The Application of Artificial Intelligence in Civil Trials: Mechanism Vs. Humanism

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Abstract

The Pillar Theory of Law posits that the core of law is divided into two pillars: logic and morality, with justice acting as a pendulum that swings between them. The pendulum comes to rest when a balance between logic and morality is achieved. Thus, justice is realized when there is stability between logic and morality, as justice is inherently dynamic and functional. Artificial Intelligence (AI) is an output of logic, while ethics is an output of morality. Philosophers universally agree that the law must evolve in line with societal advancements, particularly in the realms of digital technology and the internet. The author concludes that in civil cases, a clear distinction should be made between administrative aspects and those that fall within the judge's authority to decide. Administrative aspects of a case can be fully delegated to Artificial Intelligence, enabling swift resolution and achieving efficiency and effectiveness. However, in matters requiring judicial discretion, AI is unsuitable. Judges must adopt a persuasive and conciliatory approach to foster reconciliation, which represents the highest form of justice in resolving civil disputes.

Keywords: *Artificial Intelligence, Civil Cases, Logic, Morality, And Justice.*

Introduction

The advancement of information technology, particularly digital systems, has significantly impacted various aspects of life, including the field of law. In many countries around the world, particularly in the United Kingdom, the United States, Canada, New Zealand, France, and others, even the United Nations has established regulations regarding the use of Artificial Intelligence (AI). In this article, the author will refer to Artificial Intelligence simply as AI.

In this article, the author will examine the application of Artificial Intelligence (AI) in civil court practices in Indonesia. The focus on civil cases is due to their inherently personal nature, encompassing matters such as marriage, inheritance, business agreements, and familial relationships. Resolving civil disputes requires judges to excel in persuasive actions and demonstrate hospitality. To analyze this topic, the author employs the Pillar Theory of Law and the Theory of Legal Quality, as developed by Tarsisius Murwadji, a professor of Economic Law and the author's doctoral supervisor at the Faculty of Law, Universitas Padjadjaran.

The Pillar Theory of Law explains that, fundamentally, the pillars of law consist of two elements: logic and morality. Logic stems from the rationality of the brain's cerebral cortex, while technology in general and AI in particular are products of logic, determining what is right and what is wrong. Morality, on the other hand, originates from the limbic system, reflecting emotions or feelings of comfort or discomfort, and interpersonal morality is referred to as ethics. The fundamental question is: where does justice lie? Justice, as the ultimate goal of law, is akin to a pendulum that continuously swings between the points of logic and morality. The pendulum will come to rest only when a balance (equilibrium) is achieved between logic and morality.

The primary issue in the application of law lies in the fact that AI is purely a product of logic, disregarding morality. Based on the Pillar Theory of Law, it is impossible to achieve justice through AI alone, as it does

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not incorporate moral considerations, thereby failing to establish a balance between logic and morality. It is essential to understand that all users of AI in civil court proceedings must strictly adhere to legal and ethical standards. The guiding principle remains that AI, being a human creation, is not a substitute for humanity itself. Therefore, the final decision-making must remain the responsibility of humans and cannot be delegated to these data-processing machines.

The output or analytical results produced by AI depend heavily on the quantity and quality of the input data. In the legal field, secondary data is categorized under the term "legal materials," which include primary legal materials (binding regulations), secondary legal materials (legal literature), and tertiary legal materials (non-legal literature). These materials are subject to rapid changes due to emerging regulatory needs. AI's weaknesses, such as producing inaccurate or hallucinatory outputs, must be anticipated and addressed by confirming them against accurate, factual, and reliable data. This responsibility falls on the users, who must thoroughly verify and cross-check the results in detail.

In Indonesia, the District Court is the judicial body authorized to hear both criminal and civil cases. There is a significant distinction between these two types of cases. According to the Pillar Theory of Law mentioned above, in criminal cases, the logical factor carries more weight than morality, as the focus is on determining whether the elements of a specific criminal law are met, which tends to be standard-based. In civil cases involving marriage, inheritance, family law, and economics, the emphasis is placed more on morality, as the goal is to achieve reconciliation through negotiation and mediation in court. Therefore, all parties using AI must have a thorough understanding of how AI functions, so they can accurately assess the strengths and weaknesses of the AI-generated outcomes.

The legal field has characteristics that are vastly different from the field of technology, as law is not solely based on mathematical logic but also closely tied to emotions such as feelings of justice, comfort in life, business continuity, togetherness, and familial bonds. In civil cases, judges are generally passive, but in practice, they must take a more persuasive approach to reconcile the parties, grounded in principles of familial harmony and mutual cooperation. Similarly, during the execution of court rulings, conflicts often arise. Therefore, the judge's ability to approach the situation with empathy and care is crucial to achieving peace in the courtroom. This capability is key to realizing reconciliation and ensuring effective resolution.

Personal data protection has become a key element alongside regulations on information and transactions. The e-court application, available to both Registered Users (Advocates) and Incidental Users who only need to input data and a password, highlights this importance. Various legal instruments in Indonesia address personal data protection, including Law Number 36 of 1999 on Telecommunications, Law Number 10 of 1998 on Banking, Law Number 39 of 1999 on Human Rights, Law Number 24 of 2013 on Population Administration, Law Number 1 of 2024 on the Second Amendment to Law Number 11 of 2008 on Electronic Information and Transactions (ITE Law), and Law Number 27 of 2022 on Personal Data Protection (PDP Law) (Sembiring, 2024).

Based on the above explanation, judges handling civil cases must adopt a humanistic approach, as their role is to control the emotions of the parties involved in order to foster reconciliation. This role, however, cannot be replaced by AI. That said, AI can assist with document processing and the online transmission of files between parties. The use of AI, however, has the potential to negatively impact judges by creating dependency, reducing their motivation to seek original literature, and eventually leading to a reluctance to make decisions that uphold moral or ethical standards. This apathetic attitude is what the author refers to as a mechanical, static, or purely normative personality.

