

# Democracy in the Digital Era – the impact of the Advancing Technology and Artificial Intelligence

## (Democrația în era digitală - impactul progresului tehnologic și al inteligenței artificiale)

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Progresele din domeniul tehnologiei au condus la numeroase oportunități de creștere. Cu toate acestea, există și pericole care trebuie luate în considerare, cum ar fi proliferarea armelor de distrugere în masă, noi forme de război, pierderea confidențialității și așa mai departe. Acest document explorează interacțiunea dintre progresul tehnologiei, în special al inteligenței artificiale, și principiile fundamentale ale democrației. Având în vedere schimbările atât de rapide ale abilităților tehnologiei, este esențial să se studieze impactul acesteia asupra societăților democratice. Astfel, vor fi abordați factori precum dezinformarea; prejudecata algoritmică; exacerbarea inegalităților existente; și o creștere a populismului pentru a vedea impactul asupra alegerilor și a altor procese democratice. De asemenea, trebuie luate în considerare și aspectele pozitive, cum ar fi creșterea transparenței, o creștere a participării politice datorită accesibilității; și elaborarea de politici mai bine direcționate și mai eficiente.

Pericolele reprezentate de tehnologie și, în special, de inteligența artificială evidențiază necesitatea unor cadre de reglementare solide și a unor considerente etice pentru a putea utiliza beneficiile acesteia, promovând în același timp principiile democratice.

**Cuvinte-cheie:** inteligență artificială, democrație, amenințări, oportunități, dezinformare, inegalitate de acces, confidențialitate, populism.

### Introduction

Over time, advancements in technology have brought numerous growth opportunities (e.g. neurotechnology; precision medicine). However, there is also a dark side to such advancements. One needs only think of how much deadlier weapons of war have become - moving from fighting with swords to guns, tanks, biochemical weapons, and even nuclear bombs. This paper focuses on the impact of technological advancements, particularly artificial intelligence (AI), on democracy. AI is a powerful software that processes large amounts of data and uses statistical reasoning to generate predictions and recommendations<sup>1</sup>. The relevance of such discussions is clear since it enables the maximisation of the benefits of AI, while circumventing its potential risks to democratic principles.

To facilitate the analysis, the core values of democracy will be touched upon. Following this, the evolving landscape of technology and AI within democratic contexts will be expanded upon to offer insights into the arising opportunities and challenges. Lastly, the essay will look into the interaction between populism and AI.

### Democracy

Numerous definitions of democracy have been adopted over time, each emphasizing core principles that are needed for proper functioning. Robert Dahl, a leading political theorist, discusses the importance of six institutions at the national level: “elected officials; free, fair, and

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<sup>1</sup> Cybersecurity & Infrastructure Security Agency (2023, August 18). *Software Must Be Secure by Design, and Artificial Intelligence Is No Exception* / CISA, [Www.cisa.gov](https://www.cisa.gov/news-events/news/software-must-be-secure-design-and-artificial-intelligence-no-exception#:~:text=AI%20is%20software%20that%20does)., 18 august 2023, <https://www.cisa.gov/news-events/news/software-must-be-secure-design-and-artificial-intelligence-no-exception#:~:text=AI%20is%20software%20that%20does>

frequent elections; freedom of expression; alternative sources of information; associational autonomy; and inclusive citizenship”<sup>2</sup>.

Charles Tilly is another leading political scientist, known for his insightful writings on democracy and democratization. He highlights some relevant processes for this paper that must always be present for a democracy, namely: effective participation; equal suffrage; and equal and effective opportunities to learn about policies.

Relatedly, Schumpeter highlights the central procedure of democracy as being “the selection of leaders through competitive elections by the people they govern”<sup>3</sup>. Thus, competitive elections are the essence of democracy and a way for citizens to express their preferences.

### **Opportunities**

New technologies lead to opportunities for democracy that must be considered. Firstly, generative AI (e.g. ChatGPT) facilitates access to information. For example, citizens can ask a chatbot how to navigate complex bureaucratic processes and they will rapidly receive ‘digestible’ information. In turn, this can lower the barriers to political participation and lead to more civic engagement and better-informed decision-making<sup>4</sup>. Advancing technology also enables citizens to more easily participate in debates; removing geographical and monetary restrictions.

AI can also contribute to policy-making and may lead to more effective and targeted governance. This is because it uses statistical reasoning to analyse enormous amounts of data and identify patterns. In this way, the input of more citizens can be considered. Consequently, policymakers can implement evidence-based plans to formulate more fruitful and precise policies.

