JeDEM Issue 16 (1): 1-27, 2024
ISSN 2075-9517
http://www.jedem.org
Date of submission: 13.08.2024
Date of acceptance: 25.12.2023
Article DOI: 10.29379/jedem.v16i1.872

Direct democracy and AI as a way to revitalize the health of the Federal Commonwealth

Illia Roskoshnyi

ORCID Nr: 0009-0001-8953-3238
Faculty of Law, University of Manitoba, Winnipeg, Canada, illia.roskoshnyi@umanitoba.ca

Abstract: Democracy stands as the cornerstone of our modern world and current achievements; however, its present foundation was laid mainly in the 18th century, a time marked by slavery, widespread conflicts, imperialism, significant illiteracy, lack of advanced technologies, etc. While the global landscape has evolved, democratic institutions have not progressed simultaneously. Integrating artificial intelligence into our lives, alongside the practical implementation of direct democracy, provides a glimpse of potential enhancements that might propel us to a new level of governance—a vision articulated by A. Toffler and other thinkers. These enhancements could significantly boost societal knowledge, bringing us closer to the emergence of a knowledge society both chronologically and conceptually. On the other hand, AI systems pose risks to democracy, including limiting our free will and creating digital slavery. The trajectory of our progress depends on the decisions we make today. These issues are the focus of the paper's comprehensive and pragmatic analysis.

Keywords: direct democracy, artificial intelligence, knowledge society, digital slavery, regulations

Acknowledgment: I express my gratitude to each and everyone who supported me in the last three years of my life. Thank you!

1. Introduction

Today's global trend toward democratic backsliding appears as a "problem from within" for democracies and "lies with governments and politics themselves" (Gi-Wook Shin, 2020; Altman David, 2019 at 3). In developing democracies or authoritarian states, their drivers are not soldiers in tanks or communist revolutionaries hurling Molotov cocktails but legitimately elected leaders. The late Hugo Chavez in Venezuela, Recep Erdogan in Turkey, Rodrigo Duterte in the Philippines, and so on all gained power by democratic means before leading authoritarian regressions (Gi-Wook Shin, 2020). North Korea employs terms such as "dictatorship of the people's democracy," "champion

democratic national rights," and "genuine democratic rights" in its constitution (Socialist Constitution of The Democratic People's Republic of Korea, 2019).[1] For them, democracy is a way to increase their authoritarian stability and durability, thereby reinforcing the regime's legitimacy or revealing the extent of its support among the population (Seva Gunitsky, 2015). Simultaneously, developed democracies are experiencing a global recession, as highlighted in the V-Dem Institute's Democracy Report 2023. The report shows that the level of democracy enjoyed by the average global citizen in 2022 has regressed to the levels observed in 1986 (Defiance in the Face of Autocratization, 2023). Looking specifically at America, it is evident that there is a shared concern about the state of American democracy. A Quinnipiac University poll from August 2022 found that 69% of Democrats and 69% of Republicans agree that democracy is at risk of collapsing (Samaržija et al., 2023, at 106).

Given the circumstances, one potential solution may be to combine knowledge, direct democracy, and representative democracy reforms, thereby gradually advancing public administration to a new qualitative level. In authoritarian states, introducing direct democracy might yield limited results, as they already use it during general elections, making representative democracy reforms coupled with the gradual integration of elements of direct democracy and increased levels of knowledge a more promising approach. Conversely, in developed and some developing democracies, direct democracy and knowledge may be pivotal in balancing representative democracy, thereby eliminating its traditional political connotations. The Swiss experience with direct democracy demonstrates that even in robust democratic systems, elected representatives may occasionally take actions perceived as unsuitable by the public on the one hand and may skip or "overlook" certain essential decisions on the other. In contrast, many other democracies do not provide similar mechanisms to their citizens. This approach would make sense if people did not have concerns about the state of democracy, well-being, freedom, and happiness, apprehensions supported by reports from numerous international organizations. In Mair's words, we see the emergence of "a notion of democracy that is being steadily stripped of its popular component—democracy without a demos" (Altman David, 2019 at 3). Lord Hailsham characterized similar things in the United Kingdom during the 1970s as an "elective dictatorship." John Dunn stated in 1979: "[O]ne day's rule every four years has very much the air of a placebo" (Altman David, 2019 at 12). These issues are the focus of the paper's comprehensive and pragmatic analysis.

2. Methodology and scope

The main objective of this paper is to reflect on the effectiveness of representative and direct democracy in the upcoming age of Artificial Intelligence by revisiting the works of Alvin Toffler, Marshall McLuhan, North Douglas, Mancur Olson, Theodore Levitt, Immanuel Kant, and Peter Drucker on power struggles, macroeconomics, and knowledge. Switzerland was selected for this study as one of the most advanced countries with widespread direct democracy. Japan was chosen as one of the most technologically advanced nations during the active development in the analog era, which is stagnating in the digital era compared to the past. Toffler and McLuhan anticipated the negative

[1] See Articles 12,15,64.

influence of mass media and outdated approaches to education as tools of governmental propaganda in the last century, and today, this is manifesting as democratic backsliding. By analyzing North's works, one can conclude that some of the current bureaucracy is institutionally incapable of competing with the technocracy described by Toffler and digital and computational technology that enables the conduct of direct democracy almost every day and public administration more efficiently. Kant suggested that a decentralized federation could achieve perpetual peace, while Levitt highlighted the importance of the consumer. In the state business, this refers to the individual and the citizen. North and Olson highlighted the importance of technology, adaptive efficiency, widespread freedom, but not democratic freedom, to accept dissenters, protection of property rights, and decentralization in achieving national prosperity. The industrial era has demonstrated that people and technological entities, whether public or private, produce almost all public goods while the majority of centralized, rent-seeking political and other leaders struggle to agree on how to coexist and collaborate on our planet. The age of artificial intelligence might offer us a new enlightenment similar to what we experienced about three centuries ago while also intensifying current problems. The trajectory of our progress depends on the decisions we make today.

3. Can direct democracy be vital to the Commonwealth's democratic progress?

Until now, in some countries, it has seemed as if we must choose between the political equality aspired to by direct-majoritarian democracy and the deliberation fostered by representative institutions. However, this dilemma is false. We have only a brief history of experimenting with adapting democracy to the large-scale nation-state. There is plenty of room for innovations to overcome the dilemmas of our present democratic reforms (Fishkin J. S., 1991 at 18). The theory of popular sovereignty asserts that the people are the source of state power and parliamentary sovereignty; however, the only trustworthy and real source is those who are prepared for democracy and have the right to vote. People establish federal and local parliaments in the Federal Commonwealth through direct democracy. While the state covers the costs of general elections, running for office is a costly endeavor, unlike other direct democracy tools. These representative bodies, in turn, establish other governmental branches, thereby creating a system of public administration. Ideally, this system should ensure that individuals have widespread freedom and feel content with their lives in communities. If this is not the case, direct democracy tools should be used to prevent an elective dictatorship. Moreover, it could be beneficial when voters supported political party wins an election, but some policies pushed by their representatives, voters profoundly dislike—or some policies they would prefer but which remain ignored by the relevant authorities, to say nothing of those times when voters find themselves on the losing side (Altman David, 2019 at 12).

Resistance to direct democracy varies across countries, with different degrees of priority. Some attribute it to historical, administrative-territorial, and cultural factors. In contrast, others tie it to fears of populism, slow decision-making, and majoritarian dictatorship, indicating a perceived lack of expertise among the public. While the absence of certain direct democratic tools may be justified in certain scenarios, in cases of democratic backsliding, a conflict of interest emerges as representative democracy is forced to share a portion of its perceived traditional and long-standing power on

its own. On the other hand, some decisions could be better served by direct democracy in the age of artificial intelligence, while allowing people the authority to veto certain laws enacted by parliaments could establish a comprehensive framework for public participation. As the global population becomes increasingly educated, the issues of expertise, populism, and majoritarian dictatorship are gradually becoming less significant (Number of adults with no formal education by region, 2023). At the same time, the quality of education, cultural progress, historical narratives, and administrative centralization are deeply influenced by how well representative democracy operates. It might exploit them to justify the absence of direct democracy as long as it is willing or able, but it is within its power to address them. Åsa Wikforss, a Swedish professor of theoretical philosophy, described similar things as a "truth state," a state of such kind would be an out-and-out technocracy or, quite simply, a dictatorship led by an omniscient and knowledgeable despot or representative (Samaržija et al., 2023 at 92). Therefore, governments must focus on education, decentralization, and fostering a culture of direct democracy, thereby creating new historical narratives. This ensures citizens have the necessary knowledge, power, and skills to engage effectively in direct democracy. When I refer to direct democracy, I mean the direct (federal or local) or sectoral (stakeholders) involvement of the population in making direct decisions on issues that affect their existence. In this knowledge society, people will embrace responsibility and make informed decisions about their future, thereby revitalizing the health of democracy instead of simply abstaining from general elections or falling prey to the hollow pledges of populist leaders. In today's democratic recession, democracy gradually and partly needs to be returned to the citizens (Altman David, 2019 at 4) to balance representatives. We must ask not only how every vote can be counted but also how every voice can be heard (Altman David, 2019 at 2), thereby preventing majoritarian dictatorship.

