

Liability Analysis of Generative Artificial Intelligence in Judicial Application: An Example of Generative Large Models

Taixing Liu *

Hunan College of Humanities and Science, Loudi, Hunan, 417000, China

* Corresponding author Email: ltxdyx@outlook.com

Abstract: The application of generative artificial intelligence technology in the judicial field has given rise to core legal issues, including disputes over subject qualification, the delineation of service attributes, and the distribution of tortious liability. Taking typical cases such as the Tencent Dreamwriter case as the starting point, this paper systematically explores the difficulties in identifying the tortious liability of generative artificial intelligence under the existing legal framework, focusing on disputes over the liability of service providers, the predicament of determining negligence caused by algorithmic flaws, and the ambiguity in defining infringing acts. Through a comparative analysis of domestic and international legislative practices, the study reveals the "instrumental" essence of generative AI and the core of disputes regarding its legal nature: as the controllers of the technology, service providers are obligated to fulfill legal responsibilities such as data compliance review, labeling of generated content, and filtering of illegal information. Furthermore, the study proposes a functionalist approach to determining tortious liability, combining the "equivalent causation theory" with the principle of judicial classification to construct a dynamic framework for liability division. At the level of risk regulation, China has established a governance system integrating policy guidance and technical supervision, and has strengthened algorithmic transparency and content traceability through the Measures for the Labeling of Artificial Intelligence-Generated Synthesized Content. The purpose of this paper is to provide both theoretical support and practical guidance for the judicial discretion and institutional improvement in disputes related to generative AI infringement.

Keywords: Artificial Intelligence; Tortious Liability; Legal Framework; Tort Risk Prevention; Algorithmic Supervision.

1. Discussion of the Legal Nature of Artificial Intelligence

1.1. Background of Technology Development and Typical Case Studies

As artificial intelligence technology flourishes, particularly in the judicial domain, intelligent auxiliary tools exemplified by DeepSeek, ChatGPT, and similar platforms have gradually emerged as crucial support means for legal practitioners. However, with the continuous advancement of technology, the role and legal status of these intelligent systems have become increasingly ambiguous, triggering a series of legal controversies and challenges concerning AI-related tortious liability. The Tencent Dreamwriter case serves as a typical illustration of the complexity and significance of this issue.

The Tencent Dreamwriter case occurred in 2018, when the Dreamwriter software developed by Tencent automatically generated a stock market financial report and published it on the Tencent Securities website. This seemingly unconventional operation led to a copyright dispute with Yingxun. On the surface, Dreamwriter does not qualify as a traditional human author; its content creation relies on massive data input and complex algorithms, with data sources potentially encompassing public market information, historical data, and both licensed and unlicensed resources. This raises a critical question: when data sources are diverse and carry potential infringement risks, how should the legitimacy of articles generated by Dreamwriter be defined?

A deeper investigation into the development of Dreamwriter software reveals substantial investment from

Tencent. Between 2017 and 2018, Tencent significantly increased its investment in content-generating AI projects, covering areas such as algorithm development, data collection and processing, and functional testing. These efforts endowed Dreamwriter with the ability to produce articles with a certain degree of originality. Nevertheless, is this capability sufficient for Tencent to fully hold the copyright of the generated articles? This constitutes an initial exploration into the legal nature of artificial intelligence.

From an international perspective, a similar case is the class-action lawsuit filed by American author Sarah Silverman and several other writers against OpenAI. A comparison of these two cases highlights differences between countries in terms of legal systems and the maturity of judicial practice. For instance, in the Tencent Dreamwriter case, Chinese courts explicitly ruled that AI-generated works are protected by copyright and belong to the developer[1], whereas the OpenAI case in the United States remains in a contentious stage. This divergence stems from multiple factors, including cultural, economic, and technological development disparities.

From a theoretical perspective, natural law theory emphasizes that law should align with moral and just principles. In the Tencent Dreamwriter case, the court's ruling that AI lacks legal subject qualification may be based on the notion that humans hold an unshakable core position as moral subjects. In contrast, legal positivism focuses on the practical operation of existing legal rules and systems; in this case, the provisions of China's Copyright Law regarding the originality of works and copyright ownership served as key bases for the court's judgment.

