

# Artificial Intelligence and Its Challenges To Elections In Indonesia: A Legal Analysis

Hesti Armiwulan<sup>1</sup>  
Rofi Aulia Rahman<sup>2</sup>✉  
Valentino Nathanael Prabowo<sup>3</sup>  
József Hajdú<sup>4</sup>

<sup>1,3</sup>Faculty of Law, Universitas Surabaya, Indonesia.

<sup>2,4</sup>Faculty of Law and Political Sciences, University of Szeged, Hungary.

✉rahman.rofi.aulia@stud.u-szeged.hu

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## Abstract

*The improper utilization of AI technology poses difficulties to democracy, particularly the growing threat of unjust elections, exemplified by the deployment of bot accounts and deep fakes during electoral processes. Hence, it is crucial to build a strong and comprehensive framework to regulate the utilization of AI technology in Indonesia's political process. This article analyzes four main topics: (a) the advancement of AI technology and its connection to elections; (b) the influence of AI technology on election principles; (c) the pressing need for regulating AI in elections; and (d) the possibilities and difficulties of regulating AI technology within Indonesia's legal framework. The paper employs doctrinal legal research to examine the necessity of regulating AI technology in the context of conducting elections, taking into account the constitutional framework, established principles, and democratic election norms. The result shows that irresponsible use of AI technology remains a menace to democratic election ideals, and Indonesia must establish adequate legal mechanisms to tackle the problems stemming from the improper use of AI technology in the political process. The regulation of AI technology can be initiated by introducing a bill specifically focused on artificial intelligence (AI). This process should also involve the synchronization and harmonization of election rules, including election laws, laws governing the election of governors, regents, and mayors, laws concerning political parties, and other implementing regulations such as those established by the General Election Commission and the Election Supervisory Board.*

## 1. Introduction

This article discusses the urgency of regulating Artificial Intelligence (AI) technology in the election process to ensure its integrity. AI is increasingly becoming a ubiquitous feature in daily life around the world, including politics. In recent years, AI has intertwined with democratic processes, as demonstrated by the election of US President Donald Trump in 2016.<sup>1</sup> AI technology has also played a role in democratic events in Indonesia, as demonstrated by incidents during the country's election in 2019. For instance, the use of deep fakes and bot accounts on social media contributed to the spread of fake news, posing a significant challenge to the integrity of the electoral process.<sup>2</sup> AI technology has become a controversial phenomenon in democratic processes. On the one hand, AI technology can have a positive impact by facilitating human tasks, saving lives, curing diseases, and even solving planetary problem. On the other hand, if misused, it can undermine the quality of democracy and cause injustice in the election process.<sup>3</sup> Therefore, misusing AI technology during elections might contradict the principles of Article 22E (1) Indonesia's Constitution, which stipulates that general elections are held based on free and fair principles.

General elections and political parties are two essential elements in democratic countries that uphold democratic principles.<sup>4</sup> The use of AI technology is beginning to affect the two crucial elements of democratic countries, namely general elections and political parties. While AI technology has the potential to positively impact various

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<sup>1</sup> For example AI technology used in Indonesian Presidential election that every candidates used generative AI to make a character. Also Prabowo's campaign used AI to involve children in their election. See The Jakarta Post, "Prabowo-Gibran Team Says AI Characters Used in Campaign Ad - Politics," The Jakarta Post, accessed March 1, 2023, <https://www.thejakartapost.com/indonesia/2023/11/23/prabowo-gibran-team-says-ai-characters-used-in-campaign-ad.html>; See also Carole Cadwalladr, "How Trump Consultants Exploited the Facebook Data of Millions - The New York Times," accessed November 7, 2022, <https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html>.

<sup>2</sup> Rofi Aulia Rahman and Shu-Mei Tang, "Fake News and Internet Shutdowns in Indonesia: Symptoms of Failure to Uphold Democracy," *Constitutional Review* 8, no. 1 (June 3, 2022): 151-83, <https://doi.org/10.31078/consrev816>.

<sup>3</sup> Francesca Rossi, "Artificial Intelligence: Potential Benefits and Ethical Considerations," *European Parliament: Policy Department C: Citizens' Rights and Constitutional Affairs*, no. PE 571.380 (October 2016), [https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/571380/IPOL\\_BRI\(2016\)571380\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/571380/IPOL_BRI(2016)571380_EN.pdf).

<sup>4</sup> Achmad Ubaedillah and Abdul Rozak, *Demokrasi Hak Asasi Manusia Dan Masyarakat Madani* (Jakarta: ICCE bekerja sama dengan UIN Syarif Hidayatullah Jakarta, 2006), 82.

sectors people's lives, it can also have negative consequences if not used responsibly and appropriately.

