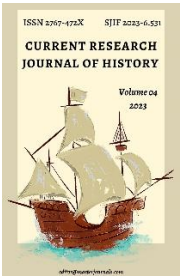
CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals



Journal Website: https://masterjournals.com/index.php/crjh

Research Article

MACHINE INTELLIGENCE: INDONESIA'S LEGAL FRAMEWORK AND HISTORY

Submission Date: April 25, 2023, **Accepted Date:** April 30, 2023,
Published Date: May 01, 2023
Crossref doi: https://doi.org/10.37547/history-crjh-04-05-01

Wa Ode Junaidi
Faculty Of Law, Halu Oleo University, Kendari, Indonesia

Haris Sarif
Faculty Of Law, Halu Oleo University, Kendari, Indonesia

ABSTRACT

The inspiration driving this study is to addresses diagram of PC based knowledge and its use inside Indonesian guideline. The discussion intends to examine the application of artificial intelligence in connection with the development of Indonesian regulations and to be nuanced while also being justifiable for those without a specialized foundation. A report based on this study is subjective. Just people and lawful substances that are legitimately perceived as legitimate subjects are dependent upon Indonesian guidelines. AI and intelligent machines do not share the same level of intelligence as humans. AI is the capacity to instruct a computer on how to carry out a particular function. The role that the state plays in providing legitimate security needs to be defined. Through artificial intelligence explicit regulations and guidelines as well as exceptional organizations approved to supervise the utilization of man-made intelligence in Indonesia, this lawful security is expected to offer the computer based intelligence client local area legitimate conviction.

KEYWORDS

History, Artificial Intelligence, Law, Indonesia.

INTRODUCTION

In order for Indonesia to keep up with the rest of the world in the field, President Joko Widodo called on the country to improve its AI capabilities. He warned that the competition to control AI is comparable to the space race during the Cold War and that the world is currently engaged in a "war" to acquire AI capabilities.

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

Additionally, according to Joko Widodo, artificial intelligence will be used in the public sector to reduce the number of civil servants required to perform administrative tasks, which can be performed by computers and artificial intelligence. He required the need to revoke the quantity of wasteful and superfluous associations and authorities .Assuming we return a focus on the most recent couple of many years, the term Computerized reasoning is a term that will make individuals grimace and miracle —what is that look like?‖. First thing that will presumably strike a chord is the cyborg professional killer sent back so as to kill Sarah Connor from the film The Eliminator featured by Arnold Schwarzenegger in 1984, or perhaps a time machine in a type of changed DeLorean Vehicle that can require some investment like the one from the film Back to What was to come featured by Michael. In 1985, J. Fox Not to be forgotten is Vicki, who appeared on the sitcom Small Wonder in the United States in 1985. Vicki is a robot that looks like a girl but has superhuman strength and lives with her creator Ted Lawson and his family.

Now that we're back in the present, we probably didn't know that AI is becoming more and more influential in our lives. Improved video gaming, self-driving cars, content that is relevant to the user's interests based on saved browsing history, and prediction of site preferences The abundance of data is one of the primary factors contributing to the rapid expansion of AI. While almost 90% of the world's information has been made somewhat recently. By 2025, the world will produce one hundred seventy-five zettabytes, or 175 trillion gigabytes, of new data, as predicted by IDC.

An artwork created by an artificial intelligence program sold for $432,500 in October 2018, nearly 45 times its high estimate, at a Christie's auction. Representation of Edward Bellamy, a composition made by a Paris-based craftsmanship aggregate called Self-evident, was created by utilizing a calculation and an informational collection of 15,000 pictures painted between the fourteenth and twentieth hundreds of years. It sold during the October 23-25 Prints and products deal at Christie's, making it the main piece of simulated intelligence craftsmanship to go under the mallet at a significant sales management firm.

A poet AI that could fool online judges was developed by Microsoft and Kyoto University researchers. It represents the most recent advancement in artificial intelligence's capacity to produce believable human passing language. The AI was fed thousands of images paired with descriptions and poems written by humans to create something as esoteric as a poem. This taught the algorithm how to make connections between text and images. It also learned how certain colors or images relate to emotions and metaphors, as well as the patterns of imagery, rhymes, and other language that might make a poem believable.

