal Value*, 1999, Journal of Democracy, Vol. 10, n°3, pp. 3-17.

SERDÜLT, Uwe et al., *Fifteen years of internet voting in Switzerland [History, Governance and Use]*, 2015, Second International Conference on eDemocracy & eGovernment (ICEDEG), IEEE.

SERDÜLT, Uwe, and GERMANN, Micha, *Internet voting and turnout: Evidence from Switzerland*, June 2017, Electoral Studies, Volume 47, pp. 1-12.

SERDÜLT, Uwe and WELP, Yanina, *Direct Democracy Upside Down*, 2012, Taiwan Journal of Democracy, Volume 8, No. 1, pp. 69-92.

SETÄLÄ, Maija et al., *Deliberative Mini-publics Facilitating Voter Knowledge and Judment: Experience from a Finnish Local Referendum*, 2023, Journal of Representative Democracy, Vol. 59.

SHEEHAN, Colleen A., *Madison vs. Hamilton: The Battle over Republicanism and the Role of Public Opinion,* 2004, American Political Science Review Vol. 98, n°3.

SHYU, Chian-woei, *Referendum as a policy instrument to enhance energy democracy in formulating energy transition path, agenda, and policies: A case study of Taiwan's referendums in 2018 and 2021*, 2024, Energy Policy, vol. 184.

SIMONDON, Gilbert, *On Techno-Aesthetics*, transl. A. De Boever, 2012, Parrhesia, n°14.

SOLOP, Frederic, *Digital Democracy Comes of Age: Internet Voting and the 2000 Arizona Democratic Primary Election*, 2001, Political Science & Politics, Vol. 34, n° 2, pp. 289 – 293.

SPECTER, Michael A., and HALDERMAN, J. Alex, *Security Analysis of the Democracy Live Online Voting System*, June 7, 2021, Usenix Security Symposium, M.I.T., Cambridge (MA).

SPELDA, Petr, STRITECKY, Vit, and SYMONS, John*, No-Regret Learning Supports Voters' Competence*, 2023, Routledge, New York.

STANOVICH, E., and WEST, Richard F, *Individual Differences in Reasoning: Implications for the Rationality Debate?*, 2000, Behavioral and Brain Sciences, n°23, Cambridge University Press, Cambridge (UK), pp. 646–647.

STOLLE, Dietlind, and HOOGHE, Marc, *Inaccurate, Exceptional, One-Sided or Irrelevant? The Debate about the Alleged Decline of Social Capital and Civic Engagement in Western Societies,* 2004, British Journal of Political Science n°35, pp. 149–167.

SUH, Chan S., VASI, Ion Bogdan, and CHANG, Paul Y, *How Social Media Matter: Repression and the Diffusion of the Occupy Wall Street Movement*, 2017, Social Science Research, n°65, pp. 282–293.

SVENDA, Petr, et al., *TPMScan: A wide-scale study of security-relevant properties of TPM 2.0 chips*, 2024, International Association for Cryptographic Research, n°2.

TIBBETTS, Paul, and JOHNSON, Patricia, *The Discourse and Praxis Models in Recent Reconstructions of Scientific Knowledge Generation*, November 1985, Social Studies of Science, Vol. 15, No. 4.

TIBERJ, Vincent, *Decentered Voting - Generational Renewal and Voting Culture in France*, transl. T. Corkett, 2018, Revue française de science politique, Vol. 68, n°5, pp. 821–845, §31.

TILSON, D., LYTTINEN, K., SØRENSEN, C. Digital Infrastructures: The Missing IS Research Agenda, 2010, Informatic Systems Res. Vol. 21, n°4, pp. 748–759.

TRECHSE, Alexander, *Inclusiveness of Old and New Forms of Citizens' Electoral Participation*, July 2007; Representation, Vol. 43, n°2, pp. 111-121.

VAN BAVEL, Jay et al., *The partisan brain: An Identity-Based Model of Political Belief*, 2018, Trends in Cognitive Sciences, vol. 22, n°3, pp. 213-224

VELASCO-MEDINA, J. Arteaga, *Eye tracking-based behavioral study of users using e-voting systems*, 2018, Computer Standard Interfaces, Vol. 55, n°C, pp. 182–195.

VERNIER, Jean-Marie, *Gilets Jaunes : La Carte (Les Réseaux Sociaux) Précède le Territoire (Les Ronds-Ponts) [Yellow Vests: maps (i.e., social media) come before territories (i.e., roundabouts)],* 2019, Quaderni, n°99-100, pp. 151-158.

VRIES, Michiel S. et al. (eds.), *International trends in participatory budgeting: Between trivial pursuits and best practices*, 2021, Palgrave Macmillan, London.

WAGENAAR, Charlotte C. L., and HENDRIKS Frank, *Setting the voting agenda for multi-option referendums: process variations and civic empowerment*, 2021, Democratization, Volume 28, n°2, pp. 372-393

WAGENAAR, Charlotte C.L., *Beyond for or against? Multi-option alternatives to a corrective referendum*, December 2019, Electoral Studies, Vol. 62.

WALLACH, Dan S., *Department of Computer Science Rice Scholar, Baker Institute for Public Policy Rice University, Testimony Before the Texas Senate Select Committee on Election Security,* February 21, 2018, Texas.

WALTER, Stefanie, et al., *Noncooperation by Popular Vote*, 2018, International Organization, Vol. 72, No. 4, pp. 969-994.