Therefore, the questions that the author raises and analyzes in this article are: How can the application of Artificial Intelligence in civil cases ensure justice for all parties involved? And how can we distinguish which parts of the civil trial process can benefit from the use of Artificial Intelligence, so that justice is achieved while the process is carried out effectively and efficiently?

Methodology

The research conducted by the author is classified as normative research. The writing is divided into two stages. The research begins with a literature review, as every study must begin with the use of document or literature review. Literature review involves the examination of written information about law, sourced from various widely published materials, and is essential for normative legal research. In this writing, the literature review focuses on data related to the legality of court proceedings in civil cases.

The second stage is field writing, which is conducted through interviews. According to Pauline V. Young, one of the uses of research is to provide a definitive and stable direction for a study. This method helps in understanding the perspectives and experiences of those involved, providing deeper insights into the subject of study. There are several types of interviews based on the role of the interviewer and the interviewee, including: nondirective interview, directive interview, focused interview, repeated interview, and depth interview. The type of interview used in this research is the directive interview. The goal of this approach is to obtain results that are relevant to the discussion in this study, ensuring that the responses are focused on the specific aspects being researched.

Literature Review

To explore the development of AI, the author briefly describes its progression in relation to its application in the legal field. In his article "Use of AI in Litigation: A Quick Look at Today and the Future" (October 5, 2023), Andrew Judkins, a senior lawyer in London, highlights the remarkable role of data and AI in predicting court decisions. Judkins explains that machine learning technology has extensive applications, including the analysis of court data, judges, parties, and the impacts involved, among others. Over time, AI-based applications, along with data and algorithms, have been utilized not only for litigation strategies but also for predicting the outcomes of court cases. This advancement demonstrates the growing potential of AI in assisting legal professionals in navigating complex litigation processes.

Judkins highlights that in 2016, researchers from three universities University College London, University of Sheffield, and the University of Pennsylvania developed a machine learning algorithm capable of predicting the outcomes of cases heard by the European Court of Human Rights. Remarkably, the model achieved an accuracy rate of 79%. A similar study was conducted for cases in the United States Supreme Court, reaching an accuracy of 70%. The applications used in these studies were retrospective, analyzing cases based on jurisprudence. This demonstrates the potential of AI to provide insights into legal decision-making by leveraging historical case data (Ramli, 2023).

The increasing use of litigation data analysis is driving the development of applications based on data input that can generate futuristic predictions derived from existing court decisions. Case and judgment prediction models are particularly appealing not only to judges, court clerks, and lawyers but also to anyone involved in litigation processes. These applications can be utilized for predictive evaluation, assessing benefits, determining actions, and selecting strategies for case handling even before litigation begins, including crafting strategies for managing the case. This reality underscores the urgent need for regulations to ensure that procedural law and court ethics are upheld. In practice, AI-generated outputs are already widely used, including as electronic evidence in courts, whether in civil or criminal cases, or even in arbitration forums. This highlights the transformative potential of AI while emphasizing the necessity of maintaining legal and ethical standards in its application.

E-commerce and marketplace transactions are rapidly advancing fields that extensively utilize AI. Consequently, any potential dispute resolution in these areas will inevitably involve AI-generated evidence. In criminal cases, AI also plays a crucial role. Handling cases such as deepfake, ransomware, spoofing, and cybercrimes based on social engineering heavily intersects with the role of AI. These technologies not only assist in identifying and analyzing evidence but also in tracing perpetrators and understanding patterns of criminal activity, making AI an integral part of modern legal processes in both civil and criminal contexts.

Similarly, evidence related to facial recognition imagery, online transaction data linked to crimes, terrorism, and other offenses has become a reality in modern legal proceedings. The use of AI in courts has already been practiced and regulated in various countries, reflecting its growing significance in the judicial process. These applications not only enhance the ability to gather and analyze evidence but also ensure that advanced technological tools are effectively integrated into the legal framework to address complex cases.

The decision of the UK Supreme Court to reject the recognition of Artificial Intelligence (AI) as a patent inventor carries a deeper significance. At first glance, many perceive this landmark decision as solely concerning the denial of AI's legal status as a patent inventor. However, by examining the background and motivations behind the lawsuits filed by the plaintiff in various countries, it becomes clear that this decision at the appellate level goes beyond the issue of patent subjects and intellectual property rights. Court rulings in several countries reveal a broader stance: the refusal to acknowledge AI as a sentient being. In its judgment, [2023] UKSC 49, the UK Supreme Court explicitly concluded that AI cannot be recognized as a patent inventor. This decision reflects a broader legal and philosophical perspective, emphasizing the distinction between human inventors and non-human entities in the context of intellectual property law.

The court referred to Sections 7(2) and 7(3) of the UK Patents Act 1977, which comprehensively regulate who is entitled to be granted a patent. This legislation, available on the official UK Government website, Legislation.gov.uk, specifies that the inventor must be a natural person. Additionally, other individuals may file claims based on the inventor's work to obtain the patent. The emphasis is on human individuals. Another provision affirming that the inventor must be a natural person is found in Section 13 of the UK Patents Act. These norms explicitly exclude the possibility of inventors other than individuals, such as machines. Thus, the relevant provisions are Sections 7(2), 7(3), and 13 of the UK Patents Act. Beyond the lawsuit itself, an intriguing aspect emerges: the underlying implications of these norms reflect a deliberate stance that prioritizes human agency and excludes AI or machines from being recognized as inventors, a topic that continues to spark significant legal and ethical discussions.

As reported by Will Bedingfield, a technology writer for Wired, in his article titled "The Inventor Behind a Rush of AI Copyright Suits Is Trying to Show His Bot Is Sentient" (published on August 31, 2023), Dr. Stephen Thaler, the creator of the AI system in question, is attempting to prove that his bot is a living being. According to Bedingfield, Thaler asserts that his case is not about intellectual property but about personhood. Dr. Thaler believes that the AI system he developed, called the Device for the Autonomous Bootstrapping of Unified Sentience (DABUS), is a sentient entity. This assertion underlines the broader implications of the legal battles surrounding AI and intellectual property, extending the debate into the realms of philosophy, ethics, and the definition of life and personhood in the context of artificial intelligence.