Technological ethics also offers a unique perspective for understanding the legal nature of AI. During the development and application of Dreamwriter, Tencent adhered to a series of technological and ethical guidelines, such as ensuring the legality of data sources and respecting user privacy, which were translated into legal rights and obligations relationships. Meanwhile, the prevailing social value of protecting original works also influenced the court's judgment in the case.

In summary, the Tencent Dreamwriter case, as a typical example, vividly reflects the tip of the iceberg regarding the legal nature of artificial intelligence. It not only exposes numerous challenges faced by artificial intelligence in the field of intellectual property but also lays the foundation for subsequent explorations into AI infringement liability paths, case analysis, and tort risk prevention.

1.2. The Central Debate on The Nature of Law

Generative AI differs significantly from traditional analytical AI in that it possesses powerful capabilities to simulate human intelligence. Through an in-depth analysis of the Tencent Dreamwriter case, it is found that the creation process of generative AI involves multiple links and subjects, such as data providers, algorithm designers, software developers, and end-users. These complex interactions render the issue of its legal nature particularly intricate.

At the end of 2022, OpenAI's launch of ChatGPT in the United States marked a new milestone in generative AI, which has evolved from professionally generated content (PGC) and user-generated content (UGC) to artificially intelligent generated content (AIGC). Subsequently, on November 6, 2023, OpenAI released GPT4-Turbo, and Google Inc. launched its Gemini model on December 6. These new models have achieved significant advancements in data scale and the scalability of generated content, propelling generative AI toward "generalized AI." However, with the rapid development of generative AI, its inherent flaws also bring potential risks, particularly in the training and generation phases, which may involve model defects, data infringement, and misuse. These problems are particularly prominent in commercial applications. As some scholars have pointed out, the key to addressing these issues lies in clarifying the legal nature of generative AI and the legal status of its service providers[1].

There are several main viewpoints regarding the legal nature of generative AI:

(1) Generative AI does not qualify as a subject of law

The academic community generally upholds a formalist stance, asserting that generative artificial intelligence is inherently categorized under the framework of "instrumentalism"[2]. Whether it is generative AI or general AI, neither possesses legal personality; its legal status can only be positioned as an auxiliary tool for human activities. As scholars have argued, regardless of the stage of development, artificial intelligence remains essentially an object used by humans and cannot obtain subject qualification through the legal system[3]. Other scholars emphasize that as a product of technology, artificial intelligence systems are always dependent on human control in terms of design and operation, and thus lack the ability to independently bear legal responsibilities[4].

International legislative practices further support this viewpoint. The 2020 EU Legislative Initiative on Liability for the Operation of Artificial Intelligence Systems, Part B, Article 5, explicitly denies AI's legal personality, stating that

it "lacks subjective will and moral judgment and serves only human needs." Article 1, Part 2 of the draft United States National Artificial Intelligence Initiative (NAI) clearly defines AI as merely a tool.

It is worth noting that China's Interim Measures for the Administration of Generative Artificial Intelligence Services does not directly define AI's subject status but indirectly rules out the possibility of it being an independent subject by classifying its service nature as "information services." Article 5 of the Interim Measures requires generative AI service providers to "fulfill network information security obligations," and Article 12 explicitly stipulates that "service providers shall label generated content to safeguard users' right to know," both of which designate human subjects as the bearers of responsibility. From a technical definition perspective, AI, as "the theory and method of simulating, extending, and expanding human intelligence," always takes serving human goals as its core function rather than forming independent will.

(2) Granting limited legal personality to generative artificial intelligence

Some scholars have advocated for endowing generative AI with limited legal personality, considering its high intelligence and decision-making capabilities[5]. Additionally, the Proposal for a Directive on Liability for Artificial Intelligence issued by the European Union in 2024 further clarifies the legal liability of AI systems and proposes the principle of requiring developers or operators to bear strict liability under specific circumstances. This legislative trend reflects international attention to and exploration of the legal status of generative AI. Nevertheless, Likun Yang, Meta's chief AI scientist, pointed out that it will take decades to develop AI systems with truly human-like perception and common-sense judgment, meaning that current generative AI is not yet capable of breaking free from human control to achieve full independent autonomy[6].