A Federal Court of Australia judge has found, for the first time in history, that AI can be considered an "inventor" under the Australian patent system. This is another section in the worldwide discussion regarding whether patent regulation and strategy ought to adjust to perceive the changing development scene. This decision is one of several worldwide test cases to see how AI "inventors" will affect the current state of patent law in certain jurisdictions.

In Indonesia, numerous new businesses have begun utilizing artificial intelligence to help their business exercises. The innovation items offered are computer based intelligence based, obviously, this is because of the undeniably accessible and reasonable supporting angles expected to remember computer based intelligence for business exercises which are currently presently not simply accessible to created nations or huge organizations.

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

Simulated intelligence is by all accounts wherever surrounding us and essentially in each industry and a rising number of associations is joining the competition to utilize artificial intelligence related abilities. It enhances human activities and has numerous beneficial effects. Each change that comes into our lives will influence us as it were, be that emphatically or adversely. Despite these advancements, there are still legal questions regarding AI's legal status. Is it necessary for Indonesia to consider AI as an inventor, as Australia did in the past?

METHODS

This study is a subjective report connected with simulated intelligence's application connecting with the development of regulations and their relationship with different disciplines and different variables that impact policing.

What is AI?

Let's go back a century to the first industrial revolution before we get into AI to get a good understanding of where it all started. The primary modern transformation spread over from around 1760 to around 1840. It marked the beginning of mechanical production, sparked by the construction of railroads and the development of the steam engine. The introduction of electricity and the assembly line made mass production possible during the second industrial revolution, which lasted from the late 19th century to the beginning of the 20th. In the 1960s, the third industrial revolution began. Because it was sparked by the invention of semiconductors, mainframe computing in the 1960s, personal computing in the 1970s and 1980s, and the internet in the 1990s, it is frequently referred to as the computer or digital revolution.

Although artificial intelligence does not have anything to do with robots, it has been around for a long time. It really comes down to being able to teach a computer how to perform a particular task. To prepare this framework you really want a view thing like a great deal of computerized data, computational power, and calculation. Consider an algorithm to be a recipe that makes use of a significant amount of digital data and computational power to achieve its goal.

The 1956 summer research project on artificial intelligence at Dartmouth, where McCarthy and colleagues coined the term (McCarthy on Bernd Carsten Stahl), is a good place to start when learning about AI. In their project proposal, McCarthy et al., McCarthy et al., as features of intelligence, suggest that machines can be made to stimulate "every aspect of learning or any other feature of intelligence." refer to the utilization of language, the development of deliberations and ideas, tackling issues currently saved for people and personal growth.

At the point when many individuals hear the term —AIǁ they envision current man-made intelligence frameworks as a reasoning machines. Along this same line, a common misconception is that existing AI systems achieve their results through some kind of artificial computer cognition that is comparable to or superior to human thinking. Actually the present simulated intelligence frameworks are unequivocally not clever reasoning machines in any significant sense man-made intelligence frameworks are frequently ready to create valuable, smart outcomes without knowledge.

In view of intricacy and capacity, there are fundamentally three primary sorts of computer based intelligence:

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

1. Of the three types of AI, weak AI is the most prevalent and has the fewest capabilities. It is also known as artificial narrow intelligence (ANI) or narrow AI. Any AI tool that excels at only one task is referred to as weak AI. That is to say, its capabilities are constrained. The goal of weak AI is not to be like or better than human intelligence. Instead, the goal is to imitate human behavior. An intelligent specialist is more like narrow or weak AI. It is extremely skilled at carrying out the specific tasks that it has been programmed to perform. This category includes machines that use intricate algorithms to imitate human behavior but cannot imitate intelligence.

2. Strong AI, also referred to as general AI or artificial general intelligence (AGI), is a type of AI. Strong AI is AI that is as intelligent as a human. Thus, it can grasp, think, and act the same way a human could in some random circumstance. In principle, then, anything a human can do, serious areas of strength for a can do as well. We don't yet areas of strength for have on the planet, it exists just in principle.