The influence of AI technology has also impacted the democratic process in Indonesia, particularly in the area of general elections. Gradually the use of AI technology by politicians during elections become a new tool for campaign and other political purposes. It has already led to significant changes in the marketing strategies of political parties and campaigns. The help of AI technology has made it easier for politicians to win elections by influencing voters, as committed by the Cambridge Analytica.<sup>5</sup>

In dealing with the challenges posed by the development of AI technology, Indonesia's current legal framework has been unable to effectively address the legal issues that arise. To date, there is no specific regulation or legislation that specifically governs AI technology. Furthermore, laws and regulations related to politics, such as the general election law, have not kept pace with the responsible use of AI technology, despite its increasing use by politicians for their political gain.<sup>6</sup>

Regulation of AI technology brings opportunities to provide preventive and repressive legal protection. Through regulations that provide strict limits regarding the use of AI, it can prevent the misuse of AI technology that is detrimental to the state and society. On the other hand, in a repressive manner this regulation can provide legal certainty as to which party should be held responsible in the event of misuse of AI technology. The challenge in regulating AI technology lies with the legislators in Indonesia who are still oriented towards politics and power. Law-forming officials are still oriented towards thinking about the relationship between humans and humans, even though in

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<sup>5</sup> See the case of Prabowo – Gibran team deployed generative AI for political campaign which used children character for the campaign. The other cases is Cambridge Analytica used illegal personal data from Facebook to classify people's behavior based on AI technology and influence it through political campaigns that reflect people's behavior. See also Sam Meredith, "Facebook-Cambridge Analytica: A Timeline of the Data Hijacking Scandal," CNBC, April 10, 2018, <https://www.cnn.com/2018/04/10/facebook-cambridge-analytica-a-timeline-of-the-data-hijacking-scandal.html>.

<sup>6</sup> Paul Nemitz, "Constitutional Democracy and Technology in the Age of Artificial Intelligence," *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 376, no. 2133 (November 28, 2018): 2, <https://doi.org/10.1098/rsta.2018.0089>.

the current technological era it requires a focus on thinking about the relationship between humans and technology.

AI has developed faster than laws. The election process in the era of Society 5.0<sup>7</sup> has been influenced by many factors, including the development of AI technology. The use of AI technology in the election process involves various legal issues, such as the illegal use of voter data, black campaign activities, and the potential to cause horizontal conflicts between communities. Therefore, a legal framework is needed to maintain the principles of democratic elections and to ensure that political contestants use AI technology in a transparent and responsible manner.

Therefore, first discussion talks about the relation and impact of AI in election which brings positive and negative impact for elections. In second analysis, there is a legal need to approve that AI must be regulated within special law on AI as the main legal basis. This part explicates the prospect and challenges in regulating AI into legal system. Finally, the election, and political party law needs to be amended for inserting responsible AI principles into respective laws to make sure that AI technology used for elections are safe for voters and democracy. This paper aims to contribute the theoretical and legal framework to address the AI development in election and its challenges. Furthermore, the article urged the theoretical and pragmatically needs to enact the specific law on AI and election since practically, the AI has influenced the process of election.

## **2. Problem Statement**

This article discusses, first, the advancement of AI technology and its connection to elections; second, the influence of AI technology on election principles; third, the necessity for regulating AI in election law, political party law, and special law on AI in general; fourth, the possibilities and difficulties of regulating AI technology within Indonesia's legal system.

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<sup>7</sup> Society 5.0 is a concept initiated by the Japanese state that uses modern science for human needs. Society 5.0 is not much different from the industrial revolution 4.0, the only difference lies in its main component, namely the humans themselves. Society 5.0 is an era where all technology is part of the human being itself, the internet is not only used to share information but to live life.

### 3. Methods

The article utilized doctrinal legal research with statutory approach since it analyses the urgency of regulating AI technology in holding elections based on the constitutional system, doctrine, and principles of democratic elections. To generate new ideas regarding the urgency of regulating AI technology in the administration of elections, the article uses a conceptual and juridical approach. In the conceptual approach, the article examines the applicable election concepts and principles in light of the influence of AI technology, which is capable of causing changes in the election administration system to more modern practices. This requires a new election concept and principles that can adapt to technological developments. The article then pours these ideas into rules based on a juridical approach as a form of embodiment of a rule of law state.

### 4. Development of Artificial Intelligence Technology

Artificial intelligence (AI) technology has emerged as a result of continuous technological advancements created by humans and has permeated various aspects of society. Over time, the evolution of science and technology continues to facilitate a process of learning and innovation, ultimately leading to the development of AI technology. AI is defined as the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable.<sup>8</sup>

Narrow AI, General AI, and Super AI. Firstly, Narrow AI is a weaker form of AI that is programmed to perform specific tasks and cannot make decisions on its own. Examples of Narrow AI include virtual assistants like Siri and features like face recognition and Google Assistant. Secondly, General AI or Artificial General Intelligence (AGI) is a stronger form of AI that has the ability to analyze problems like a human, although its realization has been hindered by the difficulty of defining human intelligence in computer programs. Finally, Super Artificial Intelligence (SAI) is the most advanced form of AI that is still in the theoretical and conceptual stage. It is considered capable

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<sup>8</sup> John McCarthy, "What Is Artificial Intelligence?," *Stanford University*, November 2007, 2, <https://www-formal.stanford.edu/jmc/whatisai.pdf>.

of thinking and acting better than humans, with the ability to think and make decisions like humans.<sup>9</sup>

