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LIMITING THE USE OF AI BY CREATING REGULATIONS THAT CAN PREVENT THE OCCURRING OF DIGITAL CRIME

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ABSTRACT

Artificial Intelligence (AI) has acquired an increasingly important role in various aspects of human life, including in the digital domain. However, the rapid development of AI technology also carries significant risks, especially related to the potential for misuse to commit digital crimes. Therefore, this research aims to propose effective regulations to limit the use of AI to prevent digital crimes. In the midst of the rapid development of AI technology, the risk of misuse for online crimes is increasing. Regulations must include transparency in the use of AI, data protection, and effective monitoring and enforcement. Collaboration between agencies and stakeholders will be key in designing and implementing these regulations, ensuring that AI is used for the common good and security. This review identified several forms of digital criminal activity that could be enabled by the use of AI, including cyberattacks, online fraud and the spread of illegal content. Factors influencing the increased risk of digital crime using AI are also explored, including technological sophistication, lack of security awareness, and the power imbalance between regulators and criminals. By considering these various factors, this study aims to evaluate the effectiveness of regulations in controlling the use of artificial intelligence (AI) to prevent digital crime. Combining analysis of the latest digital crime trends and expert insights, this research identifies potential threats, analyzes the layers of protection required, and suggests regulations that can be implemented. The results of this research are in the form of regulatory recommendations that can be implemented to control the use of artificial intelligence (AI) to prevent digital crime. The recommendations include certification requirements for AI developers, restrictions on the types of data that can be used by AI, and strict enforcement against violations.

A. INTRODUCTION

The development of the use of technology which continues to increase automation and digitalization in industry and the production sector is unavoidable in human life today. This can be seen from human work which already depends on technology. One type of technological development that is currently popular with today's society is Artificial Intelligence (hereinafter referred to as AI) which continues to emerge in the lives of Indonesian people without any more geographic issues which is able to amaze everyone

with abilities that were possible in the past. only exists in science fiction.[1] As long as they have access to the internet, AI will be around us for as long. The presence of AI with its increasingly sophisticated and innovative innovations has had a huge impact on all sectors of human life, both in the social, educational, economic and health fields.[2] The existence of Artificial Intelligence (AI) is now widespread and frequently used, including technology as an interactive virtual assistant on smartphones, as well as a facial recognition tool for photos uploaded to social media.

Apart from that, artificial intelligence is also used in vehicles such as cars that do not require a driver to drive. Google Search is an example of innovation from Artificial Intelligence (AI) which is often used by humans.[3] Towards a golden Indonesia in 2045, the development of AI will continue to develop and become more sophisticated with increasingly creative updates. Therefore, society must always update itself following developments in science and technology and increase creativity so that it is difficult for AI to replace it. In essence, AI can indeed replace a number of human jobs, but it is impossible for AI to replace human emotions, therefore it would be good for the global community, especially Indonesia, to continue to maintain and improve emotional intelligence so that in the future human existence will remain sustainable, living as humans should, who have humanity in every aspect humans to live life.

AI or artificial intelligence is one of the results of technological developments that can make human work easier by relying on artificial intelligence. The use of AI involves algorithms and mathematical models to enable computers and other systems to learn from data, recognize patterns, and make intelligent decisions.[4] Another definition expressed by one of the creators of AI, H. A. Simon, also said that AI is all research, education and applications that are directly related to computer programming whose aim is to do things that can make human work easier. This refers to the capabilities of computer systems, which are certainly considered an innovation that can make human work easier.[5] AI aims to make machines or computer programs able to learn from experience, adapt to environmental changes, and complete tasks that generally require human intelligence. Specifically, AI involves developing algorithms and computational models that allow machines to learn from data, recognize patterns, make decisions, and complete complex tasks without human intervention.

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1   Marcel Scharth., Kecerdasan Buatan Telah Muncul di mana-mana, Tapi Masih Banyak Hal Yang Tidak Dapat Dilakukannnya Untuk Saat Ini, The Conversation.com, 2023, URL : https://theconversation.com/, Accessed on 5 March 2024.