3.1. Referendums, popular initiatives, popular dissolution of parliament, people's veto

Historically, referendums were about self-determination. The first instances of referendums in anything like the present-day form date back to 1527 in Burgundy (Morel L. et al., 2017). One of today's leaders in referendums is Switzerland, which has had 247 referendums (Bundeskanzlei BK., 2023). The Swiss Constitution outlines two types of referendum: optional and mandatory. They can occur up to four times yearly and are scheduled for 19 years in advance (Bundeskanzlei BK., 2023). One referendum costs about 1.65 Swiss francs per voter (Wie, 2016), and people are provided with the essential information to make informed decisions. Since 2000, Switzerland has been advancing e-voting and refining its systems to enrich the democratic process for its residents (Swiss, 2023).

An optional referendum,[2] also called people's veto, can be initiated by 50,000 eligible voters, that is, about 0.58% of the total Swiss population and approximately 0.91% of eligible voters,[3] or by any

[2] For example, against enacting federal acts, emergency federal acts whose term of validity exceeds one-year, federal decrees, provided the Constitution or an act so requires, and some international treaties.

[3] In Uruguay, the public veto threshold is 25% of eligible voters, making the exercise of this power about 25-50 times more difficult or even unattainable (See Article 79).

eight of twenty-six Cantons against enacting legislation (Matyja M., 2019).[4] This initiative shall be submitted to the People's vote,[5] and the referendum's result will be binding for implementation if the majority supports it.[6]

A mandatory referendum must be held within 18 months of the official publication of a request for the total or partial revision of the Federal Constitution if at least 100,000 eligible voters sign the popular initiative (Federal Constitution of the Swiss Confederation, 2023).[7] The initiative can only amend the federal constitution and not revise or introduce a new federal law (LOGO C., 2023). After receiving a signed popular initiative for a partial constitutional amendment, it will undergo a system of checks and balances. This includes safeguard mechanisms in case of international law violations,[8] the submission of a counterproposal,[9] a consistency review process,[10] and the Federal Assembly's power to refuse authorization for constitutional amendments, among other procedures. This legal mechanism is essential for protecting minority rights, preventing the tyranny of the majority, and ensuring the quality of legislation. Any mandatory referendum must be put to vote by the People and the Cantons[11] and will come into force upon their approval.[12] The outcome of the popular vote within a Canton determines its vote,[13] demonstrating the significance of popular sovereignty and the decisive power of the people. Nevertheless, this direct democracy can be less influential in some cases. If the Federal Assembly does not authorize an initiative for a partial constitutional revision but the people vote in favor, the Federal Assembly shall draft the corresponding bill.[14] However, if the Federal Assembly cannot agree on an initiative for a total constitutional revision, or if the initiative comes from the people and they vote in favor - new elections for both Chambers shall be held (Federal Constitution of the Swiss Confederation, 2023).[15] I would call this the popular dissolution of the Federal Assembly ((Liechtenstein 1921 (rev. 2011) Constitution - Constitute, 2023; Bürgerservice - Art. 18., 2020)[16] and a good system of checks and balances in the hands of people if their voices are not heard.

The practical applications of referendums are exemplified by the Swiss referendum chronology. In 2022, three out of the four scheduled referendums were held. The referendum scheduled on November 27, 2022, was skipped because none of the propositions were ready for voting (Le Conseil fédéral, 2022). In the February 2022 referendum, four distinct matters were brought forth. Two of these emanated from popular initiatives for a partial constitutional amendment aimed at banning experiments on animals and humans, as well as the prohibition of tobacco advertising. Concurrently,

[4] Alternatively, in Italy, a referendum is held against enacted legislation (See Article 75).
[5] See Article 141.1.
[6] See Article 142.1.
[7] See Articles 138-139.
[8] See Articles 193.4 and 194.2.
[9] See Article 139*b.*
[10] See Articles 139 and 194.
[11] See Article 140.
[12] See Article 195.
[13] See Article 142.3.
[14] See Article 139.4.
[15] See Article 193.
[16] Liechtenstein (See Article 48) and Bayern (See Article 18) have a similar tool of direct democracy.

the other two matters were presented as optional referendums concerning amendments to the Federal Act on Stamp Duties and the Federal Act on a Package of Measures to Benefit the Media. With an average turnout of 44%, only the initiative to ban tobacco advertising garnered majority support, while the people successfully vetoed two adopted amendments to the laws (Bundeskanzlei BK, 2022). Since the Federal Assembly did not authorize the popular initiative on tobacco, we do not see this constitutional amendment in the Swiss constitution. However, considering the referendum demand, the Federal Assembly reviewed the Tobacco Products Act and its accompanying regulations (BAG, 2023). Undoubtedly, this reality reduces the latent resentment toward representative democracy among the population. Moreover, if a well-structured act is enacted, it could even bolster the vitality of democracy and foster a sense of participation among the people. However, it may also affect business interests and the power of the representatives, invoking their dissatisfaction and an incentive to find a new balance of interests.

The Federal Act on Stamp Duties Amendment case is of considerable interest as it could potentially entail exempting certain businesses from a 1% capital emission tax. Opponents of the bill argued that its enactment would reduce annual federal government revenue, estimated at $250 million (Gesetz Über Die Stempelabgaben, 2022). Moreover, in the May 2022 referendum, the attempt to veto the taxation of Netflix and Disney failed, preserving an annual savings of approximately 12 million Swiss francs (swissinfo.ch, 2022). Similarly, in the September 2022 referendum, Swiss citizens rejected the proposal to exempt domestic bonds from withholding tax and eliminate sales tax liabilities on domestic bonds and other securities. This exemption could incur annual tax shortfalls of around 800 million Swiss francs (Vorlage et al., 2022). In states lacking direct democracy tools, these entities might have united in lobbying endeavors to pass such an amendment, either to directly benefit financially from tax savings or to exploit savings for corrupt or lobbying purposes. Therefore, direct democracy, in certain instances, acts as a deterrent to corruption in governments, reduces the appeal of lobbying, and forces businesses to focus on the public rather than politicians.

Interestingly, in one of the referendums in September 2022, a popular initiative from animal activists aiming to challenge industrial animal husbandry and advocating for the inclusion of livestock dignity in the constitutional framework was met with disapproval (Bundeskanzlei BK., 2022). The referendum result was determined by 1,799,088 out of a total of 5,549,085 eligible voters, reflecting one of the highest federal turnouts at 52.28%. Meanwhile, Schaffhausen boasted the highest turnout among cantons at 68.56% (Bundeskanzlei BK, 2022), thanks to compulsory voting in the region (Wenn, 2023). Thus, only about 32.42% of eligible voters influenced the outcome of the referendum, or about 20.40% when considering the entire federation population (Federal Statistical Office, 2020). In another referendum in 2023, the figures were 24.81% and 15.67%, respectively (Klimagesetz, 2023). Typically, support for referendums ranges from 15 to 30%, figures that are too modest to assert that direct democracy fully reflects the people's general will. It would be justifiable to consider implementing conditional compulsory voting, for example, as it is in Belgium, if a popular initiative or veto received support from, say, 120,000 people rather than 100,000 or 60,000 rather than 50,000, respectively. Compulsory voting is likely to demonstrate the real people's sentiments, whereas, in its absence, individuals would better recognize the consequences of their inaction.

Another option could involve the introduction of quadratic voting, where each person receives one vote; if unused, they receive financial benefits. Additionally, people could purchase more votes, doubling the price for each vote. In both scenarios, passivity will bring profits, while direct democracy, in case of dissatisfaction of the majority, would allow for an amendment to the enacted law. This approach would enable the economically active minority to enact targeted reforms with surgical precision, a feat unattainable through conventional representative democracy methods. At the same time, the majority could benefit financially from passivity and economic growth from creative reforms.

By the end of 2022, direct democracy had resulted in budgetary savings of at least 1.062 billion francs at the federal level. These savings serve a secondary purpose by enhancing the government's ability to fulfill its responsibilities more effectively. Enhanced government performance undeniably elevates the public's perception of the value of democracy. Animal activists, in turn, have seen the level of support for their idea in society and may be eager to intensify their efforts to mobilize additional supporters to secure a majority in the next referendum. Without this avenue, animal rights activists might find themselves in despair and at the mercy of representative democracy.

3.2. Local opportunities for direct democracy

In Switzerland, the scope of local initiatives is greater than at the federal level. Several cantons offer citizens the opportunity to launch a legislative initiative, which allows people to request a new statute (LOGO C., 2023) or the amendment of an existing one.[17] A notable example is Zurich, where its constitution was adopted through a referendum on March 10, 1831, with the support of 95.92 % of the male population (Abstimmungsarchiv, 2023). Zurich continues to utilize direct democracy for constitutional matters, as demonstrated by a recent constitutional amendment in 2022, which garnered 67.1% support (pu & sip, 2022).

Zurich's initiatives can be launched and lead to:

Total or partial cantonal constitution revisions;
Statutes' enactment, alteration, or repeal;
Cantonal council resolutions' modification or annulment;
Professional initiative submission to the federal government;
Concordat negotiations' initiation or the withdrawal from a concordat.