The legal efforts he has undertaken in various countries are intended to gain recognition for the existence of a new species he has created. The goal of these lawsuits is to establish a new precedent. A new species has emerged on Earth, named DABUS. A species capable of independent thought, much like humans.

The efforts of this AI inventor and researcher based in Missouri, USA, have been rejected in Australia, the European Union, the United States, New Zealand, and most recently, by the UK Supreme Court. The UK Supreme Court's controversy seems to have been handled with great caution. The court carefully anticipated this sensational lawsuit, even assigning five Supreme Court Justices to examine and rule on the case (Ramli, 2023.1).

Many predict that if a court were to rule that AI qualifies as a patent inventor or creator of copyrighted works, based on the background and motivation behind the lawsuits, this would set a significant precedent. This precedent would simultaneously reinforce AI (GenAI) as a subject of intellectual property, as well as recognize its legal status as a sentient being. Such cases seem to be closely linked to the ongoing controversy surrounding AI and copyright protection. If AI is acknowledged as a patent inventor or creator, it would result in a shift in its legal status, transforming it from an object of law to a subject of law. This shift would have profound implications for the intellectual property system.

Currently, many authors and creators are suing AI companies. The reason is that these companies have trained AI systems to generate content, including poetry, song lyrics, melodies, or rhythms at the request of users. Some are raising concerns that copyrighted material has been used without permission, although this issue remains a subject of ongoing debate.

Another opinion suggests that generative AI is not simply a search engine that provides existing copyrighted content owned by others without the creators' permission. It argues that AI-powered chatbots actually generate new content, with new narratives and language, based on their intelligence, often using tools like Large Language Models (LLM). This view holds that referencing previous works is a common practice in academic and research activities. However, it emphasizes the importance of adhering to research and academic ethics, as well as the principle of fair use within copyright law, by properly attributing sources in an honest manner (Ramli, 2023.2)

Here lies a significant potential difference: while researchers and academics have long adhered to ethical standards, such as citing sources even when not explicitly requested, how does AI fit into this? Based on several trials, AI chatbots do not follow this practice automatically. While chatbots may show references, it usually happens only if the user explicitly asks for them. This reality should be a point of concern for developers of generative AI (GenAI).

Returning to the DABUS case, Will Bedingfield's report highlights a difference between Dr. Thaler and his legal team regarding motivation. Professor Ryan Abbott, a legal and health expert at the University of Surrey in the UK, argues that machine inventions should be protected to provide incentives for people to use AI for the greater social good. The law professor suggests that it doesn't matter whether a pharmaceutical company asks a group of scientists or a set of supercomputers to formulate a new vaccine for a pathogen. He states that the resulting product should still be patentable (Bedingfield, 2023).

About argues that, in principle, humans can use AI to create valuable inventions. The old patent laws, he claims, are unable to keep up with the evolving definition of intelligence. According to About, in the U.S., an inventor is defined as an individual, and he argues that there is no reason why this should be limited to ordinary humans. What applies to patents should also apply to copyright. He gives the example that when AI is tasked with writing a pop song and it becomes the best one, it results in highly valuable intellectual property. In short, About believes that the regimes of copyright and patents should encourage creative works, not limit them. The core of his argument is that intellectual property rights should be granted regardless of how something is created, even if there is no human inventor or creator involved.

Reflecting on various rulings and the stance of Supreme Courts in different countries, this issue must be anticipated seriously by Indonesia. The existing decisions appear to place AI solely as an object of law. In other words, they do not open the possibility of recognizing AI as a subject of law, nor elevate it to the status of a living entity or a new species.

Ahmad Ramli's curiosity led him to directly ask GenAI, the ChatGPT AI developed by OpenAI, the following question: "Are you AI? And is AI a new species or a living being?" ChatGPT responded clearly, stating: "I am a language model developed by OpenAI, and I am not a new species or a living being. I am merely a computer program designed to understand and generate text in various contexts."

Super Aps further elaborates, "Artificial Intelligence (AI) itself is not a new species or a living being. AI refers to the ability of computer systems to perform tasks that typically require human intelligence." "While AI may have the ability to process information and execute certain tasks with a degree of artificial intelligence, it does not possess life, consciousness, or the ability to reproduce like living beings. AI is a product of technology developed by humans to facilitate various activities and tasks," concludes the chatbot platform.

Indeed, the response from the AI aligns with the stance and position taken by courts in several countries. Jurisprudence shows that AI is not considered a legal subject like humans. The conclusion is that AI is

merely an object of law, in the form of systems and artificial intelligence platforms created by humans, which can be utilized for the greater good of humanity (Ramli, 2023.3)

In comparison to AI developments, a brief description of AI application in the United States can be found in the article titled "Executive Order of the US President on AI and the Justice System" (14/12/2023). The U.S. regulation regarding the use of AI in the judicial system is outlined in Executive Order 14110. EO 14110 states that irresponsible use of AI can lead to and exacerbate discrimination, bias, and other violations in areas such as justice, healthcare, and housing. To promote equality and civil rights, guidelines have been set to ensure that AI algorithms are not used to worsen discrimination.

EO 14110 also ensures fairness across the entire criminal justice system by developing best practices for the use of AI in sentencing, parole, and probation decisions, pretrial release and detention, risk assessment, supervision, crime forecasting and predictive policies, as well as forensic analysis. These measures aim to ensure that AI applications in these areas are used responsibly, reducing biases and ensuring just outcomes in the criminal justice process.

