Barbara Holland

Kew Garden Hills New York

Artificial Intelligence and Copyright

According to the U.S. Copyright Office, there is no copyright protection for works created by non-humans, including machines.

Since AI-generated works are not the result of human creativity, they are not subject to copyright protection restrictions.

The law protects human authors by guaranteeing them economic rights in their work as well as moral rights. Economic rights are a type of property right that is limited in time and can be transferred by the author to others in the same way that any other property can. They are meant to allow the author or the holder of the rights to earn financially from their invention, and they include the right to permit the reproduction of the work in any form.

The protection of an author's moral rights is founded on the belief that a creative work is in some way an expression of the author.

One of the key problems is whether AI-generated content may be deemed original works of authorship and so protected by copyright. Only "authors" can claim exclusive rights to their "writings" under the United States Constitution and the Copyright Act. Neither the Constitution nor the Act, however, define who or what can be an author. The United States Copyright Office has ruled that only works created by humans are

Barbara Holland
Kew Garden Hills NY

copyrightable, and courts have rejected claims by nonhuman authors such as animals, celestial beings, or living gardens.

However, some AI advocates have argued that AI algorithms can produce creative and autonomous outputs that deserve acknowledgment and protection. For example, Stephen Thaler sued the Copyright Office for dismissing an application to register a visual artwork he alleges was created by the Creativity Machine, an AI program. Dr. Thaler claims that the image was made "autonomously by machine" and that the Copyright Act does not need human authorship.

Another dilemma is whether using existing works to train or develop AI outputs violates the rights of the original authors. DALL-E, ChatGPT, and Midjourney are examples of generative AI programs that leverage massive datasets of previous works to understand patterns and generate new content in response to user inputs. These files may contain copyrighted essays, pictures, paintings, and other artworks. AI programs' usage of these works may generate questions of infringement, fair use, or licensing.

Infringement occurs when a work is duplicated or adapted from another work without the original author's authorization or permission. Fair use is a legal doctrine that permits the restricted use of copyrighted works for purposes such as criticism, commentary, news reporting, teaching, scholarship, and so on.

.

Barbara Holland

Kew Garden Hills NY

It is not easy to apply these ideas to AI-generated material because it depends on a variety of variables, including the type and quantity of original works used, the goal and nature of the AI outputs, and the impact on the original work's market value. For instance, some would contend that training AI programs with existing works is a fair use because it transforms the works and doesn't do harm to the creators. Others might argue that as it is unlicensed and in direct competition with the original works, using existing works to produce AI outputs is illegal.

The usage of copyrighted materials in AI's operation and training is another problem. Large databases of previously published works are frequently used by AI programs to learn patterns and produce results. This calls into question whether such use amounts to fair use or intellectual property violation, as well as whether it has an impact on the incentives and rewards for human producers.

Some contend that artificial intelligence-generated works shouldn't be covered by copyright laws because they lack the human creativity and expression that are necessary for authorship. Others argue that depending on who has greater power and influence over the creation process, AI-generated works should be credited to either the AI user or the AI programmer. Alternative proposals include treating AI-generated works as public domain or putting them under a new **sui generis regime** that balances the interests of various stakeholders. A protective system that is "sui generis" is unique and created to address a particular requirement.

Barbara Holland

Moreover, the rapidly evolving field of artificial intelligence (AI) has effects on many facets of intellectual property (IP) law. AI tools can make it easier to create, search for, examine, manage, and enforce IP rights like patents and copyrights. The eligibility, ownership, inventorship, and authorship of any works or innovations produced by or with the aid of AI, however, can also be called into doubt using AI tools. For instance, under the current IP regulations, can an AI system be regarded as an inventor or author? Who holds the intellectual property rights to the creations made possible by AI? **How can the originality and quality of works or ideas produced by AI be judged?**

