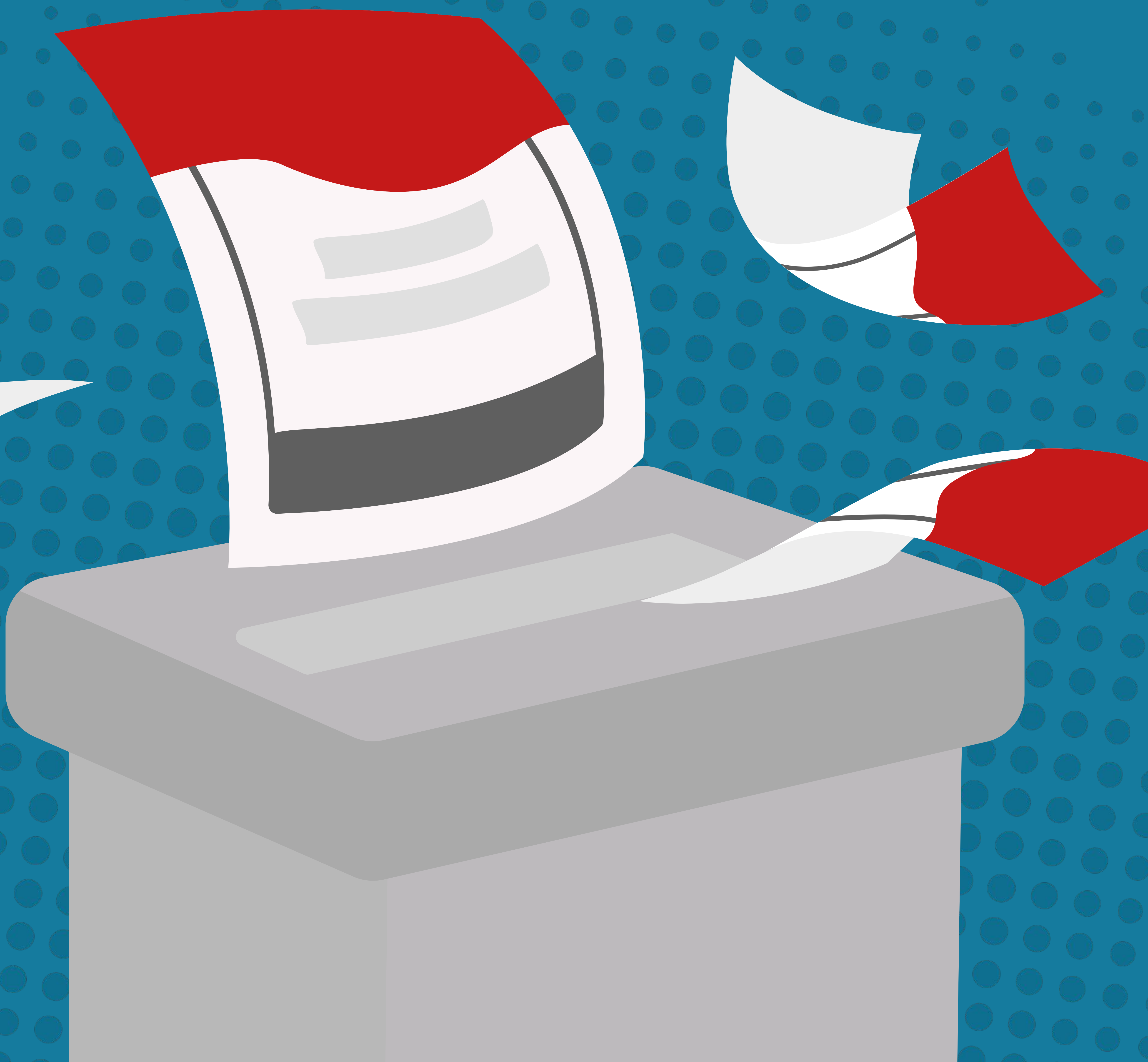


Artificial Intelligence in the Voting Booth:
**Reflections on the New
Electoral Campaigns Frontier &
Its Regulation in Indonesia**





Authors:

Alifian Arrazi

Editor:

M Perdana Karim

Designer & Layouter:

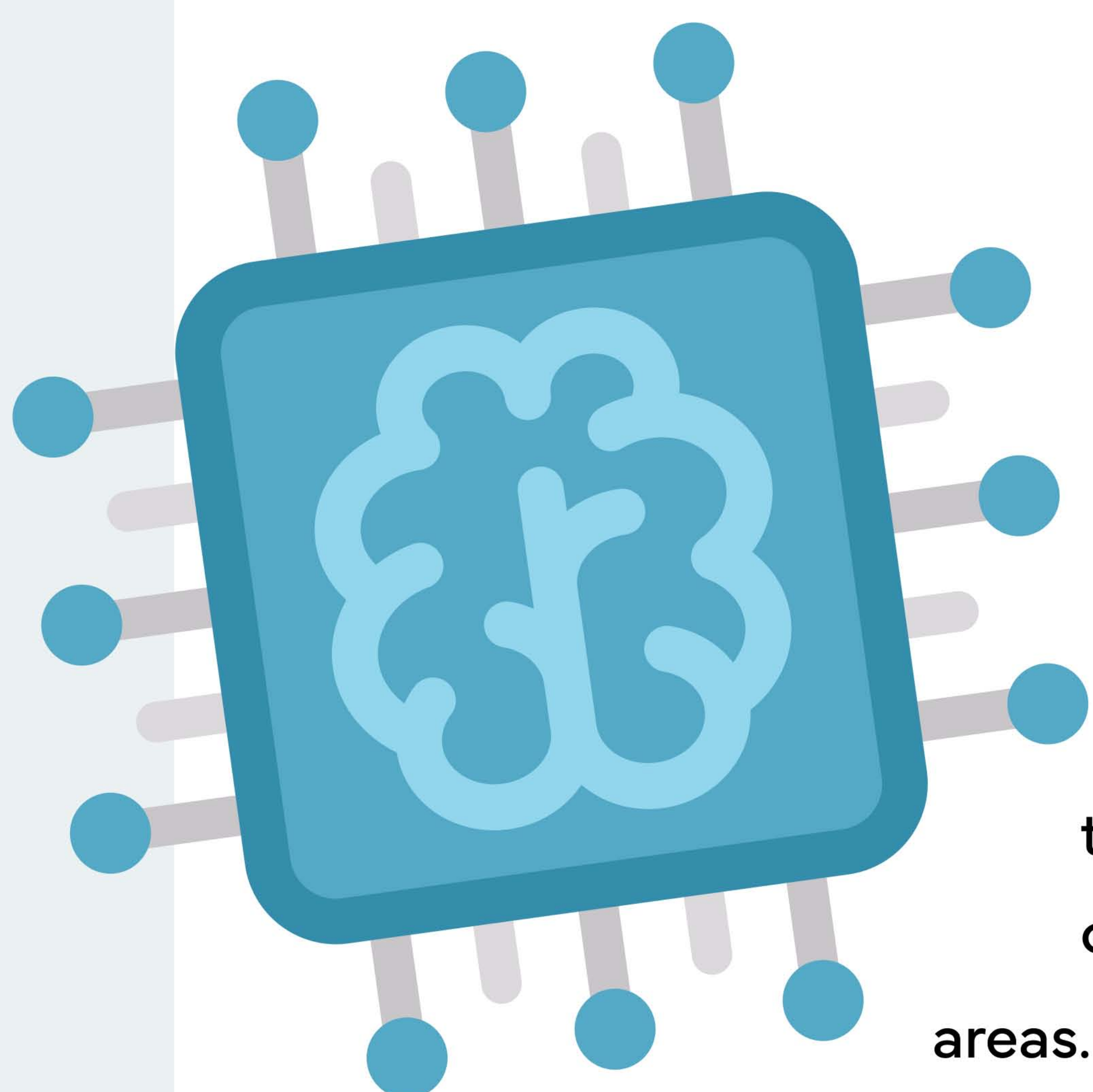
Hanny Handayani

Introduction

Two days after the 2024 elections were held in Indonesia, series of questions emerged from Indonesian netizens regarding the obscure result of live recapitulation information system (Sirekap) platform from the national General Election Commission's (KPU). The questions arose massively due to the discrepancies between the numbers from the image of election result forms and what was displayed in the system. Eventually, it was known that these differences are caused by the ineffectiveness of the Artificial Intelligence (AI)-based Optical Character Recognition (OCR) and Optical Mark Reader (OMR) systems that capture and transform the forms to the system. Long before this, there were also cases of copyright and IP controversy where animated posters, created by AI, for a presidential campaign run up were being massively advertised. Despite the controversies in both events, this phenomenon indicates a new phase in elections—a phase where AI becomes a significant aspect in the democratic process.