WANG, Hao, et al., *Digital twin-supported smart city: Status, challenges and future research directions*, 2023, Expert Systems with Applications, Vol. 217, n°1.

WANG, Xiaowan, et al., *Blockchain-based fake news traceability and verification mechanism*, 2023, Helyon, Volume 9, Issue 7, Cell Press, Cambridge (MA).

WASIKE, Ben, *You've been fact-checked! Examining the effectiveness of social media fact-checking against the spread of misinformation*, 2023, Telematics and Informatics Reports, Vol. 11.

WITTEN, Brian, and LANDWEHR, Carl, *Does open source improve system security?*, 2001, IEEE Software, Vol. 18, N° 5, pp. 57-61.

WOLIN, Sheldon, and MILLER, Joshua I. *Democratic Temperament: The Legacy of William James*, University Press of Kansas, Topeka, 1997.

WOOLGAR, Steve, *On the Alleged Distinction Between Discourse and Praxis*, 1986, Social Studies of Science, Vol. 16, n° 2.

Institutional Reports

Council of Europe, Venise Commission, General Framework of Electronic Voting and Implementation thereof at National Elections in Estonia, Document: IVXV-ÜK-0.9, May 23, 2016.

European Commission, EHIN, Piret, MADISE, Ülle, SOLVAK, Mihkel, TAAGEPERA, Rein, VASSIL, Kristjan Vassil, VINKEL, Priit, *Independent candidates in national and European elections*, January 2013.

European Commission, *Digital Economy and Society Index – Estonia country report 2021*, https://digital-strategy.ec.europa.eu, accessed October 10, 2022.

European Commission, HARRISON, Sarah, VIVES, Elisabet, GENTILE, Giulia, and BRUTER, Michael, *Study on E-Voting practices in the EU*, n°JUST/2021/OP/0002, 2023

France, Cour des Comptes, *L'organisation des élections pour les Français établis hors de France [The organization of the elections for overseas French citizens]*, 2016, Référé n° S2016-3241, https://www.ccomptes.fr/sites/default/files/EzPublish/20170110-refere-S2016-3241-organisation-elections-hors-france.pdf, accessed May 15, 2023.

France, Assemblée des Français de l'étranger, answer to the written question from Nadine Fouques-Weiss on the cost of e-voting, counselor for Germany, Switzerland, Slovenia, Slovakia, and Austria, April 28, 2023, https://www.assemblee-afe.fr/cout-du-vote-internet.html, accessed March 5, 2024.

France, Assemblée Nationale, BRETON, Xavier (pres.), and TRAVERT, Stéphane (rapp.), *Rapport de la mission d'information visant à identifier les ressorts de l'abstention et les mesures permettant de renforcer la participation électorale [Report of the information mission on how to identify the causes of abstention and the measures to strengthen electoral turnout]*, December 8, 2021, Rapport n°4790.

France, Sénat, ANZIANI, Alain, and LEFÈVRE, Antoine, *Vote électronique : préserver la confiance des électeurs [Electronic Voting: Preserve Voter Trust*], Information report, Law Commission, 2014.

France, Sénat, MARSEILLE, Hervé (rapp.), *Rapport d'information fait au nom de la commission des finances sur le coût de l'organisation des élections [Report to the Finance Commission on the cost of organizing elections],* n°123, October 28, 2015.

Mexico, Camara de Diputados, LX Legislatura, MONTEJANO, Claudia Gamboa, and SAN VINCENTE, Maria de la Luz Gracia, *Democracia Directa: Referéndum, Plebiscito e Iniciative Popular [Direct democracy: referendum, plebiscite and popular initative]*, November 2007.

New Zeland, Special Representative to the Prime Minister for Cybersecurity and Digital, ASH, Paul, Minutes of the Paris Peace Forum, November 12, 2022.

OECD, *Estonia Parliamentary Elections, Election Expert Team Final Report,* August 30, 2023, Warsaw, https://www.osce.org/files/f/documents/f/f/551179_0.pdf, accessed September 3, 2024.

OECD and European Union, PARRADO, Salvador, *Assigning Competences and Functions to Local Self-Government in Four EU Member States: A Comparative Review*, 2005, Support for improvement in government and management, Sigma.

Taiwan, Ministry of Digital Affairs, *Alignment Assemblies*, https://ipfs.moda.gov.tw/en/major-policies/alignment-assemblies/1453.html, accessed September 29, 2024.

United Kingdom, House of Commons, CURTICE, John, *The Referendum on Separation for Scotland, Written evidence submitted to the U.K. Parliament*, March 2012, https://publications.parliament.uk/pa/cm201012/cmselect/cmscotaf/writev/referendum/rs17.htm, accessed November 10, 2023.

United States of America, Association of Local Authorities, *Case study: Porto Alegre, Brazil*, December 12, 2016, https://www.local.gov.uk/case-studies/case-study-porto-alegre-brazil, accessed July 10, 2022.

United States of America, ACM US Technology Policy Committee, GREENHALGH Susan, Susannah Goodman, Paul Rosenzweig and Jeremy Epstein, *Email and Internet Voting: The Overlooked Threat to Election Security*, 2018.

World Bank, KOSE, Ayhan Kose, OHNSORGE, Franziska, and SUGAWAR, Naotaka, *Benefits and Costs of Debt: The Dose Makes the Poison*, Policy Research Working Paper n°9166.

