

Copyright Issues in the Era of Ai- A Critical Analysis

By

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Abstract

AI technology has the ability to create original works that were previously thought to be the sole domain of human creativity. AI-generated works are often indistinguishable from human-created works, leading to questions about who owns the copyright to such works. Additionally, the use of AI technology in the creative industry has raised concerns about the infringement of existing copyrighted works, as AI technology can easily reproduce and modify existing works. This paper aims to critically analyze the copyright issues that arise in the era of AI. The paper will examine the current state of copyright law in relation to AI technology, including the challenges and opportunities presented by AI-generated works. It will also explore the legal implications of AI-generated works on copyright ownership, infringement, and fair use. The paper will adopt a doctrinal legal research approach, analyzing and interpreting relevant statutes, case law, and legal commentary. It will also draw on the insights of copyright experts and scholars to provide a comprehensive analysis of the copyright issues in the era of AI. This paper seeks to contribute to the ongoing discourse on copyright law and AI technology. It is hoped that the findings of this research will provide valuable insights to policymakers, legal practitioners, and other stakeholders in the creative industry.

Keywords: artificial intelligence, copyright law, intellectual property rights, AI-generated works, copyright ownership, copyright infringement and etc.

Introduction

The emergence of Artificial Intelligence (AI) technology has brought significant changes in the creative industry, which is primarily built upon the foundation of intellectual property rights, particularly copyright law. AI technology has the ability to create original works that were previously thought to be the sole domain of human creativity, and this raises new challenges and opportunities for copyright law. This article will critically analyze the copyright issues that arise in the era of AI.

AI-generated works are often indistinguishable from human-created works, and this raises questions about who owns the copyright to such works. In traditional copyright law, the author of the work is the owner of the copyright. However, when it comes to AI-generated works, the question of authorship becomes more complicated. Since AI systems can create

works without human intervention, it is unclear whether the creator or the owner of the AI system should be considered the author and the owner of the copyright.

The use of AI technology in the creative industry also raises concerns about the infringement of existing copyrighted works. AI technology can easily reproduce and modify existing works, which may infringe on the original copyright owner's rights. For instance, deep learning algorithms can be used to create videos or images that use copyrighted material without permission. Copyright law needs to evolve to protect creators of original works from these infringements, while also enabling the creation of new works using AI technology.¹

Additionally, the use of AI in the creative industry has raised concerns about the application of fair use. Fair use allows for the use of copyrighted works for certain purposes, such as criticism, commentary, news reporting, teaching, scholarship, or research. AI-generated works may also use copyrighted material for such purposes, but the use of copyrighted material by an AI system may not always qualify as fair use. The emergence of AI technology has created new challenges for copyright law, particularly in relation to authorship, infringement, and fair use. Legal scholars, policymakers, and legal practitioners need to analyze the current state of copyright law in relation to AI technology and identify potential solutions to the challenges posed by AI-generated works. It is necessary to strike a balance between protecting the rights of original creators and promoting innovation in the creative industry through the use of AI technology.

Research Questions

1. How does the emergence of AI technology affect copyright law, particularly in relation to authorship, infringement, and fair use?
2. What are the challenges and opportunities presented by AI-generated works in relation to copyright law, and how should copyright law evolve to address them?
3. How can copyright law strike a balance between protecting the rights of original creators and promoting innovation in the creative industry through the use of AI technology?

Research Objectives

1. To critically analyze the impact of AI technology on copyright law, including its implications for authorship, infringement, and fair use.
2. To identify the challenges and opportunities presented by AI-generated works in relation to copyright law and to provide recommendations on how copyright law can evolve to address these challenges.
3. To examine the ethical considerations of using AI technology in the creative industry and to propose ways in which copyright law can address these ethical concerns while promoting innovation in the industry.