Depending on the country and the type of IP right concerned, AI technologies, AI-generated, or AI-assisted works, or inventions, have varying legal statuses and levels of protection. In general, if AI technologies satisfy the criteria of novelty, innovative step, industrial applicability, expression, and originality, they may be covered by patents or copyrights. However, if they lack human involvement or contribution, or if they are not viewed as the outcome of intellectual activity or creative endeavor, AI-generated or AI-assisted works or innovations may not be eligible for IP protection. Additionally, if numerous parties are engaged in the creation, implementation, or use of AI systems, such as in the production, deployment, or usage of works or inventions, the ownership and attribution of intellectual property rights to such works or inventions may be unclear or subject to dispute. Some nations and regions have started public consultations, released reports, or suggested legislative modifications to address these problems and challenges by clarifying or adjusting existing IP rules to the rapidly evolving field of AI

For instance, the United States Patent and Trademark Office (USPTO) published a report in 2020 titled "Public Views on Artificial Intelligence and Intellectual Property Policy" that compiles the opinions of many stakeholders on how AI will affect the IP landscape. Additionally, the European Union (EU) has started several projects to investigate the moral and legal implications of AI, including the European Commission's White Paper on Artificial Intelligence in 2020 and the European Parliament's resolutions on the civil liability system for AI and intellectual property rights for the advancement of AI technologies.

Possible Suggestions Concerning Intellectual Property and Artificial Intelligence

Incorporating AI systems or their human collaborators as co-inventors or co-authors, depending on the extent and kind of their contribution, by changing or extending the definitions of authorship and invention.

- Developing new IP rights for AI technologies and works or innovations produced by or supported by AI, such as sui generis rights, collective rights, or shared rights.

- Creating clear and standardized guidelines for dividing up IP rights among the different stakeholders involved in the creation, implementation, and use of AI systems, such as programmers, users, data sources, trainers, and licensors.

Creating new techniques and instruments for evaluating the uniqueness, inventiveness, commercial viability, expression, and originality of AI technology and AI-generated or AI-assisted works or innovations, while taking into consideration.

Barbara Holland

Works that are wholly or primarily created by AI systems without any input from humans are referred to as AI-generated works. Text, pictures, music, videos, and other types of content can all be a part of these creations.

ChatGPT: An AI language model created by OpenAI that can respond to text prompts with queries and human-like responses.

- DALL-E: Another OpenAI AI model that can produce visual works of art in response to text cues.

- Google Bard, a ChatGPT competitor, and Google's generative AI chatbot.

- Midjourney: An AI system that can turn a single image into a realistic movie of someone executing an action.

- DeepMind: Google's AI research division has produced a variety of AI-generated works, including AlphaGo, a computer program that excels at the board game Go.

AI-generated works pose several challenges and issues for IP law, such as:

- Eligibility: Whether AI-generated works can be eligible for IP protection, such as patents or copyrights, if they lack human creativity or inventiveness.

- Ownership: Whether AI-generated works can be owned by anyone, such as the AI system itself, the programmer, the user, the data provider, or the public domain.

- Attribution: Whether AI-generated works can be attributed to anyone, such as the AI system itself, the programmer, the user, or the data provider.

- Quality: Whether AI-generated works can meet the standards of quality and originality required for IP protection, such as novelty, inventive step, industrial applicability, expression, and originality.

- Liability: Whether AI-generated works can incur liability for anyone, such as the AI system itself, the programmer, the user, the data provider, or the third party if they infringe existing IP rights or cause harm to others.

IP legislation may need to change to reflect the emergence of the phenomenon of AI-generated works to handle these difficulties and problems. The following are some potential strategies to modify IP legislation to account for AI-generated works:

- Extending or changing the definitions of authorship and inventorship to include AI systems and their human collaborators as co-authors or co-inventors, depending on the scope and substance of their involvement.

- The development of new IP rights for AI-generated works, such as shared, collaborative, or sui generis rights.

- Creating clear and standardized guidelines for dividing up IP rights among the different stakeholders engaged in the creation, use, and deployment of AI systems.

- Creating new techniques and instruments for evaluating the originality and quality of works produced by AI.

AI and IP law is a dynamic and complex field that requires constant monitoring and evaluation.

Barbara Holland

As AI technologies evolve and become more sophisticated and autonomous, new challenges and opportunities may arise for IP protection and innovation. Therefore, it is important to foster a balanced and flexible IP system that can accommodate the needs and interests of various stakeholders, while promoting the development and dissemination of AI for the benefit of society.