The year 2024 marks a significant time in history for global leadership succession. At least 64 countries, encompassing 49% of the world's population, will face political competition at the national level that reconfigure power in various places; at the same time, the world faces a new wave of AI utilisation. In this period, AI are being used and exploited in many realms, including in the case of elections. Recent studies on artificial intelligence have illustrated how artificial intelligence can be used to influence voter preferences and even predict existing electoral contests.





As a country with the fourth largest democracy in the world, the case of AI in Indonesian elections is a fascinating examination. Indonesia is the home of 274 million people with a relatively high internet penetration rate. According to World Bank Data in 2022, 66% of Indonesians are connected to the internet. Sadly, internet accessibility is only concentrated in few highly-developed and industrial areas. In 2022 alone, more than 12,500 villages and 104,000

schools in rural areas still did not have internet access. This digital divide presents unique challenges for Indonesia in navigating AI, especially in the case of elections where AI is used and often exploited for electoral purposes. Sadly, as a recent phenomenon, there is a limited body of work that systematically highlights how AI is used and exploited in Indonesian elections and its electoral-techno governance landscape. Thus, this paper aims to explore and discuss two important aspects of AI-election governance using the case of Indonesia. First, it tries to examine the patterns of AI usage in Indonesian elections, focusing on the multiple cases of AI usage in the 2024 general elections. Second, it seeks to explore the electoral governance related to AI best-practice aspect; it will discuss aspects such as transparency and accountability and the extent to which the current governance accommodates the aspect. This paper will conclude with recommendations and conclusions on how we can prepare AI-friendly electoral governance for future elections.



The Use of Artificial Intelligence in Elections

Recently, many have agreed that the use of artificial intelligence to support everyday life is essentially inevitable. The image given above is a testament that AI can indeed be used to create visual products, particularly for electoral purposes. A simple prompt with an artificial intelligence chat bot like Chat-GPT DALL-E produces a simple cartoon illustration that can be used for electoral purposes. When talking about AI, there are two main categories of AI that can be used and massively seen in the context of elections.

