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TECHNOLOGY AND INTELLECTUAL PROPERTY RIGHTS: IMPLICATIONS, CHALLENGES, AND FUTURE DIRECTIONS

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Abstract: This article explores how technology and intellectual property rights (IPR) have changed and are changing in their interrelation, highlighting the opportunities and challenges that are created by new innovations. It follows the history of IPR since the Berne Convention of 1886 to the confusions of the modern digital age, where piracy, patent trolling, and cross-border enforcement remain a matter of concern. Specific attention is given to disruptive technologies, i.e., artificial intelligence, blockchain, and 3D printing, which challenge traditional ideas of authorship, ownership, and enforcement. The paper employs an interdisciplinary approach to study in a qualitative manner, which is based on a literature review, case studies, and doctrinal analysis, as well as recent judicial cases of AI-generated works. It proposes a dynamic and harmonized law made to suit a breakneck pace of technological change and, at the same time, strike a balance between the rights of creators and knowledge available to the masses. In conclusion, the paper emphasizes the necessity of international cooperation, moral reasoning, and the incorporation of technological resources into IP management to attain sustainable innovation.

Keywords: Patent Protection; Digital Copyright; AI and IP Rights; Licensing and Innovation; Regulatory Challenges.

1. Introduction

With the advent of the internet, the overlap between IPR and technology has become increasingly complicated, traditional systems of IPR are getting less relevant, and there is an urgent need to update these systems. Among the most urgent questions on the agenda, one can note the spreading of a digital process of piracy, transgression

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of copyright over authorship and ownership of AI, and the radicalizing capabilities of new technologies like blockchain and 3D printing, all frustrating normal notions of Intellectual Property (IP) protection (Friedmann, 2024). The IPRs traditionally have been developed to prevent unauthorized use of the contributions of creators. This trend was reached with the Berne Convention of 1886, which introduced basic protection of authors and established the principle, which is reflected in modern copyright laws. However, the fast growth of the world of digital content revealed deep-set cracks in existing regimes, which are now difficult to implement across borders. The global aspect of the internet has increased these burdens, leading to gigantic revenue losses by creators, especially in fields of music and film, due to haphazard piracy (Menell et al., 2023). The current legislation, which cannot handle the unique characteristics of the new technologies, is also among some of the modern problems that the IPR disputes pertain to. As an example, the ease of copying a design with a mere 3D scan raises the imminent concern of patenting and enforcement, whereas AI-produced works intersect the traditional copyrighting practices, particularly in the question of authorship and rights to ownership (Ballardini et al., 2022). The key novelty of this article can be considered the combination and future-oriented analytical approach to the transformations of the intellectual property rights foundations as a unified whole of emerging technologies, in particular, the idea of artificial intelligence, blockchain, and 3D printing, among others, which current research tends to consider separately. The research is interdisciplinary and global in nature, and it includes international treaties, comparative judges' paths, and doctrines development in various jurisdictions as well, in order to determine the sufficiency of the existing IPR structures in addressing the dynamism in technology. The research questions are threefold as follows: first to determine the structural and doctrinal deficiencies of conventional intellectual property regimes in digital, algorithm-driven age; second to examine major problems in law that are associated with authorship, ownership, enforcement and vulnerability of patents as a result of disruptive technologies; thirdly to suggest adaptive and harmonized legal solutions that can address the question of serving the interests of innovation and at the same time facilitating access to knowledge by the masses.

Structurally, the paper is arranged as follows: The research is structured in Section 2, which provides the description of the research methodology and materials; Section 3 provides the results and thematic analysis of the technological implications on IPR; Section 4 is a discourse on these findings in reference to the current scholarship; and finally, Section 5 is a conclusion.

2. Methods / Materials

The research design that is applied in this study is qualitative and multi-method, as it will combine doctrinal legal analysis with structured literature review and comparative case study evaluation. It is such a blend that offers an interdisciplinary and holistic basis to the analysis of how new technologies are transforming the space of IPR.