The judgment on the legal nature of generative artificial intelligence should shift from formalism to functionalism. With the development of AI technology, the contribution theory from a functionalist perspective is more practical. Proposed by Liang Yuangao, this viewpoint emphasizes that service providers and users of generative AI should bear responsibilities in proportion to their contributions to algorithmic rules, data feeding, keyword selection, and other aspects. Under the functionalist framework, the mechanism for generative AI to assume legal responsibility resembles a gradual spectrum, where each subject dynamically matches the corresponding responsibility based on differences in their contributions. This method of liability allocation not only aligns with actual circumstances but also effectively addresses various challenges posed by generative AI.

The above analysis indicates that the debate on the legal nature of generative AI is a multi-dimensional issue involving theoretical discussions and specific case studies. Different viewpoints and debates have driven the continuous improvement and development of relevant legal systems to adapt to the rapidly changing technological environment. For example, recent legislative developments and judicial practices show that countries are actively exploring how to better define the legal status of generative AI to ensure that it promotes technological innovation while effectively protecting public interests.

2. The Dilemma of Finding Tort Liability for Generative Artificial Intelligence

2.1. Ambiguity in the Definition of Legal Attributes

In the determination of tortious liability, the definition of the legal attributes of generative artificial intelligence (AI) constitutes the core controversy. From a comparative law perspective, the product liability provisions in China's Civil Code and Product Quality Law, as well as the EU's Product Liability Directive and the U.S. Restatement (Third) of Torts[7], all take "products" as the object of application of the liability system, while services are usually excluded from the product liability framework. This distinction originates from the logic of the product liability system in the industrial society context: industrial products are standardized and replicable, and defect risks can be shared through the mass dissemination mechanism of market sales; in contrast, services are personalized and non-standardized, making it difficult to allocate liability risks through similar paths.

As computer software, generative AI faces special challenges in attribute definition. China's current laws do not explicitly include software in the category of "products," and this legal gap leads to ambiguity in the identification of software attributes in judicial practice. For example, drawing on international experience, the U.S. Restatement (Third) of Torts differentiates software into "packaged software" (regarded as a product) and "customized software" (regarded as a service) by referencing the classification of the Uniform Commercial Code (UCC)[8]. However, the operational mode of generative AI is closer to service provision than product sales. The reasons are reflected in the following aspects: (1) The system relies on continuous service support, with functional iterations and data updates always controlled by the provider; (2) Revenue sources are based on subscriptions or service payments rather than one-time software sales; (3) Due to human-computer interaction and dynamic algorithmic adjustments, the output is non-standardized.

The aforementioned characteristics of generative artificial intelligence make it difficult to meet the liability dissemination conditions for "homogeneous products" in traditional product liability systems. This trend is reflected in the Interim Measures for the Administration of Generative Artificial Intelligence Services, which explicitly classifies generative AI as a "service," further strengthening its distinction from traditional product liability systems. However, challenges remain in defining this attribute: when generative AI causes harm due to algorithmic flaws, the identification of responsible parties needs to be combined with technical logic and the principle of risk allocation, and the existing legal framework has not yet formed a unified standard. For example, in the service contract dispute case between Zuo Lizhi and Shanghai Wenhua Financial Information Co., Ltd., the court ruled: "The plaintiff claims that the software service provided by the defendant is defective and caused his property damage. Regardless of whether the software service is included in the scope of product liability, the plaintiff shall prove the existence of defects, the occurrence of property damage, and the causal relationship between the defects and the damage..." Thus, the court avoided the dispute over whether software services fall within the scope of product liability. This judgment shows

that judicial practice tends to respond to the ambiguity of legal characterization through the allocation of the burden of proof rather than directly addressing the dispute over the attributes of generative AI itself, further highlighting the lag of the existing legal framework amid technological iterations.

2.2. The Logic of Identifying The Subject of Tort Liability

In current judicial practice, it is tentatively held that generative artificial intelligence does not possess independent civil subject qualification. Given this, its tortious liability must be attributed to service providers. The operation of generative artificial intelligence relies on the corpus constructed by the service provider, the algorithmic model, and text, image, and other data input by users, and generates synthetic content meeting needs through model training. In this process, the instrumental attribute of AI occupies a central position[9], and its behaviors are essentially controlled by the technical design and operational management of the service provider. The EU AI Act defines AI systems as "systems designed by humans and developed using specific technologies," while Article 4 of China's Interim Measures for the Administration of Generative Artificial Intelligence Services emphasizes that service providers are responsible for the legality of data sources, the safety of model training, and the compliance of generated content.