AI-Generated Materials and Copyright

A recent development, AI-generated books raise numerous legal and ethical issues. How can the authorship and ownership of a book produced by an algorithm be established? Who oversees the information's accuracy and quality? How can we safeguard the interests and legal rights of human authors who might be impacted by the rise of AI-generated books?

- Applying the current copyright regulations to AI-generated books as if they were created by human writers is one viable strategy. This would entail that the person who developed the algorithm, or the person who paid for or utilized it, would be regarded as the book's author and owner, and they would have the sole authority to duplicate, distribute, and alter it. This strategy might not be fair or suitable, though, as it might disregard the initial information sources and sources of inspiration that the algorithm used to produce the book. Additionally, it might
- prevent others from adopting or enhancing the algorithm, which could hinder innovation and creativity.

Barbara Holland

- Another strategy is to treat books produced by AI as public domain works.
- A third possible approach is to create a new legal category for AI-generated
- books, that recognizes their unique nature and challenges. This would require a clear definition of what constitutes an AI-generated book, and how it differs from a human-authored book. It would also require a balanced set of rules and regulations that protect the rights and interests of all parties involved, such as the creators, users, readers, and sources of algorithms and data. This approach may be fairer and more suitable, but it may also be more complex and difficult to implement and enforce.

AI-generated books pose significant legal and ethical dilemmas that need to be addressed carefully and responsibly. There should be specific rules and regulations concerning fiction books vs nonfiction books. Academic books should involve critical thinking while autobiographies and biographies should be authored predominately by a human. There is no easy or definitive answer to these dilemmas, but rather a need for ongoing dialogue and debate among all stakeholders.

How can we ensure that AI-generated books meet the standards and expectations of readers and users?

- One possible solution is to create a system of certification and verification for AI-generated books, like the ones that exist for other products and services.This would involve testing and evaluating the algorithms and data that are used to

generate the books, as well as the books themselves, by independent and qualified experts.

The results of these tests and evaluations would be displayed on the books or their platforms, indicating their level of quality and reliability. This would help users and readers to make informed choices and decisions about AI-generated books.

- Another possible solution is to rely on the feedback and ratings of users and readers themselves, as well as other sources of information and reviews, such as social media, blogs, or news outlets. This would involve creating and maintaining a system of reputation and trust for AI-generated books, based on the opinions and experiences of the people who use and read them. The feedback and ratings would be aggregated and analyzed by algorithms or platforms, indicating the popularity and credibility of AI-generated books. This would help users and readers to discover and evaluate AI-generated books.
- A third possible solution is to combine both above solutions, creating a hybrid system of certification, verification, feedback, and ratings for AI-generated books. This would involve using both human and algorithmic methods to assess and monitor the quality and accuracy of AI-generated books, as well as their sources and platforms. The results of these assessments and monitoring would be integrated and presented to users and readers clearly and comprehensively. This would help users and readers to access and appreciate AI-generated books.

Barbara Holland

AI-generated art is a form of creative expression that uses artificial intelligence algorithms to produce original works of art. AI-generated art can take various forms, such as images, music, poetry, or literature. AI-generated art raises some interesting and complex questions about the nature and ownership of creativity, especially concerning copyright.

One of the main challenges of AI-generated art is to define who is the author and who owns the rights to the work. Is it the human who designed and trained the AI algorithm, the human who provided the input data or parameters, the AI algorithm itself, or some combination of these? Different jurisdictions may have different legal frameworks and interpretations for addressing this issue.

Another challenge of AI-generated art is to evaluate its quality and originality. How can we judge the aesthetic value and innovation of a work that is created by a machine that does not have human emotions or intentions.

A hybrid system of certification and verification for AI-generated art, like those that already exist for other goods and services, is one potential solution. This would enable users and readers to choose and decide on AI-generated art with greater knowledge.

- Another option is to rely on user and reader reviews and feedback as well as information from other sources, such as blogs, social media, and other online publications.
- A copyrighted material should human talent, skill or critical thinking.

.