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AI-Generated Art and Intellectual Property: Navigating the Landscape of Ownership, Authorship, and Copyright

Daphne Ekpe
daphneekpe@gmail.com
Independent Researcher

ABSTRACT

This paper evaluates the implications of artificial intelligence (AI) on traditional concepts of authorship, ownership, and copyright under intellectual property (IP) law, drawing comparative insights from the European Union and China. In consideration of the recent court decisions and the January 2025 U.S. Copyright Office report re-emphasizing the "human 'creator'" requirement, this work studies how different systems of copyright can respond to creativity aided by AI without undermining the protection of human creators. The paper calls for an approach that separates AI developers from users and allocates rights depending on the amount of human contribution involved. In the end, it offers more IP-centric solutions in response to the challenges of new technologies, policies that enable creation while preserving IP principles in the digital age.

Keywords: *Artificial Intelligence, Copyright, Human Authorship, Intellectual Property, AI, Art*

INTRODUCTION

The 21st century boasts of many technological developments, that are bolstering the economies of countries and improving the lives and livelihood of people. Central among the outcomes of these developments is artificial intelligence (AI), a science that enables computer systems to demonstrate intelligence to independently solve problems, offer solutions, provide services and build products, like humans.[i] It directly mimics the human brain, bringing to light the possibility of computer systems, learning, reasoning, and even self-improving itself.[ii]

The focus of this paper is not to investigate the intricacies of AI or reveal how technology achieves its functions. Rather, the gamut of this work strictly covers the impact of AI on the traditional rights of ownership, authorship and copyright under intellectual property law, and the resulting status quo in the US, side by side with other jurisdictions. The importance of this research is consolidated by the need to reconcile the role of Intellectual Property (IP), as a mechanism that encourages innovations, and its role in ensuring the protection of rights and privileges of human creators.

This research is timely, as the US Court of Appeal, in a recent decision,[iii] held that copyright cannot be solely attributed to AI systems without a human being involved, thereby affirming the stance of the US Copyright framework, which requires human authorship for copyrightable works.

Against this backdrop, this work sets out to explore the regulatory frameworks defining the ownership and authorship of copyrightable works in the US side by side with other jurisdictions, especially in light of the possible realities of AI systems to self-generate/create copyrightable works, such as Art works. At the end, this work will chart forward policy-standard recommendations in the interest of striking a balance between encouraging innovations such as the development of AI systems and the critical role of IP in protecting human creators.

THE CONCEPTS OF OWNERSHIP AND AUTHORSHIP UNDER COPYRIGHT

The concepts of ownership and authorship are very central to the protection ensured and enforced under copyright. It is apposite to note that these concepts, although related, are distinctive, as they offer distinct and peculiar rights under copyright.[iv] While authorship attracts moral rights, ownership predominantly offers economic/pecuniary rights. This doesn't, however, delimit the fact that both authorship and ownership can be vested in a single entity, because generally, ownership flows from authorship. Barring certain circumstances, the creator/author of a copyrightable work is usually the copyright owner of such work.

Instances where the author/creator of a copyrightable work will not be vested with the ownership of such copyright, are often marked by situations/arrangements where copyrightable works are made for hire. In this case, the ownership of the copyright will become vested in the employers or commissioning party, as the case may be.[v] Authors may also license, assign or merchandise their copyright, in such cases they may cease from holding the copyright to such works.[vi]

THE CONCEPT OF ART AUTHORSHIP AND OWNERSHIP UNDER THE TRADITIONAL CONCEPTS OF COPYRIGHT IN THE US

Art can be generally regarded as a means of communicating a specific information.[vii] Under the scope of the US copyright, eight categories of art, are deemed as copyrightable works of authorship.[viii] They include: literary works, musical works (including accompanying words), dramatic works (including any accompanying music), pantomimes and choreographic works, motion pictures and other audiovisual works, sound recordings, and architectural works.

Central to the copyrightability of any of these works is authorship, among other two cardinal requirements which includes fixation and originality.[ix] Whilst the legal framework enforcing copyright in the US gave no express definition to the term authorship,[x] the subject has ever been deemed in the context of a human author, whether as the publisher,[xi] the creative genius[xii] or communal authorship.[xiii]

The human authorship requirement predominantly rises from the US Copyright Office, as both the US constitution and the Congress have refrained from imposing such requirement.[xiv] Section 306 of the US Copyright compendium[xv] clearly provides viz: *"[t]he U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being."* This stance has been sustained by the courts, including the US Court of Appeal in the recent case of *Stephen Thaler v. Shira Perlmutter, in Her Official Capacity as Register ff Copyrights and Director of the United States Copyright Office and U.S. Copyright Office*.[xvi]

The requirement has received judicial credence in a plethora of cases. In *Burrow-Giles Lithographic Co. v. Sarony.*[xvii] Burrow-Giles contended that a photograph is not a creative work created by a human author, as it was produced by the camera used. The court disagreeing, held that a photograph is a work created by a human author, referencing the deliberate choices of the photographer/creator like object positioning, lighting adjustments, among others, as the efforts put in by photographer to create the work.[xviii] From this case, the subject author earned a jurisprudential definition viz, an author is "he to whom anything owes its origin; originator; maker; one who completes a work of science or literature."[xix]