Popular initiatives are subject to referendums if they receive the endorsement of 6,000 eligible electors within a six-month (Initiativen, Referenden & Anfragerecht, 2023). Notably, the requirement for a local referendum of 6,000 signatures is about 2.67-2.9[18] times lower than the requirement for a federal referendum of 100,000, given that the Swiss population is around 8.8 million (Federal Statistical Office, 2020) and Zurich has about 1.5 million (Federal Statistical Office, 2023). The cantonal council may proffer a counter-proposal (Initiativen, Referenden & Anfragerecht, 2023). Recent initiatives in the canton are seeking signatures to support promoting favorable lending conditions for

[17] An option to amend a statute is only possible in certain cantons.
[18] Considering only people eligible to vote, namely, 965,383 cantonal voters and 5,567,120 federal voters.

young individuals looking to purchase residential real estate, providing subsidized rentals for low-income residents, granting individuals self-determination at the end of life, or adjusting speed limits on highways (eSHAB, 2023), among other initiatives. Additionally, district council, municipal council, commission, municipal parliament, and individual initiatives allow individuals or subordinate local governing bodies to bring issues to the cantonal council. An initiative will be considered if it is supported by at least 60 of the 180 members of the cantonal council.

Since adopting the cantonal constitution, 570 referendums have been held, during which 2,040 initiatives were deliberated. This has resulted in 1,375 acceptances and 665 rejections (Wahlen & Abstimmungen, 2023). In one of the 2022 Zurich referendums, four questions were presented: an amendment to the cantonal constitution aimed at climate protection, a reduction in the voting age to the age of 16 while maintaining the right to be elected at the age of 18, a popular initiative to extend childcare duration from 14 weeks to 18 weeks, and the harmonization of naturalization regulations. With an average turnout of 45.5%, 64.8% of the electorate rejected the proposal to extend childcare duration and reduce the voting age. Meanwhile, 67.1% and 69.1% of voters supported climate protection and harmonizing naturalization measures, respectively (pu & sip, 2022). By comparison, in neighboring Austria, representative democracy has granted the right to vote at the age of 16 (Wählen Mit 16 - Bundeskanzleramt Österreich, 2023).

Notably, the canton emphasizes direct democracy at the stakeholder level. Per ecclesiastical jurisprudence, the Evangelical Reformed Regional Church, the Roman Catholic Church, and the Christian Catholic parish have the power to request the cantonal administration conduct referenda on their activities. In the June 18, 2023, referendum, the Roman Catholic Church exercised this power to amend its ecclesiastical regulations (Abstimmungsarchiv Kanton Zürich, 2023), whereas, in the March 15, 2023, referendum, the Evangelical Reformed Church elected its ecclesiastical Synod (eSHAB, 2023). Residents domiciled within the corresponding district and adhering to the corresponding denomination are granted the right to participate in elections (Kirchengeschäfte, 2023).[19] Notably, the decision in the Roman Catholic Church referendum was endorsed by 64,225 individuals, with a voter turnout of 25.04%, representing 76,650 of 306,079 eligible voters (Resultate Und Infos - Wahlen & Abstimmungen | Kanton Zürich, 2023). This highlights the limited effectiveness of understanding people's sentiments through this form of referendum, prompting consideration of introducing quadratic voting or other forms to stimulate public involvement in decision-making. Moreover, stakeholder referendums could be highly beneficial at both federal and local levels in other areas of public affairs where stakeholders exist relatively autonomously and have issues associated with their autonomous existence and might face challenges in gathering the necessary number of signatures, even in hypothetical scenarios.

Since 2004, Zurich has been striving to introduce electronic Internet-based voting to improve the convenience and accessibility of the democratic process for its citizens and residents, including those living abroad (E-Voting, 2023).

[19] In addition to citizens, individuals with a residence permit (types B, C, or Ci) also have the right to vote. In the Evangelical Reformed Church, the minimum voting age is 16, while candidacy eligibility begins at age 18.

3.3. Expression of confidence in the judiciary

The Japanese Constitution, which partly received this system from the United States (Yanase, 2014) and British law, expressed confidence in the judiciary in action. However, in the US, it has never been carried out against the Justices of the Supreme Court, unlike in some state courts. In Japan, the entire judicial authority is vested in the Supreme Court, supplemented by inferior courts. The Justices in the Supreme Court are traditionally appointed at the age of sixty or over (Fujita, 2011) by the Cabinet and retire at the age of seventy. They are independent and bound only by the Constitution and the laws. Popular evaluation of Justice appointments, which I call an expression of confidence in the judiciary to be held during the initial general election to the House of Representatives following their appointment, with subsequent re-evaluations scheduled every ten years (The Constitution of Japan, 2023). It was originally designed to enable the people to pass judgment upon the appropriateness of each Justice's appointment and to dismiss a Justice if a majority required (Tokuji, 2011); however, due to appointment at pre-retirement age, such evaluation is typically carried out once during a Justice's office term, after which the Justice retires.

Japan has conducted 25 Justice evaluations as of 2021. Remarkably, throughout these evaluation periods, no one Justice has been dismissed from their position (Ministry of Internal Affairs and Communications, 2023). This, however, is not a sign of popular trust or confidence in the Supreme Court but rather results from the public's general lack of interest in the Court and its members (Tokuji, 2011). The evaluation largely highlights the Justices' high status (Tokuji, 2011) and is almost useless in its current form. The most recent evaluation occurred on October 31, 2021, involving 11 Justices, whose average age was 64.73 years. The mean disapproval rate stood at 6.78%, with the highest disapproval rate at 7.82% and the lowest at 5.92% (衆議院議員総選挙・最高裁判所裁判官国民審査結果調, 2021). Izumi Tokuji, a former Justice of the Supreme Court of Japan, indicates that approximately 93% of voters participate in the evaluation without considering their ballots. The remaining 7% cast disapproval votes during the evaluation not because they disapproved of any particular Justices but rather to express their general dissatisfaction with the national government (Tokuji, 2011).

The Japanese example illustrates how representatives have made this tool ineffective. However, consider Switzerland as an alternative, where Supreme Court Justices can potentially begin their career at the age of 18 (Federal Constitution of the Swiss Confederation, 2023),[20] and this tool would assume an entirely distinct role, or the United States, where Justices serve for life. Under these conditions, individuals would have a better chance to impact their judiciary. In Australia, where Justices serve up to seventy years like in Japan, and in 2011, the youngest judge of 37 years was appointed to the High Court of Australia, etc. This direct democracy tool is essential for a thriving democratic system, but its effectiveness is hindered by representative democracy, as exemplified in Japan and Australia. Japan does not appoint Supreme Court Justices at age 37, while Australia does not have such a tool as Japan in its constitution and can afford to appoint younger judges. As can be seen, representative democracy occasionally tends to cultivate rules and a subsequent culture that priori-

[20] See Articles 136 and 143.

tizes the needs and desires of elected officials to preserve the hierarchy of their monopolies, hindering progress. It is understandable; however, if individuals do not experience freedom and happiness within their communities, it could indicate a state of elective dictatorship. Given the Japanese experience, a possible solution to this issue would be introducing a conditional people's assessment[21] rather than a compulsory one and cultivating a culture of direct democracy.

4. Digital slavery or knowledge society? What can AI systems bring to our lives?

4.1. Digital slavery or free will

Over the past two centuries, information and communication technologies' impact on democratic processes has increasingly taken on a classic pattern. In the 19th and 20th centuries, discussions centred on the potential tyranny wielded by newspapers and TV. In the second part of the 20th century and the beginning of the 21st, attention shifted to the implications of the Internet in this realm. Current discussions revolve around the potential adverse ramifications of the new generation of artificial intelligence (AI) systems for democracy and free will. Information and communication technologies have gradually increased speed and quality (Henshall, 2023). Present-day AI systems surpass all previous methods of disseminating, processing, and generating information, and this trend is set to continue intensifying. The distinguishing feature of the current generation of AI systems is that some of them can "independently" process, create, and disseminate information in huge quantities and formats compared to their counterpart from the last century.[22] Currently, people face significant hurdles in sifting through accumulated redundant content to find pertinent information that promotes free will; the new generation of generative AI may worsen the predicament even more. The issue at hand is not the scarcity of trustworthy information but rather the overwhelming volume, among which it is difficult to find the right one needed for free will. Under these circumstances, information has become the most powerful tool that empowers some people and debilitates others depending on its accuracy, while its accuracy is relative due to the overchoice of information. Contemporary education, alongside other information and communication technologies, significantly influences the underlying accuracy of information, thereby shaping individuals' beliefs, prejudices, group affiliations, etc. Psychologically, under these conditions of overchoice of information, some individuals, to alleviate the stress of overchoice, often gravitate toward or agree with the information that confirms their existing, to some extent filtered and shaped, beliefs, prejudices, group affiliations,[23] etc., rather than seeking more accurate information, thereby inadvertently reinforcing their own biases and creating political polarization. Generative AI systems and their agents are significantly altering the current status quo in determining the accuracy of information at all stages of human development. By leveraging the "right algorithms," they can guide us toward the knowledge

[21] For example, as it is in Switzerland with the mandatory referendum, if 100,000 people (0.5-1% of the total population) sign a popular initiative to evaluate judges' appointments, such an evaluation should occur.
[22] For example, current generative AI systems cannot be compared with their counterpart from the last century, namely, Chat-GPT with ELIZA etc.
[23] For example, if my group supports this perspective, so do I; if it does not, neither do I.

society or distance us away from accurate information, thereby influencing the contours of our free will substantially as well as reinforcing misleading personal beliefs or prejudices, the feeling of democratic backsliding, polarization, and creating a foothold for digital slavery.