Advancing technology also creates more transparency of governmental processes which can increase trust and the perceived legitimacy of democratic processes. Citizens can be promptly informed online about decisions and progress. For example, through livestreams, presidential candidates’ speeches can be followed by the diaspora. Relatedly, the perceived closeness through social media with candidates and other governmental officials can further foster trust and facilitate debates, increasing political participation. A great example is Congresswoman Alexandria Ocasio-Cortez, whose Twitter following increased by 600% in a year and a half as she constantly engages with people<sup>5</sup>.

A direct consequence of the above is that diverse perspectives can be heard more easily and politicians can better represent their citizens due to the closeness created through technology<sup>6</sup>.

### **Threats**

#### ***Disinformation***

As technology is advancing, governments need to implement effective laws to protect their citizens, but this process is lagging. While there have been effective changes in Europe, such as

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<sup>2</sup> Charles Tilly, *Democracy*, Cambridge University Press, 2007, p. 10.

<sup>3</sup> Samuel P. Huntington, *The Third Wave: Democratization in the Late Twentieth Century*. University of Oklahoma Press, 1991, p. 6.

<sup>4</sup> S. E. Kreps & D. L. Kriner, „How AI Threatens Democracy”, in *Journal of Democracy*, 34(4), 122–131/2023, <https://doi.org/10.1353/jod.2023.a907693>.

<sup>5</sup> M. Benwell, „How Ocasio-Cortez beat everyone at Twitter in nine tweets”, in *The Guardian*, 12 February 2019, <https://www.theguardian.com/us-news/2019/feb/12/alexandria-ocasio-cortez-twitter-social-media>.

<sup>6</sup> A. Michael, *Artificial intelligence, democracy and elections*, European Parliament, 19 September 2023, [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2023\)751478](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2023)751478).

the General Data Protection Regulation introduced in 2016, more regulation is necessary<sup>7</sup>. The unchecked power of technology companies was seen during the Brexit referendum. According to Cadwalladr (2019), misleading ads were displayed on Facebook, targeting swing voters. Unfortunately, their effects are untraceable as Mark Zuckerberg refuses to share the data with the British government. However, it is understood to have skewed the results of the referendum - with support for 'Leave' being linked to nativist and populist online mobilisations<sup>8</sup>. Since Britain has strict laws regarding monetary spending during elections, this was deemed the biggest electoral fraud in 100 years. In essence, this was a case of "spreading lies in darkness paid for with illegal cash", leading to questions of whether free and fair elections are a concept of the past<sup>9</sup>. Thus, social media can be used to spread disinformation and manipulate public opinion.

Even after the introduction of Photoshop in 1987, it was inconceivable that one day we might not be able to differentiate real images from altered ones. However, AI has completely changed the game. Anyone can now instantly generate fake photos, videos and audio files (i.e. 'deepfakes'). Not only is this content extremely realistic, but the software is constantly learning how to improve its output. AI-generated content can be used to deceive the public and manipulate them<sup>10</sup>. It can easily spread disinformation that will have real effects on electoral campaigns. Alternatively, even if the dissemination of misinformation does not change the public's beliefs, the inauthentic content could decrease trust in the government. Social trust is essential in democracies because it fosters political participation, confidence in political institutions and respect for democratic values<sup>11</sup>.

In sum, through social media and the use of AI, democratic accountability processes will deteriorate as elections will no longer be accurate representations of how voters feel about candidates' actions. They will be the outcome of disinformation and deception<sup>12</sup>.

### ***Influencing policy-makers***

Generative AI can be used to create enormous amounts of content that floods the internet and political communications. It can generate misleading information and spread bias that is not representative of public opinion. The effect of this is that legislators face severe difficulties in deciphering true public sentiments and preferences. This threatens the quality of representation as officials will not be able to discern the constituents' pressing concerns from fake comments<sup>13</sup>.

The European Parliament also discusses the danger of using AI to internationally (or accidentally) reproduce structural biases through 'mathwashing'. This is a process where numbers and mathematical authority are used to justify a course of action. An unrepresentative dataset will lead the AI to draw inaccurate conclusions influenced by ethnicity, sex and age<sup>14</sup>. This algorithmic

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<sup>7</sup> EUR-Lex, *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016*, <https://eur-lex.europa.eu/eli/reg/2016/679/oj>.

<sup>8</sup> N.-A. Hall, „Understanding Brexit on Facebook: Developing Close-up, Qualitative Methodologies for Social Media Research”, in *Sociological Research Online*, 27(3)/2021, 136078042110373, <https://doi.org/10.1177/13607804211037356>

<sup>9</sup> C. Cadwalladr, *Facebook's role in Brexit — and the threat to democracy*, 2019, 12.35, in *YouTube*. [https://www.youtube.com/watch?v=OQSMr-3GGvQ&ab\\_channel=TED](https://www.youtube.com/watch?v=OQSMr-3GGvQ&ab_channel=TED).

