NAVIGATING THE MODERN LEGAL FRAMEWORK: ARTIFICIAL INTELLIGENCE AND THE SENSIBLE APPROACH TO BLACK BOX PROBLEMS

Samuel Ferian Bonay

Staff of Internal Affairs 2022

INTRODUCTION

Artificial Intelligence (AI) is perhaps, at the moment, the most familiar term and most likely to occur in one's mind when the development of technology is mentioned. It has been popularly associated with descriptions such as automated smart devices, self-learning machines, and other futuristic expectations. These perspectives could somewhat mislead to narrow understanding even though not completely incorrect. To make the terms sensible, scholars such as John McCarthy who could get the credit for coining the word AI itself give it a definition of 'the science and engineering of making intelligent machines.' Or, as another scholar, Elaine Rich defines "the study of how to make computers do things at which, at the moment, people are better."[1] AI serves as a tool designed to perform tasks that typically require human intelligence, primarily for reasons such as improving efficiency and simplifying complex processes. While AI may give the impression of operating independently, intelligently, or even autonomously, this is not entirely the case—at least not yet. If AI truly functioned at that level, we might already be living in a world reminiscent of Disney's *WALL-E*. However, achieving such an advanced level of AI remains speculative, and it is crucial to address potential concerns before that becomes a reality.[2]

DISCUSSION

The previous point highlights the importance of data in AI development, implementation, and outcomes. AI systems rely heavily on data, and in many cases, vast

---

[1] E. Rich, *Artificial Intelligence* (New York: McGraw-Hill, 1983).

[2] Stuart Russell, "Living with Artificial Intelligence," *The Reith Lectures*, BBC Radio 4, December 1, 2021, https://www.bbc.co.uk/programmes/m001216k (accessed July 24, 2024).

ASIAN LAW STUDENTS' ASSOCIATION LOCAL CHAPTER UNIVERSITAS GADJAH MADA SECRETARIAT
Faculty of Law, Universitas Gadjah Mada
Jl. Sosio Yustisia No. 1, Bulaksumur, Sleman, D.I. Yogyakarta 55281
Republic of Indonesia

alsa_ugm@yahoo.com   www.alsalcugm.org

amounts of it, often referred to as "Big Data", especially when machine learning techniques are employed.[3] The so-called "intelligent" results generated by AI come from the machine's ability to predict patterns based on data it has been trained on. AI does not have thoughts or feelings; it simply processes vast amounts of data to produce possible outcomes. A significant concern, however, is that much of this data consists of personal information—details about you, your family, or any individual whose identity is tied to the data. Even seemingly trivial information can become harmful in the age of connectivity. Improper use of AI could lead to serious disadvantages for data subjects (the individuals), as well as data controllers and processors responsible for managing this information. It is crucial to understand the concerns of AI as it opens different perspectives, yes, it performs exceptionally well in specific tasks, but not meant nor should be for all.[4] Due to AI's lack of contextual understanding, empathy, transparency, and integrity, the involvement of human oversight is crucial. More specifically, the involvement of morally responsible individuals is essential to guide and manage this technology. Without such oversight, we risk facing the "black box problem," where complex data, once broken down and processed, becomes opaque and inaccessible to users. This leads to a situation where users of AI surrender control over critical decision-making processes, accepting outcomes without fully understanding how they were determined.

To illustrate that, imagine if a technology is incredibly compatible with the development of an automated or self-analyzing medical tool. This medical tool has a very advanced computational process to the point where during the trajectory of a diagnosis, the process of scanning, capturing vital pictures, processing biodata, generating recipes, determining procedures, or even deciding emergency decisions are executed by the machine pre-prompted by the manufacturer. Patients will only get the very processed outcome without knowing, if not the kind of data extracted outside consensually given, at the very least, the process of how that data is managed during the determination. Some think that in such a case,

---

[3] "Big Data" refers to the vast, rapidly growing volumes of digital data being generated and analyzed, facilitated by technological advancements and driven by the increasing digitalization of life.
[4] Harry Surden, "Artificial Intelligence and Law: An Overview," *Georgia State University Law Review* 35, no. 4 (2019): 1305.