However, what exactly is free will, and how does it interact with a democratic system? To better understand this notion, we should turn to philosophy. Philosophy divides free will into things that are under our control and those that are beyond it. Things beyond our control are typically outside our free will, such as events before our birth, the welfare of the community, and the level of human rights or democracy at the time we were born, etc. This part of free will usually does not interact with democracy; however, it may be questionable for authoritarian states. Our present and future actions are what we can control and call our free will. These include deciding whether to spend the next few hours reading about human rights at home or commuting to join a strike, choosing a political ideology, deciding how to vote in the upcoming election, continuing to work in an office or leaving to pursue a political career, etc. These actions are within our control because they depend on the deliberate choices that are up to us to perform or not (Thomas Pink, 2004 at 1).

However, not all scholars agree that we have free will at all. Gary Watson, a philosophy professor, argues that while some people have free will, others may not due to factors such as phobias, addictions, neurosis, or "brainwashing," etc (Watson G., 1982 at 1). Robert N. Proctor, an American Professor of the History of Science, used the term "agnotology," derived from "agnosis" or "not knowing," as a novel approach to understanding knowledge by studying ignorance (Conference to Explore the Social Construction of Ignorance, 2005). Despite our belief that our "free will" is informed by scientific knowledge, there are occasions when our choices inadvertently contribute to ignorance by relying on flawed scientific information. Jerry Coyne, an American biologist, takes it a step further by asserting that our thoughts and actions are the outputs of a computer made of meat - our brain - a computer that must obey the laws of physics. Our choices, therefore, must also obey those laws. This puts paid to the traditional idea of free will: that our lives comprise a series of decisions in which we could have chosen otherwise... Sam Harris, an American neuroscientist, in the same vein, states that free will is an illusion. Our wills are simply not of our own making. Thoughts and intentions emerge from background causes of which we are unaware and over which we exert no conscious control. We do not have the freedom we think we have. If we explicitly tell people that "free will" is an illusion, it will hurt society. If people believe they are puppets, well, then maybe they will be crippled by nihilism, lacking the will to leave their beds (List C., 2019 at 1).

Academic research categorizes four primary forms of external interventions that can impact human cognition and free will. The first one is physical or psychological coercion. Private and public powers can shape one's thoughts by exerting physical or psychological pressure. Second, neurobiology and neurotechnology have made it possible to detect and affect the biological component of human thought: chemistry and electrical stimulation can monitor and influence how the brain processes information and feelings. Thirdly, technologies can alter perceptions of reality, especially when combined with microtargeting. This consists of profiling individuals through online and offline activities and tailoring communications to exploit their weaknesses, prejudices, and preferences (Canopy Forum, 2023). Finally, within the realms of agnotology and epistemology, people can have confidence in their well-informed decisions based on knowledge, while private/public powers

shape that knowledge. Even without advanced AI systems, these forms of external intervention demonstrate effectiveness in marketing efforts. A notable instance is the tobacco industry's conspiracy, in which, under the guise of science, the industry conducted research on everything except the hazards of tobacco, exploiting public uncertainty. According to Robert N. Proctor's findings, if the tobacco industry had disclosed its knowledge promptly, approximately 8 trillion cigarettes would not have been consumed in America (Conference to Explore the Social Construction of Ignorance, 2005). Alternatively, consider the desire for a specific candy or grocery item with a unique chemical component or a scenario where a child asks to visit a highly advertised restaurant or purchase specific toys or clothing. Likewise, certain private/public powers might employ these tactics to polarize individuals and instill anxiety if they do not vote for them or shape and exploit people's weaknesses, prejudices, and preferences through outdated education systems or behavioural economics for political purposes, etc. Predictably, incorporating advanced AI systems into these external interventions will inevitably augment their effectiveness in times, thereby influencing human perception and "free will." Hence, finding a balanced approach to incorporating advanced AI systems into democratic processes is crucial for addressing the current issues of lack of free will and advancing toward the knowledge society.

Newspapers often have a political bias, making mass media another potential threat to free will. Conservative newspapers typically avoid publishing socialist ideas, and vice versa. Public broadcasters who follow the model of the British Broadcasting Corporation "try" to inform in a balanced way, avoiding one-sided political opinions. Other state-controlled or private broadcasters, like Fox News and CNN in the United States, may push a political agenda (Richardson et al., 2019 at 100). AI systems can function as a news search engine, reporter and editor. Thus, it is crucial that AI systems assist people in gaining a clearer understanding of news and mass media rather than imposing specific political or economic narratives on them. We require AI systems to empower individuals to consider a news event from various perspectives, allowing them to make well-informed decisions.

In contrast to mass media, social media has had a more powerful impact on democracy and free will over the past decade. From 2015 to 2020, numerous reports highlighted the use of bots to generate comments intended to influence voters' preferences. During the same period, Cambridge Analytica utilized microtargeting data obtained from Facebook to deliver targeted information and disinformation (Richardson et al., 2019 at 100-103). A 2020 Oxford study reported that organized social media manipulation campaigns were found in 81 surveyed countries. The study found that governments, public relations firms, and political parties were producing misinformation on an industrial scale (Social Media Manipulation by Political Actors an Industrial Scale Problem - Oxford Report | University of Oxford, 2021). In 2023, New York University reported that social media algorithms used by Facebook and Instagram are extremely influential in shaping users' platform experiences. The report also noted significant ideological segregation in the exposure to political news (NYU Web Communications, 2020). Advanced AI systems have the potential to transform bot farms, public relations firms, and consulting companies into one supercomputer capable of executing their owners' directives much faster and cheaper. The analysis of human behavioural patterns in marketing (behavioural economics) has already extended into the political domain, impacting free will. AI systems have the potential to generate individualized content for each user, utilizing physical, psychological, chemical, and biological data to nudge them toward the "right decision." On the other hand, these

systems could counteract this nudge by analyzing the information presented to users and identifying content created by bot farms or consulting companies intended to sway public opinion.

Deep fakes and fake news threaten democracy and free will, making it increasingly difficult to differentiate between authentic and manipulated content. In 2019, deep fakes were created against Nancy Pelosi (Doctored Nancy Pelosi Video Highlights Threat of "Deepfake" Tech, 2019) and Boris Johnson (The Fake Video Where Johnson and Corbyn Endorse Each Other, 2019); in 2022, against Volodymyr Zelenskyy (Deepfake Video of Zelenskyy Could Be "Tip of the Iceberg" in Info War, Experts Warn, 2022). A recent example occurred during the 2023 Slovak elections. In the 48-hour silence before voting day, the Internet was flooded with deepfake recordings depicting incriminating negotiations between prominent Slovak politicians (Fogerlog, 2023). The deployment of advanced AI systems can potentially boost propaganda by creating more convincing deep fakes and fake news, particularly targeting swing voters. Simultaneously, AI systems can make detecting fake news or deep fakes easier.

4.2. Democratic dimension of AI toward knowledge society

For individuals to effectively exercise their democratic rights, having knowledge is essential. In a direct democracy, voters have at least three important tasks:

Demand responsibility from their representatives for policies pursued, such as people's veto, public assessment, etc. (retrospective task);

Issue a mandate by electing deputies, presidents, judges for a certain period, etc. (forward-looking task); (Samaržija et al., 2023 at 99)

Directly establish the general will by initiating, repealing or amending legislation through referendums, etc. (direct task); and

These tasks require both a comprehension of political information and the capability to apply it effectively. When it comes to holding political branches accountable, people must, at the very least, understand how officials did their job and how it could have been done in an alternative way. They should be aware of officials' efforts to mitigate negative impacts on the community and what consequences certain officials' decisions could bring to their lives. They must understand at what political level decisions are made. When it comes to issuing mandates, it includes knowledge about which political alternatives are available to choose from, what the different parties stand for, their outlooks on society, and how they wish to change it (Samaržija et al., 2023 at 99). Direct tasks, in turn, require individuals to have all the knowledge mentioned above, which closely mirrors that held by officials responsible for making specific decisions (e.g., political economy).

Recent research suggests that values education and teaching democracy are essential for building democracy, peace, and stability. In some circumstances, it can also deal effectively with racism, prejudice, bigotry, and xenophobia (Zajda J. I. et al., 2021 at 212). To combat fake news, democratic institutions should promote education and digital media literacy to empower citizens to distinguish trustworthy from untrustworthy news (Reglitz, M., 2022). This education should be not only on democratic topics but comprehensive since how we vote depends not only on what we believe or

know about but also on what we value, our ideological beliefs, our emotions, and our shaped culture (Samaržija et al., 2023 at 99). Thus, within the framework of knowledge and democracy, there is an opportunity for both:

Holistic human development and

Providing specialized democratic knowledge.

When people are holistically developed, they are less susceptible to populist influences and more adept at participating in democracy. Conversely, lacking essential knowledge makes individuals vulnerable to manipulation, potentially rendering democracy ineffectual. Populism, propaganda, manipulations, and so on thrive in a society where knowledge is lacking, while in the knowledge society, their existence is threatened. Corrupt governments and some unscrupulous private powers that support certain political parties shape people's worldviews and consistently hinder the public from gaining accurate and necessary knowledge since it threatens their authority, power and existence. American futurist Alvin Toffler distinguishes three main types of governments: low-quality (based on force, transformed into brute force, and later into violence), medium-quality (based on wealth), and high-quality (based on knowledge) (Toffler A., 1990). Today, we observe diverse movements in various regions worldwide toward establishing high-quality government and fostering the knowledge society. Yet, a pertinent question arises: Can we expedite their emergence as a key aspect of our democratic progress? Answering this question requires a nuanced understanding of:

The concept of the knowledge society and

Chronological analysis of the development of society.