The existence of AI technology has now entered various fields of life in society and seems to be something that is already familiar in this modern era. AI technology can be applied in everyday life, starting from the choice of product recommendations in gadgets, video games, in the health sector, to entering the political arena. AI technology that can be found every day, such as Google maps, Siri virtual assistant, Google assistant, and self-driving features owned by Tesla cars are forms of application of AI that can help human work become easier and faster.<sup>10</sup> At first glance it seems that the development of AI technology has had an extraordinary positive impact on human life, but there are also negative impacts that accompany the development of AI technology. Although almost all developments in AI technology are carried out on the basis of helping to facilitate human life, there are some results of the development of AI technology that can actually endanger human life. For example, deep fake technology and AI chatbots are very prone to being abused, especially in political cases such as general elections.

With the development of AI technology, it is necessary to have a new culture of technology and business development for the age of AI which is called “rule of law, democracy and human rights by design”. The critical inquiry into that new culture must start from a holistic look on the reality of technology and business models as they exist today, including the accumulation of technological, economic and political power in the hands of the “frightful five”<sup>11</sup>. The accumulation of digital power, which shapes the development and deployment of AI as well as the debate on its regulation, is based on four sources of power, which is the power of money, the power over infrastructures for

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<sup>9</sup> Krishna Patel, Sachin Raina, and Saurabh Gupta, “Artificial Intelligence and Its Models,” *Journal of Applied Science and Computations* 7, no. 2 (February 25, 2020): 95, [https://www.researchgate.net/publication/339472454\\_Artificial\\_Intelligence\\_and\\_its\\_Models](https://www.researchgate.net/publication/339472454_Artificial_Intelligence_and_its_Models).

<sup>10</sup> Christina Backes, Julia Jungfleisch, and Sebastian Pültz, “Ok Google or Not Ok Google?—Voice Assistants and the Protection of Privacy in Families,” in *Modernising European Legal Education (MELE)*, ed. Oskar J. Gstrein et al., vol. 10, European Union and Its Neighbours in a Globalized World (Cham: Springer Nature Switzerland, 2023), 207–19, [https://doi.org/10.1007/978-3-031-40801-4\\_13](https://doi.org/10.1007/978-3-031-40801-4_13).

<sup>11</sup> The term frightful five refers to the five technology giants, which is Apple, Google, Amazon, Facebook (Meta), and Microsoft.

democracy and discourse, the power over individuals based on profiling, and the dominance in AI innovation.<sup>12</sup>

In developing and implementing AI technology, new principles emerge and must be followed by technicians and users of the technology themselves, namely responsible AI principles. There are several principles listed in developing and using AI technology, viz.:

- a. *human agency and oversight*
- b. *technical robustness and safety*
- c. *privacy*
- d. *transparency*
- e. *diverse and non-discriminatory systems*
- f. *benefit all of society*
- g. *accountability*

Those principles reaffirm that the human must control the AI and responsible for humankind. Therefore, AI technology is not allowed to be developed and used anonymously. It should be clear who develops and uses, and who exercises control over the technology. In addition, AI technology must be safe from the impact of AI technology. Therefore, if AI provides more disadvantage for society, it is against the responsible AI principle. Another principle is privacy, where every developer and user must submit to and respect privacy, including personal data.<sup>13</sup> People need more protection for their privacy and hence more control over their data.<sup>14</sup> Therefore, in developing and using AI technology, it must not violate the privacy rights of others. Another principle is transparency. This principle provides guidelines which requires that results or products from AI technology must be able to be documented so that the parties involved (stakeholders) can access these documents. Transparency is a fundamental need in both governmental and business uses of decision-making

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<sup>12</sup> Nemitz, "Constitutional Democracy and Technology in the Age of Artificial Intelligence."

<sup>13</sup> Rofi Aulia Rahman et al., "Constructing Responsible Artificial Intelligence Principles as Norms: Efforts to Strengthen Democratic Norms in Indonesia and European Union," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 9, no. 2 (2022): 231–52, <https://doi.org/10.22304/pjih.v9n2.a5>.

<sup>14</sup> Larry Diamond, "Rebooting Democracy," *Journal of Democracy* 32, no. 2 (April 2021), <https://www.journalofdemocracy.org/articles/rebooting-democracy/>.

algorithms. This accessible information will help users to understand how algorithms influence the information they see and which information appears most often.<sup>15</sup>

In transparency itself, the developer must be open about the process of developing the technology. In addition, the technology must also be able to make it easier for people to use the technology. Another principle is that AI technology should not give rise to discriminatory things. In addition, AI must also be beneficial for all components of society and users, instead of having a negative impact and being prone to abuse. The last principle is that AI technology must have someone who is responsible when AI technology malfunctions or errors occur because AI technology requires humans to be responsible for errors from AI technology. In terms of responsible AI technology, there are three levels of stakeholders which are individual stakeholders (including users, developers, and researchers), organizational stakeholders, and national/international stakeholders involved in making laws, rules, and regulations.<sup>16</sup>

When AI technology is used for election purposes, political parties and political contestants must comply with these principles. The principle of responsible AI should be a guide and spirit in election in the current era of disruption, but unfortunately these principles have not been adopted into legal norms in Indonesia, both in election laws, presidential elections and other election laws, so that the principles of holding elections in Indonesia today are still unable to adapt to technological developments.