ASIAN LAW STUDENTS' ASSOCIATION LOCAL CHAPTER UNIVERSITAS GADJAH MADA SECRETARIAT
Faculty of Law, Universitas Gadjah Mada
Jl. Sosio Yustisia No. 1, Bulaksumur, Sleman, D.I. Yogyakarta 55281
Republic of Indonesia

alsa_ugm@yahoo.com   www.alsalcugm.org

the objectivity of the output might be for the best. However, some also argue in regards to its objectivity in the cost of safety, and would one prefer accuracy or privacy?

Recently, actual instances in which AI has overstepped these boundaries have become more evident. The Loomis v. Wisconsin case is one such case that has been publicized.[5] It concerns a drive-by shooting committed by a black person named Eric Loomis carried out in La Crosse, Wisconsin. Under the trade name COMPAS (Correctional Offender Management Profiling for Alternative Sanctions), an automated risk-assessment system was employed in this instance. Compiling information, COMPAS looked at Loomis's past criminal history, which included several offenses like drug selling and sexual assault, in addition to an interview with Loomis. Based on the system's assessment, Loomis was sentenced to six years in prison because of his high likelihood of reoffending. However, it is not that Loomis does not deserve to be punished, it is how the judgment was reasoned. His "likelihood of reoffending" was also concluded after a process of data gathering of sets of people who have similar backgrounds as him.

That said, these similar people are also black for which history has failed them and treated the community as inhumane as it should not be. Most of the time, when black people commit a crime, it's more likely because of insecurity, restricted opportunities, inequality, or simply racism.[6] Their systemic problems of limited rights force them to commit illicit activity. Therefore, it is never going to be fair if an AI, robot, or machine renders an algorithmic process by doing a general background check of a bunch of people without taking into account the context. This case alone brings to light the issues of using artificial intelligence (AI) without much human intervention.

---

[5] *State v. Loomis*, 881 N.W.2d 749 (Wis. 2016).
[6] Liberty Matters, "Systemic Racism in Crime: Do Blacks Commit More Crimes Than Whites?" February 13, 2024, https://oll.libertyfund.org/publications/liberty-matters/2024-02-13-systemic-racism-in-crime-do-blacks-commit-more-crimes-than-whites.

ASIAN LAW STUDENTS' ASSOCIATION LOCAL CHAPTER UNIVERSITAS GADJAH MADA SECRETARIAT
Faculty of Law, Universitas Gadjah Mada
Jl. Sosio Yustisia No. 1, Bulaksumur, Sleman, D.I. Yogyakarta 55281
Republic of Indonesia

alsa_ugm@yahoo.com   www.alsalcugm.org

Moreover, this situation aligns with the concepts of "Garbage In, Garbage Out ('GIGO')" in which an AI machine will render a nonsensical output when one inputs something logically false or not contextual.[7]

Now, even though the example above does not target personal data as illustrated literally, it still shows how AI could not understand the context behind the information inputted except for noticing the patterns or videlicet the black box problems. If not mitigated thoroughly, problems arising from personal data infringement in AI development could soon vary and create new discourse. Thus, a few preventive and reactive regulations could be proposed to tackle this situation regardless of the jurisdiction as all citizens across the world are as prone to the concern. First, a proper definition and limitation of what constitutes an AI needs to be coined and agreed upon so that limitations on automation can be attained to promote responsibility and avoid overreliance. This could lead to classification and properly clarified types of AI and to what extent they require, encourage, discourage, or prohibit humans in the loop.[8] This approach is similar to the current development of the EU AI Act where rules are adjusted according to the risk levels.[9] Second, to support the preventive and administrative efforts, legislatures need to calculate the best corrective measurements as well as the compensations for infringements that involve AI both in private and public matters. The formulation of such measurements needs to highlight the complicated questions of privacy in AI discourse that might differ from regular problems in cyberspace.

Lastly, a meticulous data collection method should be established and regulated in responding to questionable data processing, especially in machine learning AI. The method should carefully accommodate technology advancement by allowing processes to generate accurate results while also accommodating safeguards for data protection. Additionally, participation in preparing the sensible approach for such black box problems could include all

---

[7] The term "GIGO" (Garbage In, Garbage Out) describes the straightforward process of a machine where it processes and renders data in a literal sense. The term is often attributed to George Fuecshel among data and computer scientists.