From the conceptual perspective, the emergence of the information society has established the foundation for generating immense volumes of information and knowledge worldwide, available in diverse languages and formats. A wealth of information creates a poverty of attention and a need to allocate it efficiently among the overabundance of information sources that might consume it (Ilukwe, 2023). The concept of the knowledge society represents the subsequent phase in the information revolution. In this advanced stage, individuals have the capability to effectively sift through the deluge of excessive information and discern the essential data that enables them to arrive at the most judicious decisions on important issues, while delegating some of the unimportant ones to AI system agents (Zhang et al., 2021). In the conceptual landscape, we are on the cusp of its emergence. Consider, for instance, tools like Chat GPT, Bing Chat, Bard, etc. They, among other functions, serve as search engines with an advanced translator, sifting through the surplus information generated by the information society. Advanced AI systems can swiftly and effectively translate any information in any format into a reader's preferred format and language, thereby expanding the boundaries and perspectives on knowledge. These systems also have the potential to create AI agents to resolve minor issues, giving the opportunity to focus on more sophisticated ones.

Paradoxically, these systems also have the capacity to inundate people with an abundance of irrelevant and false information. Already, AI systems are being used to dis/misinform children (BBC Newsround, 2023). This is alarming for democracy as values take shape during this period. At this

juncture, we find ourselves at a crossroads where our society can either deteriorate regarding information quality and democracy or advance toward the knowledge society. To achieve the conceptual dimension, it is imperative to focus on the search capabilities of advanced AI systems, which extend beyond the Internet to encompass scientific literature. Scientific knowledge is likely to be complicated, nuanced, and challenging for laypeople to grasp (Jemielniak D. et al., 2020 at 108). However, advanced AI systems can spell out all scientific features in simple terms, thereby approaching the advent of the knowledge society in conceptual and chronological aspects. People may use AI systems to identify fake news, misleading, distorted, or false information, deepfakes, and hostile content designed as a cyber threat to democracy, among other things.

The second dimension of high-quality government focuses on holistic human development and establishing conditions to ensure continuous progress to create a new generation of humans. To achieve this, we should revolutionize our approach to education by equipping both educators and students with the essential skills for integrating AI systems into the learning process. On the other hand, AI systems are associated with risks, as acknowledged by numerous scientists; however, virtually every technology in history has presented risks upon its introduction. Yet, over time, these risks have been identified and mitigated, resulting in technological improvements and culminating in our technological breakthroughs. The primary objective when implementing AI systems in education is to ensure that the benefits they offer to the educational process outweigh the potential risks of compromising the overall quality of education.

The introduction of the AI system into education enables students to drastically change their educational experience, empowering them to participate in democratic processes more informedly. They can progressively personalize knowledge in students' preferred formats, languages, etc. Sometimes, students struggle to see the practical relevance of certain information to their future endeavours. However, AI prompts can provide individualized explanations of different aspects of knowledge and its pragmatic application or even help a student decide on a future profession or activities. Essentially, each student gains access to a personalized tutor or even a knowledgeable friend through an AI system, allowing them to pose questions without fear of judgment in a friendly and secure environment. Simultaneously, educators benefit from individual AI assistants, which streamline their workload, enabling them to accommodate more students in their classes and dedicate more attention to classroom participation rather than administrative work. Some processes of evaluating, planning, updating class contents, and presenting a class can be automated through AI systems, leaving the educator to oversee the generated outcomes. The student's syllabuses may evolve from a paper version into a professional AI-powered individualized modular application or engaging online game for each course, developed based on leading professors' perspectives. AI systems can potentially tailor individualized learning curricula or syllabi that consider students' biorhythms, physiology, and learning pace, thereby enhancing the quality of education. Ultimately, some subjects' practical and theoretical dimensions can be enhanced by incorporating AI-based virtual reality equipment for home and classroom applications, leading to an improved learning experience. At the same time, education should not solely rely on AI-based learning; instead, fostering meaningful interactions among students, educators, experts, practitioners, and a community, as well as practical application of knowledge, should take precedence. If educators are dissatisfied with the AI systems' performance or their interaction with a student, then they retain the ability to adjust this

interaction through feedback, thereby allowing developers to increase the quality of AI systems. Senior Researcher of Harvard University Chris Dede says: "The trick about AI is that to get it, we need to change what we are educating people for because if we educate people for what AI does well, we are just preparing them to lose to AI. But if we educate them about what AI cannot do, then we have got IA [Intelligence Augmentation]" (Educating in a World of Artificial Intelligence, 2023). Consequently, it becomes crucial to focus on IA (skills that AI cannot perform) and proficiency in using AI, such as delivering information effectively, creating interpersonal and relational client connections, improving social skills, comprehending psychological, emotional and cognitive mindsets, a comprehensive and dialectical understanding of AI-generated outputs, and the ability to function without reliance on AI products, etc. The new must teach the individual how to classify and reclassify any information, how to evaluate its veracity, how to change categories, how and when to replace old ideas, how to move from the concrete to the abstract and back, how to look at problems from a new direction effectively–how to teach himself. In this same vein, educators must not try to impose a rigid set of values, especially personal ones, on students but must help them define, explicate, test and reconcile their values, whatever they are (Toffler A., 1990 at 413). Critical thinking plays a vital role in assessing AI-generated information, particularly because our society has not yet reached a consensus on the interpretation of values, which vary across cultures and social contexts (Zajda J. I. et al., 2021 at 204). In the USA, values such as individualism and liberalism are prominent, while in Europe, there is a greater emphasis on social principles (Zajda J. I. et al., 2021 at 4). AI systems have the capacity to mirror the perspectives of their developers, investors, or country of origin, which could impact education and democracy. It is crucial to mitigate these potential adverse ramifications during the programming stage and prevent monopolization of this field by private and public actors.

Educational materials may evolve beyond traditional textbook and paper formats, transitioning into dynamic programs or engaging gaming applications that creators and authors can consistently update with AI assistance, considering the latest research (Learn a Language for Free, 2023).[24] This approach may ensure the continual relevance of the content for students. Through animated and visually enriched text, some students may find these materials more captivating than conventional printed text. Each educational material may represent a holistic learning tool, combining theoretical concepts with practical applications, elevating the publishing experience to a new, technologically driven level.

The third aspect of high-quality government involves introducing specialized educational chatbots or applications specifically designed to enhance direct democracy.[25] The primary worldwide tool of direct democracy is general elections. Candidates or political parties often employ populism as a strategy to win representation positions (Heinisch, R. et al., 2021). However, an AI system could efficiently assess the level of populism of each politician, personal gains from supporting decisions, their reputation, involvement in lobbying, and other relevant factors using "independent" algorithms. Individuals can indicate their interests, making this assessment more personalized. Such an

[24] For example, how this happens with learning languages.

[25] For example, in Switzerland, before referendums, a report outlining its issues is distributed in paper or digital paper reading form. Applications or chatbots could complement this paper reading format.

AI-based assessment would enable individuals to make more informed choices at the local and federal elections.

When representatives represent the people, a significant volume of legislation and decisions are enacted daily. Keeping track of all these changes can be challenging for the average individual. At this stage, an AI system could address this issue by allowing users to define their values and priorities. Then, the system could deliver customized interactive reports to its users on specific local and federal initiatives or representative decisions that may be in their interests, thereby enhancing and simplifying their democratic experience in their communities. These reports could provide insights into how other nations tackle similar issues, explore alternative solutions, identify the main beneficiaries, and assess the predictable consequences if a particular decision is vetoed or supported. Understanding the user's preferences, the system can offer turnkey decisions that a person would moderate. Such an AI system could have a chatbot or an agent that answers any person's inquiries from the point of view of various political doctrines, aids in developing initiative drafts or veto issues, and even facilitates direct participation in democracy with a couple of clicks. In turn, officials may subject their decisions to AI systems analysis to check for inconsistencies with societal values or legislation. If the AI system identifies inconsistencies, officials must justify either the AI's errors or their actions. At the same time, people can evaluate who is right through the ballot box in the next election or recall officials. Consolidating everything into a single application is crucial for adaptability and convenience, while different developers can develop its modules.

Moreover, to enhance instruments of direct democracy, it is valuable to develop dedicated, realistic online educational games that accurately mirror our societal issues. Essentially, these tools would create a cyber simulation of our world. Through these interactive platforms, individuals may gain insights into the potential consequences of specific referendums, initiatives, or representative decisions for their community, thereby increasing their knowledge and awareness.