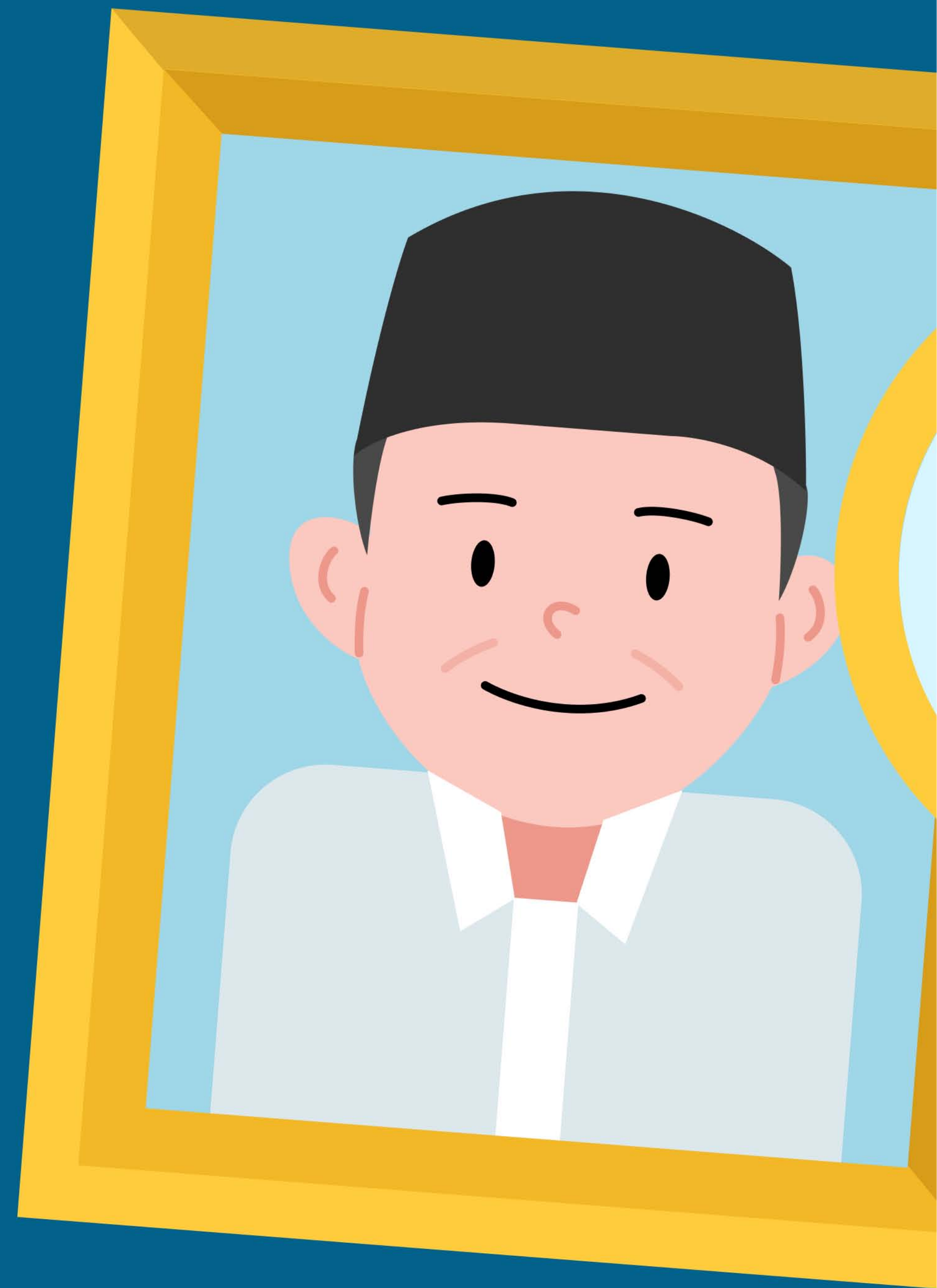


Generative Artificial Intelligence

To start, there is the recent use of generative AI. This AI category, like its name, has the ability to produce content, be it text, images, music, or even videos. The process is achieved through the learning and amalgamation of stored big data. Based on algorithms, generative AI can understand the patterns, styles, or structures of the given data and use them as a basis to generate new work without direct human intervention.



In the case of the Indonesian elections, the use of generatively orientated AI appears in various forms. In the Indonesian general election 2024, there was a case where the incumbent contestant team used AI to create visual and audiovisual campaign products. Former presidential candidate Prabowo Subianto created a cartoonized version of himself with the help of his team as a visual rebrand. Prabowo, previously known as a candidate based on his military presence, has rebranded himself as a candidate expressing cuteness in the form of a small teenager and cartoonized version of himself. There were several accusations that his visual product redesign was created using the Midjourney software, a recent design generative AI software. Not stopping in Prabowo, other contestants were also seen utilising cartoon-style visual products designed by AI.



Whats more, there were some political campaign videos that used AI to create a three-dimensional character audiovisual campaign. An audiovisual campaign associated with the Golkar Party featured the late Former President of Indonesia, Soeharto, speaking to the public to choose the Golkar Party. Soeharto, who died in 2008, was recreated using artificial intelligence to present his speech to the public. Similar cases also occurred in Pakistan, where former prime minister Imran Khan, who was imprisoned, was recreated using AI video engineering to talk about his party's victory in the Pakistan elections. These cases showed that generative AI products have been used and sometimes exploited for electoral purposes in the 2024 Indonesian elections.





Predictive Artificial Intelligence

Second, there is the less buzzword use of predictive AI. While generative AI can create products from text to audiovisuals, predictive AI helps more with assisting data analysis in decision-making. In the 2024 Indonesian elections, predictive AI changed not only how campaigns were conducted, but also how political strategies and decisions were made. A concrete example of this predictive AI use is the Pemilu.ai platform. This recent platform uses massive data from sources such as the Central Statistics Agency (BPS), the Ministry of Home Affairs, and social media trends to help political legislative candidates craft more localized and relevant campaigns to the needs and preferences of voters in their specific areas.

Additionally, several consultants and political service providers have also been seen to implement similar predictive systems to help politicians analyze public sentiment, map political issues, and even trends on social media and digital platforms. Often, these political consultants use natural language processing (NLP) technology to identify and analyze online discussions related to specific candidates and ultimately provide insights into the digital campaigns they conduct. In addition, the use of predictive AI also enable s simulations of election scenarios by combining



predictive models with demographic and voter behavior data. A study conducted by Awais, Hasan, and Ahmed has developed a quantitative model that utilizes big data to predict the outcomes of electoral contests in Pakistan, hypothetically similar models may also have been developed and deployed in Indonesian elections.



Electoral Governance and Artificial Intelligence in Indonesia

Framework and Aspects of AI Governance

In the realm of AI governance, there are several important aspects and framework that need to be understood. First, there are models of regulation in AI governance. Essentially, there are two dominant models: the principle-based model and the rule-based model. These two models differ in the way that the principle-based regulation model focuses on ensuring outcomes rather than process, while the rule-based model is more concerned about ensuring process rather than outcomes. To achieve such an optimal result, policy makers often combine and mix these two principles in designing AI regulation.