Conference Papers

Participation: From Ontology to Social, 38th Congress of the Association of French-Language Philosophical Societies (ASPLF), Paris, June 25-26, 2021.

CARBAK, Richard, CHAUM, David, ZAGORSKI, Filip et al., *Remotegrity: Design and Use of an End-to-end Verifiable Remote Voting System*, 11th conference on applied cryptography, Banff, Canada, July 2013.

DROUVOT, Laurent, Les conventions citoyennes à l'aune de la démocratie du XXIème siècle en France : vraie novation ou « ersatz » de démocratie ? [Citizens' assemblies in the light of 21st century democracy in France: true innovation or democratic ersatz?], June 2023, 11st French congress of constitutional law (CFDC), https://cfdc2023.univ-tln.fr/wp-content/uploads/Atelier-6-DROUVOT-Laurent.pdf, accessed April 15, 2023.

FRASSETTO, Tommaso, JAUERNIG, Patrick, KOISSER, David, KRETZLER, David, SCHLOSSER, Benjamin, FAUST, Sebastian, and SADEGHI, Ahmad-Reza, POSE: Practical Off-chain Smart Contract Execution, Network and Distributed System Security (NDSS) Symposium 2023, 27 February - 3 March 2023, San Diego, CA.

GANDHI, Jennifer, *Coordination among Opposition Parties in Authoritarian Elections, in Dictatorships: Their Governance and Social Consequences*, conference at Princeton University, April 25-26, 2008, p. 9, https://www.princeton.edu/~piirs/Dictatorships042508/Gandhi.pdf, accessed March 12, 2023.

GENTRY, Craig, *Fully Homomorphic Encryption Using Ideal Lattices*, in Proceedings of the 41st Annual ACM Symposium on Theory of Computing (STOC'09), 2009, ACM Press, New York, pp. 169-178.

ILKOU, Eleni and KOUTRAKI, Maria, *Symbolic vs. Sub-symbolic Methods of AI: Friends or Enemies?*, November 2020, Conference: CSSA'2000, https://www.researchgate.net/publication/345243725_Symbolic_Vs_Subsymbolic_AI_Methods_Friends_or_Enemies.

KRIMMER, Robert, DUENAS-CID, David, KRIVONOSOVA, Iuliia, VINKEL, Priit, and KOITMAE, Arne, *How much does an e-vote cost? Cost Comparison per Vote in Multichannel Elections in Estonia*, E-Vote-ID conference 2018, Springer, pp.117-131.

LANDEMORE, Hélène, *Rousseau's Mistake: Representation and the Myth of Direct Democracy*, presented at Berkeley University, April 15, 2016.

LEVI, Stuart D., and LIPTO, Alex B., *An Introduction to Smart Contracts and Their Potential and Inherent Limitations*, Harvard Law School Forum on Corporate Governance, posted Saturday, May 26, 2018, https://corpgov.law.harvard.edu/2018/05/26/an-introduction-to-smart-contracts-and-their-potential-and-inherent-limitations/, accessed June 23, 2024.

LIPNER, Steve, *Security and source code access: Issues and realities*, February 2000, Proceedings of the Conference on Security and Privacy, IEEE.

MARIEN, Sofie, and KERN, Anna, *The Winner Takes it All: The Effect of Direct Democracy on Democratic Satisfaction and Political Trust Revisited*, paper prepared for the 'Political Trust in Contemporary Representative Democracies' 24-25 November 2016, Barcelona, https://www.oidp.net/docs/repo/doc35.pdf.

MARKY, K., ZIMMERMANN, V., FUNK, M., DAUDERT, J., BLECK, K., and MÜLHAÜSER, M., *Improving the usability and UX of the Swiss Internet voting interface*, 2020, Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems, pp. 1–13. CHI '20, Association for Computing Machinery, New York, NY, USA.

MCDANIEL, Jason A., *Electoral Rules and Voter Turnout in Mayoral Elections: An Analysis of Ranked-Choice Voting*, 2019, the Election Systems, Reform, and Administration Conference in Philadelphia, Pennsylvania (July 11–12, 2019).

HUANG, Hsin-Ying, KOVACS, Mate, KRYSSANOV, Victor, and SERDÜLT, Uwe, *Towards a Model of Online Petition Signing Dynamics on the Join Platform in Taiwan*, Eighth International Conference on eDemocracy eGovernment (ICEDEG), Quito, Ecuador, 28-30 July 2021, IEEE, pp. 199-204.

KULYK, Oksana, et al., *Comparing 'challenge-based' and 'code-based' internet voting verification implementations*, 2019, 17th IFIP TC 13 International Conference INTERACT, Cham Publisher, Springer.

KULYK, Oksana, et al. P. T. *Individual Verifiability with Return Codes: Manipulation Detection Efficacy*, 2022, Proceedings of the 7th International Joint Conference on Electronic Voting, E-Vote-ID 2022, R. Krimmer (ed.), Bregenz, Austria, October 4–7, 2022.

Online documents

Online books

FUSTEL de COULANGES, Numa-Denys, *Letter to Momsen*, October 27, 1870, https://agora.qc.ca/ documents/Theodor_Mommsen--Reponse_de_Fustel_de_Coulanges_a_Mommsen_sur_la_question_alsacienne_ par_Numa-Denys_Fustel_de_ Coulanges, accessed May 12, 2024.

