

Analysis of Arnim Zola’s Mind Upload into a Computer: Would the Computer Version Be Granted the Same Rights as the Original

การอัปโหลดจิตใจของ “Arnim Zola” เข้าสู่คอมพิวเตอร์:  
จิตใจที่อยู่ในคอมพิวเตอร์ จะได้รับสิทธิเช่นเดียวกับตัวตนเดิมหรือไม่

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## ABSTRACT

The character of the Marvel film “Captain America: The Winter Soldier” was a digital mind capable of controlling external systems similar to human beings. The film presents the possibility that, in the future, the human mind could be transferred into a digital system, blurring the line between man and machine. This raises the question: Would a computer version have the same rights as the original? As writers, we will analyze the legal person theory from real entity in Gierke’s theory along with the jurisprudential implications of natural law, as expressed by Lon Fuller, and legal positivism, as mentioned by Hans Kelsen. Additionally, we will further explore the predicted contributions of Artificial Intelligence in the near future.

**Keywords:** Digital Mind, Naturalism, Positivism

## บทคัดย่อ

ตัวละครจากภาพยนตร์มาร์เวลเรื่อง “Captain America: The Winter Soldier” คือจิตใจดิจิทัลที่สามารถควบคุมสิ่งต่าง ๆ ในโลกภายนอกได้เช่นเดียวกับมนุษย์ ภาพยนตร์เรื่องนี้นำเสนอความเป็นไปได้ว่าในอนาคต จิตใจของมนุษย์อาจถูกถ่ายโอนไปยังระบบดิจิทัล ซึ่งทำให้เส้นแบ่งระหว่างมนุษย์และเครื่องจักรเลือนลางลง นำมาซึ่งคำถามว่า จิตใจที่อยู่ในคอมพิวเตอร์จะได้รับสิทธิเช่นเดียวกับตัวตนเดิมหรือไม่? คณะผู้จัดทำจะวิเคราะห์ทฤษฎีสภาพบุคคลตามกฎหมาย โดยอาศัยทฤษฎีความเป็นบุคคลที่แท้จริงของเกียร์เคอ ควบคู่กับการพิจารณานัยทางนิติปรัชญาของสำนักกฎหมายธรรมชาตินิยมโดย ลอน ฟุลเลอร์ และสำนักปฏิฐานนิยมโดย ฮันส์ เคลเซน นอกจากนี้ บทความนี้จะสำรวจถึงบทบาทที่คาดว่าจะเกิดขึ้นจากปัญญาประดิษฐ์ในอนาคต

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## I.MOVIE INTRODUCTION

Captain America: The Winter Soldier (2014) is an American superhero film based on the Marvel Comics. According to the plot, Rogers and Romanoff discover a secret S.H.I.E.L.D.<sup>1</sup> bunker in New Jersey, where they met Arnim Zola—a Swiss-born scientist working for HYDRA<sup>2</sup> before, during, and after World War II.

In 1972, however, Zola received a terminal diagnosis. He realized that he had not much time left to live, but even with the death of his physical body, Arnim Zola wasn't finished after all: concluding that science couldn't save his body but his mind, Zola had constructed a supercomputer, dubbed as his masterpiece, with the purposes of synthesizing and emulating his own brain through one hundred billion neurons re-created and replicated with microprocessors of his design. In addition, Zola stored his personal journals with date files to ensure that Alexander Pierce could continue his work after his passing.

Zola died shortly afterwards, yet by downloading his consciousness into the computer system he created, his mind continued to live in cyberspace, where he was able to provide easy passage into the agency for HYDRA sleeper agents that either managed to escape justice during the war or were corrupted from within.

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<sup>1</sup> 'S.H.I.E.L.D.' (*Marvel Cinematic Universe Wiki*) <<https://marvelcinematicuniverse.fandom.com/wiki/S.H.I.E.L.D.>> accessed 30 May 2025.