In addition to the model, AI regulation should also be viewed from its approach. At least, there are two major approaches to regulating AI. First, there is the horizontal regulatory approach. This approach aims to achieve broad based AI regulation, and thus its approach is suitable to build common framework regarding AI usage in society. Second, there is the vertical regulatory approach. This regulatory approach targets specific AI systems and algorithms and is beneficial to use in regulating a spesific scenario, such as election.

Further, there are also several important principles to consider when regulating AI. Studies conducted by the Center for Digital Society titled Towards AI Governance in Indonesia have shown that principles such as transparency, sustainability, and accountability must be considered in creating regulations about AI. These principles can serve as guidelines for AI regulation development, whether in shaping regulation in a general context or in the case of elections.

AI Governance for Elections in Indonesia

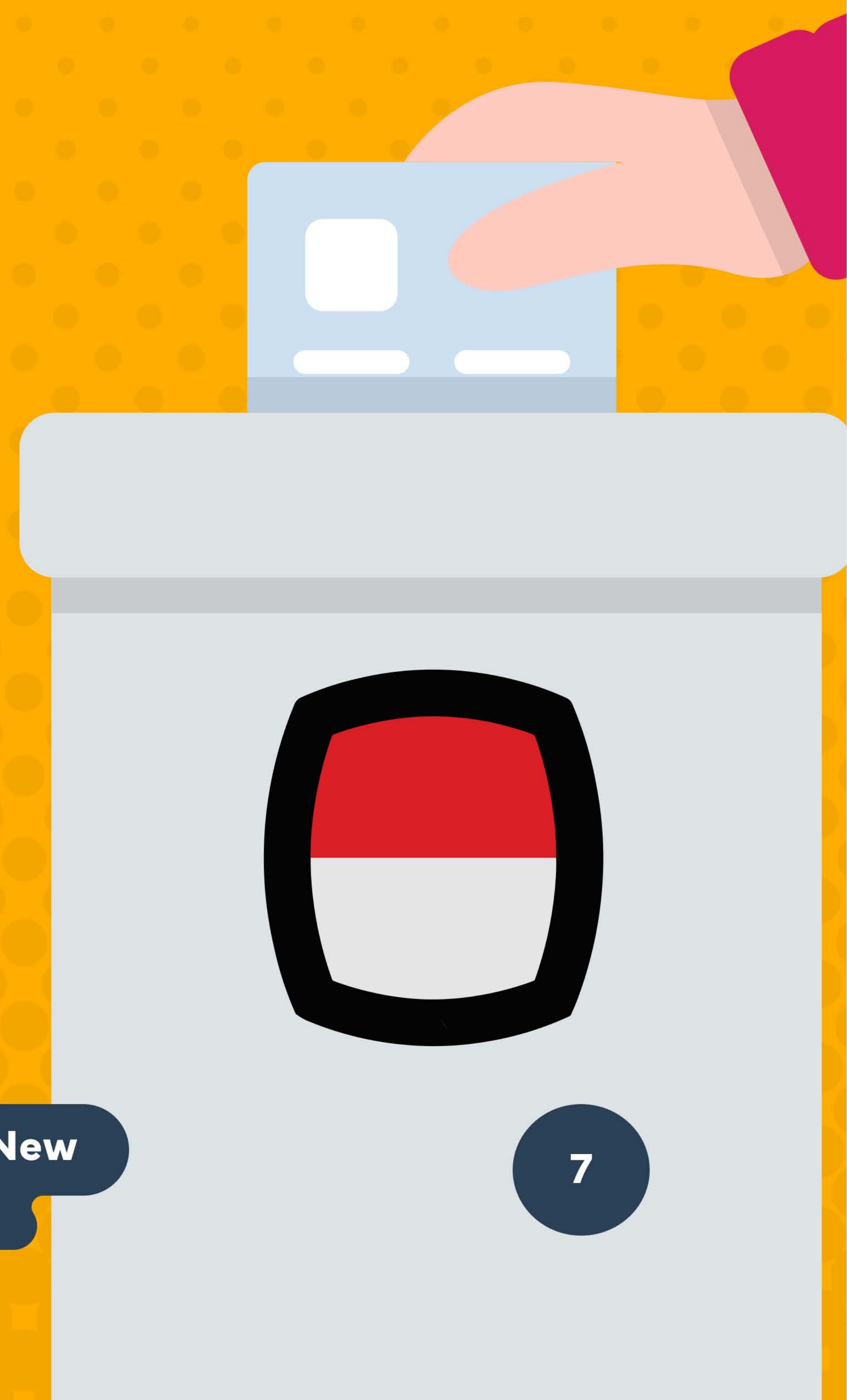
Actors

Before discussing regulation, this paper will first examine the actors who presumably have the authority to regulate AI in elections. At least three institutions currently have the authority to regulate AI in the context of Indonesia's general elections. To start, there is the Ministry of Communication and Informatics (Kemenkominfo). One of the ministries functions is to organize and regulate the governance of informatics applications. Within the AI context, Kemenkominfo remains the major regulator of AI since AI falls within the domain of informatics applications in Indonesia. Beyond Kemenkominfo, there is the General Election Commission (KPU). In this case, KPU has the function to regulate election process which, in the context of AI, it does have the right to issue guidelines on the use of AI in campaigns. Lastly, there is the Election Supervisory Body (Bawaslu). Bawaslu acts as a supervisory institution that maintains the integrity of election and oversaw election violations. Since Bawaslu is a supervisory institution, it requires a clear guideline from the KPU. Within the context of AI governance, if KPU has issued rules regarding the use of AI in elections, Bawaslu can provide recommendations if there are misuses of AI that occur during the election process.

AI Regulation in the 2024 Elections

Based on the different functions of these actors, this section will map out existing regulations that can be used as a light in seeing how AI is currently regulated in the 2024 elections.

Shortly, there is no major regulation published by the Ministry of Communication and Informatics, as of February 2024, that specifically regulates AI. However, this does not mean that Indonesia has no legal law to regulate artificial intelligence.