<sup>10</sup> European Parliament, *Artificial intelligence: threats and opportunities*, 23 September 2020, <https://www.europarl.europa.eu/news/en/headlines/society/20200918STO87404/artificial-intelligence-threats-and-opportunities>

<sup>11</sup> Kreps & Kriner, *op. cit.*

<sup>12</sup> *Ibidem.*

<sup>13</sup> *Ibidem* and A. Michael, *op. cit.*

<sup>14</sup> European Parliament, *op. cit.*

bias can perpetuate and exacerbate existing biases in political representation, underrepresenting certain groups and leading to discriminatory outcomes. For example, minorities that are not traditionally found in datasets will be invisible to computers. Thus, they will be excluded from predictions about the behaviour of the body politic and their interests and grievances will go unheard<sup>15</sup>.

### ***Privacy concerns***

Another area that could suffer from advancing technologies and the misuse of AI is the right to privacy and data protection. The ability to surveil the population through online tracking or even facial recognition and profiling can lead to violations of these established rights<sup>16</sup>. In fact, the use of AI for surveillance, but also for censorship and the control of data can consolidate authoritarian tendencies.

Relatedly, algorithms may be used to exploit the data collected about the population. This can then be used to tailor political messages to gain electoral support.

The European Parliament also raises the question of who to hold accountable for damage caused by AI<sup>17</sup>.

### ***Access inequality***

In his book, Dahl<sup>18</sup> emphasises the importance of having equal rights to participation and representation as key features of a functioning democratic system. However, advancing technology hinders this process as not everyone has the means necessary to use technology and AI. Thus, some demographics will be excluded from these opportunities to collect information; engage in online political discussions and participate in other political processes.

### ***Populism and AI***

Another crucial aspect to consider is the interaction between populism and AI and its effects on democracy. Populism is a political ideology characterized by the representation of the general will of the ‘pure’ people against the ‘corrupt’ elite. While it may empower groups that feel unrepresented by the establishment, it can legitimise attacks on anyone threatening the homogeneity of the population<sup>19</sup>.

First of all, AI can be used to tailor political messages to the tastes of the users. Thus, populists can use this to amplify the appeal of their narratives and connect more with the people. Due to algorithms keeping groups in their own ‘bubble’, where they only see messages pertaining to their beliefs and preferences, the effect of populist messages will be the deepening of existing divisions within society and a strengthening of the ‘us’ versus ‘them’ mentality. Echo chambers will be created, where the users’ pre-existing beliefs will be reinforced and alternative views will be marginalised<sup>20</sup>. The further consequence of this is the undermining of pluralism as the diversity of voices narrows and people are no longer exposed to varied opinions. This also hinders informed

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<sup>15</sup> A. Jungherr, „Artificial Intelligence and Democracy: A Conceptual Framework”, in *Social Media and Society*, 9(3)/2023, <https://doi.org/10.1177/20563051231186353>.

<sup>16</sup> European Parliament, *op. cit.*

<sup>17</sup> *Ibidem.*

<sup>18</sup> Robert A. Dahl, *On democracy*, Yale University Press, 1998.

<sup>19</sup> Cas Mudde & C. R. Kaltwasser, *Populism: A Very Short Introduction*, Oxford University Press, 2017, pp. 1-20.

<sup>20</sup> Z. Muhammad, Z. (2020, June 13). „Study Reveals How Social Media Algorithms Create Echo Chambers”, in *Digital Information World*, 13 June 2020, <https://www.digitalinformationworld.com/2020/06/study-reveals-how-social-media-algorithms-create-echo-chambers.html>

decision-making and manipulates elections<sup>21</sup>. As was seen in Dahl's work, political representation is key to democracy and distorting reality is dangerous.

Moreover, the ability of AI to spread disinformation can aid populist narratives and hinder the ability of people to differentiate fact from fiction. This will undeniably impact democratic processes such as elections. Additionally, it can lead to an erosion of trust in democratic institutions and a loss of legitimacy of the democratic process if the public recognises that they are being manipulated.

### **Conclusion**

Technology brings a myriad of benefits to democracy. Nevertheless, many of these advantages come with their own disadvantages. For example, not everyone has access to advanced technology, which can help exacerbate existing inequalities as these people will not be able to participate in digital democratic processes.

This paper has shown how technology and AI can affect core elements of democracy such as political participation; elections; pluralism; and opportunities to learn about policies. It is crucial to work towards a framework that can harness the benefits of technological processes while curtailing the dangers towards democratic values and institutions.

The dangers posed by technology and specifically artificial intelligence highlight the need for robust regulatory frameworks and ethical considerations to be able to utilise its benefits while fostering democratic principles.

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<sup>21</sup> European Parliament, *op. cit.*

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