2 Roida PakPahan, Analisa Pengaruh Implementasi Artificial Intelligence Dalam Kehidupan Manusia, *Journal of Information System, Informatics and Computing, Universitas Bina Sarana Informatika.* Vol. 5, No 2, 2021, page. 506.

3 Maryani Farmawati et al., *Analisa Pengaruh Teknologi Artificial Intelligence* (AI) Dalam Kehidupan Sehari Hari*, Jurnal Sistem Informasi & Manajemen*, Vol. 11, No. 01, 2023, page. 2

4 Emi Sita Eriana et al., *Artificial Intelligence, Purbalingga: Eureka Media Aksara*, 2023, page. 1

5 Universitas Sumatera Utara., BAB 2 Landasan Teori. Oleh H. A. Simon (1987), Kecerdasan Buatan *(Artificial Intelligence),* 2021, 123.dok.com. URL: https://123dok.com/, Accessed on 26 February 2024.

AI is actually a sophisticated tool that can be used by anyone to meet the needs of each individual, it is like a "knife" that can be used to cut vegetables but can also be used to kill someone, this depends on who and what the interests of the AI user are. The development of increasingly sophisticated AI technology is also accompanied by an increasing number of incidents of AI abuse by certain individuals occurring in Indonesia. This incident certainly raises pros and cons in society, moreover there are no specific regulations governing the use of AI in Indonesia.

AI can potentially be misused in terms of violations of intellectual property rights (IPR) because it has the ability to manipulate or resemble human skills in creating works or in other examples such as viral videos that first circulated on X (formerly Twitter). The video shows the moment President Jokowi makes a speech using Mandarin.[6] This give a rise to the public perception that President Jokowi is Pro-China. The video was uploaded by detik.com on the TikTok application on October 26 2023, whereupon the Ministry of Communication and Information or Kominfo immediately declared the video to be disinformation or a hoax.

Existing regulations are often hampered in responding to rapid technological changes, resulting in a Rechtsvacuum or regulatory vacuum that can be detrimental to the parties involved. Such as in the current real conditions where we have to be wary of AI because it is very detrimental to individuals and groups:

1. **Data Privacy**

    The use of AI in data analysis can increase the risk of privacy breaches, as occurred in the Cambridge Analytica case where Facebook user data was used without permission for political purposes. In the Cambridge Analytica case, data from millions of Facebook users was illegally collected through an application that collected data on their friends. The data was then used by Cambridge Analytica for political purposes, including influence on elections, without proper permission from the users.[7]

2. **Information Security Threats**

    Cyberattacks using AI are increasingly sophisticated and difficult to detect, such as phishing attacks that use natural language generation techniques to deceive users. While a report by Accenture Security describes an increase in AI-powered cyberattacks, they also saw an increase in voice deepfakes impersonating executives authorizing financial transfers fraudulently including a 76% increase in ransomware attacks since the launch of ChatGPT and an approximately 1,265% increase in phishing attacks. in the last eighteen months.[8]

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6 Tim detik News., Heboh Video Jokowi Fasih Bahasa Mandarin, Kominfo : Editan Menyesatkan, 2023, URL: https://www.detik.com/, Accessed on 4 March 2024.

7 Kevin Granville., Facebook and Cambridge Analytica: What You Need to Know as Fallout Widens, The New York Times, *New York: The New York Times Company,* 2018, URL: https://www.nytimes.com/, Accessed on 5 June 2024.

8 Accenture Security., Redefining Resilience: Cybersecurity in the Generative AI Era, *Accenture Security,* 2024, URL: https://www.accenture.com/, Accessed on 5 June 2024.