## 5. The Effect of AI Technology on Election Principles

The use of AI technology has made significant contributions to the political practice, particularly in the organization of general elections. It enables practical and efficient election management. One example of such contribution is the use of chatbots, which can provide fast and systematic services, thereby enhancing the electoral process. By using chatbots, the public can obtain instant and systematic information regarding

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<sup>15</sup> Eileen Donahoe and Megan MacDuffee Metzger, "Artificial Intelligence and Human Rights," *Journal of Democracy* 30, no. 2 (April 2019): 115–26, <https://www.journalofdemocracy.org/articles/artificial-intelligence-and-human-rights/>.

<sup>16</sup> Advait Deshpande and Helen Sharp, "Responsible AI Systems: Who Are the Stakeholders?," in *Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society (AIES '22: AAAI/ACM Conference on AI, Ethics, and Society, Oxford United Kingdom: ACM, 2022)*, 227–36, <https://doi.org/10.1145/3514094.3534187>.



ongoing elections. In addition, the public can also report violations in elections by simply sending messages via chatbots. Therefore, this will encourage the public to play an active role in maintaining fair elections. However, while the use of AI technology has positive effects on general elections, there are also negative consequences that should not be overlooked. AI applications can be used to undermine democratic politics.<sup>17</sup> Irresponsible use of chatbots can result in the spread of fake news or hoaxes that could harm candidates. Moreover, the use of AI technology also poses a threat to users' personal data. The absence of laws and regulations governing the responsible use of AI technology in Indonesia increases the likelihood of such negative consequences.

Another example of the negative impact of AI technology is the use of deep fake technology. It enables the overlaying of a user's facial image onto a video of the target person to create a manipulated video of the target person doing or saying things the user wants. In the context of general elections, the use of deep fake technology has the potential to manipulate the public by creating fake photos or videos to advance the personal interests of candidate pairs. This irresponsible use of technology can harm other election participants by spreading fake news and manipulating public opinion. Muddying the waters between truth and fiction may become useful in a tight election, when one candidate could create fake videos showing an opponent doing and saying things that never actually happened.<sup>18</sup> Without strict regulations on the use of this technology, the public is vulnerable to believing misinformation, making it difficult to obtain correct and reliable information. This could lead to political opponents being brought down by manipulative tactics, without knowing who is responsible.

During the past years, democratic political systems in Europe and globally have been significantly endangered by disinformation (fake news), particularly during the run-up to elections. The use of AI can significantly exacerbate these threats in three regards,

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<sup>17</sup> Birgit Schippers, "Artificial Intelligence and Democratic Politics," *Political Insight* 11, no. 1 (March 2020): 32–35, <https://doi.org/10.1177/2041905820911746>.

<sup>18</sup> Steven Feldstein, "The Road to Digital Unfreedom: How Artificial Intelligence Is Reshaping Repression," *Journal of Democracy* 30, no. 01 (January 2019), <https://www.journalofdemocracy.org/articles/the-road-to-digital-unfreedom-how-artificial-intelligence-is-reshaping-repression/>.

which disinformation through automated accounts and bots, automated journalism,<sup>19</sup> and creation of political deepfakes.<sup>20</sup>

The Cambridge Analytica scandal is an example of AI abuse during a major general election. According to Vox.com, Cambridge Analytica, a political consulting firm, worked for Trump's 2016 presidential campaign in the United States. The firm used the "This Is Your Digital Life" application to collect personal data from 87 million Facebook users, which was then used for Trump's campaign interests. This data was collected illegally to gain insights into the psychology of voters and to assist in the campaign process.<sup>21</sup>

The irresponsible use of AI technology, such as AI chatbots, deepfakes, and the reckless use of people's personal data, can cause problems in the administration of general elections, such as anonymous black campaigns. The irresponsible use of AI technology has led to unfair elections.<sup>22</sup> This is due to the absence of strict restrictions or rules that regulate the use of AI in general elections. Each general election participant can use AI technology for personal and group political interests, resulting in mutual destruction. The implementation of general elections that are not based on the principle of justice will damage the image of democracy and distance it further from the spirit of *Reformasi*.<sup>23</sup>

The development and implementation of AI technology require very large database (big data).<sup>24</sup> Unfortunately, many developers and users of AI technology take shortcut,

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<sup>19</sup> Bibo Lin and Seth C. Lewis, "The One Thing Journalistic AI Just Might Do for Democracy," *Digital Journalism* 10, no. 10 (November 26, 2022): 1627–49, <https://doi.org/10.1080/21670811.2022.2084131>.

<sup>20</sup> Maja Brkan, "Artificial Intelligence and Democracy: The Impact of Disinformation, Social Bots and Political Targeting," *Delphi - Interdisciplinary Review of Emerging Technologies* 2, no. 2 (2019): 66–71, <https://doi.org/10.21552/delphi/2019/2/4>.