Statement of Problem

The emergence of Artificial Intelligence (AI) technology has revolutionized many industries, including the creative industry. The creative industry is built on the foundation of intellectual property rights, primarily copyright law. Copyright law ensures that creators of original works are protected, and their creations are not used or reproduced without their

¹Suk-Ho Bang, "Conflicts Issues of Scientific Data Exploitation and Copyright Protection in the Big Data Era" (2012) 13 Journal of hongik law review 691

permission. However, the introduction of AI technology has created new challenges for copyright law, leading to a critical analysis of copyright issues in the era of AI.

Research Methodology

In this study, researcher has employed a doctrinal research technique to gather information. Using a doctrinal research approach, researcher has acquired relevant literature from libraries, journals, and other sources to conduct the study. While putting up the proposal, researcher has consulted various books, diaries, and articles to gather knowledge and awareness of the subject matter.

1. Overview of Copyright Issues in the Era of Ai

1.1 AI and copyright issues

In India, copyright issues in the era of AI are similar to those in other countries. However, there are some specific challenges that are unique to the Indian context. Indian copyright law currently does not provide any clear guidelines on the ownership of AI-generated works. This can create confusion and uncertainty about who owns the rights to such works, especially when they are created by an AI system without any human intervention. India has a rich cultural heritage, and there are concerns that AI-generated works could infringe upon traditional knowledge and cultural expressions. For example, an AI system may generate a piece of music or artwork that is similar to a traditional Indian folk song or painting, raising questions about whether such works are original or infringing on traditional knowledge. Like in other countries, fair use is an important issue when it comes to AI-generated works in India. However, there is currently no legal framework in India that specifically addresses the use of AI-generated content under fair use. This can create uncertainty about what constitutes fair use when it comes to AI-generated works.²

Enforcement of copyright laws in India has been a challenge for many years, and this is also true when it comes to AI-generated works. It can be difficult to detect instances of copyright infringement in the digital realm, and even if infringement is detected, it can be challenging to take legal action against the infringing party. Copyright issues related to AI in India are complex and require a nuanced approach. It is important for lawmakers, industry leaders, and other stakeholders to work together to develop a legal framework that addresses these issues and ensures that the rights of creators and consumers are protected.

1.2 AI Tools and copyright issues

AI tools are increasingly being used for a variety of purposes, including content creation, analysis, and distribution. However, these tools also raise a number of copyright issues that must be addressed in order to ensure that they can be used in a responsible and ethical manner. One of the key copyright issues arising from the use of AI tools is the question of ownership. In some cases, AI systems may be used to generate content, such as articles, music, or images. This raises the question of who owns the copyright to this content - the creators of the AI system, the users of the system, or the AI system itself?

To address this issue, it is important to establish clear guidelines around ownership of content generated by AI systems. This may involve creating new laws or regulations that specifically address the ownership of AI-generated content, or it may involve updating existing copyright laws to reflect the unique challenges posed by AI tools. Another issue that arises from the use of AI tools is the question of fair use. Fair use is a legal doctrine that allows for the use

²Pihlajarinne T, Vesala J and Honkkila O, Online Distribution of Content in the EU (Edward Elgar Publishing Limited, 2019) 78-85.

of copyrighted material in certain circumstances, such as for commentary, criticism, or educational purposes. However, the use of AI tools for content analysis and creation may blur the lines of what constitutes fair use. To address this issue, it is important to establish clear guidelines around fair use in the context of AI tools. This may involve creating new exceptions to copyright law that specifically allow for the use of AI tools in certain circumstances, or it may involve updating existing laws to reflect the unique challenges posed by AI tools.³

Finally, the use of AI tools also raises concerns about copyright infringement. AI systems may be used to generate content that is similar to existing copyrighted works, potentially leading to claims of infringement. To address this issue, it is important to establish clear guidelines around what constitutes copyright infringement in the context of AI tools, and to develop systems and processes for detecting and addressing infringement. The use of AI tools raises a number of copyright issues that must be addressed in order to ensure that these tools can be used in a responsible and ethical manner. By establishing clear guidelines around ownership, fair use, and infringement, we can help to unlock the full potential of these tools while still respecting the rights of copyright holders.