3. AI that is more intelligent and capable than humans is called super AI. It's otherwise called fake genius (ASI). It is the best at everything, including hobbies, math, science, and medicine. The capabilities of super AI are beyond the comprehension of even the most brilliant human minds. When people talk about robots taking over the world or AI overthrowing or enslaving humans, super AI is the type of AI that most people mean.

AI can be used in the following ways:

1. Algorithms that learn from previous experiences and examples are the focus of the subfield of artificial intelligence known as machine learning. It involves using data patterns to make predictions about the future.

2. Profound learning, is a sub-field of AI, and very like it, then again, actually profound learning utilizes various layers of calculations called a counterfeit brain organization. It resembles the neural network of the brain, which also has a layered structure. These layers are used in deep learning to look for patterns in the data. A deep learning application, Google's LeNet model for image recognition has 22 network layers.

AI's current applications are extensive, as it is utilized in almost every industry. Although it shouldn't come as a surprise that business sectors like healthcare, medicine, and robotics are actively utilizing AI, there are also completely unrelated industries that are utilizing its innovations. McKinsey estimates that AI will add 600 billion dollars to retail value. It can possibly drive a half more steady worth in banking than other examination procedures. The transport and logistics industry has the potential to see an 89% increase in revenue. In Indonesia, 101 new machine learning startups based on AI are expected to launch in 2021. The startup companies are innovating the machine learning industry in a variety of ways.

Research showed that things informed by calculations and artificial intelligence gain new expertise they have not had previously. This gives them a new level of agency as well as new ways to act and make decisions. In particular, this new organization excels in the following areas:

1. The ability to read and speak have led to advances in speech recognition and natural language processing, which give things the ability to read, listen, and process what they have read or heard in order to respond. These new developments in the field of artificial intelligence In recent years, these technologies have encouraged the development of intelligent personal assistants with conversational interfaces like Alexa, Siri, and Google Home, as well as applications that process medical information like Babylon. Voice

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

dialogue is an intuitive alternative to the graphic user interface, and the potential gained from this skill is dialogues can take on new forms thanks to language processing. Additionally, the difficulty stems from concerns regarding privacy and ubiquitousness; in order to listen, the conversational agent must be "always on"

2. In the UK, advances in neural network-driven image recognition are currently being beta-tested for a wide range of applications, including self-driving vehicles and medical applications. For the Moorfields Eye Emergency clinic London. Man-made intelligence examinations profoundly complex eye checks in organization with DeepMind Wellbeing. Additionally, cars already park themselves or partially or completely take over driving on some UK streets. The potential that can be derived from this skill is unique to the settings in which it is utilized. In transportation, citizens and/or the environment are likely to benefit. The NHS's healthcare delivery can be aided and facilitated by disease detection. Furthermore, the test is there are cases that demonstrate the way that visual IDs by calculations can undoubtedly be tricked. Image recognition's dependability has not been sufficiently tested.

3. Digital chips have become smaller and more affordable, and a wide range of sensors can now be used on anything. The ability to track and process data. A receptive microphone, an ambient light sensor to adjust screen light, a barometer to measure elevation and air pressure, an accelerometer to measure velocity, a gyrometer to measure gravity and the direction down, and a fingerprint sensor are currently included in the majority of smartphones. These sensors, when inserted into objects, can either be pre-programmed or make their own decisions to assist or replace human activity (AI). Automated data/document review can now partially search and process information that was previously researched and presented by lawyers, journalists, and doctors. These abilities have the potential to provide everyday convenience and comfort. assisting with medical treatment and care (assistive technology) Through quicker interaction, greater effectivity. Additionally, the internet of things is tracking not only citizens' movements but also their routines, which presents a challenge due to privacy and ubiquitous surveillance concerns. Trust and consent: Users ought to be able to control their data and should have the right to question decisions that are based on their data. Decisions that are biased: AI systems frequently have a tendency to amplify biases they discover in the data they are trained with, which necessitates the use of large, costly databases.