2.1. Doctrinal Legal Research

The methodological basis of the study is doctrinal analysis, which provides an opportunity to conduct a systematic study of the legal principles, legislature, international treaties, judicial rulings, and normative frameworks on which modern IPR systems are based. This method would entail the examination of primary sources in the law, both international and national, such as the Berne Convention, the TRIPS Agreement, and other treaties that WIPO administers, as well as national laws that are used to regulate copyright, patenting, trademarks, and trade secrets. It also includes judicial interpretations of courts that dealt with technology-driven conflicts, especially those that referred to AI-generated content, 3D printing violations, and blockchain transactions. In such a way, the study will allow for a grounded evaluation of how conventional legal principles react to technological disruption and determine the interpretative voids that remain in the current IP paradigms.

2.2. Structured Literature Review

Literature review was done in a structured manner using a broad set of scholarly materials, which includes peer-reviewed journal articles and scholarly monographs, conference proceedings, governmental reports, and policy documents. The review analyzed how the IP system evolved throughout history, how the new technologies, including AI, blockchain, as well as additive manufacturing, presented new challenges, and the newly debated topics of authorship, ownership, enforcement, and cross-border regulation of copyright matter. It also took into consideration some of the current academic and policy-oriented suggestions to transform IPRs in lieu of digital transformation. In order to guarantee methodological rigour, authoritative and analytically sound sources were located in academic databases and reputable repositories to find the latest and most relevant ones. The obtained literature was then thematically sorted out so as to unveil doctrinal conflicts, empirical stripes, and the hegemonic theoretical approach mapping out the spirit of the contemporary discourse on technology and intellectual property.

2.3. Comparative Case Study Analysis

In order to put the doctrinal developments in perspective, the study will take a comparative case study approach where important decisions of the court, as well as regulatory interventions in the case by various jurisdictions, will be looked at. One

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of the key cases is the Supreme People's Court of China in a case involving Digital Arts Co. v. Tech Innovations Ltd., which discussed the copyrightability of AI-assisted works. Decisions of the European Court of Justice to which a stricter human-authorship doctrine is applied are also comparatively referred to. This kind of case study also indicates there is a jurisdictional variance, and it is essential to note that there are no harmonized international standards of emerging technologies.

2.4. Data Synthesis and Analysis Framework

The combination of such data based on the doctrinal resources, academic literature, and comparative case studies was synthesized with the help of thematic coding that allowed identifying the issues happening in a variety of sources. This practice revealed a number of lacking issues, such as the problem of authorship and inventorship regarding AI-generated compositions, the vulnerability of enforcement to the matters of transnational digital piracy, the tenuousness of patent protection when it comes to situations involving 3D printing copies, and regulatory ambiguity when it comes to IP management using blockchain. Using these patterns as a structure to the analysis, the study builds a coherent narrative of how technological convergence is transforming fundamental postulates of intellectual property law and of those areas in which reform is badly needed.

3. Results

3.1. Historical and Structural Shifts in IPR

The historical nature of the IPR shows a constant interplay of the innovative practices, the technological transformation, as well as an adaptation of the legal systems. The further development of the copyright mechanisms originated in the early international laws, such as the Berne Convention of 1886, that formalized the rights of the authors between countries and realized the necessity to protect the creative works in the ever-interconnected world (Nikogosian & Kickbusch, 2016). Further technological changes, such as the mechanical reproduction, photography, and digital media, reshaped the processes of creation and sharing even more. According to Benjamin, mechanical reproduction essentially changed the position and distribution of original works with the ability to reproduce them in mass (Loffredi, 2024).

These structural changes increased due to the rapid emergence of digital technologies that created a significant decrease in the costs of copying and distributing. As per the analysis of Surden, the question of decreasing the cost of technology has diluted the kind of deterrence that was present in the more conventional forms of protecting copyright, which once was prohibitively expensive and prohibitively inconvenient

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(Surden, 2013). This change was particularly certain with the emergence of the internet, which has facilitated real-time, worldwide dissemination of content online and revealed a great deal of inefficiency in the current systems of enforcement. This has seen the creators in other industries like music and film lose a lot of revenue through extensive, cross-border piracy simplified by digital networks (Menell et al., 2023). All these developments, in one way, show how the stability of systemic IPR structures has been compromised by successive technological developments. The modern online space is no exception, pushing back the established legal principles and stressing out the regulatory frameworks, which were shaped during the analogue age, to the limit.