3. Existence of Algorithmic Discrimination

AI algorithms can create unintentional or even intentional bias, as in the case of the use of automated credit selection systems that trigger racial discrimination against applicants. Overseas, there is software being used across the country to predict future criminals. And it's biased against black people. A computer program outputs a score that predicts each person's probability of committing a crime in the future. Borden – who is black – was considered high risk. Prater – who is white – is considered low risk.[9]

4. May Trigger Social Impact

The automation of jobs by AI could result in structural unemployment in some sectors, such as in manufacturing or customer service industries. There is also a lot of news regarding plans to reduce staff from several large companies in the next few years, as a result of the adoption of AI in these companies. The widespread news regarding replacing human workers with AI has created negative reactions from many parties, especially those who are worried that their work sector will be displaced. However, there are quite a few parties who support the development of AI and feel that their work is made easier.[10]

In all of these circumstances, The main challenges of how AI operates and its impact on individuals and society is critical so that we can take steps to involve security and privacy, where regulations must ensure the security of the data, storage, collection and use by AI systems for each user. Because as time progresses, the role of technology in human life is also becoming greater. The development of AI technology was born during the Industrial Revolution 5.0, where automation and interconnectivity were becoming more widespread. AI is a part of computer science that studies how to create intelligent machines that can work as well as humans or even better than humans.[11] Industrial revolution 5.0 technological developments have changed human life significantly. However, AI technology is like a "double-edged sword" because apart from having benefits, technological progress also often has risks and problems with AI. This technology is increasingly being developed massively and is being used in many scientific fields, including law. However, risks also arise related to digital criminal acts. To overcome this challenge, it is important to create regulations that can limit and supervise the use of AI so that it is not misused for criminal

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9 Julia Angwin, et al., Machine Bias: There's Software used Across the Country to Predict Future Criminals. And it's Biased Against Blacks, 2016, *New York: ProPublica.org,* URL: https://www.propublica.org/, Accessed on 5 June 2024.

10 Inspektorat Jenderal Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia., Artificial Intelligence (AI): Bahayakah atau Dukungan untuk Pekerjaan Manusia?, *itjen.kemendikbud.go.id*, 2023, URL: https://itjen.kemdikbud.go.id/, Accessed on 5 June 2024.

11 Nils John Nilsson., The Quest for Artificial Intelligence: A History of Ideas and Achievements, *Cambridge University Press,* 2010

activities or spreading hoaxes. This regulation must consider aspects of cyber security, privacy and ethics in its implementation. An electronic system device designed to do something with electronic information that is carried out automatically by humans is called an "Electronic Agent". Referring to Article 1 of Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Electronic Information and Transactions (hereinafter referred to as the ITE Law) AI is now designated as an Electronic Agent based on laws and regulations in Indonesia because of its capabilities. which can perform information processing. The word "automatic" in the definition of "Electronic Agent" is then used as a means to describe AI as an "Electronic Agent".[12] If we use this description, in fact the regulations governing "Electronic Agents" can also apply to AI.

The development of artificial intelligence (AI) technology has had a significant impact on law enforcement in our country. One of the main impacts is in accelerating the law enforcement process. AI can be used to analyze data quickly, identify patterns undetectable by humans, and predict potential crimes. Apart from that, the use of AI can also help in optimizing legal data management and can help in compiling a neat and easily accessible database, making it easier for law enforcers to find the information needed to handle cases. However, the challenges faced in integrating AI technology in law enforcement in Indonesia are limited infrastructure and limited human resources trained in using this technology. In addition, clear policies and adequate regulations are needed to regulate the use of AI in law enforcement so that it does not violate human rights and individual privacy.

This article focuses on how law enforcement is currently facing complex challenges along with the rapid development of innovation in artificial intelligence. The dynamic growth of AI is creating new opportunities and profoundly changing our paradigms. However, the suitability of regulations with the dynamics of AI innovation is a central issue that requires serious attention. To study further the analysis of law enforcement through limiting the use of AI by creating regulations that can prevent digital criminal acts in the current era so that there is no misuse of the use of AI technology that harms other people and the existence of Rechtsvacuum.

B. RESEARCH METHODS

The research method we use in this research is literature study.[13] The main objective of this research is to investigate the approaches and strategies that have been adopted in limiting the use of Artificial Intelligence (AI) through regulations in order to prevent the occurrence of digital crimes. The author collects data from various relevant literature sources, including

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12 Zahrashafa PM. et al., Pengaturan Hukum *Artificial Intelligence* Indonesia Saat Ini Oleh: Zahrashafa PM & Angga Priancha, Fakultas Hukum Universitas Indonesia. URL: https://law.ui.ac.id/, Accessed on 27 February 2024.