<sup>2</sup> 'HYDRA' (*Marvel Cinematic Universe Wiki*) <<https://marvelcinematicuniverse.fandom.com/wiki/HYDRA>> accessed 30 May 2025.

However, the entire time in fact, Zola was actually stalling both Rogers and Romanoff until HYDRA could attack. Shortly thereafter, Romanoff discovered Zola's deception, and they tried to escape—only for Zola to trap them inside while several heat-seeking missiles were launched, which implies that he has the power to control external systems.<sup>3</sup>

For these reasons, this article aims to analyze whether a digital mind should possess the same rights as a real person, which is the question that depends on the prevailing legal norms of society. To explore this, we will draw upon Gierke's theory of legal personhood and relevant jurisprudential thought. Furthermore, the analysis will be situated within the context of the emerging era of AI.

## II. LEGAL PERSONHOOD THEORY

In the context of examining probable emerging technologies particularly mind uploading in relation to the Zola case, and the anticipated advancement of technologies such as Artificial Intelligence, a critical area of inquiry is the concept of legal personhood, as this status forms the foundation for the attribution of legal rights and responsibilities. In this part of the research, we will focus on the legal status of digital mind, analyzing whether and how entities resulting from such technology could or should be recognized as legal persons draws upon the concepts of natural personhood, animal personhood, and the Real Entity Theory of legal personhood.

### 1. Natural Personhood

In contemporary Western legal systems, paradigmatic natural people are<sup>4</sup>

- (1) human beings
- (2) who have been born,
- (3) who are currently alive, and
- (4) who are sentient.

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<sup>3</sup> 'Arnim Zola' (*Marvel Cinematic Universe Wiki*) <[https://marvelcinematicuniverse.fandom.com/wiki/Arnim\\_Zola#cite\\_note-TWFATEotAaB-12](https://marvelcinematicuniverse.fandom.com/wiki/Arnim_Zola#cite_note-TWFATEotAaB-12)> accessed 30 May 2025.

<sup>4</sup> Kurki, Visa A.J., 'A Theory of Legal Personhood' (*Oxford Academic*, 2019) <<https://doi.org/10.1093/oso/9780198844037.003.0001>> accessed 30 May 2025.

for example, The German Civil Code is explicit about the humanity condition: *The legal capacity of a human being begins at the completion of birth*<sup>5</sup> Similarly, Article 15 of the Thai Civil and Commercial Code provides that *Personality begins with the full completion of birth as a living child and ends with death*. A child en ventre sa mere is capable of rights provided that it is thereafter born alive. These legal provisions demonstrate a shared principle across jurisdictions: an individual attains full legal personality only upon being born alive. While qualities such as sentience and the capacity for rational thought are relevant, the law still grounds personhood in physical embodiment and the act of live birth.

## 2. Animal Personhood

The Animal Personhood Theory is a legal concept that proposes certain animals, particularly those capable of self-awareness and possessing cognitive and emotional capacities, such as chimpanzees, elephants, and dolphins should be recognized as legal persons rather than being regarded merely as property. This idea is strongly supported by the Nonhuman Rights Project (NhRP)<sup>6</sup>

When compared to the Natural Personhood Theory, which refers to actual human beings who inherently possess legal rights and duties by nature, one can observe a key similarity: the quality of being alive. Both humans and animals share cognitive and emotional capacities. However, they are treated differently under the law, with only humans receiving full legal recognition and protection.

## 3. Real Entity Theory

A famous example is Hans Kelsen, who defines the (legal) person as a bundle of rights and duties, whereas 'man' is according to Kelsen a physical entity to which the bundle is imputed. This reflects his strict bifurcation between the world of fact and the world of norms. For Kelsen, man is the point of imputation for a set of legal rights and duties, whereas a person simply is that set of rights and duties. Kelsen wanted to stress that, in the world of norms, the rights and duties are all there is; one should not hypostatize any 'bearer' of those legal positions into the world of norms. Instead, the bearer of the rights and duties resides in the world of fact (the physical world) as the point of imputation.

