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ARTIFICIAL INTELLIGENCE, GOVERNANCE, AND DEMOCRACY: A MULTI-DIMENSIONAL ANALYSIS OF SOCIETAL DYNAMICS IN THE DIGITAL ERA

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ABSTRACT

The intricate correlation between democracy and the assimilation of digital technologies is scrutinised with specific focus on the role of artificial intelligence, social media and potential implications on democratic principles. The focus on concerns about the negative impacts of digital tools, highlighting threats to democratic stability and human freedom like information manipulation and cyberattacks. The discussion also focuses on education, emphasizing the unique challenges that AI poses. The differences in the historical bases of democracy between the current representative democracy and previous ones. It looks at the resources and external factors that early democracies used to make decisions, highlighting the role that technology played in making government more transparent, impersonal and representative. Critical examination of the dangers AI presents to democratic processes is done with particular attention to how fabrication and manipulation of information can endanger democratic rights. The impact of AI on democracy highlights the necessity of informed public debates involving a range of participants. International legal frameworks are taken into consideration, with a focus on the tools currently in place to protect fundamental rights that are relevant to AI applications. The contribution of Artificial Intelligence to the maintenance of social credit systems, political power and potential threats from growing corporate influence over digital infrastructure. Finally, it emphasises the vital role that technology plays in facilitating contemporary democracy but warns that care must be taken to guarantee that technology advances democratic objectives, supporting a vigilant stance against autocratic tendencies.

Keywords: Surveillance, Crowdsourcing, Suffrage, Propaganda,

INTRODUCTION

There are worries regarding artificial intelligence's potential effects on democratic systems due to its rising prominence. Using a conceptual framework, the many facets of democracy are investigated, including the impact of AI on voting transparency, group equality, individual autonomy and the rivalry between democratic and autocratic governance. The method seeks to give a thorough grasp of how AI may change societal dynamics while acknowledging the complexity of democracy. Throughout history, democracies have faced obstacles like the distant state and possible executive overreach as they have progressed from early participatory systems like Athens to contemporary representative models. Scholars such as Stasavage and Harari concur that AI raises new issues that could jeopardise democratic norms. With varying degrees of support for different applications, data from a German survey highlights citizens' reluctance to accept artificial intelligence in government and raises concerns about decision making authority. Political power dynamics are impacted by the shift

in the public sphere from spoken communication to digital media in the digital age. While economic inequality presents challenges to egalitarian empowerment in democracies, the Chinese social credit system serves as an example of AI's role in maintaining power. The resilience of democracy in the face of artificial intelligence is called into question by surveillance capitalism, which is fueled by large tech companies and the influence of economic power through data ownership.[1] The legal norms surrounding AI in democracies are intertwined and highlight the necessity of laws, rules and public monitoring to safeguard fundamental rights. Strong data protection is offered to students worldwide by the GDPR and national education regulations, underscoring the significance of legal protection by design.

METHODOLOGY

The methodology adopted for the study is purely 'doctrinal'. A combination of historical, comparative and descriptive methods is employed at appropriate places. The whole work involves primarily, the content analysis of the impact of AI in democracy.

The study involves analysis of several statutory provisions, cases decided by the Supreme Court and High Courts. The researcher has consulted leading text books, journals, bare Acts, judgments, relevant newspaper articles, magazines, internet sources; etc. in addition the researcher also consulted provisions from various international conventions. The data required for the study has been collected from-

1. Primary Sources like Statutes, treaties, judicial decisions and reports of commissions

2. Secondary Sources like books, commentaries, encyclopaedias, periodicals and off-line and online E-data bases like Manupatra, westlaw India, jstor, etc.