AI Legal Framework in Indonesia

Regulation is essential for the construction of society, whether current or crude. Society both influences and is influenced by law. Every human activity in a society is impacted by the law. Envision going to work today. Choose between driving and taking the train. Assuming that you drive, the street rules will assist you with getting to your office securely. In the event that you take the train, the agreement you make by purchasing a ticket will oblige the rail organization to take you there. What you do and how much you get paid will be determined when you arrive at your workplace by your employment contract or some other law. Law enforcement is present at virtually every activity, sometimes assisting and sometimes hindering. It pays well to consider the nature of law and the legal system for sociologists, anthropologists, economists, and just about any other social scientist.

Our ways of life have been profoundly altered by technology, and as technology developed, human behavior changed to become highly dependent on technology. One of the models that happened these

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

days is the rising measure of organizations administration in view of online application; these are captivating however it likewise has numerous moral, legitimate and social ramifications that regulation isn't ready for this, no particular Indonesian lawful demonstration exhaustive with everything going on.

Revisions to national laws are governed by two categories of law: those who have a propensity for change and those who have a propensity for conservatism. Personal property or family law is strict and rarely evolves. However, many areas of commercial law and national administration are governed by laws that evolve with society's needs and development.

In his theory, "Law as a tool of social engineering," Roscoe Pound focuses on the law's influence on discipline, arguing that the law can be used to either reform or control society. The public interest, the social interest, and the personal interest were all included in Roscoe Pound's classification of the interests that must be protected by the law itself in order for its purpose to be accomplished. The state's advantage as a legitimate body and the gatekeeper of the public interest are remembered for the public interest. The preservation of social institutions, the prevention of moral decay, the prevention of violations of human rights, and social welfare are all areas in which the community has an interest. Individual, family, and property privileges are instances of individual interests.

Naturally, development has an impact on a variety of social issues, including legal structures. This indicates that legal modifications will be required for any modifications made along the way. In the sense that they will contribute to the creation of a new legal system that is in line with societal values, these modifications are beneficial. The engineering of society cannot be restricted in the current era of globalization. However, it must be directed in the direction of the area where the change is to be made. Assuming the happened changes are left to happen normally, there will be various potential inconsistencies and logical inconsistencies with the major rules that should be kept up with.

Mochtar Kusumaatmadja says, referring to Lasswell-McDougal's cultural theory of Northrop, that the law used to reform can be law, jurisprudence, or a combination of the two. In Indonesia, jurisprudence plays a minor role compared to legislation. In this particular instance, it is abundantly clear that the theory places an emphasis on the significance of a transformed society as a material source in the process of drafting laws and rules.

In contrast to Australia, which has legalized AI's potential as an inventor and other AI-related fields, Indonesia's widespread adoption of AI does not yet have its own set of legal regulations, most likely in the area of intellectual property rights.

"Inventor is one or several people who jointly implement ideas that are poured into activities that produce inventions," according to Article 1 number 3 of Law Number 13 of 2016 Concerning Patents (hereinafter referred to as the Patent Law), and "person is an individual or a legal entity," according to Article 1 number 13 of the Patent Law. "A creator is one or more people who individually or collectively produce a unique and personal creation," states Article 1 number 2 of Law No. 28 of 2014 regarding copyright.

In accordance with the preceding definition, individuals or legal entities are legal subjects in the fields of copyrights and patents, which are the most likely to come into contact with AI. Consequently, it is evident that AI is not an inventor but rather an object. If the Ai creates a work that is protected by intellectual

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

property, the inventor must register the work according to the classification.

Each man-made intelligence item or activity has an effect, whether positive or negative. AI has the potential to have a negative impact and even harm its users if the actions it takes are not in accordance with the instructions it was given. A few instances of infringement and information spillage from commercial center clients. When data used in the training process contains information about what the model is trying to predict, this is known as data leakage. Information spillage is a serious and far and wide issue in information mining and AI which should be taken care of well to get a vigorous and summed up prescient model.