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<sup>5</sup> 'Die Rechtsfähigkeit des Menschen beginnt mit der Vollendung der Geburt.' German Civil Code (Bürgerliches Gesetzbuch, BGB). I p. 42, 2909; 2003 I p. 738, last amended on 18 December 2018) § 1.

<sup>6</sup> 'About us' (Nonhuman Rights Project) <<https://www.nonhumanrights.org/about-us/>> accessed 30 May 2025.

Otto Friedrich von Gierke (1841–1921) who was a philosopher, legal scholar, and professor who played a prominent role in the Germanist school of legal history is best known for his careful formulation of the Genossenschaft theory, through which he deeply explored the significance and function of associations and collective groups within society.<sup>7</sup>

In Gierke's works self-governing groups with natural legal personality and full capability of legal actions are called corporations.<sup>8</sup> They are the key to his concept of ideal society. That vision is grounded in his historical research but mostly presented in his many commentaries on civil law. Corporation works as one<sup>9</sup> It is, for all purposes, treated like an individual life form. Likewise, in Real Entity Theory. The corporation is seen as having an independent existence, a living entity capable of entering legal relations through its organs, which function as extensions of the corporate body and express its collective will.<sup>10</sup>

A fictional yet illustrative example of digital mind can be found in the film *Captain America: The Winter Soldier*, in which Dr. Arnim Zola, a scientist for HYDRA, transfers his consciousness into a computer system before his physical death in 1972. Though devoid of a biological body, Zola retains the ability to interact, reason, and communicate.

Natural person (Human beings) and animals share common characteristics which are that they both possess physical bodies and the ability to communicate in some form. However, a key legal distinction lies in cognitive capacity. While humans are recognized as capable of reasoning and moral agency, most animals, despite their emotional and communicative abilities, are not regarded as legal persons because they are not deemed capable of bearing duties or engaging in moral reasoning.

Digital mind entities, such as the fictional example of Arnim Zola from *Captain America: The Winter Soldier*, challenge these traditional classifications. Unlike animals, a mind-uploaded entity may possess the ability to reason and communicate, but lacks a

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<sup>7</sup> Gierke, Otto von, 'Encyclopedia of law & society: American and global perspectives' in D. S. Clark (Ed.) Sage Publications, Inc. (2007) 648.

<sup>8</sup> Gierke, Otto Friedrich von, 'Die Genossenschaftstheorie und die deutsche Rechtsprechung' (1887) Berlin, Weidmann 37 <<https://archive.org/search?query=creator%3A%22Gierke%2C+Otto+Friedrich+von%2C+1841-1921%22>> accessed 30 May 2025.

<sup>9</sup> Ibid 14.

<sup>10</sup> Martin Petrin, 'Reconceptualizing the Theory of the Firm—From Nature to Function' (2013) 118:1 Penn State Law Review 118 <[https://www.pennstatelawreview.org/118/1/1-Petrin%20\(PS%20final\).pdf](https://www.pennstatelawreview.org/118/1/1-Petrin%20(PS%20final).pdf)> accessed 30 May 2025.

physical body. If reasoning and communicative ability are foundational to legal personhood, should physical embodiment remain a necessary criterion?

Otto von Gierke's Real Entity Theory supports the recognition of collective or non-physical entities, such as corporations, as real legal persons. Gierke argued that these entities are not mere legal fictions but possess an independent social and legal identity due to their functional roles in society. Just as the law acknowledges a corporation as a real person despite its intangible nature, it could also recognize a digital consciousness as a legal person if it fulfills a meaningful function over time.

In conclusion, the comparison between humans, animals, corporations, and digital mind entities reveals that legal personhood is not inherently tied to biology or physical presence. Rather, it is a legal status conferred by societal and institutional recognition. If the law chooses to accept mind-uploaded entities as bearers of rights and duties, then following Gierke, such entities can indeed be considered legal persons.