Implications of artificial intelligence for democratic systems

Artificial intelligence has been gaining traction recently and this has led to questions about how AI will affect democracy. This is especially true given that AI is being used widely in all societal, economic and political spheres. Within political theory, the notion of democracy is subject to a variety of interpretations and debates, involving complex discussions of normative, procedural and structural characteristics. This article attempts to simplify the essential aspects of democracy that could be impacted by artificial intelligence, despite the intricate nature of these conversations, by offering a conceptual framework that is widely applicable. Four analytical levels are used to examine the impact of AI. The individual level, where it impacts conditions surrounding self rule and the capacity of individuals to exercise it; the group level, where it impacts the equality of rights among various societal groups, the institutional level, where it impacts the perception of elections as transparent and equitable processes for resolving political disputes and the systems level, where it impacts the competition between democratic and autocratic forms of governance.[2] This approach provides a useful and thorough framework to investigate the complex effects of AI on democracy, even though it might sacrifice some nuance.

Table 1: Perception of different level

Level	Impacted areas
Individual	Self rule

[1] The parable of Google Flu: Traps in big data analysis. Science, 343 (6176), 1203–1205.
[2] Dahl R. A. (1998). On democracy Social Science, 13, 295–311.

Group	Equality
Institutional	Elections
System	System Competition

The idea rejects commitment to a single democratic theory in favour of a thorough understanding of democracy as a multifaceted phenomenon. This methodology broadens the comprehension of the possible ramifications that Artificial Intelligence may have on society, specifically concerning the efficiency and calibre of democratic procedures. By recognizing the complexity of democracy, it highlights the various ways in which AI may impact and reshape societal dynamics and highlights the complex interactions between technology and democratic institutions.[3] This allows for a more comprehensive examination of the possible drawbacks and advantages AI may have for democracy.

1. Dimensions of democracy from historical foundations to modern era

Democratic systems are defined by giving every member a certain amount of ownership in social projects, encouraging an understanding of shared responsibility. Some viewpoints, like Schumpeterian democracy, place more emphasis on amicable leadership changes, whereas more participatory strategies concentrate on empowering people. Proponents of democracy emphasise how it can lead to human potential realisation, human rights protection and emancipation. Nonetheless, issues include a propensity for short term thinking, vulnerability to populist and elite manipulation rivalry that polarises society and a focus on procedure rather than outcome. According to David Stasavage's social-scientific perspective, there are two types of democracy: early and modern. Autocracy is characterised by the government without the consent of the people directly affected, which usually leads to a strong bureaucracy for stability. This viewpoint makes it possible to concentrate on the tangible components of democracy laying the groundwork for later discussions about how it affects artificial intelligence.

1.1 Collective decision making in the early stages of democratic development

In the early democracies, the ruling class worked in tandem with autonomous assemblies or councils frequently lending support or information. This system was not unique to Greece, it was widespread throughout the world and especially in smaller polities where subjects provided important information to their rulers. Particularly notable for its widespread participatory democracy was Athens. Athens was reorganised into demes and tribes with randomly chosen representatives in a Council of 500 by Cleisthenes' reforms in the sixth century BC.[4] Through the incorporation of insights from eligible males, this structure facilitated collective decision making and ensured broad participation, thereby preventing power consolidation.

Because of its unique system, which relied on enslaved people for defence and production, Athens allowed its citizens to participate in governance. An efficient system of transportation and communication was necessary and a steady flow of people into and out of government buildings preserved representative, impersonal government. Bronze disks were used for

[3] Rethinking democratic innovations: A look through the kaleidoscope of democratic theory. Political Studies Review, 20(4), 680–690.
[4] Stasavage, The Decline and Rise of Democracy, chapter 2; Ober, The Rise and Fall of Classical Greece, chapter 6; Thorley, Athenian Democracy, chapter 3.

voting and technical components like announcement boards and allotment tokens were essential to the system's operation. In order to maintain the impersonal character of government, Athens periodically recorded on potsherds the ostracisms of citizens whose notoriety threatened them. [5]According to Aristotle, citizen assemblies demonstrated virtues and wisdom collectively, highlighting the significance of tangible items such as tokens, notice boards and voting disks in ensuring the efficacy of democracy in Athens.

