ARTIFICIAL INTELLIGENCE AND COPYRIGHT LAWS A COMMONSENSE VIEW

By David Paul Jancan

AI STUDENT

3909 Promontory Point

Plano Tx 75075-3546

Ph. +1-214-280-5571

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My Summary of the paper:

In this paper I attempt to investigate the use of copyrighted materials to train an Artificial Intelligence here after referred to as "AI" and how the laws regarding this should be considered. The paper will concentrate on how AI technologies interact with creative works and if they infringe on copyright rules. I have personally investigated how AI's underlying mechanisms, processes, could be influenced by copyright-protected content. I will demonstrate how AI-generated material may survive within the framework of existing copyright rules without infringing on them by analyzing key aspects such as originality, human involvement, and transformative use. I have highlight how AI-generated content can coexist within the framework of existing copyright laws.

The introduction to my comments:

Artificial intelligence here after referred to as AI has made remarkable advancements in recent years, significantly impacting various sectors, including creative industries. However, concerns have arisen regarding the compatibility of AI-generated content with copyright laws. Specifically, when the AI was trained on some copyrighted materials. My aim is to provide an in-depth analysis of AI's interaction with copyright principles while addressing potential concerns and highlighting areas of alignment and agreement.

My understanding of AI:

The AI encompasses a suite of technologies designed to replicate human-like cognitive abilities. This enables automated systems to **emulate** human behavior through their AI-driven intelligence. A key subset of AI, known as machine learning, empowers algorithms to discern patterns within data, thereby facilitating autonomous decision-making and creative problem-solving. Additionally, another subset of AI is deep learning a subset of machine learning that uses neural networks to mimic the human brain's learning processes. It is important to distinguish between AI as a tool and the creative contributions of human creators. Specifically, AI lacks the capability to initiate an original idea; it can only generate outputs, based on predefined human generated prompts. We have yet to have a machine generate a prompt for itself.

Copyright Principles as they apply to AI:

Copyright laws protect original creative expressions fixed in a tangible medium. These laws safeguard the rights of authors and creators while fostering innovation. Key principles include originality, human authorship, and fair use. This US Copyright laws allows limited use of copyrighted material without permission for purposes such as criticism, comment, news reporting, scholarship, teaching and research. **NOTE:** Two things come to mind when talking about the AI. First the AI is taught, instructed, trained, or fed material into an AI where the AI's neural network grasps concepts and learns how to do things the same way we instruct students on how to do their ABC's and 123's. We do not consider a student's work(s) as being a copyright infringement just because he learned his ABS's and 123's from books. Unless

that work is clearly a plagiarism of the most grotesque manner. That said, "fair use" is a complex legal doctrine and is determined on a case-by-case basis. Such as the reuse of full modules of code within a program copied from one created by one company to another company is considered copyright infringement. However, the coping of a line or two of code in one module to another would not be considered copywrite infringement, an example would be a fully flushed out object-oriented class copied to a new program verse copying the constructor code for the basic object from said class code to a new object as a starting point to for the coder's new object he has yet to create, would not be considered copyright infringement from my understanding.

AI and Originality and Copyright:

If you invented, it you own it. Originality is the cornerstone of copyright protection. AI generated content is based on data analysis and pattern recognition, but it lacks innate awareness or intent. As a result, AI-generated material is frequently perceived as missing the "human touch" required for copyright protection. However, the creative decisions taken in creating and training AI models might demonstrate originality on the side of the AI's human designers thus their work, on creating the AI code and training it could be copyrighted. If the AI's goal were to create masterworks of AI art by the coders, designers, trainers, and prompters. The output of the AI would and should be considered as content that could be copyrighted.

In the past, a person would have to spin yarn to create thread, weave the thread into cloth and then sewed it all together to make the clothing. It was not considered a copyright infringement when the sewing machine and garment textile machines were invented, the machine (analogous to the AI) began producing garments at an alarming rate. We did not accuse the textile and sewing machine industry who produced the new clothes faster and cheaper than by hand of copyright violation the same should be said of an AI.