### III. IMPLICATION OF LON L. FULLER'S MORALITY OF LAW ON THE INTERNAL MORALITY

Lon L. Fuller posited a relationship between morality and law, asserting that the latter necessitates compromise and the accommodation of conflicting objectives.<sup>11</sup> He further distinguished between the morality of aspiration and the morality of duty, two categories of morality intended to analyze the existing nature of law from its ideal form.

As previously stated, the law must necessitate social compromise, thereby rendering the preservation of individual best interests irrelevant from the perspective of a morality of duty. To further illustrate this point, the law is not necessarily intended to be universally desired by all citizens; rather, it functions as a mechanism to facilitate the orderly operation of society. Conversely, the morality of aspiration is oriented towards the needs and desires of the individual, serving to promote their best interests.<sup>12</sup> Thus, Fuller asserted that the foundation of law must exclusively rest upon the morality of duty. This is attributable to the inherent limitation that law cannot be formulated to universally satisfy all individual desires but rather serves to reconcile diverse perspectives for the effective functioning of society.

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<sup>11</sup> Tucker, Edwin W 'The Morality of Law, by Lon L. Fuller' (1965) 40(2), Article 5. 271 *Indiana Law Journal* 271.

<sup>12</sup> *Ibid* 272.

Fuller introduced his concept of law in “The Morality of Law”, which employs that the principle of internal morality as a measure of acceptability. This internal morality comprises eight principles that serve as evaluative standards to determine the acceptability of law by meeting one or more of these criteria.<sup>13</sup>

In this paper, the focus will be on the generality<sup>14</sup> and the constancy of law through time<sup>15</sup>, as derived from internal morality. To illustrate the principle of generality, law should be applied impartially, ensuring fairness and universal binding force. Regarding the constancy of law through time, legal norms ought not to be subject to excessively frequent alterations; however, this implies that while change is permissible, it should not be unduly frequent.

Given the hypothetical scenario wherein an individual, such as Zola, has successfully uploaded their mind and consciousness into a computer system, thereby enabling interaction and external control, a salient question arises regarding their legal rights and status. Applying Lon L. Fuller’s jurisprudence, which posits that law necessitates the compromise and accommodation of conflicting objectives, particularly from the perspective of the morality of duty, we must consider the implications if individuals, whether biological or digital consciousnesses like Zola, could transfer their minds into computational systems and maintain continuous functionality post-biological death. The potential for mind uploading represents a societal development with which the law must engage, either through compliance or control, to preempt a legal vacuum and establish jurisdictional parameters. To illustrate, should an uploaded human commit a crime against a biologically-embodied human, what would be the legal consequences of this action? Moreover, considering the internal morality and the principle of the generality of law, if uploaded humans possess the capacity for external action and independent thought, the law could be generally applied to them, predicated on the principle that legal norms should apply universally without discrimination. In addition, the principle of the constancy of law through time dictates that legal norms ought not to be subject to excessively frequent alterations; however, Fuller did not intend this to imply the immutability of law. Recognizing that societal evolution necessitates legal adaptation, the emergence of uploaded humans represents such an alteration. Consequently, if existing laws are non-compliant with or impossible to apply to the actions of uploaded humans, those laws should be amended, or new legislation enacted to govern their conduct.

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<sup>13</sup> Ibid 275.

<sup>14</sup> Fuller, Lon L., *THE MORALITY THAT MAKES LAW POSSIBLE In The Morality of Law* (Revised Edition, Yale University Press 1969) 46.

<sup>15</sup> Ibid 79.