In terms of data collection scope, model optimization paths, and user interaction rules, existing generative AI is dominated by service providers. If the generated content infringes upon the rights and interests of others, the service provider should bear tortious liability for failing to fulfill necessary auditing obligations or implement technical control measures. This logic has already been reflected in judicial practice: the Kaifu District Court in Changsha held in the AI editing case of "Qing Yu Nian" that the service provider's failure to establish an effective infringement prevention mechanism and its subjective fault constituted an infringement of the right to disseminate information on the internet.

In the determination of the causation of tortious liability, China's judicial practice usually adheres to the "equivalent causation theory," which involves two main steps: the judgment of factual causation and the judgment of legal causation[10]. Regarding the criterion for judging equivalent causation, Professor Wang Zejian believes that "without such an act, this damage would not have occurred; with such an act, it is usually sufficient to cause such damage, and thus a causal relationship exists[11]." "Without such an act, this damage would not have occurred" refers to the "causal relationship between the infringing act and the infringement of rights and the resulting consequences," i.e., the judgment of factual causation[12]. This directly echoes the requirement of Article 10 of the "Measures for the Administration of Deep Synthesis of Internet Information Services" that "service providers shall take technical measures to identify illegal information." "With such an act, it is usually sufficient to cause such damage" refers to the "causal relationship between the fact of rights infringement and the damage suffered by the victim," which is the judgment of legal causation. When AI-generated content infringes upon portrait rights or copyrights, if the service provider fails to strictly examine the legality of model training data (e.g., using unauthorized material libraries), the equivalence between its fault and the damage is established. This logic is reflected in Article 1195 of the Civil Code, which stipulates: "Upon receiving a notification, the network service

provider shall promptly forward the notification to the relevant network users and take necessary measures based on the preliminary evidence of infringement and the type of service; if it fails to take necessary measures in a timely manner, it shall be jointly and severally liable with the network user for the expanded damage...". This is also evidenced by the provisions of the Law of the People's Republic of China on the Prevention of Copyright Infringement on the Internet. From a jurisprudential perspective, as the actual controllers of generative AI, service providers shall fulfill security obligations commensurate with their capabilities based on the principle of technological control and the liability allocation principle consistent with risks and benefits: in accordance with Article 27 of the Data Security Law, a full-process security management system covering data collection, storage, and use shall be established; in accordance with Article 12 of the Interim Measures for the Administration of Generative Artificial Intelligence Services, generated content shall be labeled and illegal information shall be filtered and intercepted. In judicial practice, the essence of the judgment in the "AI Ultraman Case" embodies the above rules—the court found that the service provider had failed to effectively filter user-generated infringing images and was negligent in responding to the right holder's complaint, establishing a causal relationship between its inaction and the damage consequences, with obvious subjective fault, and ultimately ruled that it should bear corresponding legal responsibilities.

The "instrumental" nature of generative AI determines the logic of liability attribution: as technology controllers and beneficiaries, service providers need to fulfill their legal obligations by improving data compliance mechanisms, strengthening content auditing technologies, and establishing rapid infringement response systems. In judicial practice, courts have balanced technological innovation and rights protection through "classified measures" (e.g., distinguishing responsibilities between the data input and output phases) while gradually constructing a responsibility determination framework adapted to technological characteristics based on norms such as the Interim Measures for the Administration of Generative Artificial Intelligence Services. In the future, with the implementation of the Measures for the Labeling of Artificial Intelligence-Generated Synthesized Content (effective September 1, 2025), the labeling obligations and liability boundaries of service providers will be further clarified, providing more detailed operational guidelines for the determination of infringement liability.

3. Risk Regulation Paths for Generative Artificial Intelligence

3.1. Current Status and Policy Framework for Risk Regulation

With the deepening and expansion of the application of artificial intelligence technology, China has gradually established a comprehensive governance system covering policy guidance, institutional constraints, and technical norms, with key milestones reflected in the following two aspects:

Firstly, the top-level policy structure continues to improve, forming a multi-departmental collaborative governance model. At the national level, the State Council, the National Professional Committee on the Governance of the New Generation of Artificial Intelligence, the State Administration for Market Regulation, and the Ministry of Human Resources

and Social Security have successively issued important policy documents related to AI governance, such as the "New Generation Artificial Intelligence Development Plan" and the "New Generation Artificial Intelligence Governance Principles - Developing Responsible Artificial Intelligence"[13]. Among them, the "New Generation Artificial Intelligence Governance Principles - Developing Responsible Artificial Intelligence" specifies eight core principles: "safe and controllable, fair and inclusive, open and cooperative, agile governance, harmonious and friendly, inclusive and sharing, respect for privacy, and shared responsibility," delineating ethical boundaries for technology research and development and application. Meanwhile, the Cyberspace Administration of China, together with four departments including the Ministry of Industry and Information Technology and the Ministry of Public Security, issued the Measures for the Labeling of Artificial Intelligence-Generated Synthesized Content (effective September 1, 2025), requiring service providers to add explicit and implicit labels to AI-generated content, establish a content traceability mechanism, and prevent the risk of false information dissemination. In addition, the Provisions on the Administration of Deep Synthesis of Internet Information Services further strengthen service providers' algorithmic auditing and data security obligations, forming a full-chain regulatory framework from technology research and development to content dissemination. As a national top-level policy framework, it provides strong support for the modernization of national governance systems and governance capacities.

Secondly, China's current governance of generative AI mainly focuses on technical risk prevention and control, application transparency, and ethical compliance constraints. At the technical risk prevention and control level, Articles 16 and 17 of the Provisions on the Administration of Deep Synthesis of Internet Information Services require the implementation of full-process traceability management for deep synthesis content that may cause public confusion (e.g., face swapping, immersive simulation scenarios) through a mandatory labeling system (e.g., prominently marking "AI-generated") to prevent the risk of false information proliferation. At the application transparency level, Article 4 of the Interim Measures for the Administration of Generative Artificial Intelligence Services clarifies that service providers should take effective measures to enhance service transparency (e.g., disclosing algorithm design principles, prompting users about the nature of generated content) to improve the accuracy and reliability of generated content, and bear subjective responsibility for the legality of data sources, the safety of model training, and the compliance of generated content. Ethical compliance constraints are embodied in the "New Generation Artificial Intelligence Governance Principles," which prohibit risks such as algorithmic discrimination and infringement of personality rights, and construct a framework for ethical review of technology research and development and application. These serve as important references for the future regulation and governance of generative AI.

3.2. Algorithmic Transparency and the Challenge of Generated Content Regulation

In algorithmic regulation, the concept of the "algorithmic black box" is extremely critical to the effectiveness of

regulation[14]. The black box metaphor not only refers to the non-interpretability of the internal logic of algorithms but also symbolizes the "uncontrolled decision-making" dilemma faced by humans under technological hegemony—when algorithms generate results that affect individuals' rights and obligations based on massive data and complex models, the decision-making process is like a closed physical device, where the outside world can only observe inputs and outputs but cannot trace the logical path. Some scholars have analogized it to a force of nature that can only be tamed, not controlled. The "algorithmic veil" may be a more appropriate metaphor than the algorithmic black box, concealing human decisions and value judgments behind automated decision-making. The advantage of the veil metaphor is that it implies humans can lift it at any time to reveal the true nature of algorithms[15].

However, algorithms are not absolutely closed systems; their decision-making nature is still a manifestation of human pre-conceived values and coding rules. Current challenges to algorithmic transparency focus on three obstacles: intentional secrecy, lack of understanding due to insufficient experience and technical knowledge, and opacity caused by system complexity. Algorithmic transparency encompasses multiple connotations, ranging from the obligation to inform about algorithm usage, reporting parameters, and parameter disclosure to source code disclosure, and it is not only possible but also feasible to achieve[16]. Algorithmic transparency is of great significance for protecting citizens' rights, as it safeguards their right to know and prevents users from becoming passive data subjects. Algorithmic transparency itself is a mechanism to correct the imbalance of power between users and companies, as well as between citizens and the state[17]. Algorithmic transparency does not pursue an "omniscient view" of technology but ultimately aims to reduce algorithms from an "unknowable force" to an "accountable tool," ensuring that technological evolution always serves human dignity and social justice.

4. Conclusion

Generative model-driven artificial intelligence technology is transforming judicial practice, yet it also brings about infringement risks arising from the incompatibility between its technical features and the current legal system. The complexity of generative AI in terms of data feeding, algorithm iteration, and content output makes it difficult to completely avoid the generation of infringing information. How to reasonably allocate damage risks and define the liability boundaries of service providers has become an urgent core issue to be resolved.