AI tools such as Chat GPT and Text and Data Mining (TDM) have the potential to revolutionize the way we create, use, and access information. However, they also raise a number of copyright issues that must be addressed in order to ensure that these tools can be used in a responsible and ethical manner. Chat GPT is a large language model developed by OpenAI that can generate human-like responses to text prompts. While Chat GPT has many potential uses, including customer service chatbots and language translation services, it also raises concerns about copyright infringement. For example, if Chat GPT is used to generate text that is similar to an existing copyrighted work, such as a book or article, this could be seen as a violation of the author's rights.

In order to address these concerns, it is important to ensure that Chat GPT is used in a way that respects copyright law. This may involve implementing safeguards to prevent the generation of text that infringes on existing copyrights, or requiring users to obtain permission from copyright holders before using Chat GPT to generate content based on their works.⁴

Text and Data Mining (TDM) is another AI tool that raises copyright issues. TDM involves the use of software to analyze large amounts of text and data in order to identify patterns and trends. While TDM has many potential applications in fields such as research and data analysis, it also raises concerns about copyright infringement. This is because TDM involves the reproduction of copyrighted material for the purpose of analysis. While some jurisdictions have exceptions to copyright law that allow for such reproduction under certain circumstances, such as fair use in the United States or fair dealing in Canada, the legal framework around TDM is still evolving. To address these concerns, it is important for lawmakers to create clear guidelines around the use of TDM in a way that respects copyright law. This may involve creating exceptions to copyright law that specifically allow for TDM, or creating licensing agreements that allow researchers and others to access and use copyrighted material for the purpose of analysis. AI tools such as Chat GPT and TDM have the potential to transform the way we create, use, and access information. However, it is important to address the copyright issues that arise from their use in order to ensure that they can be used

³Younghoa Son, "Legal Issues in the Artificial Intelligence(Ai) ERA" (2016) 16 Journal of Law and Politics research 305.

⁴Eden J, "Chatgpt and Generative AI Could Be Stopped in Their Tracks by Copyright Law. Here's How It Could Play out." (*Business Insider*) <<https://www.businessinsider.com/chat-gpt-and-generative-ai-copyright-law-limitations-2023-3>> accessed March 11, 2023.

in a responsible and ethical manner. By doing so, we can unlock the full potential of these tools while still respecting the rights of copyright holders.⁵

2. Copyright Laws and Digital Industry

2.1 Copyright issues in digital teaching

Digital teaching has become increasingly popular in recent years, particularly with the rise of online education platforms and the Covid-19 pandemic. While digital teaching has many advantages, it also raises a number of copyright issues that must be addressed in order to ensure that educators and students can use these platforms in a responsible and ethical manner.

One of the key copyright issues in digital teaching is the use of copyrighted materials in online courses. Educators may want to include images, videos, or other materials in their online courses that are protected by copyright law. This raises the question of whether they have the right to use these materials, and if so, how they can do so in a way that is legal and ethical. Educators can use a number of strategies, such as seeking permission from copyright holders, using materials that are in the public domain, or relying on fair use exceptions to copyright law. Fair use allows for the use of copyrighted materials in certain circumstances, such as for commentary, criticism, or education. However, it is important to note that fair use is a complex and often subjective area of law, and educators should consult with legal experts to ensure that their use of copyrighted materials is legal and ethical.⁶

Another copyright issue in digital teaching is the question of ownership. Online education platforms may require educators to upload their courses to the platform, which raises the question of who owns the content. In some cases, the platform may claim ownership of the content, while in other cases, the educator may retain ownership. It is important for educators to carefully review the terms of service for any online education platform they use, and to negotiate ownership terms if necessary. Educators may also want to consider using open educational resources (OER), which are materials that are freely available and can be used, modified, and shared by anyone.