The U.S. government has taken a proactive step in regulating Artificial Intelligence (AI) through Executive Order 14110, which was signed by President Joe Biden on October 30, 2023. This executive order is regarded as the most significant action taken by any government to advance AI security. One of the key areas addressed in the order is the use of AI within the judicial system, which has recently garnered significant attention. The comprehensive and firm nature of this Executive Order is seen as the most thorough approach taken to date to protect society from the potential risks posed by AI systems, ensuring their safe, secure, and trustworthy development and application.

The content of EO 14110 is expected to become a regulatory guideline in various countries around the world. EO 14110, which regulates the "Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence," is intended to address the expectations of many stakeholders who have long called for regulations in the field of AI. EO 14110 comprehensively establishes a policy framework for managing AI risks. There are eight principles outlined in EO 14110.

These principles include ensuring that AI technology is safe and secure, promoting innovation, competition, and responsible collaboration, supporting the workforce, and advancing equality and civil rights. EO 14110 also includes other principles, such as protecting consumers, patients, passengers, and students, safeguarding privacy and civil liberties, managing the use of AI by the federal government, and strengthening U.S. leadership abroad in promoting ways to develop and apply AI technology responsibly.

The U.S. Presidential Directive, which in practice has strong binding authority, sets new standards for AI safety and security, protects privacy, advances equality and civil rights, defends consumers and workers, and encourages innovation and competition. EO 14110 mandates transparency from companies, specifically to the U.S. government, which includes:

First, companies that develop any foundational models that pose serious risks to national security, national economic security, or public health and safety are required to share security test results and other critical information with the U.S. government.

Second, companies must also inform the federal government when training the AI models and share the results of all safety tests. These measures will ensure that AI systems are safe, secure, and trustworthy before companies release them to the public.

Third, to ensure AI systems are safe, secure, and trustworthy, the National Institute of Standards and Technology (NIST) will establish strict standards for extensive testing to ensure safety before they are released to the public.

Discussion

William C. Menninger, in his 1951 Arthur Dehon Little Memorial Lecture on Social Changes and Scientific Progress at the Massachusetts Institute of Technology (MIT), stated that change inevitably brings about concerns, often due to ignorance about the substance of the change. Humans tend to resist change, and these concerns grow when the outcomes of the change are unknown or, if known, undesired. Rapid technological changes provoke these concerns when the essence of the change is not understood or is unwelcome. It is clear that revolutionary change is driven by the use of information technology, which greatly facilitates human interaction and various economic activities. The positive impacts of information technology, if effectively harnessed, have the potential to mitigate the negative effects associated with its use (W.W. Roostow, 1952)

Menninger's opinion aligns with what is experienced by legal stakeholders, including lawmakers, members of the legal affairs committee in the legislature, government officials, judges, prosecutors, police, lawyers, court clerks, professors, and students. For these legal stakeholders, Indonesia as a rule-of-law state is non-negotiable; non-legal aspects such as economics, politics, social matters, and communication must be regulated by law, not the other way around. Additionally, according to the legal paradigm in Indonesia, the essence of law is "legal certainty" because the law holds the position as the commander of change and an agent of development.

There is both euphoria and great concern surrounding the digital economy and the rapid growth of e-commerce, both of which are key attributes of the Fourth Industrial Revolution. Industry 4.0, as it is widely known, is supported by much more complex and intricate systems compared to previous revolutions, mapping out a new path for the global economy. Driven by extremely high connectivity and the massive expansion of wireless computing, Industry 4.0 is a labyrinth of technologies and complex applications that connect existing devices (such as smartphones, tablets, and laptops) to various new services (such as 3D printers) and innovations (particularly artificial intelligence), process automation, and the Internet of Things (IoT) (Sampath, 2018).

The development of digital technology is seen by legal stakeholders as a tool or means used for communication, typing documents, and other administrative purposes. According to legal professionals, electronic and digital technologies are considered objects rather than subjects of law. As objects of law, technological tools can be used as means of communication.

Behind the growing use of the internet, legal institutions also face serious questions not only about how to regulate the internet legally but also about how the entire system related to the internet should be regulated comprehensively. This involves addressing issues like data privacy, cybersecurity, digital rights, and the responsibility of internet service providers, among other aspects, in a way that balances innovation with protection for individuals and society (Lim, 2006). The internet is not a physical entity or something visible; rather, it is a massive network that connects a number of users through computer networks, creating a network of networks. This interconnected structure allows for the exchange of information, communication, and the facilitation of numerous services globally, making it a crucial component of modern society (Yee Fen Lin, 2006).

Legal stakeholders are often the ones who find it hardest to accept the reality that the internet is a vast network. However, once they realize the far-reaching impact of information that spreads rapidly and has legal consequences, they begin to understand the need for regulation. At this stage, technological advancements such as electronic technology, digital technology, and the internet are still seen primarily as tools for communication and the transmission of information, rather than being fully integrated into legal frameworks that require specific governance and regulation.

Regarding this matter, Diane Rowland stated: "The internet also provokes fundamental questions about regulation: generally, what are the appropriate forms of regulation for online activities, how much regulation is required, and who should regulate? Regulation of and on the internet has been considered and examined in many different situations." (Diane Rowland et.all., 2017)

Information and communication technology has transformed human behavior and civilization on a global scale. Furthermore, the development of information technology has caused the world to become borderless and has led to social changes that are occurring at an unprecedented speed. Currently, information technology is a double-edged sword, as it not only contributes to the improvement of human welfare, progress, and civilization but also serves as an effective tool for committing unlawful acts (Ramli, 2010)

The speed of storing and presenting data to be interconnected with one another, in this case, the internet, requires regulation, even though, according to Lawrence Lessig, the internet has an intrinsic characteristic within its realm where everyone is invisible (virtual). Lessig further reveals: "*The change that could and are pushing the net from the unregulable space it was, to the perfectly regulable space it could be.*" (Lawrence Lessig, 2006).