<sup>21</sup> Alvin Chang, "The Facebook and Cambridge Analytica Scandal, Explained with a Simple Diagram," Vox, March 23, 2018, <https://www.vox.com/policy-and-politics/2018/3/23/17151916/facebook-cambridge-analytica-trump-diagram>.

<sup>22</sup> See Cateljine Muller, *The Impact of Artificial Intelligence on Human Rights, Democracy and the Rule of Law*, ALLAI, 2020, <https://allai.nl/wp-content/uploads/2020/06/The-Impact-of-AI-on-Human-Rights-Democracy-and-the-Rule-of-Law-draft.pdf>

<sup>23</sup> The spirit of "Reformasi" encompasses several key principles and aspirations that emerged during the period of political and social reform in Indonesia, for example, democracy, accountability, human rights, social justice, pluralism and tolerance.

<sup>24</sup> Mirza Golam Kibria et al., "Big Data Analytics, Machine Learning and Artificial Intelligence in Next-Generation Wireless Networks" (arXiv, February 28, 2018), <http://arxiv.org/abs/1711.10089>.

for example by taking someone's personal data without the consent of the data owner for the sake of technology development.<sup>25</sup> Such actions are comparable to manipulative actions in the implementation of general elections because they cheat to win a political contest. Taking someone's personal data using AI technology without permission is a form of violation that will benefit election contestants. Irresponsible parties can use people's personal data for the benefit of their campaign models so they can use effective methods based on that data. This method be legal and illegal, but taking data acquisition for AI technology without the consent from the data owners is what makes election unfair. Unfortunately, due to the lack of supervision from general election commission and supervisor election body, moreover, this is a serious infringement for illegal use of data privacy which caused by the misuse of AI technology. If political parties and/or candidates in elections are more open and transparent in the use of AI technology, then the public can be more aware whether or not their personal data are being misused for the sake of the election.

AI technology has the potential to influence voters and even change votes due to its capabilities. This can be analyzed through the lens of macro and micro political change theories. From a macro perspective, AI technology can affect Indonesia's legal system and electoral principles, potentially modernizing what has been a more conservative approach to free and fair elections.<sup>26</sup> Traditional approaches to election fraud, such as focusing only on visible aspects and using general interpretation, may no longer suffice when technology is involved. AI has become a significant factor in election processes and can be used to cheat. From a micro perspective, AI technology can influence voters' decisions by analyzing their psychology and tailoring effective campaign forms. However, the unethical use of AI technology in elections can lead to cheating and unfair practices. Therefore, it is important to have proper regulations and supervision to ensure transparency and fairness in the use of AI technology in elections.<sup>27</sup>

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<sup>25</sup> Ginger Zhe Jin, "Artificial Intelligence and Consumer Privacy" (Cambridge, MA: National Bureau of Economic Research, January 2018), <https://doi.org/10.3386/w24253>.

<sup>26</sup> Jørgen Elklit and Palle Svensson, "The Rise of Election Monitoring: What Makes Elections Free and Fair?," *Journal of Democracy* 8, no. 3 (July 1997): 32–46, <https://doi.org/10.1353/jod.1997.0041>.

<sup>27</sup> For example, many Indonesian voters will vote Prabowo – Gibran because they are cute "gemoy" due AI character. This tactic is quite effective to influence young and new voters. See The Jakarta Post, "Will the 'gemoy' Tactic Be Effective in Wooing Gen Z Voters? - Academia," The Jakarta Post, accessed April 22,

There is growing concern that the use of AI technology could impact the quality of democracy,<sup>28</sup> and while it has not received much attention in the context of general elections in Indonesia, it is likely to become more prevalent over time. AI can be weaponized to disrupt and corrupt democratic elections. This can be done through physical means such as cyberattacks and through psychological means by poisoning people's faith in the electoral process.<sup>29</sup> Cases of abuse of AI technology, such as the Cambridge Analytica Scandal and political bots spreading fake news during US election, highlight the need for Indonesia to prepare for potential threats to the integrity of its democratic processes. Legal certainty is a fundamental principle of Indonesia's rule of law state, as stipulated in Article 28D of the 1945 Constitution, and the state must provide legal protection to its citizens to mitigate the potential dangers of AI technology.

## 6. The Urgency of AI Arrangements for More Democratic Elections

Considering that Indonesia is a country that upholds the principles of law and democracy, it is logical that every aspect of state life should be based on law. This is in accordance with the opinion of Julius Stahl, who identified four elements of the rule of law, namely:<sup>30</sup>

- a. Protection of human rights
- b. Division or separation of powers to guarantee human rights
- c. Government based on law
- d. State Administrative Court

Therefore, there is an urgent need for regulations regarding the responsible use of AI technology in Indonesia with the aim of maintaining and preserving democracy while

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2024, <https://www.thejakartapost.com/opinion/2023/12/06/will-the-gemoy-tactic-be-effective-in-wooing-gen-z-voters.html>; See also Thiago Pinto Siqueira Campos, Carmen Walentina Amorim Gaudêncio Bezerra, and Sayonara Pereira da Silva, "Artificial Intelligence and Human Psychology: Present Reality and Future Possibilities," *Asian Journal of Sociological Research*, April 12, 2021, 76–81.