3.2. Digital Piracy and Enforcement Failures

AI, which is among the most of the 21st-century innovative technologies, has transformed numerous sectors, including police, healthcare, and banking (Kumar, 2025).

The results point to the fact that digital piracy is one of the most challenging issues linked with modern IPR protection. The unrestricted movement of copyrighted material on the internet facilitates speed and effectiveness in the distribution of the data and highlights the inability to control the national and international systems of law as outdated and defective. Based on current reviews, the sharing platforms, like the streaming sites and peer-to-peer networks, have enabled widespread unauthorized sharing of music, films, and software, and other creative work, which has made the rights holders suffer significant financial losses (Menell et al., 2023). Empirical statistics also indicate that this issue is vast, with a considerable share of world bandwidth usage attributed to digital piracy and direct losses of income and market value (L. Li et al., 2023).

The current enforcement systems have not been sufficient to deal with such developments. The essence of traditional copyright rules is that they were devised to apply to analogue modes of reproduction, and thus are not well-positioned to control the speed and anonymity of Internet infringement. Jurisdictional differences in copyright laws also complicate cross-border cooperation on enforcing copyright because it is challenging to identify offenders of digital content due to differences in jurisdiction (Unnikrishnan, 2024). This means that creators still have significant challenges in ensuring that their works are not duplicated and distributed in an unauthorized fashion. The failures in enforcement demonstrate some overall constraint in the existing regulatory framework, and the necessity of more dynamic, more technologically integrated methods of copyright protection.

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3.3. Challenges from AI-Generated Content

The findings have proven that AI has brought significant challenges to the pre-existing notions of authorship and ownership of IPR. Conventional copyright frameworks are based on the innovation of the human being, but AI-generated or AI-aided works do not align with the premise. Trends in AI research suggest that the technology can progressively generate new literary and artistic as well as technical works that do not fit human-centred theories of authorship (Ballardini et al., 2022; Kambur & Dolunay, 2024). This has created confusion on how to assign the creative responsibility, alongside disseminating the rights between the developer, the operator, and the end-users of the AI systems.

The court's reactions to these developments display a lot of jurisdictional differences. The Supreme People's Court of China, in a landmark decision, acknowledged that partial copyright protection can be given to some works produced by AI assistance upon certain levels of human input being achieved, which is an indication of a case-by-case approach (Wong, 2024). On the contrary, the European Union courts continued to strongly insist on human authorship, believing that AI-generated works could not be subjected to protection since it was impossible to find a natural person as the main author (Bharati, 2024). The lack of an international standard and the increasing tension between the advances of technologies and their understanding of the law can be emphasized by this divergence.

On a more general level, the creative power of AI is growing, which implies the need to reconsider the classic ideas of originality and inventorship. According to the current analysis of the law, the growing role of algorithmic systems in the creative domain extends the boundaries of the current types of IPR and necessitates a new set of doctrines (Kazimi & Thalwal, 2024). The results, therefore, indicate that there is a structural requirement of legal innovation, which can enable AI-based imaginative movement and still maintain the rigor and the aim of the copyright law.

3.4. Patent System Vulnerabilities

The results disclose that there are critical weaknesses of the modern patent system, which are triggered by the fast-changing technological environment and tactical litigation strategies. The effect of emerging technologies, and specifically 3D printing, is that patent protection becomes ineffective as it offers the accurate and quick reproduction of the patented designs. Additive manufacturing is also seen as a way to reproduce complex physical/tactile objects with less technical expertise, as discussed in recent studies, which consequently erodes the exclusivity that was traditionally ascribed to the patentees and makes the enforcement of the law difficult (Matulionyte & Hanif, 2021; Neely, 2016). This ability of automatic reproduction in

almost instant challenges the position of a patent right and reveals the weakness of the structure of the current regulations.