13 Kemenkes Poltekkes Semarang, Indonesia., Literatur Review, Poltekkes Kemenkes Semarang Library, URL: https://library.poltekkes-smg.ac.id/, Accessed on 5 June 2024.

scientific journals, articles, research reports, books, and policy documents related to our research topic. The data search process was carried out through academic databases such as Google Scholar, PubMed, IEEE Xplore, and other leading scientific journals in the fields of artificial intelligence, cyber security, and digital law. We used keywords appropriate to the research topic, such as "AI regulation", "AI governance", and "cybercrime prevention", to obtain relevant data. The collected data is then filtered based on predetermined inclusion criteria, such as connection to the research topic, relevance, quality and newness of the information. Next, the data was analyzed systematically using descriptive and thematic approaches to identify patterns, trends and main findings in relevant literature. However, this research has limitations, including limited access to literature that may not be available online and limitations in analyzes that are based only on secondary data. However, this research aims to develop a comprehensive understanding of approaches and strategies in limiting the use of AI to prevent digital crimes.

C. RESULTS AND DISCUSSION

1. The Impact of the Development of Artificial Intelligence (AI) on Digital Security and Human Rights in Indonesia

President Joko Widodo at the opening of BPPT's national work on March 8 2021 stated that Indonesia was in the midst of a global AI war, followed by vigilance so that Indonesia would not just be a spectator and buyer of technology created by other countries. Due to the effectiveness of using AI, it is estimated that the production of companies adopting AI will increase by at least 40% by 2023. In fact, some countries have implemented AI up to 56% in their industrial sectors.[14] Meanwhile, in Indonesia there are also cases where many important figures are made jokes about, especially by editing public figures who carry out activities that they should not be carrying out, such as singing and dancing in a video. On social media like TikTok, Instagram, and other social media applications. Just by relying on your face, body gestures and voice, it will be very easy to look like this public figure, in other words, this AI is considered superior because it has the ability to make decisions like humans in general, because AI itself has 3 methods that have been developed, namely are Fuzzy Logic (FL), Evolutionary Computation (EC) and Machine Learning (ML).[15]

Reporting from katadata.co.id, there was also a hoax video that was spread containing several figures such as Najwa Shihab, Raffi Ahmad, Atta Halilintar and TV stations (Trans 7 and Kompas TV) which promoted online gambling which was caused by several individuals, who

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14 Kirana Rukmayuninda Ririh, et al., Studi Komparasi dan Analisis Swot Pada Implementasi Kecerdasan Buatan *(Artificial Intelligence)* di Indonesia. Pusat Penelitian Kebijakan dan Manajemen Ilmu Pengetahuan Teknologi dan Inovasi, Lembaga Ilmu Pengetahuan Indonesia*. J@ti Undip: Jurnal Teknik Industri*, Vol. 15, No. 2, 2020

15 Adzhar Anugerah Trunapasha, et al., Penyalahgunaan *Artificial Intelligence* Terhadap Tokoh Masyarakat Dalam Konten di Media Sosial Berdasarkan Perundang-undangan Indonesia. *Veritas: Jurnal Program Pascasarjana Ilmu Hukum.* Vol. 9, No. 2, 2023, page. 82.

if When we searched the video, it turned out to be similar to Mata Najwa's program entitled "Who's Afraid of Vaccines - Raffi Ahmad: Sore and Sleepy After Being Vaccinated" which was uploaded on January 13 2021.[16] which was modified with generative AI technology called Deepfake to create videos as if the figures were promoting online gambling. From the example of this incident, it will be explained indirectly that as time goes by, there will be similar cases that occur more frequently every day or even worse if these cases are left alone. There are several examples of digital crimes that use AI, namely online fraud, content manipulation, cyber attacks, privacy violations, distribution of dangerous content, identity theft and hacking. Some of these threats are certainly very dangerous because they can harm many people and can divide the Indonesian nation.