<sup>28</sup> Caroline Serbanescu, "Why Does Artificial Intelligence Challenge Democracy? A Critical Analysis of the Nature of the Challenges Posed by AI-Enabled Manipulation," *Retskraft – Copenhagen Journal of Legal Studies* 5, no. 1 (August 4, 2021), <https://papers.ssrn.com/abstract=4033258>.

<sup>29</sup> Karl Manheim and Lyric Kaplan, "Artificial Intelligence: Risks to Privacy and Democracy | Yale Journal of Law & Technology," *Yale Journal of Law and Technology* 21 (2019): 106–88, <https://yjolt.org/artificial-intelligence-risks-privacy-and-democracy>.

<sup>30</sup> See Jimly Asshiddiqie, *Cita Negara Hukum Indonesia Kontemporer*, Orasi Ilmiah pada Wisuda Sarjana Fakultas Hukum Universitas Sriwijaya, Palembang, 2004

protecting human rights. Currently, none of the laws related to general elections in Indonesia discuss the use of AI technology, which means there are no regulations on its use for election activities or campaign purposes. This legal gap can potentially legalize any form of irresponsible use of AI in Indonesia because there are no governing laws. On the other hand, the political process in Indonesia has enormous potential for utilizing AI technology. Therefore, the absence of enforcement mechanisms for AI technology violations due to the legal vacuum can be interpreted as a violation of the rule of law principle.

The use of AI technology by politicians and political parties in their campaigns is something that is unavoidable in this modern era.<sup>31</sup> However, the absence of AI regulation portends danger for electoral processes as same may be compromised. This is because the data obtained may be private data or data that should not be used for political or campaign purposes. Public trust can actually decrease and actually harm the politicians or political parties concerned. In order to prevent the misuse of AI during elections in Indonesia (a situation that could adversely affect the quality of democracy), it is pertinent to reform the extant electoral laws to capture AI and other technological developments. This may be through amendments or new enactments to take full cognizance of not just democratic principles, but also principles that make for the responsible use of AI and other technologies, such as fairness, reliability and safety, privacy and security, inclusiveness, transparency, and accountability.

The use of AI technology in general elections can be a double-edged sword. While it has the potential to streamline and improve the electoral process, its unregulated use can lead to disastrous consequences.<sup>32</sup> Currently, there are no binding laws or rules for users of AI technology, making it difficult to assign responsibility in the event of a loss

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<sup>31</sup> Jeff Berkowitz, "The Evolving Role of Artificial Intelligence and Machine Learning in US Politics | Strategic Technologies Blog | CSIS," accessed November 22, 2022, <https://www.csis.org/blogs/strategic-technologies-blog/evolving-role-artificial-intelligence-and-machine-learning-us>.

<sup>32</sup> See the case of generative AI used by Prabowo – Gibran team on campaign advertisement which the opponent reported this advertisement to the Bawaslu that this campaign has exploited the children which is prohibited by the election act 2017. However, this report cannot be resolved by the Bawaslu due to lack of regulation. This situation is a sign to a decline of democracy and rule of law. See Jalli, "Artificial Intelligence, Disinformation, and the 2024 Indonesian Elections," accessed April 6, 2024, <https://thediplomat.com/2023/11/artificial-intelligence-disinformation-and-the-2024-indonesian-elections/>.

or misuse. This lack of regulation undermines the purpose of legal ethics, which is to provide justice and protect all members of society fairly. Furthermore, from a utilitarian perspective, the happiness and well-being of the majority should be prioritized, and any harm caused by irresponsible use of AI technology should be prevented. Thus, it is essential to establish clear guidelines and regulations for the use of AI technology in elections to avoid any potential losses to society.

The General Election Law in Indonesia is focused on solving problems between humans, and has yet to adapt to technological developments that affect democracy. While the law upholds six principles for general elections - direct, general, free, confidential, honest, and fair - none of these principles address responsible AI use or account for the potential impact of AI technology on the electoral process. As a result, there is a need to revise and update the General Election Law to reflect the technological advancements of the digital age and ensure that AI technology is regulated in a manner that is transparent, accountable, and in line with democratic values. It is imperative to establish laws and regulations that reflect the evolution of technology and uphold the principles of democracy to ensure free, fair, and secure elections in Indonesia.

It is crucial to amend the General Election Law by introducing the principle of responsible AI to regulate the use of AI technology in the electoral process in Indonesia. This step is necessary to ensure that AI interventions are used responsibly and any issues related to the misuse of AI technology can be resolved effectively. In other words, policy makers need to determine acceptable limits to the use of AI technology.<sup>33</sup> Adding the responsible AI principle to existing laws and regulations in Indonesia will create a harmonious relationship between AI technology development and the legal framework governing its use and establish a mechanism for addressing the abuse of AI technology. This adjustment is necessary to ensure that the use of AI technology in the electoral process is transparent, fair, and aligned with democratic values. By including responsible AI as a guiding principle in the General Election Law and other relevant

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<sup>33</sup> Steven Feldstein, "How Artificial Intelligence Systems Could Threaten Democracy," [https://scholarworks.boisestate.edu/pubadmin\\_facpubs/102](https://scholarworks.boisestate.edu/pubadmin_facpubs/102).

laws and regulations, Indonesia can stay up-to-date with the latest technological developments and protect the integrity of its electoral system.