Finally, the use of digital teaching tools such as Learning Management Systems (LMS) raises concerns about data privacy and security. Educators and students may be sharing sensitive information on these platforms, such as personal information and academic records, which must be protected. To address this issue, it is important for educators and educational institutions to implement strong data privacy and security policies, and to ensure that any digital teaching tools they use are secure and comply with relevant data protection laws. Digital teaching raises a number of copyright issues that must be addressed in order to ensure that educators and students can use these platforms in a responsible and ethical manner. By seeking permission, using fair use exceptions, understanding ownership terms, and implementing strong data privacy and security policies, we can help to unlock the full potential of digital teaching while still respecting the rights of copyright holders.⁷

2.2 Exceptions and limitations relating to Copyright issues in digital teaching

In India, the Copyright Act, 1957 provides several exceptions and limitations to copyright law that are relevant to digital teaching. There are several exceptions and limitations

⁵Weatherall, Kimberlee G., *Copyright and the Shape of Digital Culture: A Grounded Theory of Copyright Norms in Digital Creativity* 96-105 (Edward Elgar Publishing 2010).

⁶Fröhlich, Laura, *Artificial Intelligence and Copyright Law* (Springer Nature Switzerland AG 2021) 66-72.

⁷Torremans, Paul, *Copyright Law: A Handbook of Contemporary Research* (Edward Elgar Publishing 2020) 88-95.

to copyright law that are relevant to digital teaching. These exceptions vary by jurisdiction, but some of the most common ones are:

Fair Use or Fair Dealing

Fair use or fair dealing allows for the use of copyrighted materials without obtaining permission from the copyright owner. This exception is typically based on factors such as the purpose and character of the use, the nature of the copyrighted work, the amount of the work used, and the effect of the use on the potential market for or value of the copyrighted work. In the context of digital teaching, fair use or fair dealing may allow educators to use copyrighted materials in their online courses, such as by including excerpts from books, films, or other works.

Educational Exceptions

Many countries have exceptions in their copyright laws that allow for the use of copyrighted materials in educational settings. For example, in the United States, the TEACH Act allows for the use of copyrighted materials in online courses under certain conditions, such as using materials that are lawfully acquired and using technological measures to prevent unauthorized distribution. Similarly, in Canada, the fair dealing exception allows for the use of copyrighted materials for educational purposes, subject to certain conditions. In India, the Copyright Act provides several exceptions that allow for the use of copyrighted materials in educational settings. Section 52(1)(i) of the Act allows for the reproduction of copyrighted works for the purpose of teaching, provided that the reproduction is not for the purpose of any trade or business. Similarly, Section 52(1)(a) allows for the reproduction of copyrighted works for the purpose of research or private study.

Creative Commons Licenses

Creative Commons licenses are a type of copyright license that allows copyright owners to grant permissions to others to use their works in certain ways. There are several different types of Creative Commons licenses, each with its own set of permissions and restrictions. Educators can use materials that are licensed under a Creative Commons license without having to obtain additional permissions, as long as they comply with the terms of the license.⁸

Public Domain Materials

Public domain materials are works that are not protected by copyright law because the copyright has expired, the work was not eligible for copyright protection, or the copyright owner has released the work into the public domain. Educators can use public domain materials without having to obtain permission, as long as they are certain that the materials are in fact in the public domain.

It is important to note that these exceptions and limitations are not unlimited, and educators should always consider whether their use of copyrighted materials falls within the bounds of the exception or limitation. Additionally, copyright law is complex and often subjective, and educators should consult with legal experts to ensure that their use of copyrighted materials is legal and ethical.

2.3 Analysis of copyright issues in digital industrial use

Copyright issues in digital industrial use are complex and multifaceted. The industrial use of digital works involves the creation, distribution, and use of digital content for

⁸World Intellectual Property Organization, "Artificial Intelligence and Intellectual Property Policy Considerations" (2019) available at https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1055.pdf [Accessed 10 Mar 2023].

commercial purposes. This includes industries such as music, film, publishing, software, and gaming, among others.