As of this writing, Indonesia does not yet have specific regulations regarding AI.[17] If we look at the European Union countries which are currently drafting the first regulations regarding the use of AI, reported by CNBC Indonesia and VOA Indonesia, European Union officials are currently negotiating to discuss regulations related to AI on June 14 2023. Without specific regulations regarding artificial intelligence (AI) in Indonesia, the impact could vary on society. If we look at the European Union's efforts to draft the first regulations on the use of AI, reported by CNBC Indonesia and VOA Indonesia, the impact can be felt in several ways:

a. Legal Uncertainty

The lack of clear regulations regarding the use of AI can create lawlessness in society. Individuals, companies and institutions may have difficulty understanding their legal limitations and responsibilities regarding the use of AI technology.

b. Risks To Data Privacy

Without proper guidelines, risks to user data privacy may increase. The use of AI in data collection, analysis and processing can provide opportunities for unwanted privacy violations.[18]

c. Limited Consumer Protection

A lack of regulation may result in limited protection against consumers committing detrimental or manipulative actions involving the use of AI. This may increase consumers' vulnerability to fraud or exploitation.[19]

d. Foreign Technology Dependence

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16 Desy Setyowati, 2024, Viral Raffi Ahmad dan Najwa Shihab Promosi Judi Online, Ternyata AI, URL: https://katadata.co.id/, Accessed on 21 February 2024.

17 M. Irfan Dwi Putra, 2024, Regulasi AI di Indonesia belum cukup, perlu aturan yang lebih spesifik, The Conversation.com. URL: https://theconversation.com/, Accessed on 27 February 2024.

18 Yang, Q.; et al., Federated machine learning: Concept and applications. ACM Trans. Intell. *Syst. Technol. (TIST)* 2019, Vol. 10, No. 1, page. 1–19.

19 Considering The Importance of Both IP Rights And Competition In Market Economies to Promote Innovation Economic Growth, and Consumer Welfare; by Organisation for Economic Co-Operation And Development (OECD).

Without strong regulations, Indonesian society may become more dependent on AI technology from abroad that may not fully take into account local values, national interests, or the needs of Indonesian society.[20]

Laws related to this matter will be established as soon as possible. This law is planned to be implemented as soon as possible. By 2025, These rules center more on regulating the use of AI than regulating the technology itself. This regulation was formed to protect democracy, the rule of law and fundamental rights such as freedom of expression. This rule adjusts to how big the risk level of an AI application is. If the risk is low, they only need to follow regulations such as reporting that the system is AI-assisted. There are also some AI applications that are banned because they are thought to pose an unstoppable level of risk, such as social scoring systems that determine how people should act, certain types of predictive policing, and emotion recognition systems in schools and workplaces.[21]

2. Setting and Implementation of AI Regulations in Indonesia Influences Efforts to Prevent Digital Crimes

In 2020, the Indonesian government published the National Strategy for Artificial Intelligence in Indonesia (Stranas KA) which contains news regarding AI ethics and policies, AI talent development, as well as the data ecosystem and AI development infrastructure.[22] However, the National AI Strategy is not a binding legal document, but only a national policy direction. This does not mean that the Indonesian government is turning a blind eye to AI technology regulations. There are a number of regulations related to the use of AI technology in Indonesia, for example the Minister of Communication and Information Technology Regulation Number 3 of 2021.[23] which regulates licensing aspects for business actors who use AI. There is also the Law (UU) Information and Electronic Transactions (ITE Law) and derivative regulations that regulate AI using the terminology of Electronic Agents. There is Law Number 27 of 2022 concerning Personal Data Protection[24]

20 Kai-Fu Lee, 2018, AI Superpowers: China, Silicon Valley, and the New World Order., *New York: Houghton Mifflin Harcourt.*

21 *Associated Press*, Uni Eropa tetapkan peraturan AI Pertama, 2023, URL: https://www.voaindonesia.com/ Accessed on 4 March 2024

22 AIIS: Artificial Intelligence Innovation Summit., Kolaborasi Riset Inovasi Industri kecerdasan Artifisial. *AI Towards Indonesia's Vision 2045*, Indonesia Center for Artificial Intelligence Innovation. URL: https://ai-innovation.id/strategi Accessed on 8 March 2024.