The misuse of AI technology in general elections poses a significant threat to human rights and violates the principles of democratic elections, particularly the principles of free and fair elections.<sup>34</sup> Computational propaganda is a common tactic used to manipulate public opinion through social media during electoral campaigns.<sup>35</sup> While AI technology can facilitate online elections, vote counting, and campaigning, the lack of strict regulation leaves the door open for irresponsible AI use and abuse. In online elections and campaigns, personal data can be illegally collected and used to benefit one candidate over others, and bots can be used to spread fake news and attack opposing candidates. These practices undermine the democratic process and threaten the integrity of elections. It is essential to regulate AI technology in elections to ensure that it is used responsibly and transparently, and to prevent its misuse or abuse for political gain.

Article 275 of Law Number 7 of 2017 concerning General Elections permits the use of social media and the internet as campaign tools without any specific restrictions or guidelines. However, these platforms are often targeted for the use of AI technology during election campaigns, as seen in the case of Donald Trump. In the absence of regulation, candidates may use AI technology to the fullest extent possible, potentially undermining public trust and the democratic process in Indonesia. Therefore, it is imperative to establish responsible AI arrangements that will enable the public to monitor the use of AI technology during election campaigns. This will ensure that candidates are using AI technology transparently and in accordance with democratic values. By regulating the use of AI technology in election campaigns, Indonesia can strengthen its democratic system and ensure that its citizens have confidence in the

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<sup>34</sup> The point that is most relevant to the impact of abuse is a violation of fair election. This can happen because politicians and candidates use any means, including breaking through and committing violations of the law and using AI technology tools to carry out these actions which are known to exist that there is still a legal vacuum so that it becomes an opportunity for abuse. See Saldi Isra and Khairul Fahmi, *Pemilihan Umum Demokratis: Prinsip-Prinsip Dalam Konstitusi Indonesia*, Cetakan ke-1 (Depok: Rajawali Pers, 2019).

<sup>35</sup> S. Bradshaw and P. Howard, "Troops, Trolls and Troublemakers: A Global Inventory of Organized Social Media Manipulation," *Computational Propaganda Research Project*, no. 12 (2017): 1–37, <https://ora.ox.ac.uk/objects/uuid:cef7e8d9-27bf-4ea5-9fd6-855209b3e1f6>.

electoral process. This can be achieved by amending existing laws and regulations to include responsible AI principles and establishing oversight mechanisms to monitor the use of AI technology in election campaigns.

Apart from that, the provisions of Article 280 of election law have also regulated prohibitions on campaigning. The prohibitions that have been regulated also do not regulate the prohibition of the irresponsible use of AI technology such as illegal collection of people's personal data, use of bot accounts, hoax reporting, and so on. To be able to maintain a fair and good political battle, this general election law must be equipped with prohibitions on the use of AI technology which can reduce the essence of democracy in terms of general election contestation.<sup>36</sup> The points must be considered, for example, algorithmic regulation which is used by the candidates to control social media contents, deep synthesis as of now commonly used by the opponent to disadvantage other candidates through deep fake application, generative AI which is used by politicians to manipulate the picture, video, unethical conduct of the politicians, voters, and AI developers. Those points are important to tackle the challenges of democracy, otherwise, those can be a threat for democracy.

Given that the use of AI technology is a necessary technological development, adjustments to laws and regulations, particularly those related to general elections in Indonesia, must be made promptly. As the theory of legal sociology suggests, laws are not static, and they must evolve over time to accommodate social changes and technological advancements.<sup>37</sup> To address the potential negative impact of AI technology on the quality of democracy development in Indonesia, special regulations should be established to govern its use. These regulations must be synchronized and harmonized with other laws and regulations, including general election law. The absence of such regulations will inevitably affect the quality of democracy in Indonesia. Therefore, it is crucial to incorporate the principles of responsible AI use in the electoral process to ensure that the state can monitor, regulate, and take action against

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<sup>36</sup> Aulia Rahman et al., "Constructing Responsible Artificial Intelligence Principles as Norms."

<sup>37</sup> Dahlia Halia Ma'u and Muliadi Nur, "Paradigma Hukum Sosiologis (Upaya Menemukan Makna Hukum Dari Realitas Publik)," *Jurnal Ilmiah Al-Syir'ah* 7, no. 2 (June 22, 2016), <https://doi.org/10.30984/as.v7i2.38>.



any efforts to use AI technology to harm other candidates and the voters. The regulation of AI technology in the electoral process is also necessary to maintain a peaceful transfer of power and uphold the integrity of democratic institutions.<sup>38</sup>

## 7. Prospects and Challenges of AI Arrangement in the Electoral Sector

The integration of AI technology in the general election sector presents both opportunities and challenges for the democratic process in Indonesia. The regulation of AI technology in this context can provide both preventive and repressive legal protections in the holding of general elections. Preventively, regulations can establish firm limits and obligations for the use of AI technology in elections, preventing its indiscriminate use, such as where personal data used illegally to help politicians win elections. Repressively, regulations can provide legal certainty and accountability for those responsible for the misuse of AI technology in the electoral process.