One of the main copyright issues in digital industrial use is the protection of intellectual property rights. Copyright law grants authors and creators the exclusive right to control the reproduction, distribution, and public performance of their works. However, digital technology has made it easier to copy and distribute copyrighted works, leading to widespread piracy and infringement. Copyright owners often rely on digital rights management (DRM) technologies to control access to their works. DRM technologies use encryption and other methods to prevent unauthorized copying and distribution of digital content. However, DRM has been controversial due to its impact on consumer rights and the potential for abuse.

Another copyright issue in digital industrial use is the challenge of determining fair use. Fair use is a legal doctrine that allows the limited use of copyrighted works without permission for purposes such as criticism, comment, news reporting, teaching, scholarship, or research. However, the application of fair use can be difficult in the digital context, where copying and distribution are much easier and more widespread.⁹

The rise of user-generated content platforms such as YouTube and TikTok has created new challenges for copyright owners. These platforms allow users to create and share their own content, often incorporating copyrighted works in their creations. This raises questions about the extent to which copyright owners should have control over user-generated content and the responsibility of platforms for copyright infringement. Copyright issues in digital industrial use are complex and require careful consideration of the balance between protecting intellectual property rights and promoting innovation and access to information. As digital technology continues to evolve, these issues will continue to be a significant challenge for policymakers, businesses, and consumers.

2.4 Rethinking of copyright fundamentals in the era of new technological edit creation

The rapid advancement of technology in recent years has significantly changed the way content is created, shared, and consumed. This has raised important questions about the role of copyright in the digital age and the need to rethink its fundamentals.

One key challenge is the concept of originality. Copyright law grants protection to original works of authorship, but what constitutes originality in the digital age? With the rise of user-generated content, it can be challenging to determine who the author of a work is and whether it is sufficiently original to warrant copyright protection. Another challenge is the issue of ownership. In the digital age, works are often created collaboratively, and it can be difficult to determine who owns the copyright in a particular work. This is especially true for works created on social media platforms or through crowd-sourced projects.

Furthermore, the ease of digital editing has raised questions about the scope of copyright protection. For example, does altering an original work to create a derivative work require permission from the original copyright owner, or does it fall under the fair use doctrine? Another issue is the role of intermediaries, such as social media platforms or cloud services, in the creation and distribution of content. These intermediaries can play a significant

⁹Hargreaves, Ian, "Copyright and Artificial Intelligence: Should AI-generated Works Be Eligible for Copyright Protection?" (2019) 15(1) Queen Mary Journal of Intellectual Property 87.

role in the creation and dissemination of works, raising questions about their liability for copyright infringement.¹⁰

In light of these challenges, some have argued for a rethinking of copyright fundamentals. This could involve a shift from the traditional focus on exclusive rights to a more flexible and balanced approach that takes into account the interests of both creators and users. One proposed solution is the use of open licenses, such as Creative Commons, which allow creators to share their works under certain conditions, such as attribution or non-commercial use. This can promote innovation and access to information while still providing some level of copyright protection. The rapid pace of technological change in the digital age requires a rethinking of copyright fundamentals to ensure that copyright law remains relevant and effective in promoting creativity and innovation while also balancing the interests of all stakeholders.

2.5 Rethink and re-legislate

New technologically advanced tools, such as digital editing software, social media platforms, and cloud services, are forcing us to rethink and potentially re-legislate copyright fundamentals in several ways. Here are a few examples:

The ease of digital editing

With the advent of sophisticated digital editing tools, it has become easier than ever to modify existing works or create new works that incorporate elements of existing works. This has raised questions about the scope of copyright protection, and whether copyright law needs to be updated to take into account the potential for derivative works.

User-generated content

Social media platforms and other digital tools have enabled users to create and share content on a massive scale. This has led to questions about the ownership and control of user-generated content, and whether copyright law needs to be updated to reflect the collaborative and decentralized nature of content creation.