23 Indonesia, *Regulation of the Minister of Communication and Information Technology Number 3 of 2021 concerning Business Activity Standards and Product Standards in the Implementation of Risk-Based Business Licensing in the Postal, Telecommunications and Electronic Systems and Transactions Sector.* State Gazette 2021 No.265, ronde.go.id. Ministry of Communication and Information, Jakarta.

24 Indonesia, Law Number 27 of 2022 concerning *Personal Data Protection*. 2022 State Gazette No. 196. Central Government, Jakarta.

which regulates the use of AI regarding the processing of personal data. Apart from that, the Ministry of Information and Communication Technology (Kemenkominfo) has also issued ethical guidelines for the use of AI by business actors, as stated in the Circular of the Minister of Communication and Information Technology Number 9 of 2023 concerning the ethics of artificial intelligence. Then there is the Personal Data Protection Act.

Law (UU) Number 11 of 2008 concerning Information and Electronic Transactions (ITE) Article 21[25] regulates the regulation of Electronic Agents in conducting electronic transactions. In the Law (UU) Information and Electronic Transactions (ITE Law), Electronic Agent operators are actually electronic system operators. Because actually Electronic Agents are a form of electronic system management. This means that all the rights and obligations of electronic system operators apply mutatis mutandis to Electronic Agent providers. Every electronic system provider must guarantee that the system it uses can be used safely, reliably and responsibly. Therefore, all legal consequences carried out through an electronic agent are the responsibility of the Electronic Agent organizer. As long as the error or failure in the operation of an electronic system is not caused by user negligence, our understanding is often clouded by science fiction (Sci-fi) films depicting the development of highly sophisticated AI-like humans who can act according to their own will. This raises the question of whether AI can be held accountable for its own actions and what if the results of AI's "thoughts" cause harm to its users or other people, because AI sophistication can exceed human capabilities. In fact, AI is no longer just an object that works when commanded by humans, but rather AI that is capable of carrying out all actions automatically, just like humans.[26]

The Law (UU) Information and Electronic Transactions (ITE Law) states that the application of AI (Electronic Agent) in Indonesia can only be carried out by individuals, state officials, business entities and the public. This means that legal responsibility lies with the electronic system organizer that provides the AI service. The Law (UU) Information and Electronic Transactions (ITE Law) and Government Regulation (PP) Number 71 of 2019 concerning Implementation of Electronic Systems and Transactions[27] effectively regulate the limits of obligations and responsibilities of Electronic Agent organizers, including: providing functions that allow users to make changes to information that is still in the transaction process. Previously, Deputy Minister of Communications

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25 Indonesia, Article 21 of Law of the Republic of Indonesia Number 11 of 2008 concerning *Information and Electronic Transactions,* 2008 State Gazette No. 58. Central Government, Jakarta.

26 Febri Jaya, dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan atau *Artificial Intelligence* Sebagai Subjek Hukum Pada Hukum Positif Indonesia*, Jurnal Supremasi Hukum.* Vol. 17, No. 2, 2021, page. 3.

27 Indonesia, Government Regulation (PP) Number 71 of 2019 concerning *Implementation of Electronic Systems and Transactions*, State Gazette Number 185. Central government, Jakarta.

and Information Nezar Patria said that his agency was drafting a special law on AI. In addition, the National Research and Innovation Agency (BRIN) is currently drafting a Presidential Regulation or Presidential Decree regarding this technology. Via press release no. 322/HM/KOMINFO/09/2023[28] The government has started to formulate a national strategy for artificial intelligence 2020 – 2045 which coincides with Golden Indonesia 2045.

The Minister of Communication and Information, Budi Arie Setiadi, is currently drafting ethical guidelines for the use of AI in Indonesia at the second event of MASTEL's 5G Summit - Acceleration of 5G Networks and AI Towards Indonesia as a Digital Economic Country in South Jakarta, Thursday (21/09/2023) stated that "We as an Indonesian nation are expected to be able to respond to the various challenges of using AI, so that it is in line with the provisions of the Law (UU) Information and Electronic Transactions (ITE Law) and the PDP Law (Personal Data Protection),"

The author feels that limiting the use of artificial intelligence (AI) through regulations that can prevent digital crimes is an important step. These regulations can help reduce the risk of AI being misused for criminal purposes, such as fraud, data theft, or cyber attacks. However, in implementing these regulations, various aspects need to be considered such as freedom of expression, innovation and data security. Balanced and measurable regulations will help strengthen public trust in AI technology. The author understands that making regulations regarding restrictions on the use of artificial intelligence (AI) is complex and requires careful consideration. On the one hand, restrictions can be considered a protective measure against the potential misuse of AI for negative purposes, such as fraud, discrimination or privacy violations. Restrictions can also help regulate the use of AI in certain contexts, such as use in making decisions that are important to society.