Roscoe Pound's theory affirms that law is a tool of social engineering, which means that law is a tool of social control.<sup>39</sup> Due to the absence of regulations governing the use of AI technology in elections, various horizontal and vertical conflicts will continue, making it challenging to control the use of AI technology and resulting in a decline in democracy. Therefore, regulations must be put in place to govern the use of AI technology in elections, providing clarity on who is responsible for its misuse, whether it be the user, manager, or developer of the AI technology. Moreover, regulations can help prevent actions that violate the principles of fair elections, such as privacy violations, the spread of hoaxes, and anonymous campaigns. By establishing such regulations, violators of the law can be held accountable for their actions, and control over the use of AI technology in the election process can be ensured. Ultimately, the

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<sup>38</sup> Conrad John Masabo, "Reflection on Electoral Democracy and Peaceful Transfer of Power: The Tanzanian Experience," *Tanzania Journal for Population Studies and Development* 26, no. 2 (2019), <https://journals.udsm.ac.tz/index.php/tjpsd/article/view/3689>.

<sup>39</sup> Linus McManaman, "Social Engineering: The Legal Philosophy of Roscoe Pound," *St. John's Law Review* 33, no. 1 (1958): 17, <https://scholarship.law.stjohns.edu/lawreview/vol33/iss1/1>.

responsible use of AI technology in the electoral process can strengthen democracy and ensure that elections are transparent, fair, and democratic.<sup>40</sup>

While managing AI technology in the election sector brings opportunities, it also presents a unique set of challenges. Based on the Institute for Management Development (IMD) World Digital Competitiveness Ranking 2022 report, Indonesia's digital competitiveness index for 2022 is in 51st place out of 63 countries. The index shows that Indonesia's digital competitiveness is quite low, including in terms of technology regulations. Besides that, the low level of digital literacy in Indonesia also makes it a challenging factor since they can be easily influenced by fake news (hoaxes) which causing polarization in elections.

One of the most significant challenges in creating regulations for AI in the electoral process lies with the stakeholders responsible for creating and implementing these regulations. In Indonesia, legislators are still primarily focused on politics and power, and their concepts and thoughts are still primarily oriented toward human-to-human relationships. However, the increasing influence of technology in the electoral process demands a new way of thinking that considers the relationship between humans and technology. The establishment of electoral regulations will also suffer from micro-targeting with AI. Big data analytics makes distortion campaigns more successful, making it more likely to be spread, usually by unknown sources.<sup>41</sup> Electoral law relies heavily on transparency, both in funding and elections. Therefore, it will eventually affect the election principle as stated in the 1945 Constitution.<sup>42</sup> The new concept and practice of election must be reconsidered to overcome new challenges of AI on elections.

However, there are several challenges in the formation of regulations regarding the use of AI in Indonesia, namely the level of digital literacy and digital competitiveness in

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<sup>40</sup> Daniel Barredo-Ibáñez et al., "Artificial Intelligence, Communication, and Democracy in Latin America: A Review of the Cases of Colombia, Ecuador, and Mexico," *El Profesional de La Información* 30, no. 6 (December 8, 2021): 6, <https://doi.org/10.3145/epi.2021.nov.16>.

<sup>41</sup> Vyacheslav Polonski, "How artificial intelligence conquered democracy," *The Conversation*, August 8, 2017, <http://theconversation.com/how-artificial-intelligence-conquered-democracy-77675>.

<sup>42</sup> Manheim and Kaplan, "Artificial Intelligence: Risks to Privacy and Democracy | Yale Journal of Law & Technology."

Indonesia which is still very low. This makes people in Indonesia unable to screen the use of AI technology and makes them vulnerable to fake news and polarization. Besides that, the regulatory authorities are still oriented towards human-to-human relationships even though the development of AI technology in elections requires thinking that is oriented between humans and machines.

## 8. Conclusion

AI technology has entered the realm of election, has been able to influence the electoral process, starting from the campaign process, political analysis, and privacy infringements, which finally influenced voters. In addition, AI technology has changed the current concept and traditional practice of free and fair principle since the AI employed onto elections. Therefore, it can be reiterated that there is a nexus between AI technology and election principles. It is necessary to regulate AI in order to ensure free and fair elections. Several points might be considered to tackle AI challenges on election by regulating AI technology as special act, amending elections and political laws by inserting responsible AI principle into respective law, and enacting the supervisory regulation issued by the General Election Commission and Election Supervisory Board on campaign, report, etc. which candidates used AI technology for political purposes. The regulation regarding AI can be a "game changer" on electoral process and democracy in Indonesia. While some challenges might happen to regulate AI as the awareness of Indonesian parliament is far from the interest.

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