5. Regulations as a way to prevent digital slavery and approach knowledge society

Regulating AI systems in direct democracy has its features compared to general regulation. At the individual level, AI systems impact free will and opportunities to exercise it; at the national level, AI systems impact democracy, human rights, and equality (Jungherr, 2023); at the international level, AI systems impact the world order stability; at the institutional level, AI systems impact the perception of democratic tools as a fair and open mechanism for channelling and managing political affairs; at the ideological level, AI systems impact competition between and inside democratic and autocratic systems (Jungherr, 2023); at the knowledge level, AI systems impact our awareness, values, and perception of the world; and at the ethical level, AI systems necessitate high ethical developer and operator responsibility while introducing and operating AI systems, etc. The regulation of AI systems in the field of democracy stands apart from regulations in other fields where soft law or self-regulation is applicable. As experience has shown during previous tech revolutions, self-regulations tended to serve governments and industry well and the public interest less well. Corporations, arguably, will not act against their commercial interests to address social issues (Tusikov,

2023). Democracy is a cornerstone of our societal development, and any harm to it can yield immense ramifications, both for democracy itself and the rise of authoritarianism. Consequently, regulating this field is crucial, necessitating a more rigorous approach in case of threat to democracy and widespread freedom, while lacking it may put democracy in peril.

5.1. National level

Based on the theory of national sovereignty, the state should be the primary advocate and driver of regulation across the field of democracy. However, nowadays, AI systems operate largely in and due to the Internet, and the unique nature of cyberspace, which knows no borders, implies that even if a regulation is implemented at the national level, its effectiveness may be limited. Hence, close interaction between national and international law becomes important. Some authoritarian nations and developing democracies have been slow to regulate AI systems democratically (OECD's Live Repository of AI Strategies & Policies - OECD.AI, 2023) because they may use them to strengthen their authority. More advanced autocracies may even develop strategies to use AI systems for their purposes. If things go wrong, authoritarian nations and some developing democracies can always opt to shut down Internet resources as a crisis management strategy, thereby avoiding the complexities of regulating this domain and awaiting signals from developed democracies. However, this is also a dilemma for developed democracies; if certain developed countries refrain from implementing AI regulations in the democratic sphere while others do, this could lead to twofold outcomes. If the regulations are effective and forward-thinking, nations without them might feel pressured to embrace the progressive standards established by other societies. In contrast, poor regulations could lead to capital flight and diminish the country's standing in the race of developed countries. Hence, introducing regulations should be accompanied by meticulously considering the interests of investors, software developers, and the communities where AI systems operate. Neglecting the concerns of investors and software developers could potentially precipitate a shift of operations to an alternative jurisdiction, wherein AI advancement may be pursued.

5.2. Free will

Empirical evidence has demonstrated that free will and democracy have historically been susceptible to manipulation antecedent to the advent of AI systems. Analysis of the above data leads to the conclusion that individuals lack absolute free will in the democratic sphere. Advanced AI systems have enhanced the speed and quality of information processing, creation, and dissemination. AI systems may decrease cost and augment the efficacy of manipulative endeavours targeting the essence of free will and democratic regimes. Simultaneously, AI systems may combat all these negative influences and become a distributor of democracy and free will. The chosen trajectory is contingent upon our choice of how to use and regulate AI systems. A probable solution may be to ban and criminalize the development and use of AI systems that substantially and subconsciously manipulate people's behaviour or impair their ability to make informed decisions in the democratic sphere. Also, it is essential to follow a holistic approach to educating people, as a democratic regime includes more than just elections. Even without AI systems, the arguments presented by Gary Watson, Robert N. Proctor, Jerry Coyne, Sam Harris, and others hold merit in relation to elective dictatorship. In

such instances, it is necessary to develop an AI system that can facilitate a comprehensive understanding of the world in which individuals reside (human environment) to ensure free will.

While some governments utilize AI to combat online dis/misinformation that should be protected under international human rights standards (The Repressive Power of Artificial Intelligence, 2023), these endeavours may also be exploited to manipulate free will. Hence, engaging an independent international organization as an intermediary and allowing only the pointing out of misleading or manipulative information without restricting access to it is critical for preventing digital slavery and ensuring widespread freedom of information. Simultaneously, supporting the creation of a non-governmental AI system that enables individuals to independently discern fake content or subsequently inform[26] about the misinformation that has been leaked is promising.

5.3. Ethical level

Simply enshrining and enforcing regulations is insufficient to build general trust in AI systems. They must demonstrate trust and confidence to people, and this task is feasible by adopting ethical benchmarks for systems' introduction, thereby increasing the legislation's legitimacy. To ensure this for the health of democracy, the ethical regulation should be:

General(horizontal) to promote the acquisition of comprehensive knowledge by society and

Tailored(vertical) to enhance direct democracy and its institutions.

Historical precedent demonstrates that comprehensive legislative measures safeguarding society against advanced technologies primarily emerge after developing and deploying them. Therefore, another facet inherent in establishing ethical benchmarks resides in the real-time governance of AI systems if something goes wrong to ensure democratic credibility. The introduction of a developer's ethical code of conduct (Ethics Guidelines for Trustworthy AI, 2019)[27] facilitates AI systems' development and deployment in a diverse, inclusive, fair, and non-discriminatory direction, while implementing an operators' ethical code of practice (2022 Strengthened Code of Practice on Disinformation, 2022)[28] enables operators to enhance their products during operation. Consequently, the ethical dimension of AI serves a triple purpose:

Cultivating people's trust,

Shaping ethical development, deployment, and operation, and

Reacting quickly to an emergency without full-fledged legal regulations.

Implementing these benchmarks could minimize the ethical harms of deploying AI systems and mould their sustainable behaviour for democratic advancement. The experience of previous tech

[26] For example, an AI system can notify people by using cookies in the same way as advertisements reach them.
[27] For example, European Commission Ethics guidelines for trustworthy AI.
[28] For example, 2022 Strengthened Code of Practice on Disinformation.

revolutions confirms this. ATMs are not trying to defraud us; cardless payment terminals are not trying to withdraw more money from our bank accounts; cars do not deceive us with automatic braking features; self-driving taxis are not trying to take us hostage or kidnap us, etc. These are advanced technologies "whose behaviour adequately preserves, and ideally furthers, the interests and values of the relevant stakeholders in a given context" (Thompson, S. J., 2021 at 49). Similarly, many advanced AI systems can be introduced through ethical sifting to ensure that they are used reliably to promote the health of our democracy and prevent digital slavery.

5.4. Knowledge level

In the conceptual context of the knowledge society, an issue of intellectual property (IP) emerges when AI systems are processing scientific literature and other copyright products (Brittain, 2023). It is important to establish comprehensive and sector-specific approaches to using scientific literature by AI systems during stages of training and learning to prevent legal action against developers and protect the rights of stakeholders. I want to compare Wikipedia, which incorporates scientific knowledge into its publications, with the regulation of its processing by AI systems. Typically, AI systems do not merely replicate the entire content of a specific text; instead, they use citations[29] from various sources like Wikipedia. Thus, if an AI system references the scientific works it has used and does so for non-profit and educational purposes, there seems to be no valid reason to treat such AI systems differently. Especially considering their potential to automate, personalize and disseminate scientific knowledge more effectively than Wikipedia. It advertises the work of the authors.

When regulating the intellectual property of profit-driven AI systems that offer knowledge, it would be reasonable to apply the regulations used for phonograms and introduce licensing, establishing a quasi-public regulator (Leveraging IP for AI governance, 2023). Under this framework, when an AI system processes copyrighted text to generate profits, it should only pay the copyright holder(s). The fee for such usage could be based on a coefficient that reflects the extent of copyrighted knowledge used in generating responses and the system's profit from these activities.

In the context of chronological knowledge advancement, local and federal governments should play a pivotal role in integrating advanced AI systems into the educational process through well-developed plans for AI systems' implementation. Simultaneously, educational institutions may pass similar plans. In the subsequent phase, the governments should provide funding to incentivize educational institutions to revamp their methods and facilities.

In the context of specialized democratic knowledge, the focus should be on creating narrowly tailored educational applications and games on direct democracy using advanced AI systems. This development process should involve competitive participation from the private sector. AI developers should engage in dialogues with people, educators, content designers, and cross-disciplinary experts (Artificial Intelligence in Education: Challenges and Opportunities for Sustainable Development, 2019) to ensure the practicality and widespread adoption of these applications. Developed applications and games should not restrict access to particular political, historical, and other

[29] While Bing Chat cites prompts, Chat GPT does not always do so.

knowledge; instead, they should encourage its exploration and examination from diverse perspectives. In this context, it is crucial to promote the development of debate and negotiation skills among individuals and give them platforms to practice them. These skills help reveal the essence of different positions during debate and negotiation, promoting a deeper understanding of various issues and their potential sources and various resolutions rather than polarizing people into opposing camps.

6. Conclusion

Direct democracy serves as an effective complement to representative democracy. By engaging in direct democracy, individuals become integral components of the system of checks and balances, ultimately enhancing representative democracy and mitigating populism, corruption, and lobbyism. In the near future, the turbulence within representative democracy will escalate if it fails to reshape the governance methods developed in past centuries, potentially making direct democracy more appealing.

Examining the most recent findings from the 2023 Freedom House Report and the 2023 World Happiness Report, which highlight the leadership in democracy and the happiness of their citizens, countries that do not often use direct democracy prove that direct democracy offers valuable enhancements to representative democracy and is crucial during its backsliding, but it may not necessarily be the best choice for establishing a well-functioned democratic system. In a state of total direct democracy, individuals often live in perpetual vigilance, needing to stay constantly informed about ongoing events. Simultaneously, if someone lacks interest in political life, representative democracy can potentially jeopardize their lives and happiness, as seen from the history of Venezuela, Turkey and the Philippines, among other countries. This is also evident from the example of Swiss representative democracy, which attempted to protect corporate income at the expense of community budgets, and from instances where semi-democratic nations transitioned into autocracies, thereby turning their citizens into slaves of their systems, as occurs in North Korea in the post-war period.