An adaptive legal framework is essential to construct the direction of economic development by taking a strategic role in harnessing the potential of digital economy development in Indonesia. A comprehensive picture of legislative products, within the framework of periodically changing administrations, will provide a complete view of what kind of legal construction can be prepared to produce adaptive legislative products (Saripudin, 2022)

As an example of success in preparing an adaptive legal instrument, China stands out. With its remarkable achievements in development, China has become an economic giant, experiencing rapid growth. China provides a model in the legal development process carried out by its government to perform legal transplantation. Legal transplantation actually occurred when looking at China's legal history at the end of the 19th and early 20th centuries, when China began rewriting various regulations in its legal system by adopting the Japanese model of transplanting Civil Law from Europe. The impact of such transplantation is still visible today, as China continues to claim its status as a country with a Continental European legal tradition, despite the strong convergence between Civil Law and Common Law that has been evident in the last 30 years of legal development in China (Shijian, 2015).

Lawrence Lessig mentions that there is interdependence between, among other things: *Law, Market, Architecture*, dan *Norms*: "*The constraints are distinc, yet they are plainly interdependent. Each can support or oppose the others. Technologies can undermine norms and laws; they can also support them. Some constraints make others possible; other make some impossible. Constraints work togather, though they function differently and the effect of each is distinct. Norms constraint through the stigma that a community impose; market constraint through the physical burdens they impose; and law constraints through the punishment it threatens.*" (Lawrence Lessig, 2006)

The interconnection between law, markets, architecture, and regulations, according to Lawrence Lessig, is indeed very accurate because they support and influence each other. This aligns with the concept of legal quality science, which emphasizes being free from defects, user satisfaction, and continuous improvement without end. These three concepts of legal quality science strongly support the development of digital law and the internet.

Josef Kohler was born on March 9, 1849, in Offenburg, Germany. He completed his education at the gymnasiums of Offenburg and Rastatt, then continued his studies at the Universities of Freiburg and Heidelberg. In 1878, he became a professor of law at the University of Würzburg, and in the same year, he also became a professor of law at the University of Berlin (Kohler, 2021).

Kohler's thinking is substantive and comprehensive, asserting that the legal system is not always constant; it changes. Law must adapt to a culture that is continuously advancing, a culture moving positively to bring about various advancements in civilization, supported by developments in science and technology. Law should not hinder or even stifle the potential that fosters cultural development. The meaning of law that changes is a dynamic law, one that can create spaces for the emergence of human intellect, leading to new inventions.

There is no law that is eternal; a law suitable for one period may not be suitable for a different society's period. In response to this, efforts should be made to provide each culture with a legal system that fits its context. What is good for one person does not necessarily mean it is good for another. Law, like the cultures

it governs, does not always align with the existing laws, because in many cases, certain requirements are not considered, or the right approach is not used to meet them. In such cases, efforts in two directions are justified: efforts to change the law to meet cultural needs, and efforts to find legal interpretations that, as much as possible, align with cultural demands (Kohler, 2021).

Kohler, on a micro scale, made a very accurate comparison. According to Kohler, what is good for one person does not necessarily mean it is good for another individual. When applied in a more general sense, this means that a good legal system in one community (country) does not always align and work well for another country. This indicates that there is still a possibility of alignment, although it does not always apply universally for the legal framework in other countries. Kohler emphasized in his broader thought that there are two approaches when law becomes misaligned and does not work well within a society over a certain period of time. First, according to Kohler, there is an effort to change the law to meet the cultural needs; second, there is an effort to find a legal interpretation that aligns with cultural demands.

This is the foundation of Kohler's great thinking about the need for legal change to align with cultural needs. The rapidly evolving cultural needs have led to an information technology-based culture, driven by the power of science that is revolutionizing human activities with the speed and significant changes brought by digital information technology and the advent of the internet. Therefore, there is a need for a legal framework that can address the current cultural needs, one that does not hinder the development of today's culture. Furthermore, there is a need for efforts to interpret the law in a way that aligns with the demands of current cultural development.

Josef Kohler, with his philosophical thinking, guides us to enter deep and contemplative spaces of thought. The diversity in evolution makes it impossible to establish a specific type of development for all cases where universal history can be assessed (Saripudin, 2022).

Laws must be crafted in such a way that they align with culture. They should help nurture the seeds of culture and suppress elements that are in conflict with it. However, it must be remembered that the course of culture is often not direct, that it reaches its goal by a winding path, and that it frequently has to progress through long periods of being uncultured. Yet, even in such times, a legal system is required. Naturally, there will be a desire for a system that, as much as possible, aligns with the uncultured conditions; while on the other hand, a higher understanding of the law aims to minimize things that are opposed to culture, so that antagonistic tendencies weaken and a condition that conflicts with culture, or is even uncultured, will fade, thus accelerating the formation of a normal condition of progress (Kohler, 2021).

Korkunov, a Professor of Public Law at the University of St. Petersburg, Russia, offers a comprehensive and insightful analysis of law. He provides clear and profound thoughts on various theories related to societal conditions and legal development. His work has had a significant influence on the understanding of how law interacts with the ever-evolving dynamics of society, and how it can adapt to support the progress of civilization. His theories emphasize the necessity for law to evolve alongside societal changes, reflecting the cultural, economic, and political developments that shape the social fabric.

According to N.M. Korkunov, classical legal literature plays a foundational role in establishing the philosophy of law, providing a space for social aspects (sociability), responding to concerns and fears, and accommodating the tendency to seek happiness. When interpreted more broadly, this happiness encompasses the ability to meet both the physical and psychological needs of human nature, with a concrete expression of this being welfare. Welfare is understood as the surplus between economic potential and the needs that must be met. This understanding reflects a deep integration of law with the material and emotional dimensions of human life, emphasizing the role of law in supporting societal well-being and the fulfillment of human needs (Kurkunov, 2021).

In addition, law responds to values such as equality, freedom, and the harmonious development of a series of principles. However, according to Korkunov, there is a practical inability when confronted with more concrete social dynamics. This is where the need for a scientific method is emphasized, which must be

established for legal studies in order to respond to practical issues in the dynamic life of humans, as he discussed regarding The Mechanical Theory.