In current legal practice, the contradiction between the "service" attribute of generative AI and the traditional "product" liability system has led to multiple dilemmas in the determination of tortious liability. Judicial decisions need to address disputes over attributes, causality, and the distribution of the burden of proof, and there is an urgent need to enhance the predictability of rules through legal interpretation. At this stage, there are already relevant documents at home and abroad. For example, China's Interim Measures for the Administration of Generative Artificial Intelligence Services clarifies the obligations of service providers in terms of data compliance, generated content auditing, and labeling, while the EU's Artificial Intelligence Act emphasizes the strict liability of developers and operators. These norms provide preliminary guidelines for liability division.

From the perspective of liability allocation, incorporating generative AI into the traditional product liability framework is not optimal. Based on the functionalist perspective, it is more appropriate to adopt the general tort liability system supplemented by the fault presumption rule: as technology controllers and beneficiaries, service providers should bear fault liability for risks such as algorithmic defects and data infringement, while balancing technological innovation and rights protection through dynamic adjustments to the burden of liability. In judicial practice, the application of theories such as "equivalent causation" provides a flexible path for liability determination.

Future governance needs to focus on balancing risks and benefits, and strengthen algorithmic transparency and content traceability mechanisms. These issues can be addressed through upcoming or existing documents such as the Measures for the Labeling of Artificial Intelligence-Generated Synthesized Content, which will refine the labeling obligations of service providers. Combined with technical measures, this will effectively curb the expansion of damages. The essence of the tortious liability of generative AI is a microcosm of the collaborative evolution of technology and law. Only by clarifying responsible subjects and improving dynamic supervision can we promote technological development while laying the foundation of the rule of law, and realize the positive interaction between innovation and safety.

References

- [1] Liang, Y. (2024). Contextual classification and liability determination of infringement responsibilities of generative AI service providers. *Journal of Shenzhen University (Humanities & Social Sciences)*, 41(5), 115-124.
- [2] Ding, W. (2023). Logical regression of copyright law from a general artificial intelligence perspective: From "instrumentalism" to "contribution theory". *Eastern Law Review*, 95(5).
- [3] Li, Y., & Li, X. (2018). Discussion on copyright issues of artificial intelligence creations from the perspective of Kantian philosophy. *Law Review*, 39(295), 9.
- [4] Hu, P. (2023). A new perspective on legal subjects. *Gansu Social Sciences*, 267(6).
- [5] Yuan, Z. (2017). An examination of the limited legal personality of artificial intelligence. *Eastern Law Review*, (5), 50-57.
- [6] Wang, Q. (2024). Third discussion on the positioning of content generated by artificial intelligence in copyright law. *Studies in Law and Business*, 41(221), 3.
- [7] American Law Institute. (1997/1998/2000). *Restatement of the Law, Third, Torts: Products Liability/Appportionment of Liability*. St. Paul, MN: American Law Institute Publishers.
- [8] American Law Institute. (2006). *Restatement of the Law Third, Torts: Products Liability* (Xiao, Y., et al., Trans.). China Legal Publishing House. (p. 396).
- [9] Guo, S. (2023). Theoretical dilemmas and responses to legal acts in the intelligent era: Taking ChatGPT as the background. *Dongyue Tribune*, 6, 179.
- [10] Wang, L. (2020). *Academic Works of Wang Liming: Tort Liability Section*. Peking University Press. (p. 334).
- [11] Wang, Z. (2016). *Torts*. Peking University Press. (p. 246).
- [12] Zheng, L. (2021). Causation theory in Japanese tort law and its implications. *Japanese Law Review*, 7, 27.

- [13] Bi, W. (2023). The dilemma of risk regulation of generative artificial intelligence and its resolution: From the perspective of ChatGPT regulation. *Comparative Law Research*, (3), 155-172.
- [14] Yueng, K. (2017). Algorithmic regulation: A critical interrogation. *Regulation & Governance*, 12-13.
- [15] Sommerer, L. (n.d.). Taming algorithmic oracles: Transparency requirements for the use of predictive analytics by government agencies. LL.M. Dissertation Paper, 4.
- [16] Wang, Q. (2020). Multiple dimensions of algorithmic transparency and algorithmic accountability. *Comparative Law Research*, (6), 163-173.
- [17] Kahn, L. M. (2018). Sources of tech platform power. *Georgetown Law Technology Review*, 2, 325-334.