JAMES, William. *A Pluralistic Universe*, Blackmask Online, 2004 [1909], https://jennymackness.wordpress.com/wp-content/uploads/2016/08/james-william-a-pluralistic-universe.pdf, accessed June 10, 2024.

JEFFERSON, Thomas, *Autobiography*, https://avalon.law.yale.edu/19th_century/jeffauto.asp, accessed March 20, 2021.

KING, Martin Luther Jr., *Letter from Birmingham Jail*, April 16, 1963, https://www.africa.upenn.edu/, accessed June 10, 2022.

Online scientific articles

CORTIER, Véronique, FILIPIAK, Alicia, and LALLEMAND, Joseph, *BeleniosVS: Secrecy and Verifiability against a Corrupted Voting Device*, 2019, Institut de Recherche en Informatique et Systèmes Aléatoires (IRISA), Paris, https://people.irisa.fr/Joseph.Lallemand/files/papers/csf19.pdf, accessed September 10, 2022.

HONNETH, Axel, *Three, Not Two, Concepts of Liberty*, July 17, 2015, Dewey Lecture, University of Chicago Law School, https://www.youtube.com/watch?v=wslFRjaGyRQ, accessed May 12, 2024.

LUMINEAU, Fabrice, WANG, Wenqian, SCHILKE, Oliver, *Blockchain Governance—A New Way of Organizing Collaborations?,* October 9, 2020. https://doi.org/10.1287/orsc.2020.1379, accessed June 5, 2021.

MARKETOU, Afroditi, *Is the Greek referendum unconstitutional?*, 2015, ffhal-04358373, https://hal.science/hal-04358373/document, accessed July 10, 2024.

MENTRÉ, Gilles, *La suite et la variation chez Deleuze [Suite and variation in Deleuze's work]*, Implications philosophiques, June 23, 2021, https://www.implications-philosophiques.org/la-suite-et-la-variation-chez-deleuze/, accessed October 15, 2024.

RODRIK, Dani, *Populism and the economics of globalization*, 2018, Journal of International Business Policy, https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/populism_and_the_economics_of_globalization.pdf, accessed June 10, 2024.

ROSANVALLON, Pierre, *Guizot et la question du suffrage universel au XIXe siècle [Guizot and the topic of universal suffrage in the 19th century]*, Actes du Colloque François Guizot, Association François Guizot, 1987. https://www.guizot.com/wp-content/uploads/1970/04/col87-Rosanvallon-2.pdf, accessed July 27, 2024.

SMITH, Daniel A., and HERRON, Michael C., *Postal delivery disruptions and the fragility of voting by mail: Lessons from Maine*, January 18, 2021, https://doi.org/10.1177/2053168020981434, accessed April 10, 2021.

WEBSTER, Graham, et al., *Full Translation: China's 'New Generation Artificial Intelligence Development Plan,* 2017, Digichina, Stanford University, https://digichina.stanford.edu/work/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/, accessed March 16, 2023.

WIKE, Richard, SIMMONS, Katie, STOKES, Bruce and FETTEROLF, Janell, *Globally, Broad Support for Representative and Direct Democracy - But many also endorse nondemocratic alternatives, Pew Research Center*, October 16, 2017, https://www.pewresearch.org/global/wp-content/uploads/sites/2/2017/10/Pew-Research-Center_Democracy-Report_2017.10.16.pdf, accessed September 12, 2021.

Other online documents

Associazione Rousseau, *Manifesto Controvento [Manifesto against the Wind]*, March 17, 2021, https://associazionerousseau.s3-eu-

west1.amazonaws.com/Manifesto/Manifesto+ControVento.+Principi+e+valori+del+modello+Rousseau.pdf, accessed July 20, 2021.

BUTERIN, Vitalik, *Blockchain voting is overrated among uninformed people but underrated among informed people*, May 25, 2021, https://vitalik.eth.limo/general/2021/05/25/voting2.html, accessed June 10, 2023.

CÉBILLE, Paul, *Référendums locaux : peut-on faire confiance aux citoyens ? Ce que nous disent 350 référendums et consultations locales depuis 30 ans [Local referendums: can we trust citizens? What we can learn from 350 local referendums and consultations in 30 years*], 2024, Génération Libre, https://www.generationlibre.eu/wp-content/uploads/2024/07/NOTE-Referendums-locaux-GenerationLibre-juillet-2024-VF.pdf, accessed September 10, 2024.

DATT, Angeli and HUANG, Jaw-Nian Huang, Beijing's Global Media Influence 2022, Taiwan Country Report, Freedom House, https://freedomhouse.org/country/taiwan/beijings-global-media-influence/2022, accessed November 29, 2022.

DAWSON, Chris, BAKER, Paul L., *Cognitive ability and voting behavior in the 2016 UK referendum on European Union membership*, https://doi.org/10.1371/journal.pone.0289312, accessed October 10, 2024.

GIRARD, Charles, Lessons from the French Citizens' Climate Convention, Verfassungsblog, July 28, 2021, https://verfassungsblog.de/lessons-from-the-french-citizens-climate-convention, accessed September 12, 2021.

GOSSEMENT, Arnaud, C*onvention citoyenne pour le climat : un référendum est-il possible ? [Citizen convention on climate change : is a referendum possible ?]*, June 2020, La grande bibliothèque du droit, https://www.lagbd.org/Convention_citoyenne_pour_le_climat:_un_r%C3%A9f%C3%A9rendum_est-il_possible_%3F_(fr)#Les_trois_propositions_de_r.C3.A9f.C3.A9rendum_de_la_Convention_citoyenne_pour_le_climat, accessed April 15, 2023.