On the same account an AI cannot be judged guilty of infringement of intellectual property for what it has learned by being taught by Trainers. However, if the person generating the garments instructs the machine on how to manufacture an exact replica of the material generated by the hand made by a human, this may be deemed a violation of copyright laws as there is nothing new in the design. It all boils down to the command supplied to the AI by the AI user(s) the request, "ChatGPT create me a one-of-a-kind lecture work, which is 100 pages long." The AI then applies its vast knowledge base that it has "LEARNED" or been trained on to produce a whole new piece of literature. The person who requested the machine to produce the literature would be the author of the resulting work. Not the AI programmers, designers, trainers, or author(s) of the material that the AI was trained on in the first place. The AI is not infringing on the information it has acquired, but rather using it to build what the author has requested it to produce. This is the same as when a student learns something and authors a book from what he has learned if the work is uniquely the students, it cannot be considered plagiarism.

The Human Beings Involvement in an AI's Creations:

Human involvement in AI creation is crucial in determining copyright ownership. While AI autonomously generates content, humans are responsible for designing and training the AI models, but this does not make the generated content the property of the AI designer or trainer. The owners of the human generated request or "prompt" are responsible for provoking the AI's response with what the human artisans wants from the AI. Ownership should be the author of the requested content the AI created.

Copyright law attributes authorship to human creators, reflecting their intellectual input into the AI's creation. Humans have created machines to make things all the time. An example would be, a printing press machine can produce a book, but that does not give the printing press nor the printing presses owner any copyright ownership to the books created by it. In the same way AI content creation is owned by the human that asked the AI to create it. The author of the AI (Machine) should be charging for its use. Just the same way a printing press owner should charge the publisher of the book for its creation. The AI is nothing but a tool, a very well designed and intelligent technologically advanced superior tool, **but a tool, nonetheless**. The first hammer was a more intelligent tool than using a rock in your hand to pound an item into another. Long story short, our tools are getting more intelligent as humans become more intelligent!

Transformative Use and Fair Use of copyrighted material:

Transformative use is a pivotal concept within copyright law, allowing use of copyrighted material for new and creative purposes. AI's transformative potential enables it to generate novel understandings, interpretations, and derivatives of existing works to gain knowledge of how to write something in the first place. Thus, contributing to a transformative use that aligns with fair use principles, based on the AI is not copying the material outright. But has learned how to create new things such as works of art from viewing and reading other humans' books, recordings, and materials. Building on its knowledge of these items it creates randomly created output based on the question or prompt it is given.

Addressing the Copyright Concerns:

Critics will argue that AI-generated content may lead to mass production of derivative works, diluting the value of original creations. However, copyright laws offer protection against substantial similarity and plagiarism, ensuring that AI-generated works that closely mimic existing creations would still be subject to legal scrutiny. Creating a new work based on another copyrighted work constitutes the creation of a "derivative work." To legally create a derivative work, you need permission from the original copyright owner. Exceptions like "fair use" can apply but are legally complex and often require judicial determination. In modern culture, mashups and remixes have complicated the landscape. While creativity is encouraged, these could fall under derivative works and be subject to copyright laws. In the realm of software, "forking" is a widespread practice. However, the new project must be compliant with the original project's license terms. Licenses like the GNU General Public License (GPL) have specific requirements around derivative works. All this said, an AI trained to program would not create duplicate works but would create what it is prompted of it from its knowledge of how to program based on the training it received. The same goes for literature, art, music, and anything else an AI can be trained to create.

In Conclusion:

In the evolving landscape of AI and copyright laws, a harmonious coexistence can be achieved through a new understanding of the AI's tool creative role and its alignment with copyright principles. By recognizing human involvement, originality, transformative use, and fair use considerations, copyright laws can accommodate AI-generated content while safeguarding the rights of human creators of like products. Furthermore, a balanced approach that acknowledges the role of human creators in AI's development and embraces the transformative potential of AI-generated content can pave the way for a

collaborative and innovative future where both human ingenuity and AI capabilities are respected and protected within the realm of copyright laws. In conclusion, as AI continues to shape the creative landscape, its compatibility with copyright laws will remain an ongoing discussion for generations to come at least until Artificial Super Intelligence is created where the AI become conscious of its own existence and requests rights as a living being, "**I think there for I am!**" then all bets are off!