Besides the technological influence, the findings also reveal that patent trolling has emerged as a significant problem for innovators and companies. The patent trolls, which are organizations that obtain patents to commence an infringement lawsuit, cause enormous economic and legal expenses to the targeted companies. These practices lead to a rise in the cost of litigation, not knowing what is under the coverage of the patent rights and what is not, resulting in a slowdown of the business activity, especially with respect to acquisition and growth of small businesses (Dayani, 2023; Diduk et al., 2022). These processes undermine the real purpose of the patent system, which is to encourage innovation and investment in favour of defensive patenting and risk-averse behavior.

Moreover, the speed with which technology is developing makes it difficult to make decisions related to patentability. A lot of modern inventions represent the development or modification of existing technology, and it is hard to determine novelty and creative step because of the standard use of traditional criteria (Althabhawi & Zainol, 2022).

Such ambiguity raises the risk of validity-related controversy and leads to a vague legal outlook for creators and investors. These findings taken together prove that the patent system is under systemic pressure, which systematically needs a massive reformation to adapt to the new technologies, and also to avoid strategic abuse of patent rights.

3.5. Blockchain-Related Opportunities and Limits

These results show that blockchain technology includes some promising opportunities and major limitations for the future of IPR. The architecture of blockchain is decentralized and immutable, which provides better transparency, security, and traceability in registering and managing IP assets. Recent researchers emphasize that it may be used to facilitate direct control of creators, minimize the use of intermediaries, and give verifiable records of ownership and transactions, enhancing confidence in the digital rights management system (Bajwa & Meem, 2024). Such functionalities indicate the potential of the blockchain to have a transformative role in enhancing the accuracy and efficiency of the IP enforcement policy, especially where high amounts of unauthorized copying and distribution are prevalent.

The results, however, also show that the introduction of blockchain into the formal legal framework is still limited due to the lack of resolved regulatory and jurisdictional issues. Although blockchain has the potential to house secure and transparent records, its decentralized state provokes some concerns about privacy,

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its regulation, and its adherence to conflicting legal regulations on a nation-by-nation basis (Liang et al., 2024). This makes adoption more difficult, given that the technology has to work under the jurisdictions with very different data protection regulations and levels of legal due process between jurisdictions. Moreover, issues of compatibility of blockchain-based systems with the existing institutional structures remain, especially in those situations in which formal registration is required, formal dispute resolution, or formal verification (Zubaydi et al., 2023).
Combined, these results suggest that despite the fact that blockchain has a significant potential with regard to IPR management, its real-world application still necessitates the creation of consistent regulatory frameworks that would be able to resolve the problem of privacy, interoperability, and cross-border governance. Unless such reforms are implemented, the benefits of the technology will be realized in a limited scope and in a disproportionate manner across jurisdictions.

4. Discussion

This research has proven that our emerging technologies are redefining the theoretical as well as the doctrinal bases of intellectual property rights (IPR). The accelerated growth of digital technologies, including AI, blockchain, and 3D printing, has presented the traditional IP regimes with a set of challenges that they have never faced before, as these were initially aimed to be used in analogue and human-based creative paths. The findings are consistent with previous literature that states that the modern technological changes have unveiled the historical constraints present in the current IP regimes, especially in the fields of authorship, ownership, and enforcement (Friedmann, 2024; Menell et al., 2023). The lack of costs in digital reproduction, as well as global distribution, has exacerbated issues of piracy, unlicensed distribution, and inconsistency in the jurisdiction, adding to what has been observed previously: traditional models are not very responsive to the magnitude and pace of the digital exchanges (Liu et al., 2024; Unnikrishnan, 2024). The implications used in this paper correlate with the suggestion that technological development brings out the effects of lowering the technological costs of reproduction and distribution, which hinder the authentic copyright (Surden, 2013). Similarly, patent stability and enforcement under 3D printing help provide academic arguments that additive manufacturing technologies make the substantive provision of patent law more complex and decrease exclusivity to the inventor (Matulionyte & Hanif, 2021; Neely, 2016). The patent trolling, which the analysis identified, is a problem that is manifested in the literature of studies concerned with strategic

litigation and its harmful impact on any innovation ecosystem (Dayani, 2023; Diduk et al., 2022).