HIMMELREICH, Johannes, *Should We Automate Democracy?*, Draft for the Oxford Handbook of Digital Ethics, Carissa Véliz (ed.), https://johanneshimmelreich.net/papers/automate-democracy.pdf, accessed October 3, 2024.

JUVONEN, Atte, *A framework for comparing the security of voting schemes*, Helsinki University, October 9, 2019 (https://www.attejuvonen.fi/thesis-voting-security-2019-10-09.pdf, accessed March 12, 2022).

MURRAY, Kyle Laurent*, A Road Out of Nowhere: Towards an Anti-Foundationalist Constitutional Theory*, 2020, Durham University, Durham theses, Durham University, http://etheses.dur.ac.uk/13435/, accessed April 12, 2024.

NASH, Jon, *Combined Choice: A modern method of democratic decision making*, Demos, November 19, 2020, https://demos.co.uk/research/combined-choice-a-modern-method-of-democratic-decision-making/, accessed September 29, 2024.

NUSSBAUM, Lucas, *Condorcet Method and the French Presidential Election*, Blog, March 19, 2007, Condorcet method and the French presidential election – Lucas Nussbaum's Blog, accessed on March 5, 2023, based on

PARIENTE-BUTTERLIN, Isabelle, Could There Be Real Changes from a Virtual World?, October 16, 2015, Canal-U. https://doi.org/10.60527/gwqd-5383, accessed September 14, 2024.

PAVLESKA, Tanja, SKOLKAY, Andrej, ZANKOVA, Bissera, and COSTA RIBEIRO, Nelson, *Performance analysis of fact-checking organizations and initiatives in Europe: a critical overview of online platforms fighting fake news*, February 2018, CSA H2020 COMPACT Project, https://www.researchgate.net/publication/327121444_Performance_analysis_of_fact-checking_organizations_and_initiatives_in_Europe_a_critical_overview_of_online_platforms_fighting_fake_news, accessed July 10, 2024.

PETTIGREW, Stephen, and RADLEY, Dylan, *Ballot Marking Errors in Ranked-Choice Voting*, 2023, https://ssrn.com/abstract=4670677 or http://dx.doi.org/10.2139/ssrn.4670677, accessed June 10, 2021.

Pew Research Center, *Authoritarianism and How Do They Want To Change Their Government*, 2024, https://www.pewresearch.org/short-reads/2024/02/28/who-likes-authoritarianism-and-how-do-they-want-to-change-their-government/, accessed August 15, 2024.

SANDEL, Michael J., interview with Nick Hanauer, *The Tyranny of Merit (with Michael Sandel),* Pitchfork Economics, September 26, 2023, https://pitchforkeconomics.com/episode/the-tyranny-of-merit-with-michael-sandel/, accessed September 5, 2024.

SIMON, Julie, et al., *Digital Democracy: The Tools Transforming Political Engagement*, Nesta, February 2017, https://media.nesta.org.uk/documents/digital_democracy.pdf, accessed November 15, 2022.

World Nuclear Association, *Nuclear Power in Taiwan*, updated July 30, 2024, https://world-nuclear.org/information-library/country-profiles/others/nuclear-power-in-taiwan, accessed October 10, 2024.

Other documents[1211]

En qu(o)i les Français ont-ils confiance aujourd'hui [What or Whom do French Trust Today, CEVIPOF Trust Barometer, 15th wave, February 2024, Sciences Po, Paris (www.sciencespo.fr/cevipof/sites/sciencespo.fr.cevipof/files/BConf_V15_Extraction1_modif.pdf).

ALGAVA, Elisabeth, and KILIAN BLOCH, *Vingt ans de participation électorale [Twenty years of electoral participation]*, INSEE Première n°1929, Paris, Institut national de la statistique et des études économiques, 2022.

BENALOH, Josh, *Ballot Casting Assurance via Voter-Initiated Poll Station Auditing*, Microsoft Research, June 28, 2007.

BERTONCINI Yves, *Dix ans après le « Non » : Crever l'abcès, pour l'Union européenne et pour la Gauche [Ten Years After the « No »: Moving Forward for the EU and for the Left],* Note n° 7 - Fondation Jean-Jaurès (Observatoire Europe), May 26, 2015.

BEZARD, Antoine, *Budgets participatifs : la nouvelle promesse démocratique ? [Participatory budgeting: the new democratic promise?]*, October 2, 2018, Fondation Jean Jaurès, Paris.

BLONDIAUX, Loïc, et al., *Le referendum d'initiative citoyenne délibératif [Deliberative Citizen Initiated Referendums],* Terra Nova, February 18, 2019, Paris.

BUSH, Richard C., *Taiwan's democracy and the China challenge*, 2021, Brookings Institute, New York.

BRAUNSTEIN, Richard, *Practicing Democracy: Initiative and Referendum Voting at the End of the 20th Century*, 1999, Ph.D. diss., University of Colorado.

BUTLER, David and RANNEY, Austin, *Referendums around the world: The growing use of direct democracy*, 1994, American Enterprise Institute, Washington, DC.

CEVIPOF, Trust Barometer, wave 11, February 2020.

CHORZEMPA, Martin, TRIOLO, Paul, and SACKS, Samm, *China's Social Credit System: A Mark of Progress or a Threat to Privacy?*, June 2018, Peterson Institute for International Economics, pp. 18-14.