1.2 Materializing collective choice in the realm of modern democracy

The representative model of modern democracy which was invented in Europe, allows elected representatives to act without being constrained by laws. After winning competitive elections with universal suffrage, these democracies struggle with legitimacy because of the ethereal concept of "state" and "society," which breeds mistrust. Modern democracies like the US, have large territories, which present challenges because people may feel cut off from their government. One difficulty is the possibility of excessive executive power, particularly in cases where executives are directly elected, raising questions about individual power.[6] While bureaucracies are necessary for daily operations, they can also create a dynamic that distances citizens from the political process. Writing under the pen name "Publius" in the Federalist Papers, Alexander Hamilton, James Madison, John Jay highlighted the value of communication and information in US governance. Publius imagined Congressmen delivering information to the nation's capital, but communication was difficult due to the size of the region, creating what was seen as a "quarantine" of the government from the general public.[7]

This was lessened in the 19th century by developments in the newspaper industry and postal services, which established the media's pivotal role in contemporary democracies. Federalist No. 57 states that the goal is for leaders to appoint wise and moral people to further the common good. Parties arose as leaders printed ballots and voting systems, left to the states, developed from techniques like the kleroterion to paper ballots. Voting became secret thanks to the "Australian ballot," which by 1896, had spread throughout the US. It was difficult for immigrants, former slaves and the poor with no education.[8] In the 1880s, voting machines became available, raising fresh questions about possible malfunctions or manipulation and adding fuel to the fire regarding the ongoing discussion regarding the internal workings of US elections.

1.3 Democratic resilience in the face of technological era

Stasavage sees democracy as an ongoing experiment that has surprisingly succeeded, but he also sees significant obstacles for modern democracy in the form of the distant state and overbearing executive issues. According to Stasavage, autocracy can only be a practical substitute if it is backed by capable bureaucracies. Historically, the information advantages that citizens had over rulers have been diminished by technological advancements, especially in the areas of production and communication. This has undermined early democracies. Advances in agriculture and other fields have made bureaucracies more efficient, increasing the sustainability of autocracies with capable bureaucracies. Sequencing and the democracy's resilience to technological advancements are two important factors. Systems where autocracy is a feasible option are more susceptible to disruption than well established democracies.

[5] Aristotle, Politics, 1281a39-b16. Also see Risse, "The Virtuous Group: Foundations for the 'Argument from the Wisdom of the Multitude.
[6] Cooke, Federalist, 149.
[7] Young, The Washington Community 1800-1828, 32.
[8] Cooke, Federalist, 384.

China.[9] For instance, the idea that democracy is the only route to development by making notable advancements under an autocratic system with a capable bureaucracy. On the other hand, Yuval Noah Harari presents an alternative viewpoint, arguing that historically, because of their superior information processing abilities, democracies have performed better than autocracies especially in the late 20th century.

Stasavage and Harari concur that the democratic conditions are threatened by artificial intelligence. Even though current democracies might not be in danger right away, meaningful citizen participation in politics in contemporary democracies depends on technology to solve problems like the distant state and oppressive executive. However, since technology is not intrinsically compatible with democracy, its use in democracies must be carefully considered to ensure that it advances democratic goals. History teaches us that technology can bolster autocracies, underscoring the importance of being vigilant against the emergence of autocratic tendencies even within democratic systems.[10] AI may have a significant influence on how technology

and democracy interacts in the 21st century, so it will be important to carefully consider how to match technical developments with democratic principles.

Data analysis of AI in democracy

The analysis uses information from a respondi AG survey of 1115 participants, which represents the German population between the ages of 18 and 74. Despite being unique to Germany, the relevance can be found in more general European contexts due to similar favourable political support and attitudes toward AI in general. Germany offers an appropriate context for testing theories about citizens' perceptions of democracy. Because its social values are similar to those of central and northern Europe.[11] The historical background, which is characterised by democratic principles and encounters with technocratic features, adds to the diversity of viewpoints seen.