The more primitive the intellectual culture of an individual, the less they understand the subjective nature of their social ideals, and the less they distinguish between their own subjective conceptions and the reality surrounding them. At the same time, law not only allows for the coexistence of individuals within a certain level of freedom. Law is also an essential condition for human progress. The circle of social life is a combination of the interests of various individuals that form society (Kurkunov, 2021).

Thus, Korkunov's great thoughts view law as a series of interconnected elements between the existence of the individual, culture, and society. Therefore, in achieving the goal of societal progress, technical rules are required, as technical norms are the rules that show the way to act in order to achieve a definite goal.

Roscoe Pound was a great legal thinker who produced significant ideas. One of his major contributions was emphasizing the importance of understanding and mastering legal philosophy in comprehensively understanding the law (Roscoe Pound, 1991). Pound emphasized the importance of legal philosophy in constructing regulations that would govern a society that is constantly evolving and dynamic. He argued that understanding the underlying principles of law is crucial to adapt legal frameworks to the changing needs and conditions of society, ensuring that laws remain relevant and effective over time.

After Pound laid the fundamental and philosophical foundations as a basis for reconstructing and reformulating regulations that evolve dynamically along with the development of social dynamics, Pound then explained that law must not be seen as a static set of rules. Instead, it should be viewed as a living instrument that reflects the needs, desires, and values of society at any given time. He argued that legal institutions should be flexible enough to accommodate changes in societal norms, technological advancements, and economic progress while ensuring that justice is achieved for all individuals:

"Finding the law may consist merely in laying hold of a prescribed text of a code or statute. In that event the tribunal must proceed to determine the meaning of the rule and to apply it. But many cases are not so simple. More than one text is at hand which might apply; more than one rule is potentially applicable, and the parties are contending which shall be made the basis of decision. In that event the several rules must be interpreted in order that intelligent selection may be made."

In analyzing Humanistic Law, which is law that understands the sensitivities of human feelings (humanistic), the author conveys that Mochtar Kusumaatmadja, the former Minister of Justice of the Republic of Indonesia in the 1970s, categorized law into two types: neutral law and sensitive law. Neutral law refers to law that regulates matters rationally or based on standards, while sensitive law refers to law that governs legal actions related to feelings or emotions. The author argues that not all areas of civil law are sensitive in substance, such as leasing, buying and selling, business contracts, trade, transportation, and consumer protection.

The topic of this article discusses the antinomy between the mechanistic and humanistic approaches. An antinomy refers to two opposing values that need to be reconciled or harmonized. The harmonization must adhere to two principles: effectiveness and efficiency, which are mechanical characteristics resulting from the application of AI. In other words, humans act like robots that can think intelligently but do not have a heart. The humanistic approach emphasizes morality or conscience, which in its application is referred to as interpersonal morality or ethics. The goal of applying morality is to fulfill inner needs, including feelings of comfort, safety, equality, and mutual respect.

The theory used by the author to analyze moral or emotional issues is the Legal Quality Theory discovered by Tarsisius Murwadji. The terminology he uses for morality is satisfaction. Quality is the alignment between the desires of the consumer of goods/services and the provider of those goods or services. This alignment is based on two main pillars of quality: first, "free from defects," meaning that the provider of goods/services must strive to act as well as possible, avoid defects, and work professionally. Second, "consumer satisfaction," meaning that the consumer of goods/services feels satisfied because the goods/services they received are free from defects. These two pillars of quality are supported by a

supporting pillar, namely "continuous improvement," which means that things must be better than yesterday, and tomorrow must be better than today.

Satisfaction, according to quality science, is classified into three categories:

- Basic satisfaction refers to the lowest level of satisfaction, where legal obligations in a profession or agreements in contracts or normative promises represent the minimum threshold of satisfaction that must not be violated. For example, if a district court sets a Standard Operating Procedure (SOP) for a panel of judges or a single judge to decide a case within five months, then if the panel of judges delivers a verdict within that time frame, they are considered to have performed well because they adhered to the SOP.

- Intermediate satisfaction: In the case where a panel of judges can deliver a verdict faster than the SOP, for example, in four months, this would be considered intermediate satisfaction because it exceeds the basic satisfaction level. Therefore, the satisfaction experienced by the parties in a civil case is at a level that goes beyond their expectations.

- High satisfaction refers to a level of satisfaction that is beyond what the service/product user could have imagined. For example, if a panel of judges can resolve a case in two months, the parties involved in the civil dispute (the plaintiff and the defendant) would experience high satisfaction because they did not expect the process to be completed so quickly.

The first level of satisfaction is standard satisfaction, which aligns with the Standard Operating Procedure (SOP) set by the Supreme Court. At this point, there is a fundamental difference between legal science and quality law science. According to legal science, meeting the target time according to the SOP is considered the best achievement because it meets the standard. However, from the perspective of quality law science, it is not ideal, as it is forced and the decision is likely to be appealed due to dissatisfaction. Often, to meet the target time, the process is accelerated, leading to protests and, eventually, dissatisfaction among plaintiffs and/or defendants, especially in civil cases involving public interest, such as land acquisition projects for public infrastructure development.

The second level of satisfaction is indeed better than the first level, both in terms of the speed of dispute resolution and the level of satisfaction. At this stage, the case resolution is faster, but it is still not fully satisfactory, and there remains potential for an appeal. In this level, the use of AI instruments is balanced with the application of moral considerations by the judges. The advantage is that the time is faster, but the level of satisfaction for the plaintiffs and/or defendants is less optimal.

The third level of satisfaction is the ideal satisfaction because, in addition to being fast, it is also based on the agreement of the parties, and the likelihood of an appeal is very small. At this level, the judges optimize a humanistic approach (hospitality) through persuasive means and by placing the parties on equal footing, which facilitates the achievement of a mutual agreement through deliberation.