CLARK, Jesse, *The Effect of Ranked-Choice Voting in Maine*, MIT Election Data and Science Lab, March 18, 2021.

[1211] Press and media articles or documents, as well as other non-scientific material referenced in the dissertation, are not listed in the bibliography.

CLARKSON, Michael R., CHONG, Stephen et MYERS, Andrew C. Myers, *Civitas: Toward a Secure Voting System*, Department of Computer Science Cornell University, Computing and Information Science Technical Report, May 2007 (revised May 2008).

COLANTONE, Italo, and STANIG, Piero, *Global Competition and Brexit*, 2016, BAFFI CAREFIN Centre Research Paper N° 44.

DAVIS, Raina, CROWLEY, Bo Julie, and CORCORAN, Casey, *Civil Society: A Key Player in the Global Fight Against Misinformation*, Students Policy Review, Harvard Kennedy School, February 7, 2020.

DELANNOI, Gilles (dir.), *Direct Democracy and Sortition*, April 2012, Les Cahiers du Cevipof, n°56.

DEMONT, Paul, *Socrate et le tirage au sort [Socrates and the drawing of lots]*, Commentaries n°169, spring 2020.

DINUCCI, Darcy. Fragmented Future, April 1999, Design & New Media, pp. 32, 221–222.

ETLING, Bruce, et al., *Mail-in Voter Fraud: Anatomy of a Disinformation Campaign, Berkman Kelin Center for Internet and Society*, October 1, 2020, Harvard University Press, Cambridge (MA).

FUCHS, Victor R., and EGGLESTON, Karen, *Life Expectancy and Inequality in Life Expectancy in the United States*, April 2018, Institute for Economic Policy Research, Stanford University, Stanford.

FUNK, Patricia and GATHMANN Christina, *Estimating the Effect of Direct Democracy on Policy Outcomes: Preferences Matter!*, 2005, Working Paper n° 248, Stanford University, Stanford.

GELECKE, Friedrich and JARAVEL Xavier, *Conversations at Scale: Robust AI-led Interviews with a Simple Open-Source Platform*, 2024, working document, London School of Economics, London.

GUESS, Andrew, NYHAN, Brendan, and REIFLER, Jason, *Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign*, January 9, 2018, European Research Council.

HAENNI, Rolf, KOENIG, Reto E., LOCHER, Philipp, DUBUIS, Eric, Switzerland *Examination of the Swiss Post Internet Voting System Scope 1: Cryptographic Protocol*, Fachhochschule (BFH), March 28, 2022.

HIDALGO, Cesar, A Bold Idea to Replace Politicians, TED Conference, March 5, 2019, https://www.ted.com/talks/cesar_hidalgo_a_bold_idea_to_replace_politicians.

HOROWITZ, et al., *Trends in income and wealth inequality*, Pew Research Center, January 9, 2020.

HSIAO, Yu Tang, LIN, LIN, Shu-Yang, TANG, Audrey, NARAYAN, Darshana, *vTaiwan: An Empirical Study of Open Consultation Process in Taiwan*, July 2018, DOI:10.31235/osf.io/xyhft

KAGAN, Donald, *Athenian Democracy, in Introduction to Ancient Greek History*, Yale University, course CLCV 205, 2007.

LANDEMORE, Hélène, *Is representative democracy really democratic?* Interview with Bernard Manin and Nadia Urbinati, La vie des idées.fr, April 10, 2007.

LEE, Ching Kwan, and SING, Ming, *Take Back Our Future: An Eventful Political Sociology of Hong Kong's Umbrella Movement*, 2019, Cornell University Press, Ithaca, New York.

LÜHRMANN, Anna, and SAFFAN LINDBERG (eds.), *Democracy for All? V-Dem Annual Democracy Report*, 2018, University of Gothenburg, Gothenburg.

MUXEL, Anne, *L'expérience politique des jeunes [Political expérience of the youth]*, Presses de Sciences Po, Paris, 2001.

NAKAMOTO, Satoshi, *Bitcoin: a Peer-to-Peer Electronic Cash System*, https://bitcoin.org/bitcoin.pdf, October 31, 2008.

NORRIS, Pippa, *Experiments in E-Voting v. All-Postal Voting Facilities in UK Local Elections*, HKS Working Paper No. RWP03-03, Harvard University Press, August 2003.

PUGH, Jeff, *Democratic Peace Theory*, April 2005, Center for Mediation, Peace, and Resolution of Conflict, International, CEMPROC Paper Series, New York.

VERGNE, Antoine, *Les jurys citoyens : une nouvelle chance pour la démocratie ? [Citizens' juries: a new opportunity for democracy?*], Notes de la Fondation Jean Jaurès, n°12, 2008.