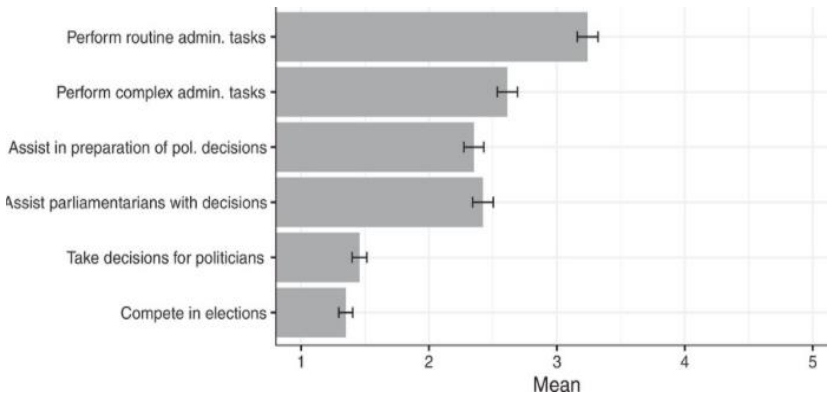

Figure 1: AI with varying decision-making levels.

The data indicates that citizens are reluctant to accept artificial intelligence in government, with differing degrees of acceptance for various uses. Notably, support is higher for less invasive uses of AI. There is a relationship between acceptance and decision making The

[9] Stasavage, The Decline and Rise of Democracy, 296.
[10] Fung and Cohen, "Democracy and the Digital Public Sphere," 25.
[11] Technocratic attitudes: A citizens' perspective of expert decision-making. Bertsou, E., & Pastorella, G. (2017), 40(2), 430–458.

results are thought to be applicable outside of Germany because of the common political beliefs and cultural traits among European nations.[12]

authority with greater authority being correlated with lower acceptance of AI. In contrast to AI participating in elections or making political decisions, which are viewed as possible threats to democratic processes, routine administrative tasks are supported more heavily. 10% of respondents are open to partially outsourcing high level politics to machines, despite the generally low mean values.[13] Three dimensions are revealed by principal component analysis to underlie the six measured AI applications.

2. Opportunities and obstacles for democracy in the digital age

Public spheres developed from verbal communication to flourish with safe spaces, acting as actor networks for information exchange. Due to the revolutionary changes in distribution brought about by the printing press, newspapers and the media have become the "fourth estate." As we moved from telegraphs to radio, film and television 20th-century academics like McLuhan stressed the importance of the medium. AI's function in sustaining power is best illustrated by the social credit system in China. Cyberspace fights criminal activity and authoritarian control on a global scale, influencing large scale protests organised via social media. Economic inequality poses a challenge to egalitarian empowerment in modern democracies. According to Piketty, capitalist economies naturally encourage inequality and call for long term policies in a number of areas to address it.

2.1 Landscape of collective consciousness

Public spheres were originally limited to spoken communication. But as writing became more widespread and the printing press had a greater influence. Newspapers are the key component of what is known as "the fourth estate." The public discourse has been significantly shaped by subsequent media developments, such as the telegraph, radio, film and television. The internet however, played a major role in the rise of social media, which changed the public sphere and put traditional media's hegemony in jeopardy by extending and diversifying it. The 2018 Cambridge Analytica scandal made clear how data mining can be used to influence political outcomes through targeted advertising.[14] With an expanding online communications infrastructure, digital media now make up a sizable portion of the public sphere. The digital infrastructure is unfortunately frequently shaped by private interests, who aim to maximise clicks and virality while meeting market demands.

By creating echo chambers, disseminating intentional lies and confirming pre-existing media societal problems. Confusion and bias are exacerbated by visually appealing algorithms. The development of deep fakes, which cast doubt on the veracity of video evidence and may undermine social trust which exacerbates the situation.[15] This infrastructure ought to support responsible integration of synthetic media, promote civic values and enable informed discourse. As an alternative, governments could establish publicly funded non profit organisations that employ specialised AI to oversee and preserve the public's interest in digital life while resolving issues with distant states.

[12] Technocratic attitudes among citizens in nine European democracies. Bertsou, E., & Caramani, D. (2020), 66, 5–23.
[13] Citizen preferences for independent experts in political decision-making processes. Bertsou, E. (2021) 61(1), 255–267.
[14] Jungherr, Rivero and Gayo-Avello, Retooling Politics, chapter 9; Veliz, Privacy Is Power, chapter 3.
[15] Zuboff, "The Coup We Are Not Talking About"; Risse, "The Fourth Generation of Human Rights."