From the analysis of satisfaction levels according to the law of quality, it turns out that both logic and morality must be applied in a balanced manner. Therefore, cases that are administrative and technical in nature can use AI. Court leaders can also apply AI in administrative matters, such as data about judges: their education, expertise, and experience in resolving cases; the determination of panels, workload, and position mutations. However, matters related to the authority to adjudicate civil cases are the judicial autonomy of the judge, as stipulated by the regulations: judges are independent in deciding cases.

Key findings that need to be considered in the application of AI in the legal field, particularly in civil case hearings, are:

First, AI has now become a part of human life, including in the legal system and judicial processes. The use of AI can be implemented, but it must remain under human verification, supervision, and control.

Court decisions with the phrase **"In the Name of Justice Based on the Almighty God"** carry profound meaning, indicating that a judge or panel of judges is a representative of God on earth to realize justice. As God's representative, a judge must be wise, thorough, pious, moral, skilled in persuasion, and able to control their emotions, both for themselves and for the plaintiff and defendant. Such abilities cannot be obtained from AI because AI is nothing more than a data tracker and processor.

Second, the weaknesses of AI, such as output errors, inaccuracies, and hallucinations, must be anticipated and verified with correct, factual, and accurate data. It is the responsibility of the user to meticulously conduct checks and verifications. The differences in legal systems worldwide, including the Anglo-Saxon system widely adopted by Commonwealth countries, the Continental European legal system adopted by European countries, the Islamic Sharia legal system adopted by Arab countries, the East Asian legal system, and customary law systems, require a specific AI system tailored to each, without mixing them.

Third, all parties using AI must have a thorough understanding of its functions and how it works, so they can accurately assess the pros and cons of AI's outputs. AI can sometimes provide answers that sound convincing, even though they are factually incorrect. The AI revolution has reminded all nations to reconstruct their legal approaches. The law in the digital space is not sufficient if it is projected only as a reactive instrument when incidents have already occurred. The law must exist at the upstream level to regulate and guide human behavior, technology, and its ecosystem for the common good (Ramli, 2024).

Fourth, all users of AI in court proceedings must adhere strictly to legal compliance and ethics. They must uphold the principle that AI is not a human being, and therefore, the final decision must still be made by a human, not delegated to the machine. As I have outlined above, the process of resolving civil disputes can be classified into two stages: administrative and decision-making. The administrative process indeed requires AI to speed up the process; however, the stage of making a decision is the autonomous authority of the judge. The data obtained from AI should serve as a reference for judges when making decisions.

Fifth, based on various regulations and practices of other countries, as well as the stance of international organizations like UNESCO, it is time for the Supreme Court to establish a Supreme Court Regulation to regulate the use of AI in the judiciary (Kompas, 2023). Considering that the output of AI depends on the completeness, quantity, and quality of the data entered, it is advisable for the Supreme Court to establish a Special Cyber Team tasked with managing AI, including data input and verification. Given that the Internal Legal System in civil law is more than one, sub-systems for data input and verification should be created, such as: Western Legal System (Civil Code), Islamic Law System (Sharia), Non-Islamic Religious Law System, Customary Law System, and Territorial Law System.

In an effort to analyze the development of AI implementation in the judiciary and the stance of the Supreme Court as the highest judicial institution in Indonesia, the author provides the following description of the findings from the literature review.

The Chief Justice of the Supreme Court of Indonesia, H. M. Syarifuddin, has a particular focus on the role of Artificial Intelligence (AI) in the judicial system. In a seminar on the use of AI in the Legal System and Judiciary, organized by the Indonesian Judges Retired Association (PERPAHI) on December 14, 2022, in Jakarta, the Chief Justice stated that in judicial practice, the role of technology has become increasingly dominant.

The Supreme Court has also implemented AI in the selection of judicial panels through the "Smart Majelis" application. This application can assign judges randomly while considering factors such as workload, type of case, and the judges' competencies. This model helps eliminate subjectivity in the process of selecting a panel to handle a case. According to the Chief Justice of the Supreme Court, AI is expected to assist judges in analyzing cases in the future. This will be done by considering various factors and providing input and insights to arrive at the best conclusions in each case resolution. The need for predictability, particularly in the consequences of actions taken, is especially important for countries where much of the population is entering economic relationships that extend beyond traditional social connections for the first time. The

aspect of fairness, such as equal treatment and consistent standards of government behavior, is necessary to maintain market mechanisms and prevent excessive bureaucracy (Sentosa Sembiring, 2010).

The Supreme Court's futuristic stance, while maintaining a human-centered approach, has emphasized that although AI may be used, the final decision will always be made by a judge. This position of the Supreme Court is both appropriate and forward-thinking, aligning with the development of AI practices in advanced countries. AI can be utilized, but it must always be under human verification, supervision, and control. AI is not the same as humans; it is a system model without emotional intelligence and lacks conscience, unlike humans. Therefore, the final verdict will always be delivered by judges as human beings.

In the seminar, the Chairman of the Indonesian Judges Retired Association, HM Saleh, stated that the judiciary and the legal profession are fields not immune to the development of AI. The existence of AI is a reality, and its use has already extended into the judiciary. As one of the speakers in the seminar, HM Saleh was asked to present a comparative study on the use of AI in practice and regulation across various countries. AI can assist the judicial process, ranging from legal research, prediction of verdicts, contract analysis, due diligence, legal arguments, court administration systems, transcription of trials, minutes, and even the preparation and strategy for legal cases by lawyers.

Conclusion

The key factors for law to play a role in economic development are whether law can create stability, predictability, and fairness. The first two are prerequisites for any economic system to function. Within the function of stability, the law has the potential to balance and accommodate competing interests. Predictability, especially regarding the outcomes of actions, is crucial for countries where many people are engaging in economic relationships beyond traditional social connections for the first time. Fairness, including equal treatment and consistent government behavior standards, is essential to sustain market mechanisms and avoid excessive bureaucracy.