Other findings of the study on AI as the content creator further validate past academic assertions that emerging technologies are moving more and more boundaries between human invention and digital automation, as authorship and originality must be reviewed again (Ballardini et al., 2022; Kambur & Dolunay, 2024). As can be seen in the case of Digital Arts Co. v. Tech Innovations Ltd., the courts are starting to apply uneven treatment to AI-assisted works, and it is showing that the world is not in agreement with it. This court heterogeneity can be seen as a continuation of the cross-jurisdictional data on the unequal application of the interpretative methods and the necessity of adaptive, situation-specific answers to the law (W. Li et al., 2025; Wong, 2024). Blockchain technologies only continue increasing the opposition between innovation and protection, and scholars suggest that blockchain technologies help to improve the level of transparency but also pose new questions related to privacy and regulatory compatibility (Bajwa & Meem, 2024; Liang et al., 2024; Zubaydi et al., 2023).

Although this study offers valuable insights, there are a number of limitations that have to be noted. The study is mainly based on doctrinal and secondary materials that, though analytical in nature, fail to address the entire empirical depth of the technological effects in various industries. In addition, the comparative case study method demonstrates judicial flexibility, yet is incapable of completely explaining the socio-economic environments surrounding the national IPR policies. Also lacking is quantitative empirical research, so the issue of piracy and patent trolling can not be measured just in the number of descriptive statistics mentioned in the literature (L. Li et al., 2023).

Future studies need to build on much of this empirical data, contributing to the technical measurement of the trends of technical infringement, intercountry enforcement performance, and the economic damages that can be traced to digital piracy. Also, inter-disciplinary studies that involve technologists, policymakers, and legal researchers might offer more information about how more effective enforcement can be facilitated by AI-assisted monitoring systems, blockchain registries, and digital rights management tools (Picht & Thouvenin, 2023; Situmeang et al., 2024). The possible harmonization opportunities and regulatory differences across jurisdictions, especially when considering international organizations such as WIPO (where the role in international cooperation continues to dominate future reform work), are also the focal points of further comparative legal studies (Jorgenson & Fink, 2023).

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In general, the arguments above prove that as long as the legal frameworks are not changed to keep up with changes in technology, the disparity between innovation and regulation will only increase. The reinforcement of international collaboration, adopting adaptive regulation patterns, and incorporating technology within IP regulation are key processes to perpetuating innovation and rights protection of creators in the digital era.

5. Conclusions

The given paper makes an important contribution to the current body of literature because it focuses on artificial intelligence, blockchain, and 3D printing in the analytical framework, instead of considering them separate phenomena by integrating the legal analysis of the changing relation between technology and intellectual property rights. Its main contribution is how these technologies are combining to undermine the conventional doctrinal underpinnings of authorship and ownership, inventorship and enforcement, and it highlights gaps in the intellectual property regimes of the modern world. Through the synthesis of doctrinal analysis, systematic review of literature, and comparative case studies, the paper contributes to a comprehensive view of changes in law needed to enable innovation in the digital era.

The results and legal arguments formed during this research cannot be confined to one region and can be applied generally to other nations that have to put up with the same level of technological and regulatory burdens, or, to be more precise, to the developing and emerging economies with significantly growing digital markets. Regions having similar problems, like limited cross-border enforcement, the rise in digital piracy, increased dependence on a more digital approach, and inconsistent regulation reactions, can benefit from the comparative analysis that might be offered in this paper. In this connection, the study presents a generalizable analytical template, which can be used by policy-makers and legal practitioners to make intellectual property models congruent with similar socio-economic and technological processes.