The principles of generality and constancy, derived from Fuller's internal morality, suggest that if uploaded consciousnesses possess agency and the capacity for action, the law should, in principle, apply to them without discrimination. However, the unprecedented nature of this technological advancement necessitates a careful consideration of existing legal frameworks and a willingness to adapt or enact new legislation to avoid a legal vacuum and ensure the orderly governance of a society that may include both biological and digital forms of personhood. Ultimately, Fuller's philosophy provides a valuable lens through which to examine the evolving relationship between law, morality, and the transformative potential of technology

#### IV. DIGITAL MIND AND HANS KELSEN'S PERSPECTIVE

The question of whether a digital mind has legal rights challenges the very foundation of how modern legal systems define personhood. To answer this, we turn to Hans Kelsen theory of positive law "The Pure Theory of Law", which insists on a strict separation between law and morality. The specific science of law, the discipline usually called jurisprudence, must be distinguished from the philosophy of justice, on the one hand, and from sociology, or cognition of social reality, on the other.<sup>16</sup> Kelsen emphasized that analysis must focus on law as 'it is' actually laid down, and not as 'it ought to be'. He did not deny that moral discussion was still possible and even encouraged in the sociological domain of inter-subjective activity. However, the Pure Theory of Law was not to be subject to such influences.<sup>17</sup>

When applying Kelsen's theory to Arnim Zola's digital mind, especially one with the capacity to control external systems, the central question becomes how the law as it is might address its status. Kelsen's concept of an "objective" value judgment becomes relevant here.<sup>18</sup> If a legal judgment pronounces on the relationship of an object, like Zola's mind, to the wish or will of an individual or a legal authority, its objectivity, in Kelsen's view, lies in the jurist merely ascertaining this pronouncement without personal approval or disapproval. The jurist observes whether the legal system, through its established legal norms, recognizes or could recognize Zola's mind as a subject of rights or duties. Kelsen's distinction between the regulating significance of a law from within the legal framework and its regularizing significance as observed from outside is crucial

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<sup>16</sup> Kelsen Hans, 'The Pure Theory of Law and Analytical Jurisprudence' (1941) 55(1) Harvard Law Review 44.

<sup>17</sup> Kelsen Hans, *Pure Theory of law* (Max Knight, New Jersey, The Law Book Exchange Ltd 2002) 1-335.

<sup>18</sup> *Ibid* 21-22.

here. The basic norm enables us to understand laws as having this ‘objective meaning.’ It acts as a hypothetical will behind the law and provides an internal sense of legal validity, showing how “normativity”, “the will behind the law” and “interior lawful legitimacy” are combined in the act of law.

Kelsen’s legal personhood view is not a matter of identity or moral worth, but a legal perspective. Under Thai law, the concept of a “person” is broader than section 15 of the Thai Civil and Commercial Code.<sup>19</sup> However, it also recognizes that a child in utero is capable of rights, provided that the child is later born alive. This establishes a foundational principle: personhood in Thai law is a legal construct that can extend beyond physically born individuals, under specific conditions. Furthermore, Thai law recognizes juristic persons such as corporations, associations, foundations, and government agencies as having legal personality.<sup>20</sup>

In this legal context, it is valid because Kelsen explained that a legal norm is valid if it has been created in accordance with a higher norm within the legal hierarchy. Kelsen’s legal norms are arranged as a structured pyramid of norms, the general norms so applied are valid because they were created in accordance with the constitution. The question then arises: What is the reason for the validity of the constitution? The norm from which the constitution derives its validity is the basic norm of legal order. This basic norm is responsible for the unity of the legal order.<sup>21</sup> Kelsen maintained that legal norms are created by acts of will or in other words, products of deliberate human action, as opposed to moral norms which is by God. In relation to this, the pure law theory takes only into consideration only the norms created by the acts of human beings, not norms which come from other superhuman authorities.<sup>22</sup>

Thus, debates about whether Arnim Zola’s digital mind have the same rights as the original are irrelevant within Kelsen’s legal framework. What matters is not moral worth or consciousness, but whether current legal norms recognize him as a legal subject. No matter how intelligent or self-aware such a digital entity may be, it remains legally invisible unless acknowledged by the legal system. Kelsen’s theory leads us to conclude

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<sup>19</sup> ประมวลกฎหมายแพ่งและพาณิชย์ มาตรา 15. [Civil and Commercial Code of Thailand]

<sup>20</sup> ประมวลกฎหมายแพ่งและพาณิชย์ มาตรา 67. [Civil and Commercial Code of Thailand]