On the other hand, limiting the use of AI can also cause some problems. For example, restrictions that are too strict could hinder innovation and development of AI technology that could provide major benefits to society. Restrictions can also make it difficult to use AI for legitimate research or product development purposes. Therefore, in designing restrictions on the use of AI, various factors need to be considered, including the interests of public protection, innovation, freedom of expression, and data security. Balanced and careful regulation to prevent the misuse of AI technology in the context of digital crimes.

With the progressive development of AI, human labor will no longer be needed as everything can be done mechanically. Will humans become lazier and eventually degrade to the stage that we return to our

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28 Indonesian Press Release No. 322/HM/KOMINFO/09/2023 Thursday, 21 September 2023. Concerning *Preparing Ethics Guidelines*, Minister of Communication and Information Targets Use of AI to Bring Added Value.

primitive form of being.[29] If the use of artificial intelligence (AI) is not controlled, the impact will potentially be very detrimental to society in the future. One of the main impacts is related to economic inequality. the vulnerability of certain types of work to computerization, which can lead to greater social and economic inequality in society. In addition, uncontrolled use of AI can also threaten data privacy and security. Without adequate regulation, the risk of breaches of privacy and data coverage can increase, which can threaten public trust in digital systems.[30] Another impact if AI cannot be controlled is that the AI system is a defect in the facial recognition technology used by law enforcement agencies. A study by the National Institute of Standards and Technology (NIST) found that facial recognition technology was significantly less accurate for people with darker skin tones, leading to higher rates of false positives.[31] This bias can have serious consequences, such as wrongful arrests or convictions.[32] A striking instance of GenAI bias was reported, where text-to-image models like StableDiffusion, OpenAI's DALL-E, and Midjourney, exhibited racial and stereotypical biases in their outputs.[33]

D. CONCLUSION

In the increasingly advanced digital era, the use of artificial intelligence (AI) has become an integral part of various aspects of life, including in the world of business, communication and public services. However, as technology advances, new challenges also emerge related to the potential misuse of AI for criminal purposes and privacy violations. We conclude that AI regulation has a significant role in addressing digital crime. With clear and consistently applied regulations, the risk of AI technology misuse can be effectively reduced. However, it is necessary to consider that regulations must be balanced, not only protecting society from the threat of digital crime, but also facilitating innovation and technological development. Cooperation between government, the private sector and civil society is needed to design and implement effective regulations. Therefore, AI regulation is an important step in ensuring that AI technologies are used responsibly and provide maximum benefit to society.

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29 Michael Cheng-Tek Tai., The Impact of Artificial Intelligence on Human Society and Bioethics, *Tzu Chi Medical Journal: PMC Pubmed Central*, Vol. 32, No. 4, 2020, p. 339-343.

30 Carl Benedikt Frey, and Michael A. Osborne., The future of employment: How susceptible are jobs to computerisation?, *Technological Forecasting and Social Change*, Vol. 114, page. 254-280, 2017.

31 Schwartz, R., et al., Towards a Standard for Identifying and Managing Bias in Artificial Intelligence. NIST Special Publication, 1270, 2022, page. 1-77.

32 Emilio Ferrara., Fairness And Bias in Artificial Intelligence: A Brief Survey of Sources, Impacts, And Mitigation Strategies, Vol. 6, No. 1, 2023, page. 3-4.

33 L. Nicoletti, and D. Bass, Humans Are Biased: Generative AI Is Even Worse. *Bloomberg Technology + Equality,* 2023, URL: https://www.bloomberg.com/, Accessed on 5 June 2024.

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