Nowadays, it is wise to pursue a balanced approach, transitioning our existing representative democracy into a more proficient or high-quality one, as described by Toffler. At the same time, fostering a culture of direct democracy and providing for those who desire it is promising. Quadratic voting appears promising for implementing creative reforms cautiously and addressing people's needs rather than representatives' to increase people's happiness rather than representatives'. Essentially, people desire happiness and freedom over representative democracy. In countries where happiness and widespread freedom are lacking, representative democracy cannot be considered effective or even democratic and should be reformed with direct democracy. Another facet of direct democracy involves the potential for the tyranny of the majority, which can be mitigated through education, creating enclaves and adherence to binding international laws.

Knowledge plays a pivotal role within any democratic political regime. Without knowledge, society risks constructing an ineffective state, often labelled as a democracy but resembling an elective dictatorship in Lord Hailsham's words. AI systems hold great promise in knowledge automation, thus substantially cutting its expenses and expanding its accessibility. Authoritarian states may use

AI systems to perpetuate digital slavery, while developed democracies are expected to challenge it and promote the advent of the knowledge society. At this juncture, implementing AI regulation is crucial to facilitate the advent of knowledge society and prevent digital slavery.

The Swiss model of direct democracy has faced skepticism regarding its feasibility, largely due to its development within a small federal entity with a long-established tradition of promoting direct democratic practices. Despite the partial plausibility of this argument, it is arguable that such skepticism may lack foresight. It is never too late to start developing a legal culture of direct democracy. We just have to initiate it. When analyzing the federal structure, one can envision a practical approach that gradually introduces direct democratic mechanisms, starting from the lowest levels of administrative governance. Through this gradual decentralization, the pyramid of direct democracy could be methodically established, thereby circumventing the mentioned limitations. Considering the evolution of federalism from a federation of states to a federal state (Schütze R., 2009), we observe a departure from the Westphalian concept of sovereignty since the subjects in some federations have actually lost their sovereignty. At times, "unitary" countries like Spain or Italy may exhibit a higher degree of decentralization, that is, sovereignty or independence of their subjects, compared to federal states such as Russia or India. Transitioning to the federal state from the federation of states, in some cases, gave rise to some authoritarianism since one government cannot reign over an extensive territory without absolute despotism (Fishkin, J. S., 1991 at 15); however, it served as a means to safeguard statehood. The high level of democracy in developed nations enables them to consider a shift in the opposite direction, thereby creating many small federations under the umbrella of a federal/confederal union where direct democracy is applicable. Certainly, some issues require resolution only at the federal level and by representatives, e.g., preventing majority tyranny, although not to the extent observed in some current federal states.

References

2022 Strengthened Code of Practice on Disinformation. (2022, June 16). Shaping Europe's Digital Future. https://digital-strategy.ec.europa.eu/en/library/2022-strengthened-code-practice-disinformation

Abstimmungsarchiv Kanton Zürich. (2023). Statistik.zh.ch. https://www.web.statistik.zh.ch/cms_abstimmungsarchiv/index.php?vorlageid=2553#

Abstimmungsarchiv. (2023). Kanton Zürich; Kanton Zürich. https://www.zh.ch/de/politik-staat/wahlen-abstimmungen/abstimmungsarchiv.html

Altman, D. (2019). Citizenship and contemporary direct democracy. Cambridge University Press.

Artificial Intelligence in Education: Challenges and Opportunities for Sustainable Development (2019). Unesco. https://unesdoc.unesco.org/ark:/48223/pf0000366994/PDF/366994eng.pdf.multi.page=1&zoom=auto,-16,850

BAG, G. (2023). Neues Tabakproduktegesetz. Admin.ch. https://www.bag.admin.ch/bag/de/home/strategie-und-politik/politische-auftraege-und-aktionsplaene/politische-auftraege-zur-tabakpraevention/tabakpolitik-schweiz/tabpg.html

BBC Newsround. (2023, September 14). AI used to target kids with disinformation. BBC Newsround; BBC Newsround. https://www.bbc.co.uk/newsround/66796495

Brittain, B. (2023, September 28). Writers suing OpenAI fire back at company's copyright defense. Reuters. https://www.reuters.com/legal/litigation/writers-suing-openai-fire-back-companys-copyright-defense-2023-09-28/

Bundeskanzlei BK. (2022). Politische Rechte. Admin.ch. https://www.bk.admin.ch/ch/d/pore/va/20220213/index.html

Bundeskanzlei BK. (2022). Politische Rechte. Admin.ch. https://www.bk.admin.ch/ch/d/pore/va/20220925/index.html

Bundeskanzlei BK. (2022). Politische Rechte. Admin.ch. https://www.bk.admin.ch/ch/d/pore/va/20220925/can658.html

Bundeskanzlei BK. (2023). Politische Rechte. Admin.ch. https://www.bk.admin.ch/ch/d/pore/rf/ref_2_2_3_4.html

Bundeskanzlei BK. (2023). Politische Rechte. Admin.ch. https://www.bk.admin.ch/ch/d/pore/va/vab_1_3_3_1.html

Bürgerservice - Art. 18. (2020). Gesetze-Bayern.de. https://www.gesetze-bayern.de/Content/Document/BayVerf-18

Canopy Forum. (2023, July 18). "Freedom of Thought and Conscience and the Challenges of AI" by Andrea Pin - Canopy Forum. Canopy Forum. https://canopyforum.org/2023/07/18/freedom-of-thought-and-conscience-and-the-challenges-of-ai/

Conference to explore the social construction of ignorance. (2005). Archive.org. https://web.archive.org/web/20120214093044/https://news.stanford.edu/pr/2005/pr-agno-100505.html

Constitution of Italy (2023). Refworld. https://www.refworld.org/docid/3ae6b59cc.html

Deepfake video of Zelenskyy could be "tip of the iceberg" in info war, experts warn. (2022, March 16). NPR. https://www.npr.org/2022/03/16/1087062648/deepfake-video-zelenskyy-experts-war-manipulation-ukraine-russia

Defiance in the Face of Autocratization. (2023). https://v-dem.net/documents/29/V-dem_democracyreport2023_lowres.pdf

Doctored Nancy Pelosi video highlights threat of "deepfake" tech. (2019, May 25). Cbsnews.com; CBS News. https://www.cbsnews.com/news/doctored-nancy-pelosi-video-highlights-threat-of-deepfake-tech-2019-05-25/

Educating in a World of Artificial Intelligence. (2023, February 9). Harvard Graduate School of Education. https://www.gse.harvard.edu/ideas/edcast/23/02/educating-world-artificial-intelligence

eSHAB. (2023). Amtsblatt.zh.ch. https://amtsblatt.zh.ch/#!/search/publications

eSHAB. (2023). Amtsblatt.zh.ch. https://www.amtsblatt.zh.ch/#!/search/publications/detail/8b60f9f4-6729-4f75-a85f-60b1d537877c

Ethics guidelines for trustworthy AI. (2019, April 8). Shaping Europe's Digital Future. https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai

E-Voting. (2023). Kanton Zürich; Kanton Zürich. https://www.zh.ch/de/politik-staat/wahlen-abstimmungen/so-stimme-ich-ab/e-voting.html

Federal Constitution of the Swiss Confederation. (2023). Admin.ch. https://www.fedlex.admin.ch/eli/cc/1999/404/en

Federal Statistical Office. (2020). Population. Admin.ch. https://www.bfs.admin.ch/bfs/en/home/statistics/population.html

Federal Statistical Office. (2023). Zurich. Admin.ch. https://www.bfs.admin.ch/bfs/en/home/statistics/regional-statistics/regional-portraits-key-figures/cantons/zurich.html

Fishkin, J. S. (1991). Democracy and deliberation : new directions for democratic reform. Yale University Press.

Fogerlog. (2023, October 11). Slovakia Election - Attackers Use AI Deepfake To Spread Misinformation. Phishing Tackle. https://phishingtackle.com/articles/slovakia-election-attackers-use-ai-deepfake-to-spread-misinformation/

Fujita Tokiyasu. (2011). "The Supreme Court of Japan: Commentary on the Recent Work of Scholars in the United States. (Symposium: Decision Making on the Japanese Supreme Court)."

Gesetz über die Stempelabgaben. (2022). Swissvotes.ch. https://swissvotes.ch/vote/653.00

Heinisch, R., Holtz-Bacha, C., & Mazzoleni, O. (Eds.). (2021). Political populism : handbook of concepts, questions and strategies of research (2nd ed.). Nomos.

Henshall, W. (2023, August 2). 4 Charts That Show Why AI Progress Is Unlikely to Slow Down. TIME; Time. https://time.com/6300942/ai-progress-charts/

Ilukwe, A. (2023, August 10). Technology Can Support Democratic Engagement: Education Is the Key. Centre for International Governance Innovation. https://www.cigionline.org/articles/technology-can-support-democratic-engagement-education-is-the-key/

Initiativen, Referenden & Anfragerecht. (2023). Kanton Zürich; Kanton Zürich. https://www.zh.ch/de/politik-staat/wahlen-abstimmungen/initiativen-referenden-anfragerecht.html#-792208150

Izumi Tokuji. (2011) "Concerning the Japanese Public's Evaluation of Supreme Court Justices."