[8] Rebecca Crootof, Margot Kaminski, and Orly Price, "Humans in the Loop," *Vanderbilt Law Review* 76 (2023): 429.

[9] European Parliament, "EU AI Act: First Regulation on Artificial Intelligence," European Parliament, 2023, https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence#ai-act-different-rules-for-different-risk-levels-0.

AI actors and stakeholders such as the civil, academic, and private elements.[10] Responding to these contemporary problems surely takes all sectors to participate for them to be adequately addressed.

CONCLUSION

Artificial Intelligence (AI) is often seen as a cutting-edge tool that automates tasks traditionally requiring human intelligence, yet this perception can obscure its limitations. Defined by scholars like John McCarthy and Elaine Rich, AI functions primarily as a data-processing mechanism that lacks true understanding or emotional capacity. This raises significant ethical concerns, particularly regarding the use of personal data and the potential for biased outcomes, as illustrated by cases like Loomis v. Wisconsin, where automated systems contributed to unfair sentencing based on flawed historical data. To address these challenges, it is crucial to establish clear definitions and classifications for AI to promote responsible usage and limit overreliance. Additionally, legislatures should develop corrective measures for AI-related infringements, focusing on privacy and ethical considerations unique to these technologies. Implementing meticulous data collection standards and engaging diverse stakeholders in discussions about AI development will help ensure that the benefits of AI are realized without compromising individual rights or societal values. Ultimately, a balanced approach is essential for navigating the complexities of AI in our increasingly interconnected world.

---

[10] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (2023).

ASIAN LAW STUDENTS' ASSOCIATION LOCAL CHAPTER UNIVERSITAS GADJAH MADA SECRETARIAT
Faculty of Law, Universitas Gadjah Mada
Jl. Sosio Yustisia No. 1, Bulaksumur, Sleman, D.I. Yogyakarta 55281
Republic of Indonesia

alsa_ugm@yahoo.com   www.alsalcugm.org

BIBLIOGRAPHY

Regulation

State v. Loomis, 881 N.W.2d 749 (Wis. 2016).

Act No. 27 of 2007 concerning Coastal Areas and Small Islands Management (PWP-PK).

United Nations Convention on the Law of the Sea (UNCLOS).

United Nations. "Agenda 21: Programme of Action for Sustainable Development." United
    Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14
    June 1992.

Book

Rich, E. *Artificial Intelligence*. New York: McGraw-Hill, 1983.

Journal

Crootof, Rebecca, Margot Kaminski, and Orly Price. "Humans in the Loop." *Vanderbilt Law
    Review* 76 (2023): 429-480.

Surden, Harry. "Artificial Intelligence and Law: An Overview." *Georgia State University
    Law Review* 35, no. 4 (2019): 1305-1357.

UNESCO. Recommendation on the Ethics of Artificial Intelligence. UNESCO, 2023.

Internet Source

European Parliament. "EU AI Act: First Regulation on Artificial Intelligence." European
Parliament,   2023.
https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulatio
n-on-artificial-intelligence#ai-act-different-rules-for-different-risk-levels-0.

Liberty Matters. "Systemic Racism in Crime: Do Blacks Commit More Crimes Than
Whites?"   February   13,   2024.
https://oll.libertyfund.org/publications/liberty-matters/2024-02-13-systemic-racism-in-crime-
do-blacks-commit-more-crimes-than-whites.

Russell, Stuart. "Living with Artificial Intelligence." *The Reith Lectures*. BBC Radio 4, December 1, 2021. https://www.bbc.co.uk/programmes/m001216k (accessed July 24, 2024).

ASIAN LAW STUDENTS' ASSOCIATION LOCAL CHAPTER UNIVERSITAS GADJAH MADA SECRETARIAT
Faculty of Law, Universitas Gadjah Mada
Jl. Sosio Yustisia No. 1, Bulaksumur, Sleman, D.I. Yogyakarta 55281
Republic of Indonesia

alsa_ugm@yahoo.com   www.alsalcugm.org