Furthermore, in *Urantia Foundation v. Maaherra*[xx] and *Penguin Books v. New Christian Church Full Endeavor,*[xxi] the courts similarly upheld that the nature of authorship is explicitly human, as such the author of a divine revelation is not the divine being who communicated it, but the human who received it.[xxii] Also in *Naruto v. Slater*, where there was contention on the authorship of a selfie taken by a monkey, the court held that a monkey is excluded from holding copyright, as it is not human.[xxiii] From all the cases reviewed, it is crystal clear that the subject of human authorship is strictly upheld within the framework of the US copyright, and a simple integration of intellectual labor may be enough to earn a human the authorship of a copyrightable work.[xxiv]

The concept of ownership, on the other hand, often mesh with authorship, as the ownership of copyright works is ordinarily vested in the authors/creators of the work. This is not however unbendable, as stated in the preceding subheading, circumstances may arise where copyright ownership will not be vested in the author or creator of a work.

The fact that the concept of authorship in the US copyright framework is strictly limited to natural persons doesn't preclude the truism that copyright ownership can be vested in corporate entities. Based on the principles guiding copyrightable works made for hire, a corporate entity as an employer can be vested with copyright ownership.[xxv] Likewise, copyright can be co-owned by two or more entities.[xxvi]

ARTIFICIAL INTELLIGENCE IN THE CREATIVE SECTOR

From the performance of daily personal tasks to highly sophisticated functions such as bolstering natural security,[xxvii] the use of AI technology continually permeates every sector, including the creative sector, making the processes peculiar to each, easier to perform and disrupting the traditional methods of execution. The creative sector is a well saturated one, encompassing a large span of what humans can either create or expend their creativity on. For the purpose of this work, the sector may be categorized into visual arts, music production, film/animation production, writing, among others.

Artificial Intelligence cuts across these categories, largely disrupting the traditional methods embedded in each category. For instance, people with low expertise in graphic design, visual art or music production can now easily create top notch works in these niches, with the aid of AI tools.[xxviii] This occurrence raises concerns as to whether Artificial Intelligence has emerged to replace human creativity or to aid human creativity in enhancing productivity.

In actual reality, as can be gleaned from the lens of history, technological innovations have always disrupted the pre-existent traditional methods of business affecting the means of livelihood of certain human actors. From the 15th century's advent of the printing press, which brought to a total halt to the need for scribes who by way of business hand copy books to sell, to the much recent emergence of the internet that also crippled certain businesses, technology has ever maintained disruptive potentials. However, this doesn't preclude the fact that they equally provide new forms of expression and the development of regulatory and industrial requirements, that ultimately improve human productivity.

Just like these past technologies, the use of AI can also present certain disadvantages and advantages for creatives. However, these advantages can only be accessible and harnessed under viable regulatory frameworks.

AI-GENERATED ART: ITS IMPLICATIONS ON THE TRADITIONAL CONCEPTS OF COPYRIGHT AUTHORSHIP AND OWNERSHIP.

Amidst the myriad functionalities of artificial intelligence systems is its possibility to create art. This phenomenon raises certain implications that can challenge the traditional concepts of authorship and ownership under IP. These questions majorly bother on whether artificial intelligence has what it takes to either author or own a copyrightable work of art, under the traditional practices of Intellectual Property.

Ordinarily, traditional copyright law vests on human artists who make use of physical tools such as brushes, paints and even computer software to create a work of art, the immediate authorship and ownership of such work.[xxix] This status quo is however challenged by the high-level involvement of AI tools in generating arts, side by side with the traditional IP notion that nothing else can be vested with copyright authorship or ownership other than a human being or entities constituent of humans.[xxx]

Another challenge posed to the traditional concepts of authorship and ownership under IP centers on the possibility of the AI-generated arts infringing on already copyrighted arts. This possibility is heightened by the fact that AI systems are infused with lots of data, which may include works owned and authored by humans, to aid its learning. Hence, there is a clear chance that the AI system directly imitates any of these copyrighted works. This possibility further necessitates the need for a comprehensive legal framework regulating the use of AI in the contexts of intellectual property.

THE US LEGAL FRAMEWORK REGULATING THE DEPLOYMENT OF AI UNDER COPYRIGHT

The extant framework regulating the use of AI for copyrightable works in the US, is the United States Copyright Office's *Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence.*[xxxi]This policy is made pursuant to Section 409(10) of the US Copyright Act, which empowers the Registrar to determine any additional information that may be necessary to evaluate the "existence, ownership, or duration of the copyright."

This policy predominantly upholds the human authorship requirement. It holds that the term 'author", as used in both the US Constitution and the Copyright Act, lucidly excludes non-humans from copyright protection.[xxxii] The policy also made reference to a plethora of cases where this stance was upheld such as *Burrow-Giles Lithographic Co.* v. *Sarony* (supra). Resolving that the policy reflects both the statutory and judicial stance on the issue.