Sugestion

In the future, advancements in information technology, with the presence of AI, will enable robotic capabilities that could lead to the automation of court procedures. For example, in the appointment of judges to handle cases, AI could match cases with a specific panel of judges based on their expertise and competencies, ensuring that similar cases are handled by comparable panels. This approach could provide legal certainty and fairness, as well as prevent disparities in sentencing for similar cases.

In addition, advancements in information technology can also be applied to other court tasks, such as in the execution of judgments. As we know, the execution of civil cases often leads to disruptions, which arise due to a lack of persuasive efforts and technical mediation skills within the court personnel. AI could assist in streamlining the execution process by enhancing communication, providing data-driven insights, and supporting mediatory actions, ultimately leading to smoother and more effective resolutions.

Thus, in the future, the execution process should incorporate AI that can facilitate mediation at the beginning of the actual execution. This could help minimize disruptions and ensure satisfaction for all parties involved. In other words, future AI systems should be designed not only to draw logical conclusions but also to generate humanistic perspectives that consider emotional and social factors, ultimately contributing to a more balanced and fair resolution.

References

Bedingfield, W. (2023 August 31st). The Inventor Behind a Rush of AI Copyright Suits Is Trying to Show His Bot Is Sentient. Wired. https://www.wired.com/story/the-inventor-behind-a-rush-of-ai-copyright-suits-is-trying-to-show-his-bot-is-sentient/

Hidayat, M. J., Ramli, A. M., & Safiranita, T. (2023). Praktik Penyelenggaraan Jaringan Telekomunikasi Sebagai Akselerator Transformasi Digital Berdasarkan Hukum Positif di Indonesia. Jurnal Penelitian Dan Pengabdian Kepada Masyarakat, 03(03), 779–794. https://doi.org/10.59141/comserva.v3i03.861

Kamaruddin, K. (2009). Legal Research Methods. CV. Shadra.

Kohler, J. (1921). Philosophy of Law. The Macmillan Company.

Kurkunov, N. . (1909). General Theory of Law. The Boston Book Company.

Lim, Y. F. (2006). Cyberspace Law Commentaries and Materials. Oxford University Press.

Lessig, L. (2006). Code. Basic Book.

Ramli, A. M. (2010). Cyber Law dan HKI dalam Sisten Hukum Indonesia. Refika Aditama.

Ramli, T. S., Ramli, A. M., Mayana, R. F., Ramadayanti, E., & Fauzi, R. (2023). Artificial Intelligence as Object Of Intellectual Property in Indonesian Law. Journal of World Intellectual Property, 26(2), 142–154. https://doi.org/10.1111/jwip.12264

Ramli, M. (2023 December 16th). AI dan Pengadilan. Kompas. https://www.kompas.com/konsultasihukum/read/2023/12/16/130914180/ai-dan-pengadilan-bagian-i?page=all

Republic of Indonesia. (1998). Undang-undang Nomor 10 Tahun 1998 tentang Perubahan atas Undang-Undang Nomor 7 Tahun 1992 tentang Perbankan - https://peraturan.bpk.go.id/Details/45486/uu-no-10-tahun-1998

Republic of Indonesia. (1999). Undang-Undang Nomor 39 Tahun 1999 tentang Hak Asasi Manusia - https://peraturan.bpk.go.id/Details/45361/uu-no-39-tahun-1999

Republic of Indonesia. (1999). Undang-undang (UU) Nomor 36 Tahun 1999 tentang Telekomunikasi - https://peraturan.bpk.go.id/Details/45357/uu-no-36-tahun-1999

Republic of Indonesia. (2022). Undang-undang (UU) Nomor 27 Tahun 2022 tentang Pelindungan Data Pribadi – https://jdih.setkab.go.id/PUUdoc/176837/Salinan_UU_Nomor_27_Tahun_2022.pdf

Republic of Indonesia. (2013). Undang-undang Nomor 24 Tahun 2013 tentang Perubahan atas Undang-Undang Nomor 23 Tahun 2006 tentang Administrasi Kependudukan - https://peraturan.bpk.go.id/Details/38985/uu-no-24-tahun-2013

Republic of Indonesia. (2024). Undang-Undang Nomor 1 Tahun 2024 tentang Perubahan Kedua Atas Undang-Undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik - https://jdih.kominfo.go.id/produk_hukum/view/id/884/t/undangundang+nomor+1+tahun+2024

Roostow, W. (1952). The Process of Economic Growth. W. W. Norton & Company.

Rowland, Diane, U. K. and A. C. (2017). Information Technology Law. Routledge.

Sampath, P. (2023). Regulating the digital economy: Are we moving towards a 'win-win' or a 'lose-lose'? . United Nations Univsersity, ISSN 1871-9872, 01–03. https://unu-merit.nl/publications/wppdf/2018/wp2018-005.pdf

Saripudin, A. (2022). Adaptabilitas Hukum Pada Penggunaan Merek Sebagai Kode Webpage Tersembunyi (Metatag) dalam Kerangka Pembangunan Ekonomi Nasional Berbasis Digital. PT. Alumni.

Shijian, John M. (2015). Legal Culture and Legal Transplants Convergence Of Civil Law And Common Law Tradition In Chinese Private Law, Selected Readings in Chinese Legal System, Turku Informyth, 2015

Sembiring, P. E., Ramli, A. M., & Rafianti, L. (2024). Implementasi Desain Privasi Sebagai Pelindungan Privasi Atas Data Biometrik. Veritas et Justitia, 10(1), 127–152. https://doi.org/10.25123/vej.v10i1.7622

Sembiring, S. (2010). Hukum Investasi. CV. Nuansa Aulia.

Soekanto, S. (1986). Pengantar Penelitian Hukum (Cetakan Ke). Universitas Indonesia Press.

Soekanto, S. dan S. M. (2006). Penelitian Hukum Normatif: Suatu Tinjauan Singkat. PT. Raja Grafindo Persada.