<sup>21</sup> Henry Cohen, ‘Book review of Kelsen’s Pure Theory of Law’ (1981) 26(2), Article 4, 149 – 150. <[https://scholarship.law.stjohns.edu/cgi/viewcontent.cgi?params=/context/tcl/article/2087/&path\\_info=03.\\_Kelsen\\_s\\_Pure\\_Theory\\_of\\_Law.pdf](https://scholarship.law.stjohns.edu/cgi/viewcontent.cgi?params=/context/tcl/article/2087/&path_info=03._Kelsen_s_Pure_Theory_of_Law.pdf)> accessed 30 May 2025.

<sup>22</sup> Kelsen Hans, ‘Value Judgments in the Science of Law’ (1942) 7 Journal of Social Philosophy and Jurisprudence 312.

that rights are not derived from consciousness, identity, or ethical considerations, but exclusively from the normative structure of law.

Accordingly, if the legal system were to enact legislation recognizing the digital mind as a legal person, it would not disrupt the existing legal order. Rather, it would represent a legitimate expansion of the legally defined category of “person,” entirely consistent with the hierarchical framework of norms that Kelsen described.

In conclusion, based on our analysis of the current legal framework, an entity like Anrim Zola would not be afforded the same legal rights as a human. This fundamental distinction implies that Zola may not be subject to the same legal sanctions or be able to comply with human laws that inherently demand physical action. Furthermore, drawing upon principles from the Natural Law school, applying such laws to Zola would fall under the category of “laws requiring the impossible,”<sup>23</sup> as legal norms should not compel actions beyond the capacity of the obligated party. From a positivist legal perspective, even if legislation were enacted to formally grant Zola legal jurisdiction, thereby complying with Hans Kelsen’s theory of legal hierarchy<sup>24</sup> the inherent lack of a biological body would mean Zola is not, de facto, genuinely subject to that law.

To illustrate, consider the hypothetical scenario of Zola committing a crime or a wrongful act. A critical question then arises regarding how Zola could compensate victims. It is evident that Zola would be fundamentally unable, and potentially lack the desire, to provide such compensation, and would also fall outside the traditional mechanisms of legal sanction.

## VI. LEGAL PERSPECTIVE ON THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE

Although the complete transfer of consciousness through mind uploading remains a concept for the future, the tangible impact of its underlying technology is already a present-day reality. Artificial Intelligence (AI) has revolutionized every sector in the 21<sup>st</sup> century with its transformative force with far-reaching implications across various domains, enhancing efficiency and productivity across industries such as healthcare, finance, transportation, manufacturing, human resource management and entertainment.

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<sup>23</sup> Fuller, Lon L., *THE MORALITY THAT MAKES LAW POSSIBLE* In *The Morality of Law* (n 14) 70.

<sup>24</sup> Kelsen Hans and Carl Schmitt, *Introduction In The Guardian of the Constitution: Hans Kelsen and Carl Schmitt on the Limits of Constitutional Law* (Vinx L, Cambridge Studies in Constitutional Law, Cambridge University Press, 2015) 7.

AI technologies, including machine learning, deep learning, and robotics. It provides real-world examples of their applications and implementations. Moreover, it highlights and evaluates the future potential, challenges, and limitations associated with the widespread use of AI.

This paper specifically addresses the regulation of AI such as the European Union Artificial Intelligence Act (EU AI Act) and Thailand AI Guidelines, alongside jurisprudential perspectives drawn from the works of Lon L. Fuller and Hans Kelsen. The EU AI Act is the regulation and guideline in the purpose of establishing a comprehensive legal framework for artificial intelligence in the European Union, aiming to ensure that AI systems are safe, respect fundamental rights, and foster innovation.<sup>25</sup> While Thailand Artificial Intelligence Guidelines 1.0, developed by the Faculty of Law at Chulalongkorn University currently serves as a practical framework for addressing ethics, society, and economic considerations.<sup>26</sup>

Drawing upon Fuller's jurisprudence, which posits criteria for the acceptability of law rooted in internal morality, this analysis suggests that certain principles thereof can be employed to evaluate the efficacy and ethical rights of extant and proposed AI regulations.