Jemielniak, D., & Przegalinska, A. (2020). Collaborative society. The MIT Press.

Jungherr, A. (2023). Artificial Intelligence and Democracy: A Conceptual Framework. Social Media + Society, 9(3). https://doi.org/10.1177/20563051231186353

Kirchengeschäfte. (2023). Kanton Zürich; Kanton Zürich. https://www.zh.ch/de/politik-staat/wahlen-abstimmungen/kirchenwahlen.html#-596067052

Klimagesetz. (2023). Swissvotes.ch. https://swissvotes.ch/vote/663.00

Le Conseil fédéral. (2022). Pas de votation fédérale le 27 novembre 2022. Admin.ch. https://www.admin.ch/gov/fr/accueil/documentation/communiques.msg-id-89395.html

Learn a language for free. (2023). Duolingo. https://www.duolingo.com/

Leveraging IP for AI governance. (2023). Science. https://www.science.org/doi/abs/10.1126/science.add2202

Liechtenstein 1921 (rev. 2011) Constitution - Constitute. (2023). Liechtenstein 1921 (rev. 2011) Constitution - Constitute. Constituteproject.org. https://www.constituteproject.org/constitution/Liechtenstein_2011

List, C. (2019). Why free will is real. Harvard University Press.

LOGO, C. (2023). Cantonal and communal initiative. Archive.org. https://web.archive.org/web/20230930020911/https://www.ch.ch/en/votes-and-elections/initiatives/what-is-a-cantonal-and-a-communal-initiative/#what-is-a-cantonal-initiative-and-what-is-a-communal-initiative

LOGO, C. (2023). How do you launch a popular initiative? Www.ch.ch. https://www.ch.ch/en/votes-and-elections/initiatives/what-is-a-federal-popular-initiative/#no-legislative-initiative-at-federal-level

Lucy Rickard. (2011). "Our youngest ever judge holds court." https://www.watoday.com.au/national/western-australia/our-youngest-ever-judge-holds-court-20110724-1huxm.html

Matyja, M. (2019). The Swiss Model of Direct Democracy. Technium Social Sciences Journal, 1(1), 41–60. https://doi.org/10.47577/tssj.v1i1.30

Ministry of Internal Affairs and Communications. (2023). https://www.soumu.go.jp/senkyo/kokuminshinsa/kekka.html#pTop

Morel, L., & Qvortrup, M. (2017). The Routledge Handbook to Referendums and Direct Democracy (1st ed.). Routledge. https://doi.org/10.4324/9780203713181

Number of adults with no formal education by region. (2023). Our World in Data. https://ourworldindata.org/grapher/total-number-of-people-aged-15-with-no-education-in-millions-by-continent-1970-2050?facet=none

NYU Web Communications. (2020). Nyu.edu. https://www.nyu.edu/about/news-publications/news/2023/july/2020-election-studies-reveals-power-of-facebook--instagram-algor.html

OECD's live repository of AI strategies & policies - OECD.AI. (2023). Oecd.ai. https://oecd.ai/en/dashboards/overview

Pink, Thomas. (2004). Free will : a very short introduction. Oxford University Press.

pu, & sip. (2022, May 15). Abstimmung in Zürich am 15. Mai: So hat Zürich abgestimmt. Tages-Anzeiger; Tamedia AG. https://www.tagesanzeiger.ch/die-zuercher-vorlagen-auf-einen-blick-318565766255

Reglitz, M. (2022). Fake news and democracy. Journal of Ethics & Social Philosophy, 22(2), 162-187. https://doi.org/10.26556/jesp.v22i2.1258

Resultate und Infos - Wahlen & Abstimmungen | Kanton Zürich. (2023). Statistik.zh.ch. https://app.statistik.zh.ch/wahlen_abstimmungen/prod/Archive/Det/1_1_20230618/242824/Abstimmungen/Resultate

Richardson, J., Paterson, Moira., & Witzleb, Normann. (2019). Big Data, Political Campaigning and the Law Democracy and Privacy in the Age of Micro-Targeting. Routledge.

Samaržija, H., & Cassam, Q. (2023). The Epistemology of Democracy (1st ed., Vol. 1). Routledge. https://doi.org/10.4324/9781003311003

Schu̇tze, R. (2009). From dual to cooperative federalism : the changing structure of European law. Oxford University Press.

Seva Gunitsky. (2015). Corrupting the Cyber-Commons: Social Media as a Tool of Autocratic Stability. Perspectives on Politics, 13(1), 42–54. https://doi.org/10.1017/s1537592714003120

Shin, G.-W. (2020). South Korea's Democratic Decay. Journal of Democracy, 31(3), 100–114. https://doi.org/10.1353/jod.2020.0048

Social media manipulation by political actors an industrial scale problem - Oxford report | University of Oxford. (2021, January 13). Ox.ac.uk. https://www.ox.ac.uk/news/2021-01-13-social-media-manipulation-political-actors-industrial-scale-problem-oxford-report

Socialist constitution of the Democratic People's Republic of Korea Pyongyang, Korea JUCHE 103 (2019). https://www.ncnk.org/sites/default/files/DPRK%20constitution%20%282019%29.pdf

Swiss. (2023). Milestones. Admin.ch. https://www.bk.admin.ch/bk/en/home/politische-rechte/e-voting/chronik.html

swissinfo.ch. (2022, May 4). May vote poll: Swiss levy on streaming giants could fail. SWI Swissinfo.ch. https://www.swissinfo.ch/eng/may-vote-poll--swiss-levy-on-streaming-giants-could-fail/47561416

The Constitution of Japan. (2023). https://japan.kantei.go.jp/constitution_and_government_of_japan/constitution_e.html

The fake video where Johnson and Corbyn endorse each other. (2019). Bbc.com. https://www.bbc.com/news/av/technology-50381728

The Repressive Power of Artificial Intelligence. (2023). Freedom House. https://freedomhouse.org/report/freedom-net/2023/repressive-power-artificial-intelligence#governments-harness-ai-to-reinforce-censorship

Thompson, S. J. (Ed.). (2021). Machine law, ethics, and morality in the age of artificial intelligence. IGI Global, Engineering Science Reference.

Toffler, A. (1990). Powershift : knowledge, wealth, and violence at the edge of the 21st century. Bantam Books.

Toffler, Alvin. (1970). Future shock. Random House.

Tusikov, N. (2023, September 13). Voluntary AI Guardrails Risk Placing Corporate Interests Over Public Good. Centre for International Governance Innovation. https://www.cigionline.org/articles/voluntary-ai-guardrails-risk-placing-corporate-interests-over-public-good/

Uruguay's Constitution of 1966, Reinstated in 1985, with Amendments through 2004 (2023). Wipo.int. https://www.wipo.int/wipolex/en/text/585227

Vorlage, V., Vorlage, D., Vorlage, Z., & Vorlage, M. (2022). Änderung des Bundesgesetzes über die Verrechnungssteuer Änderung des Bundesgesetzes über die Alters-und Hinterlassenenversicherung (AHV 21) Zusatzfinanzierung der AHV durch eine Erhöhung der Mehrwertsteuer. https://swissvotes.ch/attachments/7ee087158fbe483440f3a35376e5243b4ed9776006b3560da800ca78510fc4ac

Wahlen & Abstimmungen. (2023). Kanton Zürich; Kanton Zürich. https://www.zh.ch/de/politik-staat/wahlen-abstimmungen.zhweb-noredirect.zhweb-cache.html?keywords=demokratie#/1990640825

Wählen mit 16 - Bundeskanzleramt Österreich. (2023). Bundeskanzleramt.gv.at. https://www.bundeskanzleramt.gv.at/agenda/jugend/beteiligung-und-engagement/waehlen-mit-16.html

Watson, G. (1982). Free will. Oxford University Press.

Wenn. (2023, October 10). Stimmpflicht - Stimmverweigerung kostet in Schaffhausen über 1000 Franken. Schweizer Radio Und Fernsehen (SRF). https://www.srf.ch/news/schweiz/wahlen-2023/stimmpflicht-stimmverweigerung-kostet-in-schaffhausen-ueber-1000-franken

Wie. (2016, May 21). Schweiz - Der günstige Preis der direkten Demokratie. Schweizer Radio Und Fernsehen (SRF). https://www.srf.ch/news/schweiz/schweiz-der-guenstige-preis-der-direkten-demokratie

Yanase Noboru. “Overview of the Judge Impeachment System in Japan: Focusing on the Constitutional Design for the Impeachment Committee and Court.” (2014). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2837613

Zajda, J. I., & Rust, V. (2021). Globalisation and Comparative Education Changing Paradigms (1st ed. 2021.). Springer Netherlands. https://doi.org/10.1007/978-94-024-2054-8

Zhang, Y., María, A., & Ma Cruz Sánchez-Gómez. (2021). Digital competence in higher education research: A systematic literature review. Computers & Education, 168, 104212–104212. https://doi.org/10.1016/j.compedu.2021.104212

衆議院議員総選挙・最高裁判所裁判官国民審査結果調. (2021). https://www.soumu.go.jp/main_content/000776531.pdf

About the Author

Illia Roskoshnyi

Illia Roskoshnyi is a Postdoctoral Fellow at the University of Manitoba, Faculty of Law. He teaches Comparative Constitutional Law and International Investment Law. His research interests include artificial intelligence and the law, economic, political and legal history and theory, and behavioural economics.