Commentaries from the Center for Digital Society have mapped out several AI regulatory frameworks in Indonesia that could be used to address AI utilization. By far, AI can be generally regulated using the Information and Electronic Transactions Act and its newer version (Law Number 19 of 2016) and its implementing regulations (Government Regulation Number 71 of 2019), where AI is seen as a legitimate legal object. To add, Indonesia's law of personal data protection (Law Number 27 Year 2022) can also be used to ensure that personal data usage in AI is done ethically. Whats more, there ministerial decree from The Ministry of Communication and Informatics have yet regulate the use of AI. Ministerial Regulation Number 3 of 2021, at least, regulates the licensing aspect for businesses wishing to use AI. Essentially, although some of the above regulations can govern AI indirectly, the regulation is still partial and sporadic. From the KPU's point of view, there is still a regulatory gap in the use of AI in elections. The General Elections Law (Law No. 7 of 2017), which explains the implementation procedures and campaign rules of elections, does not specifically mention clause regarding the use of AI technology in electoral processes. In addition, the Election Commission Regulations that explain the election mechanisms in a more detail (KPU Regulation No. 33 of 2018) only mention the use of social media in elections and campaign tools and do not directly target the use of AI in elections. Lastly, from the overseeing election committee, it is known that Bawaslu has not yet been given autonomy in supervising AI activities in elections. This is due to the nature of Bawaslu, which operates within the scope already defined by KPU. If the KPU does not regulate AI and does not issue guidelines on AI use and abuse, Bawaslu will have difficulty preparing reports and recommending action. Although, hypothetically, Bawaslu's task and responsibility listed in the General Elections Law (Law No.7 of 2017), if interpreted broadly, can be used as a legal standing for Bawaslu to supervise campaigns that use AI.



Gaps in AI Governance in the 2024 Elections and Recommendations

After reviewing the regulations mentioned above, this paper identifies several gaps in AI governance that still exist in the 2024 Indonesian general elections.

1 Regulation and framework for AI usage in election

Currently, the rules governing the use of AI in general elections do not provide clear and specific frameworks for the use of AI in elections. This creates uncertainty and impedes the effective enforcement of AI abuses. The current regulatory framework is very normative and often does not specifically address the use of AI in elections. This requires efforts from the Government, the People's Legislative Assembly and the Election Organising Body (KPU and Bawaslu) to establish more direct and AI-focused regulations and frameworks for the administration of AI in elections.

2 Transparency and Accountability Mechanisms for AI deployment:

In the context of election, there is a pressing need to identify and assign certain mechanisms for content that is a product of generative AI as well as ensuring content responsibility production. This preventive step avoid total manipulations using AI, such as the use of deep fakes, to disseminate information. Moreover, more specific AI regulations regarding AI-targeted campaign ads and the use of personal data for AI in the context of elections are urgently need ed to create political accountability of using AI in harvesting personal data in an election.