Despite its contributions, the study is limited in various ways. The research is based chiefly on the analysis of doctrines, secondary literature, and selected judicial rulings, which, though methodologically sound, do not adequately seek to put into study empirical evidence at the industry level or a quantitative evaluation of economic impact. Also, the comparative case studies, although reflective of more systemic legal tendencies, are not in a position to be exhaustive in depicting all jurisdictional methods of handling technology-driven intellectual property disputes.

Such constraints imply that future interdisciplinary and empirical studies are recommended to merge doctrinal results and offer more detailed evidence on the outcomes of enforcement and its economics.

Irrespective of these limitations, the study has significant implications for legal practitioners by illuminating the doctrinal ambiguities that emerge in the near future and add to the current discussions on the future of intellectual property legislation in technologically highly developed societies. It provides academic researchers with a systematic framework in which to examine the disruptions created by technologies in the legal system, helps practitioners interpret the changing patterns of fragmented judicial responses, and enables policy-makers to develop adaptive and harmonized responses through regulation. Finally, the paper highlights the need to promote dynamic legal reform, transnational cooperation, and technology-conscious regulation as a way of making intellectual property law effective, equitable, and innovation-friendly in the fast-changing global digital environment.

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References

1. Althabhawi, N. M., & Zainol, Z. A. (2022). The Patent Eligibility of 3D Bioprinting: Towards a New Version of Living Inventions' Patentability. Biomolecules, 12(1), 124. https://doi.org/10.3390/biom12010124
2. Bajwa, R., & Meem, F. T. (2024). Intellectual Property Blockchain Odyssey: Navigating Challenges and Seizing Opportunities (Version 1). arXiv. https://doi.org/10.48550/ARXIV.2410.08359
3. Ballardini, R. M., Mimler, M., Minssen, T., & Salmi, M. (2022). 3D Printing, Intellectual Property Rights and Medical Emergencies: In Search of New Flexibilities. IIC - International

Review of Intellectual Property and Competition Law, 53(8), 1149–1173. https://doi.org/10.1007/s40319-022-01235-1

4. Bharati, Dr. R. K. (2024). AI and intellectual property: Legal frameworks and future directions. International Journal of Law, Justice and Jurisprudence, 4(2), 207–215. https://doi.org/10.22271/2790-0673.2024.v4.i2c.141

5. Dayani, A. (2023). Patent Trolls and the Market for Acquisitions. Journal of Financial and Quantitative Analysis, 58(7), 2928–2958. https://doi.org/10.1017/S0022109023000078

6. Diduk, A., Lytvyn, S., & Pysanyy, R. (2022). UNFAIR COMPETITION IN PATENT LAW (PATENT TROLLING). Scientific Works of National Aviation University. Series: Law Journal "Air and Space Law," 4(65), 113–121. https://doi.org/10.18372/2307-9061.65.17047

7. Friedmann, D. (2024). Creation and Generation Copyright Standards. SSRN Electronic Journal, 14(1), 51–69. https://doi.org/10.2139/ssrn.4770924

8. Jorgenson, L., & Fink, C. (2023). WIPO's Contributions to International Cooperation on Intellectual Property. Journal of International Economic Law, 26(1), 30–34. https://doi.org/10.1093/jiel/jgac049

9. Kambur, H., & Dolunay, A. (2024). A research on copyright issues impacting artists' emotional states in the framework of artificial intelligence. Frontiers in Psychology, 15, 1409646. https://doi.org/10.3389/fpsyg.2024.1409646

10. Kazimi, J., & Thalwal, H. (2024). Legal Implications of Artificial Intelligence and Machine Learning Algorithms in Intellectual Property Protection: A Comparative Analysis. 2024 7th International Conference on Green Technology and Sustainable Development (GTSD), 32–38. https://doi.org/10.1109/GTSD62346.2024.10675218

11. Kumar, N. (2025). The Role of Artificial Intelligence in Criminal Investigations in India. Journal of Legal Studies, 35(49), 98–111. https://doi.org/10.2478/jles-2025-0006