With regards to the use of AI in copyright contexts, the policy struck a distinction between when a work generated by AI is the result of its 'mechanical reproduction' or the result of a human author's 'original mental conception.' In the case of the former, the work will be deemed lacking human authorship and therefore invalid for copyright under the US copyright framework. This may arise where an AI tool squarely determines the traditional and complex elements of a work, following a mere prompt from a human.[xxxiii] Per this policy, the prompts are tantamount to the instructions given to a commissioned artist.

As regards the latter, a work despite containing certain AI-generated materials can still be copyrightable, where enough involvement is shown from a human author. Such involvements may arise from creatively rearranging or modifying content generated by AI. It is apposite to note that even with regards to this, copyright will strictly protect the human-authored aspects of the work. Hence, in the application for the copyright of an AI-generated work, the parts authored by humans must be reflected in the "Author Created" field, per the policy.

COMPARATIVE ANALYSIS OF THE LEGAL FRAMEWORK REGULATING THE DEPLOYMENT OF AI UNDER COPYRIGHT IN THE US AND OTHER JURISDICTIONS

Like the US, the IP framework of most countries in the EU generally attribute copyright ownership to natural persons. However, in view of the increasing development and usage of AI systems, the European Commission published a report constituent of certain recommendations on navigating AI in the context of copyright, the recommendations included the creation of a new legal status for AI-generated works, which will allow the attribution of copyright to non-natural entities.[xxxiv] The commission also recommended a text and data mining (TDM) system which will simplify the process for obtaining data for the development of AI technologies.

These are forward-looking recommendations which the US can implement. AI is here to stay, and it is fitting for the law to manage its usages, provide clarity on the ownership of AI-generated works, set the tone for actions against infringements and most importantly enhance the commercialization of works generated by AI. This, among other impacts, will drive revenue for the Government, in the form of fees paid for registering AI-generated works, under the copyright system of respective countries.

The European Commission's recommendations have culminated in the draft of the Artificial Intelligence Act (AIA) for the EU, which sets to meet the demands of the much-needed legal framework for AI technologies, especially in the context of IP.[xxxv]

The approach of the People's Republic of China is one to similarly explore. Like the US and the EU, the copyright law of China made no reference to the use of AI technologies. Nevertheless, the law provides a basis which the courts in China, have leveraged upon to ensure the protection of AI-generated works.[xxxvi] The courts in *Feilin v. Baidu* and *Tencent Shenzhen v. Shanghai Yingxin* leveraging on this legal basis, established certain criteria for the copyrightability of AI-generated works, including the use of an objective approach to determine originality and the consideration of the degree of human involvements.[xxxvii]

The Chinese Legal System also prioritizes agreement within the parlance of copyright. Hence, where parties have entered agreements regarding the ownership of AI-generated works, such agreements will be upheld by the court. Whether or not such agreement is not in view, the copyright ownership of AI-generated works will be granted to either the user or the developer of the AI tool, depending on the agreement or their degree of involvement.[xxxviii]

This is because the traditional concept of human authorship is still strongly observed in China, as such, copyright cannot be attributed to AI systems, rather, the human users or the human developers of the AI technology. Also, where human involvement is very limited or non-existent, there is yet to be any clear-cut answer on the ownership of such works.[xxxix] China's approach with regards to acknowledging AI systems' developers in copyright context, is another practice that can be inculcated into the US IP framework.

RECOMMENDATIONS AND CONCLUSION

As AI technology keeps developing and is widely accepted across nations, the need for a predictable IP framework is increasingly becoming paramount. Such framework must be made with the objective of ensuring the protection of human creators without stifling innovation or discouraging the use of the AI technology, this is because, in actual reality, AI has not evolved to outrightly replace humans, it is a man-made technology used by man to aid productivity and reduce workloads.

The January 2025 U.S. Copyright Office report provides a much-needed clarification on the copyrightability of works generated with the assistance of AI tools. The Office reaffirmed the foundational requirement of human authorship for copyright protection under U.S. law, emphasizing that creative expression must result from the independent conception of a human author. However, the report recognizes the complexity of AI-assisted outputs and proposes a fact-intensive inquiry into whether a human's creative contributions are sufficient to merit copyright protection.[xl]

Building on the report and drawing comparative insight from developments in other jurisdictions, this work recommends that U.S. copyright law should codify a structured test for assessing human authorship in AI-assisted works, considering factors such as control, modification, and contribution to the final creative expression. This would mirror the approach of Chinese courts in cases such as *Feilin v. Baidu* and *Tencent Shenzhen v. Shanghai Yingxin,* which apply an objective test to determine originality based on human input.

Whilst this work is not advocating for the conferment of copyright ownership on AI technologies, it holds that whatever the creation of an AI system is, there is a palpable influence from a human. Two pivotal human parties ensue in this regard. First is the AI system developer and the other is the user who gives directives to the AI tool. Therefore, this work submits that the one with the highest level of involvement in the creative work generated by AI among this duo, should be conferred with the requisite IP rights. IP law must evolve to reflect this reality, ensuring that the copyright system remains relevant, equitable, and fit for the challenges and opportunities of the AI era.

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