In the 2024 election, AI governance seems to be lacking collaboration and coordination between institutions that regulate AI in the context of election. It appears that Kemenkominfo and KPU still working as a silo organisation in regulating AI in election where Kemenkominfo only regulates AI while KPU narrowly regulates elections. Moving forward, collaboration and coordination between Kemenkominfo, KPU, and Bawaslu are importantly needed to develop a more comprehensive and sectoral AI governance guidelines for elections.

Conclusion

The utilization of Artificial Intelligence (AI) in the Indonesian electoral process during the 2024 elections has marked a pivotal shift towards technological integration in democratic practices. This period has showcased the dual-edged nature of AI, demonstrating both its innovative potential in enhancing electoral engagement and the multifaceted challenges it introduces, especially in terms of transparency, accuracy, and equity.

The case of Indonesia 2024 general elections serve as a tool to understand the broader challenges faced by democratic countries globally as democracies grapple with the integration of emerging technologies such as AI. The paper delineates the lack of a comprehensive regulatory framework specifically addressing the application of AI in elections. This deficiency hinders the establishment of clear standards and protocols for the deployment of AI technologies, leaving significant room for misuse, misinterpretation, and manipulation. The current state of AI governance in Indonesia, characterized by fragmented regulations and limited inter-agency coordination, impedes the creation of a cohesive and transparent regulatory environment.

In light of these observations, this analysis advocates for a multi-stakeholder approach to AI governance in elections. This involves the development of clear, AI-specific legal frameworks that prioritize transparency, accountability, and ethical use. Such frameworks should not only address the technical and ethical dimensions of AI but also consider the socio-political context of Indonesia, ensuring that AI applications are inclusive, equitable, and aligned with democratic values. Moreover, enhancing collaboration among governing bodies, such as Kemenkominfo, KPU, and Bawaslu, is essential in bridging the current regulatory gaps. Joint efforts should focus on establishing comprehensive guidelines and standards for AI use in electoral processes, ensuring that all stakeholders, including political parties, candidates, and the electorate, are adequately informed and protected.

In conclusion, while AI presents significant opportunities for enhancing democratic processes, its application in elections necessitates careful consideration and comprehensive governance. The experiences from the 2024 Indonesian elections underscore the need for a balanced approach that harnesses the benefits of AI while mitigating its risks and ensuring that the democratic process remains transparent, fair, and inclusive. As Indonesia, along with the rest of the world, navigates this new technological frontier, it is imperative to develop and implement robust frameworks that will safeguard the integrity of the electoral process and the democratic principles it upholds.



References

- Amanta, Felippa. 2022. Unpacking Indonesia's Digital Accessibility. CIPS | Think Tank. Available at <<https://www.cips-indonesia.org/post/unpacking-indonesia-s-digital-accessibility?lang=id>>. Accessed 20 February 2024.
- Awais, Muhammad, Saeed-UI Hassan, and Ali Ahmed. 2021. Leveraging big data for politics predicting general election of Pakistan using a novel rigged model. *Journal of Ambient Intelligence and Humanized Computing* 12 (4): 4305–4313.
- Bawaslu. n.d. Tugas, Wewenang, dan Kewajiban. Badan Pengawas Pemilihan Umum Republik Indonesia. Available at <<https://www.bawaslu.go.id/id/profil/tugas-wewenang-dan-kewajiban>>. Accessed 20 February 2024.
- BBC News Indonesia. 2024. Pemilu 2024: Soeharto 'dihidupkan lagi' melalui AI, ajak coblos Golkar - Apakah ampuh mendongkrak elektabilitas partai? BBC News Indonesia. Available at <<https://www.bbc.com/indonesia/articles/cgl6p4nv01no>>. Accessed 20 February 2024.
- Center for Digital Society. 2023. [Policy Brief] Menuju Tata Kelola Kecerdasan Artificial di Indonesia - Center for Digital Society. Available at <<https://digitalsociety.id/2023/12/09/policy-brief-menuju-tata-kelola-kecerdasan-artificial-di-indonesia/14923/>>. Accessed 20 February 2024.
- CNBC Indonesia. 2024. Peran Teknologi AI di Pilpres-Pileg, Ancaman Atau Kemudahan? CNBC Indonesia. Available at <<https://www.cnbcindonesia.com/news/20231023104914-8-482801/peran-teknologi-ai-di-pilpres-pileg-ancaman-atau-kemudahan>>. Accessed 20 February 2024.
- Frantz, Pascal, and Norvald Instefjord. 2018. Regulatory competition and rules/principles-based regulation. *Journal of Business Finance & Accounting* 45 (7–8): 818–838.
- Irfan, Dwi Putra. 2023. Kerangka Kebijakan dan Tata Kelola Kecerdasan Artifisial (KA) sebagai Landasan Fundamental bagi Pengembangan KA yang Bertanggung Jawab di Indonesia - Center for Digital Society. Available at <<https://digitalsociety.id/2023/12/01/-kerangka-kebijakan-dan-tata-kelola-kecerdasan-artifisial-sebagai-landasan-fundamental-bagi-pengembangan-ka-yang-bertanggung-jawab-di-indonesia/14672/>>. Access 20 February 2024.
- KOMINFO, PDSI. 2024. Kementerian Komunikasi dan Informatika. Website Resmi Kementerian Komunikasi dan Informatika RI. Available at <<https://kominfo.go.id/>>. Accessed 20 February 2024.