CONCLUSION

Only individuals and legal entities that are legally recognized as legal subjects are subject to the current regulations in Indonesia. Who is responsible for users' negative outcomes as a result of AI program errors, assuming that AI does not qualify as a legal subject? Here, we should define the state's role in protecting its citizens from the law. Through AI-specific laws and regulations as well as special institutions authorized to oversee the use of AI in Indonesia, this legal protection is required to offer the AI user community legal certainty.

The role of the law in Indonesia in the face of the 5.0 industrial revolution, according to Ahmad Ramli's Transformative Legal Theory, is not only to maintain justice, legal certainty, and order [20], but it can also serve as a transformation infrastructure, enabling the nation to adapt to massive digital transformation that moves quickly. We continue to gain a deeper understanding of what it means to be human—as writers and readers, as creators and consumers—by investigating how novel high-tech tools appear familiar or strange. For an understanding of AI in the legal context, it is essential to comprehend the advantages and disadvantages of current AI technology.

REFERENCES

1. Ahmad, R. Artificial Intelligence and Intellectual Property, presented at the Artificial Intelligence Webinar and its Implications for Intellectual Property Rights Regulation in Indonesia on Tuesday 14 October 2021, Held by Kanal Pengetahuan FH UGM.
2. Artificial Intelligence Startups in Indonesia, https: tracxn.com/explore/Artificial-Intelligence-Startups- in-Indonesia.
3. Bernd, C. S. (2021). Artificial Intelligence for a Better Future An Ecosystem Perspective on The Ethics of AI and Emerging Digital Technologies 1st ed. 2021, Springer Briefs in Research and Innovation Governance.
4. Casey, Q. A Painting Made by Artificial Intelligence Has Been Sold at Auction for
5. $432,500, https://time.com/5435683/artificial-intelligence-painting-christies/
6. Dan, R. This AI Wrote Poem That's Good Enough to Make You Think it's Human, https://www.weforum.org/agenda/2018/04/artificial -intelligence-writes-bad-poems-just-like-an-angsty- teen.
7. Denys Holovatyi, 3 Types of Artificial Intelligence, https://www.linkedin.com/pulse/3-types-artificial-intelligence-denys-holovatyi.
8. Harry, S. (2014). Machine Learning and Law, 89 WASH. L. REV. 87, https://digitalcommons.law.uw.edu/wlr/vol89/iss1/5
9. Klaus, S. (2016). The Fourth Industrial Revolution,
10. World Economic Forum, Geneva.
11. Putra, M. (2014). Kontribusi Aliran Sociological Jurisprudence Terhadap Pembangunan Sistem

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 05 Pages: 01-08
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

Hukum Indonesia. Jurnal Likhitaprajna, 16(2), 45-59.

12. Mercedes, B., & Laima J. (2018). Artificial Intelligence and the Internet of Things UK Policy Opportunities and Challenges, University of Westminster Press, London.
13. Munir, F. (2011). Sosiologi Hukum Kontemporer "Interaksi Hukum, Kekuasaan, dan Masyarakat, Jakarta: Kencana.
14. Narasi Newsroom, Beresikokah Rencana Jokowi Gantikan PNS dengan Robot AI?, https://youtu.be/xlo_IP5we8Y
15. Rebecca Currey, Jane Owen, In The Courts: Australian Court finds AI Systems Can Be "Inventors", https://www.wipo.int/wipo_magazine/en/2021/03/a rticle_0006.html.
16. Simplilearn. (2020). Introduction to Artificial Intelligence A Beginner's Guide, IndraStra Global, New York.
17. Soner Yildirim, Data Leakage in Machine Learning, https://towardsdatascience.com/data- leakage-in-machine-learning-6161c167e8ba.
18. Suri Ratnapala, Jurisprudence, Cambridge University Press, United Kingdom, 2009, www.cambridge.org/9780521614832
19. ThinkAutomation, Types of AI: distinguishing between weak, strong, and super AI, https://www.thinkautomation.com/bots-and-ai/types-of-ai-distinguishing-between-weak-strong- and-super-ai/.