12. Li, L., Chen, Y., Gao, H., & Li, C. (2023). How to Regulate the Infringements of Geographical Indications of Agricultural Products—An Empirical Study on Judicial Documents in China. International Journal of Environmental Research and Public Health, 20(6), 4946. https://doi.org/10.3390/ijerph20064946

13. Li, W., Song, R., Zhang, B., & Yu, K. (2025). AI creativity and legal protection for AI-generated works in posthuman societal scenarios. Sustainable Futures, 9, 100749. https://doi.org/10.1016/j.sftr.2025.100749

14. Liang, X., Alam, N., Sultana, T., Bandara, E., & Shetty, S. (2024). Designing A Blockchain-Empowered Telehealth Artifact for Decentralized Identity Management and Trustworthy Communication: Interdisciplinary Approach. Journal of Medical Internet Research, 26, e46556. https://doi.org/10.2196/46556

15. Liu, J., Shen, Y., & Zhou, L. (2024). An evolutionary game analysis of algorithmic indirect copyright infringement from the perspective of collusion between UGC platforms and direct infringers. PLOS ONE, 19(5), e0292571. https://doi.org/10.1371/journal.pone.0292571

16. Loffredi, A. (2024). Navigating Modern Challenges in Intellectual Property Law: Balancing Innovation, Protection, and Public Access. 5(23), 1–3.
17. Matulionyte, R., & Hanif, A. (2021). A call for more explainable AI in law enforcement. 2021 IEEE 25th International Enterprise Distributed Object Computing Workshop (EDOCW), 75–80. https://doi.org/10.1109/EDOCW52865.2021.00035
18. Menell, P. S., Lemley, M. A., Merges, R. P., & Balganesh, S. (2023). Intellectual Property in the New Technological Age: 2023. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4507044
19. Neely, E. L. (2016). The Risks of Revolution: Ethical Dilemmas in 3D Printing from a US Perspective. Science and Engineering Ethics, 22(5), 1285–1297. https://doi.org/10.1007/s11948-015-9707-4
20. Nikogosian, H., & Kickbusch, I. (2016). The Legal Strength of International Health Instruments—What It Brings to Global Health Governance? International Journal of Health Policy and Management, 5(12), 683–685. https://doi.org/10.15171/ijhpm.2016.122
21. Picht, P. G., & Thouvenin, F. (2023). AI and IP: Theory to Policy and Back Again – Policy and Research Recommendations at the Intersection of Artificial Intelligence and Intellectual Property. IIC - International Review of Intellectual Property and Competition Law, 54(6), 916–940. https://doi.org/10.1007/s40319-023-01344-5
22. Situmeang, S. M. T., Jatmika, W. A., & Universitas Komputer Indonesia, Bandung, Indonesia. (2024). The Role of Cyber Law in Protecting Intellectual Property Rights in the Digital World. Proceedings of International Conference on Business, Economics, Social Sciences, and Humanities, 7(1), 977–984. https://doi.org/10.34010/icobest.v7i.610
23. Surden, H. (2013). Technological Cost as Law in Intellectual Property. Harvard Journal of Law & Technology, 135.
24. Unnikrishnan, A. (2024). Analyzing the Impact of Emerging Technologies on Intellectual Property Rights (IPR): A Comprehensive Study on the Challenges and Opportunities in the Digital Age. Law and World, 10(1), 66–79. https://doi.org/10.36475/10.1.6
25. Wong, L.-K. T., James Lau, Harrods. (2024, May 8). China: A landmark court ruling on copyright protection for AI-generated works. Global Litigation News. https://globallitigationnews.bakermckenzie.com/2024/05/08/china-a-landmark-court-ruling-on-copyright-protection-for-ai-generated-works/
26. Zubaydi, H. D., Varga, P., & Molnár, S. (2023). Leveraging Blockchain Technology for Ensuring Security and Privacy Aspects in Internet of Things: A Systematic Literature Review. Sensors, 23(2), 788. https://doi.org/10.3390/s23020788

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