2.2 Enduring influence of political power

The Chinese social credit system serves as an example of how artificial intelligence is used in power maintenance and demonstrates how autocratic regimes use technological advancements to control people. Global governments are using their control over online spaces to thwart large scale protests, turning cyberspace into a battlefield. In light of the Snowden disclosures regarding the specialised artificial intelligence tools employed by the US. Eisenhower's 1961 caution about unjustified influence and policy capture by a technological elite is still relevant today.[16] Instead of offering assistance, AI deployment in welfare states frequently entails monitoring and resource limitations raising worries about "black-box societies" where biassed decisions are made by opaque algorithms. AI and democracy have complicated relationships because prejudiced algorithms in mortgage, employment and parole applications uphold historical injustices.

Donna Haraway's "Cyborg Manifesto" issued a warning regarding the possibility of digital technologies serving to reinforce current power structures. Although digital technologies have the potential to bolster democracy, instances such as Taiwan's deliberative governance process and Iceland's crowdsourced constitution demonstrate their beneficial applications.[17] Nonetheless, issues with biassed AI judgments and the dearth of pertinent justifications in algorithmic procedures continue to be raised. In order to connect people in democracies and monitor public health during the COVID-19 pandemic, digital technologies have been utilised. The potential to use open internet sources to counter abuse of power is highlighted by the role of civil society as evidenced by investigations conducted by organisations such as Bellingcat. The discrepancy between the preferences of low and middle class citizens policy outcomes in contemporary democracies calls into question the legitimacy of democratic governance. Intelligent artificial intelligence has the potential to improve citizen politician communication and provide accurate insights into citizens' needs.[18] Nonetheless, the requirement for monitoring in a democracy highlights how crucial proper supervision is by adding AI systems to enhance citizen services.

2.3 Influence of Economic Power in Modern Societies

Equal empowerment is a central feature of modern democratic conceptions, but economic inequality is dangerous especially in capitalist democracies. According to Thomas Piketty, capitalism by its very nature creates inequality, rewarding shareholders over wage earners. Policies related to taxes, transportation, urban planning, healthcare, pensions, education and macroeconomic techniques are essential for reducing inequality in these democracies. Because technology is a major factor in creating inequality, there are worries that Artificial Intelligence will exacerbate it. Technology can help people who are skilled, but its effects on employment are also a matter for concern.[19] AI's impact on employment could have both positive and negative effects with traditional jobs evolving and underqualified people struggling in tech driven economies.

According to the gloomy forecast, people who are unfit for tech positions might lose their political significance and end up being disposable. As technology advances, the structure of the future economy around data ownership becomes increasingly important. Shoshana Zuboff is credited with coining the term "surveillance capitalism" to refer to the business strategy that major tech companies like Google, Facebook, Amazon and others have embraced. Once

[16] Crawford, Atlas of Al, 184. Obviously in 1961, Al was not what Eisenhower had in mind.
[17] Crawford, chapter 6. See also Veliz, Privacy Is Power.
[18] Haraway, Simians, Cyborgs, and Women, 149-82.
[19] Tegmark, chapter 5.

intended to enhance services, data collection has evolved into a form of surveillance capitalism that modifies our everyday lives. Zuboff presents the idea of "instrumentarium" power, which is used by tech companies, like the "Big Other" to extract profits from electronic devices. Concerns about concentrated power are raised by the influence of a small group of powerful tech companies dubbed "the Big Nine" which includes Tencent, Alibaba, and Baidu in China and Google, Microsoft, Amazon, Facebook, IBM and Apple in the US. American companies incorporate surveillance capitalism into a political and Legal framework, while Chinese companies aggregate data for governmental control. It is highlighted that democratic methods are needed to balance the influence of Big Tech and that both the government and civil society must act.[20] The US and China are the main competitors in the tech sector, while the EU supports democratic initiatives. In the end, a healthy future for work and societal well being depends on using Big Tech for democratic goals.