Distribution and access

Digital tools have made it easier to distribute and access content on a global scale, blurring the lines between different types of content and raising questions about the scope and duration of copyright protection.¹¹

Intermediaries

Many digital tools rely on intermediaries such as social media platforms or cloud services to facilitate the creation and distribution of content. This has led to questions about the liability of intermediaries for copyright infringement, and whether copyright law needs to be updated to provide greater clarity on the responsibilities of intermediaries.

These technological advancements are forcing us to rethink copyright fundamentals and consider how copyright law can be updated to better reflect the realities of the digital age. This may involve a more flexible and nuanced approach to copyright protection, as well as greater emphasis on user rights and the public domain.

¹⁰Fröhlich, Laura, *Artificial Intelligence and Copyright Law* (Springer Nature Switzerland AG 2021) 56-74.

¹¹Jones, Benjamin J., "Ownership and Authorship in Artificial Intelligence Generated Works" (2020) 13(2) *Journal of Intellectual Property Law & Practice* 94.

3. Ai in Different Creative Domains

3.1 Case of Zarya of the Dawn

In the case of "Zarya of the Dawn," the creators used an AI program to generate the story and artwork for the comic. The program was trained on a dataset of existing comic books, and it used machine learning algorithms to create new characters, dialogue, and visual elements for the story.

While the creators of "Zarya of the Dawn" own the copyright to the overall comic book, the key images generated by the AI program were not included in the protection. This is because copyright law generally requires that creative works be created by human beings in order to qualify for protection. In other words, while the creators of the comic book can claim ownership of the story and characters, they cannot claim ownership of the specific images created by the AI program.

This raises a number of legal and ethical questions about the use of AI in creative fields. For example, how do we determine who owns the copyright to works created using AI? Should we treat AI-generated content differently than content created by humans? These are complex issues that will require careful consideration as the use of AI continues to grow in fields like art, music, and literature.¹²

3.2 Use of AI in diversified fields

AI can be used in a variety of ways to augment or assist human creativity in various fields. Here are some examples of how AI can be used in different creative domains:

1. **Art:** Some artists are using AI to create original works of art, either by training machine learning algorithms on existing artworks or by using generative adversarial networks (GANs) to create entirely new images. AI can also be used to assist with tasks like image or video editing.
2. **Music:** AI can be used to generate new musical compositions or to assist with tasks like mixing and mastering tracks. Some companies are also using AI to create personalized playlists based on a user's listening habits.
3. **Writing:** AI can be used to generate text, either by training algorithms on existing written works or by using natural language processing (NLP) techniques to generate new sentences or paragraphs. Some companies are also using AI to generate news articles or product descriptions.
4. **Gaming:** AI can be used to create more intelligent and dynamic computer-controlled opponents in games, or to generate new game content like levels or puzzles.

In all of these domains, AI is typically used as a tool to augment or enhance human creativity rather than to replace it entirely. AI can generate ideas or content that human creators might not have thought of on their own, but ultimately it is up to human creators to refine and curate the results produced by AI algorithms.

¹² "Ai-Generated Comic Book 'Zarya of the Dawn' Keeps Copyright but Key Images Excluded" (*The Wall Street Journal* February 25, 2023) <<https://www.wsj.com/articles/ai-generated-comic-book-zarya-of-the-dawn-keeps-copyright-but-key-images-excluded-c8094509>> accessed March 11, 2023

4. Conclusion and Suggestions

4.1 Conclusion

In conclusion, the evolution of AI technology has raised significant copyright issues that require careful consideration. AI can be used to create, analyze, and distribute content in ways that were previously impossible, and this has created new challenges for copyright law. AI-generated content can be difficult to attribute to a single author or owner, which raises questions about who owns the copyright in such works. This issue needs to be addressed to ensure that creators are appropriately compensated for their work. Another challenge is the issue of fair use. AI technology can be used to analyze and manipulate copyrighted works, which can blur the line between fair use and infringement. This requires careful consideration to ensure that fair use rights are protected while still providing adequate protection for copyright owners.