- Kompas.com. 2024. Berkampanye Pakai Gambar AI, Timses Prabowo-Gibran: Simbol Mengakui Perubahan Zaman. Available at <<https://megapolitan.kompas.com/read/2024/01/29/11235041/berkampanye-pakai-gambar-ai-timses-prabowo-gibran-simbol-mengakui>>. Accessed 20 February 2024.
- KPU. n.d. Komisi Pemilihan Umum. Available at <<https://www.kpu.go.id/page/read/5/tugas-dan-kewenangan>>. Accessed 20 February 2024.
- Manheim, Karl, and Lyric Kaplan. 2019. Artificial intelligence: Risks to privacy and democracy. Yale JL & Tech. 21. HeinOnline: 106.
- McKinsey. 2023. What is ChatGPT, DALL-E, and generative AI? | McKinsey. Available at <<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-generative-ai>>. Accessed 20 February 2024.
- Reuters. 2024. Gemoy 'Everywhere': Disrupsi AI Jadi Ujian dalam Pemilu 2024. VOA Indonesia. Available at <<https://www.voaindonesia.com/a/gemoy-everywhere-disrupsi-ai-jadi-ujian-dalam-pemilu-2024/7479185.html>>. Accessed 20 February 2024.
- Sheehan, Matt O'Shaughnessy, Matt. 2023. Lessons From the World's Two Experiments in AI Governance. Carnegie Endowment for International Peace. Available at <<https://carnegieieendowment.org/2023/02/14/lessons-from-world-s-two-experiments-in-ai-governance-pub-89035>>. Accessed 20 February 2024.
- Tempo.co. 2024. Ramai Warganet Soroti Perbedaan Hasil Penghitungan di Sirekap, KPU Respons Begini - Nasional Tempo.co. Available at <https://nasional.tempo.co/read/1834085/ramai-warganet-soroti-perbedaan-hasil-penghitungan-di-sirekap-kpu-respons-begini?page_num=2>. Accessed 20 February 2024.
- Time.com. 2024. 2024: The Ultimate Election Year Around the World. The Ultimate Election Year: All the Elections Around the World in 2024. Available at <<https://datawrappwr.dwnet/K990X/4/>>. Accessed 20 February 2024.
- World Bank Open Data: Individuals using the Internet (% of population) - Indonesia. 2024. World Bank Open Data. World Bank Open Data. Available at <<https://data.world-bank.org>>. Accessed 20 February 2024.
- Zhuang, Yan. 2024. Imran Khan Uses A.I. To Give Victory Speech in Pakistan - The New York Times. Available at <<https://www.nytimes.com/2024/02/11/world/asia/imran-khan-artificial-intelligence-pakistan.html>>. Accessed 20 February 2024.



Center for Digital Society

Faculty of Social and Political Sciences
Universitas Gadjah Mada
Room BC 201-202, BC Building 2nd Floor,
Jalan Socio Yustisia 1
Bulaksumur, Yogyakarta, 55281, Indonesia

Phone : (0274) 563362, Ext. 116
Email : cfds.fisipol@ugm.ac.id
Website : cfds.fisipol.ugm.ac.id

 facebook.com/cfds.ugm

 [@cfds_ugm](https://line.me/tv/@cfds_ugm)

 Center for Social Society (CfDS)

 [@cfds_ugm](https://twitter.com/cfds_ugm)

 [Cfds_ugm](https://www.instagram.com/cfds_ugm)

 [CfDS UGM](https://www.youtube.com/CfDS_UGM)