List of Abbreviations

AI: Artificial Intelligence
CCC: Conférence Citoyenne sur le Climat [Citizens' Conference on Climate, France]
CIR: Citizen Initiative Review
DAO: Decentralized Autonomous Organization
DPP: Democratic Progressive Party [Taiwan]
ECB: European Central Bank
EU: European Union
FN: Front National [National Front, France]
FPÖ: Freiheitliche Partei Österreichs [Freedom Party of Austria]
GAFAM: Google, Amazon, Facebook, Apple, Microsoft
GMO: Genetically Modified Organism
IFOP: Institut Français d'Opinion Publique [French Institute for Public Opinion]
IMF: International Monetary Fund
INSEE: Institut National de la Statistique et des Etudes Economiques [National Institute for Statistics and Economic Studies, France]
IPCC: International Panel on Climate Change
IRV: Instant-Runoff Voting
KMT: Kuomintang
MIT: Massachusetts Institute of Technology
NGO: Non-Governmental Organization
PAC: Political Action Committee
PB: Participatory Budgeting
PRC: People's Republic of China
PZ: Planungszelle [Planning Cells, Germany]
QR [code]: Quick Response [code]
QV: Quadratic Voting
RBM: Remote Ballot Marking
RCV: Ranked-Choice Voting
RIC: Référendum d'Initiative Citoyenne [Citizen-initiated referendum]
RIP: Référendum d'Initiative Partagée [Shared initiative referendum]
RN: Rassemblement National [National Rally, France]
SIM: Subscriber Identity Module
SVT: Single-Transferable Vote
TED: Technology, Entertainment, Design
TPM: Trusted Platform Module
UK: United Kingdom
US: United States
USA: United States of America

List of Tables, Charts, and Figures

Table 1: Decline in approval rates of the French President after one year in office (Source: Kantar Sofrès, author's calculation[1212])

Table 2: Electoral protest index in the first round of presidential elections in France 2002-2022 (Source: French Ministry of Interior and Constitutional Council[1213], author's calculation)

Table 3: Structural, conjonctural, and frictional abstention in French 2015 local elections (Source: Jérôme Fourquet et Sylvain Manternach[1214], data retreated by the author)

Table 4: Electoral protest index recalculated in the first round of presidential elections in France 2002-2022 (Source: French Ministry of Interior and Constitutional Council[1215], author's calculation)

Table 5: Systematic vote rate by age at national elections in 2002 and 2022 in France (Source: INSEE[1216])

Table 6: Support for Political Reforms, by Age and Education (Source: Gallup[1217])

Table 7: Evolution of turnout in U.S. presidential elections between 2000 and 2016 (Source: The American Presidency Project, University of California Santa Barbara[1218])

[1212] Cf. Gilles Mentré, *Démocratie, op. cit.*, p. 33.
[1213] https://www.interieur.gouv.fr/%20Elections/Les-resultats, and https://conseil-constitutionnel.fr, accessed May 10, 2023.
[1214] Jérôme Fourquet and Sylvain Manternach *Départementales de mars 2015 (2) : le premier tour [Local elections March 2015 (2): the first round]*, Fondation pour l'innovation politique, August 2015, p. 12, www.fondapol.org/etude/jerome-fourquet-et-sylvain-manternach-departementales-de-mars-2015-2-le-premier-tour/, accessed February 2, 2020.
[1215] https://www.interieur.gouv.fr/%20Elections/Les-resultats, and https://conseil-constitutionnel.fr, accessed May 10, 2023.
[1216] Elisabeth Algeva, Kilian Bloch*, op. cit.*
[1217] Jeffrey M. Jones, *op. cit.*
[1218] https://www.presidency.ucsb.edu/statistics/data/voter-turnout-in-presidential-elections, accessed January 30, 2021

Table 8: Direct democracy score of selected countries over the 1990-2023 period (Source: author's calculation)

Table 9: Direct democracy score of selected countries over the 2018-2023 period (Source: author's calculation)

Table 10: Number of California ballot initiatives since 1911 (Source: Ballotpedia[1219])

Table 11: Turnout in Estonian parliamentary elections (Source: Valamised[1220], author's calculation)

Table 12: Number of e-voters in parliamentary elections in Estonia, 2011 and 2023 (Source: Estonian government – Valamised[1221])

Table 13: Costs for the different voting channels for Estonian Local Elections in 2017 (Source: Krimmer et al.[1222])

Chart 1: Trust in government, U.S.A. (Source: Pew Research Center[1223])

Chart 2: Distribution of Democrats and Republicans on a scale of political values 1994-2014 (Source: Pew Research Center[1224])

Figure 1: Screenshot of the vTaiwan UI showing a visualization of two Opinion Groups (in grey clusters) and a majoritarian view during the Uber consultation (source: source: Pol.is[1225]).

Figure 2: Government meme during the Covid pandemic (Source: QZ[1226])

[1219] https://ballotpedia.org/How_many_initiatives_have_there_been_in_California, accessed August 10, 2024

[1220] https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia, accessed May 8, 2024.

[1221] Valamised, *Statistics about Internet Voting in Estonia*, https://www.valimised.ee/en/archive/statistics-about-internet-voting-estonia, accessed March 15, 2024.

[1222] Robert Krimmer, David Duenas-Cid, Iuliia Krivonosova, Priit Vinkel, and Arne Koitmae, *How much does an e-vote cost? Cost Comparison per Vote in Multichannel Elections in Estonia*, E-Vote-ID conference 2018, Springer, pp.117-131.

[1223] Pew Research Center, *Public Trust in Government Near Historic Lows,* 2020.

[1224] Pew Research Center, *Political Polarization in the American Public,* June 12, 2024.

[1225] http://pol.is/3phdex2kjf, accessed January 6, 2019.

[1226] https://qz.com/1863931/taiwan-is-using-humor-to-quash-coronavirus-fake-news, accessed January 10, 2023.