Furthermore, AI technology can be used to detect and enforce copyright infringement, which raises questions about the extent to which AI systems should be used in copyright enforcement. This requires a balance between protecting intellectual property rights and ensuring that users' rights are not unduly restricted.

To address these challenges, it is important to update and adapt copyright law to reflect the changing technological landscape. This may involve a more nuanced and flexible approach to copyright protection, as well as greater emphasis on user rights and the public domain.

In addition, collaboration between stakeholders is essential to address these challenges. This includes collaboration between AI developers, copyright owners, users, and policymakers to ensure that copyright law is updated in a way that promotes innovation and creativity while also protecting the rights of all stakeholders. Finally, education and awareness are also essential to address copyright issues in the era of AI. This includes educating users about copyright law and their rights, as well as promoting awareness of the challenges and opportunities that AI technology presents in the realm of copyright.

4.2 Suggestions

As AI technology continues to advance, it brings about new opportunities and challenges in the realm of copyright law. The use of AI systems to create, analyze, and distribute content has raised significant copyright issues that require careful consideration. Here are some suggestions on how to address these challenges in the era of AI:

Update Copyright Law:

The first suggestion is to update copyright law to reflect the changing technological landscape. With the emergence of AI technology, traditional copyright law may not be sufficient to address issues related to ownership, attribution, and fair use of AI-generated content. Thus, policymakers should work on amending existing copyright law and creating new regulations to ensure that they are applicable to AI-generated content.

One possible approach is to adopt a more flexible and nuanced approach to copyright protection. For example, policymakers could consider the adoption of open licenses such as Creative Commons licenses that allow for flexible use and sharing of creative works. These licenses provide clear guidelines for users and promote the exchange of ideas and creativity.

Develop new legal frameworks:

The complexity of AI systems and the collaborative nature of content creation require new legal frameworks that can better accommodate AI-generated works. To address this, policymakers could consider establishing new legal frameworks that better account for ownership and attribution of AI-generated content.

One possible approach is to establish a legal framework that recognizes AI systems as co-authors. This would involve recognizing AI systems as legal entities with the right to own copyright in the works they create. This approach would also require policymakers to rethink the current requirement for human authorship in copyright law.

Promote Collaboration and Dialogue:

Collaboration between AI developers, copyright owners, users, policymakers, and other stakeholders is essential to address copyright issues in the era of AI. Collaboration should be characterized by open and transparent dialogue to ensure that all stakeholders' concerns are taken into account.

For example, AI developers could work with copyright owners to develop AI systems that comply with copyright law. Similarly, policymakers could collaborate with stakeholders to create legal frameworks that address the challenges posed by AI-generated content. Moreover, it is crucial to involve users and the general public in the discussions to ensure that the policies and regulations are balanced and fair to all parties.

Encourage Responsible Use of AI Systems:

The use of AI systems in copyright enforcement requires responsible and ethical use. Policymakers and stakeholders should work together to develop guidelines and best practices to ensure that AI systems are used in a responsible and effective manner.

For instance, policymakers could consider establishing guidelines that ensure that AI systems are used in a manner that is proportionate to the infringement detected. This would help prevent the over-removal of content and ensure that the rights of users are protected. Additionally, policymakers could establish standards for transparency, accountability, and auditability in the use of AI systems for copyright enforcement.

Increase Awareness and Education:

Education and awareness are essential to address copyright issues in the era of AI. This includes educating users about copyright law and their rights, as well as promoting awareness of the challenges and opportunities that AI technology presents in the realm of copyright. For example, policymakers could establish awareness campaigns to educate users on their rights and obligations under copyright law. Additionally, policymakers could work with educational institutions to ensure that students are adequately trained on copyright issues related to AI-generated content. This would help promote a culture of respect for intellectual property rights while ensuring that users' rights are protected.

Therefore, addressing copyright issues in the era of AI requires a multi-faceted approach that involves collaboration, legal innovation, responsible use of AI systems, and education and awareness. By working together, we can ensure that copyright law continues to promote innovation and creativity while also protecting the rights of all stakeholders.

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