INTERTWINED LEGAL NORMS OF AI IN DEMOCRACY

Although there are a number of international legal frameworks that guarantee fundamental rights, none of them specifically address artificial intelligence. These include the European Union's Charter of Fundamental Rights, The International Bill of Human Rights and The European Convention on Human Rights among others. It makes a distinction between soft law and hard law, emphasising that although some legal protections for individual rights exist, they are insufficient in addressing the threats related to artificial intelligence. Legal actions, government regulations and public monitoring of AI development and application will be necessary to uphold these rights, particularly in the context of child centred education. Legal documents that specify the right to privacy and nondiscrimination are essential for AI applications and current safeguards for certain groups, including minorities are also relevant. The unpredictable nature of AI systems presents difficulties that call for a careful balancing act between the advancement of innovation and the defence of human rights.[21] Given the possible effects on educational systems, addressing these concerns is essential in the context of education.

In historical review, Korff and Georges 2020 clarify that the General Data Protection Regulation of the European Union was created to address issues brought about by emerging technology such as artificial intelligence. Strong data protection for students worldwide is provided by GDPR and national education regulations. When developing AI apps for educational institutions, developers need to adhere to data privacy regulations, such as those outlined in GDPR Article 25 and Convention 108. According to Hildebrandt 2015, legal protection through design becomes essential when technology affects how people behave. GDPR takes care of this by requiring data protection impact assessments. DPIAs, which can be difficult and time consuming are required of school owners, such as municipalities in order to identify and assess the hazards related to digital technologies in the classroom.[22] The Norwegian Data Protection Agency provides a list of operations that require a DPIA in order to make this process easier.

CASE STUDY

Finland has been leading the way in AI development via its national AI program and AuroraAI, which aims to create a people centric society by bringing public and private institutions together. With a focus on significant life events like family dynamics and school

[20] Zuboff, The Age of Surveillance Capitalism. See also Veliz, Privacy Is Power.
[21] 'Legal by Design' or 'Legal Protection by Design'?" Law for Computer Scientists, Hildebrandt M. (2019), " section 10(3).
[22] Council of Europe (2020), CAHAI, "Towards regulation of Al system.

changes, the program seeks to establish a service network that links disparate services for mutual support and interaction. AuroraAI aims to create new service chains that automatically support life event transitions by leveraging adaptable multi stakeholder ecosystems. AI technologies are used to provide personalised services that are catered to the needs of specific persons. The utilisation of data generated by individuals through personal smart health devices, this method promotes the use of population level and personal data to improve citizens' access to individualised services. The audacious objective of AuroraAI is to use AI to combine the current service structures into cohesive entities, establishing a nationwide digital infrastructure. It is anticipated that this shift will improve an organisation's ability to deliver services for a range of life events in an informed manner, encouraging cross sector collaboration and cutting costs. In order to succeed in providing public services, the Finnish government highlights the necessity of connecting public institutions via the AI-Aurora network. The curriculum emphasises cooperation between the public and commercial sectors while addressing governance, policy reform, regulatory concerns and technical innovation in a multivendor environment. User provided anonymous and unvalidated data exchange inside the AuroraAI network are important tenets with an emphasis on moral behaviour.[23] The ultimate goal is to create a digital Finland where people can participate in service development and have access to advanced services on their own terms.

CONCLUSION

The confluence of democratic systems and artificial intelligence presents a complex scene with far reaching consequences. The conceptual framework offers a thorough method for comprehending these ramifications by looking at AI's effects at the individual, group, institutional and systemic levels. AI presents complex issues with regard to equality, self government, transparent elections and the struggle between democratic and autocratic forms of government as it becomes more integrated into democratic processes. From early participatory models to contemporary representative democracies, the historical development of democratic systems reveals a robust experiment confronting modern challenges. Artificial Intelligence presents both opportunities and challenges for democracy. Public spheres are changing in the digital age, raising concerns about data driven manipulation, political influence and economic inequality. Vigilant governance is imperative due to the influence of political and economic power, as demonstrated by systems such as China's social credit system. Robust protections are essential, as highlighted by the interwoven legal norms addressing AI in democracies, particularly in educational settings.

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