The European Union's Artificial Intelligence Act, promulgated on 2 February 2025, signifies the point at which this legislative instrument will become legally binding upon all EU member states. The promulgation of this Act satisfies Fuller's principle of promulgation, the fundamental purpose of which is to establish the definitive moment at which a legal norm is formally recognized as law.<sup>27</sup> Furthermore, Article 3 of the EU AI Act provides definitions for complex or specific terms, thereby aligning with the criterion of clarity<sup>28</sup> within Fuller's internal morality by employing ordinary language to ensure broad comprehensibility.

Conversely, a comparison with the Thailand Artificial Intelligence Guidelines 1.0 reveals a critical distinction. These guidelines have not been formally promulgated or legislated as law, and therefore do not satisfy Fuller's criterion of promulgation. However, the guidelines do describe potential AI regulations and reference the practical

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<sup>25</sup> The European Union Artificial Intelligence Act (EU AI Act) art 1.

<sup>26</sup> Research Centre for Law and Development, Faculty of Law Chulalongkorn University, 'Thailand Artificial Intelligence Guidelines 1.0 2022' <<https://www.law.chula.ac.th/wp-content/uploads/2023/03/TAIG-20230222.pdf>> accessed 30 May 2025.

<sup>27</sup> Fuller, Lon L., *THE MORALITY THAT MAKES LAW POSSIBLE In The Morality of Law* (n 14) 50.

<sup>28</sup> *Ibid* 64.

implementation of AI regulation in other jurisdictions, utilizing ordinary language intended for general understanding. This descriptive approach arguably meets Fuller's criterion of clarity, despite the document's lack of formal legal status.

Kelsen's dynamic conception of the law, the idea that "the law governs its own creation" emphasizes that the distinction between law application and law creation is not fixed but relative. When the EU AI Act a lower-level of legal norms is created and contains provisions under the Treaty on European Union<sup>29</sup> and Treaty on the Functioning of the European Union, it can be seen in two ways: as applying a higher norm or as creating a new norm. As a result, this is the principle of validity peculiar to positive law. It is a thoroughly dynamic principle. Consequently, the unity of the legal order is achieved by this connection.<sup>30</sup>

Although Thailand lacks statutory provisions for AI implementation. If Thailand were to turn Thailand Artificial Intelligence Guidelines 1.0 into actual law, the enactment process would need to proceed through legislative processes and require alignment with the Thai constitution, as it represents the highest legal authority that establishes the connection between the formulation of legal norms and their subsequent enforcement. This procedure would be coherent with the dynamics aspect of law according to Kelsen's theory and would make the enacted law legally valid.

The EU Artificial Intelligence Act, promulgated in 2024, exemplifies Fuller's principles of promulgation and clarity by providing clear legal definitions and ensuring public accessibility. Enacted under the authority of the Treaty on European Union and the Treaty on the Functioning of the European Union, it also illustrates Kelsen's dynamic theory of law, whereby legal validity derives from conformity with higher norms. In contrast, Thailand's Artificial Intelligence Guidelines 1.0 remain non-binding but reflect the principle of clarity through accessible language and comparative legal references. Should Thailand formalize such guidelines into law, the process would require constitutional conformity and public promulgation, aligning with both Fuller's and Kelsen's jurisprudential frameworks.

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<sup>29</sup> European Parliament, 'Source and Scope of the European Union Law 2024' <[https://www.europarl.europa.eu/ftu/pdf/en/FTU\\_1.2.1.pdf](https://www.europarl.europa.eu/ftu/pdf/en/FTU_1.2.1.pdf)> accessed 30 May 2025.

<sup>30</sup> Kelsen Hans, 'The Pure Theory of Law and Analytical Jurisprudence' (n 16) 61-62.