Figure 3: Double envelope system of I-Voting (Source: Venice Commission of the Council of Europe, 2016[1227])

Figure 4: Example of Swiss code-voting ballot (Source: Haenni et al.[1228])

Figure 5: the four modes of political organization (Source: Simondon[1229], author)

Figure 6: Society's Self-Institution (Source: Castoriadis[1230], author)

Figure 7: Photograph of Sir Winston Churchill in front of 11 Downing Street (Source: June 4, 1929 © Daily Herald)

Figure 8: The different levels of image provenance verification (Source: Coalition for Content Provenance and Authenticity[1231])

Figure 9: Symbolic vs Sub-symbolic AI (Source: Ilkou and Koutraki[1232])

Figure 10: Use cases of Soul Bound Tokens (Source: Pintu, ©Jex Exmundo[1233])

[1227] Council of Europe, *op. cit.*
[1228] Rolf Haenni, Reto E. Koenig, Philipp Locher, Eric Dubuis,*CHVote Protocol Specification version 4.2*, September 30, 2024, https://eprint.iacr.org/2017/325.pdf, accessed October 10, 2024.
[1229] Gilbert Simondon, *On the Mode of Existence of Technical Objects, op. cit.*
[1230] Cornelius Castoriadis, *The Imaginary Institution of Society, op. cit.,* p. 260.
[1231] https://c2pa.org/specifications/specifications/2.1/specs/C2PA_Specification.html, accessed March 10, 2022.
[1232] Eleni Ilkou and Maria Koutraki, *Symbolic vs. Sub-symbolic Methods of AI: Friends or Enemies?*, November 2020, Conference: CSSA'2000, https://www.researchgate.net/publication/345243725_Symbolic_Vs_Subsymbolic_AI_Methods_Friends_or_Enemies, accessed March 19, 2023.
[1233] https://pintu.co.id/en/academy/post/what-is-soulbound-token, accessed March 3, 2022.

Ackowledgements

I would like to convey my profound gratitude to all teachers, scholars, professional colleagues, friends and family that made these four years of Ph.D. possible. First and foremost, I would like to thank my co-supervisors, Pr. Eric Marquer and Pr. Michael J. Sandel, for their guidance, patience and feedback. They did not only provide unrivaled expertise but also profound inspiration. It is an honor to present this dissertation under the supervision of such an outstanding theorician as Michael Sandel, whose awakening books have taken me back to philosophy, and such a remarkable teacher as Eric Marquer, whose encouragement during my B.A. years have convinced me to pursue my academic journey. I am equally endebted to the other members of my thesis advisory committee, Pr. Luc Foisneau and Pr. Isabelle Pariente-Butterlin, whose thoughtful critiques and suggestions have greatly enriched this dissertation. I would like to thank particularly Luc Foisneau for inviting me to the eyes-opening conferences and seminars he organized during these four years, and Isabelle Pariente-Butterlin for accepting to be a rapporteur of the dissertation – thanks that I extend to the second rapporteur, Pr. Charles Girard, whose book deeply inspired me. I am grateful to the other members of the jury, Pr. Jennifer Gandhi and Pr. Véronique Munoz-Dardé, who responded positively to an unknown request from the other side of the Atlantic and whose landmark works have been crucial references in this dissertation. Special mention goes to my colleagues at Electis, the e-voting platform I co-founded with Franck Nouyrigat and who supported me during these four years – thank you Franck for being such a sparring partner and a friend. This work would neither have been possible without the confidence of my publishers, Bernard Gottlieb at Odile Jacob, and Marcel Gauchet at Gallimard, who helped me formalized the preparatory ideas for this dissertation. Most importantly, this work would not have been possible without my family, my mother who gave me my initial confidence in the world of ideas and my brother who has always been on my side to discuss and challenge what I wrote, and whom I hope I have helped and will help in the same way. Finally, my profound gratefulness goes to my wife Terry. Thank you for being so patient, always sincere and endlessly supportive, in such particular circumstances: our daughter Ava was born during the final year of this Ph.D. Terry, I cannot wait to support you as you have been

supporting me, now is your turn to become the great journalist that you already are. Ava, I would like to dedicate this dissertation to you, not only out of incomparable love, but also because it will be up to your generation to take over the democratic challenge.

List of Tables, Charts, and Figures removed from the Internet version due to copyrights

Chart 1: Trust in government, U.S.A. (Source: Pew Research Center).....p. 68

Chart 2: Distribution of Democrats and Republicans on a scale of political values 1994-2014 (Source: Pew Research Center) .....p. 71

Table 6: Support for Political Reforms, by Age and Education (source: Gallup).....p. 104

Figure 1: Screenshot of vTaiwan showing a visualization of two Opinion Groups (in grey clusters) and a majoritarian view during the Uber consultation (source: Pol.is).....p. 181

Figure 2: Government meme during the Covid pandemic (Source: QZ).....p. 188

Figure 3: Double envelope system of I-Voting (Source: Venice Commission of the Council of Europe, 2016).....p. 197

Figure 7: Photograph of Sir Winston Churchill in front of 11 Downing Street (Source: June 4, 1929 © Daily Herald).....p. 242

Figure 8: The different levels of image provenance verification (Source: Coalition for Content Provenance and Authenticity).....p. 243

Figure 9: Symbolic vs Sub-symbolic AI (source: Ilkou and Koutraki).....p. 290

Figure 10: Use cases of Soul Bound Tokens (Source: Pintu ©Jex Exmundo).....p. 301