



4-2024

## Authorship in the Age of Algorithms: Adapting Copyright Law for AI -Generated Content

Sydney Thomas

Brigham Young University, [sydneythomas1234@gmail.com](mailto:sydneythomas1234@gmail.com)

Follow this and additional works at: <https://scholarsarchive.byu.edu/byuplr>



Part of the [Law Commons](#)

---

### BYU ScholarsArchive Citation

Thomas, Sydney (2024) "Authorship in the Age of Algorithms: Adapting Copyright Law for AI -Generated Content," *Brigham Young University Prelaw Review*: Vol. 38, Article 14.

Available at: <https://scholarsarchive.byu.edu/byuplr/vol38/iss1/14>

This Article is brought to you for free and open access by the Journals at BYU ScholarsArchive. It has been accepted for inclusion in Brigham Young University Prelaw Review by an authorized editor of BYU ScholarsArchive. For more information, please contact [ellen\\_amatangelo@byu.edu](mailto:ellen_amatangelo@byu.edu).

# AUTHORSHIP IN THE AGE OF ALGORITHMS: ADAPTING COPYRIGHT LAW FOR AI-GENERATED CONTENT

*Sydney Thomas<sup>1</sup>*

## I. INTRODUCTION

*“Success in creating AI [or artificial intelligence] could be the biggest event in the history of our civilization. But it could also be the last, unless we learn how to avoid the risks”<sup>2</sup>*

*-Stephen Hawking*

The first Artificial Intelligence (AI) program<sup>3</sup> was developed in 1955 and was able to solve general logic problems through automated reasoning. Over the past few decades, AI has become increasingly skilled and present in day-to-day life, making it difficult to find any

---

1 Sydney Thomas is a senior studying Spanish at Brigham Young University with a minor in International Strategy and Diplomacy. After writing this paper, she is no longer interested in pursuing a future in law and now plans to attend Graduate School in Fall 2025. Sydney would also like to thank her editor, Robyn Mortensen for the monologues they shared. Robyn is a senior studying Political Science at Brigham Young University, with minors in legal studies, communication, and ballroom. Robyn plans to attend law school in Fall 2025.

2 *“The best or worst thing to happen to humanity” - Stephen Hawking launches Centre for the Future of Intelligence*, University of Cambridge, <https://www.cam.ac.uk/research/news/the-best-or-worst-thing-to-happen-to-humanity-stephen-hawking-launches-centre-for-the-future-of> (last visited February 27, 2024).

3 Rockwell Anyoha, *The History of Artificial Intelligence*, Science in the News, <https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/> (February 27, 2024).

facet of life that has not been affected by AI. In November of 2022, Chat GPT, a new AI program, was released by OpenAI. When asked what it was capable of, it answered that it could assist with a wide variety of requests such as producing a speech, debugging a code, generating art, daily planning, offering technical support, engaging in discussions on ethical dilemmas, translating documents, as well as writing college essays in a matter of minutes (though unfortunately, not this paper).<sup>4</sup> Chat GPT is just one of the many AI programs that have become increasingly popular over the last few years. In 2023, AI was used to produce a new Beatles song titled ‘*Now and Then*’ even though only two of the original four band members are alive today.<sup>5</sup> As AI becomes increasingly prevalent, concerns regarding its unclear legal regulation have become an issue. This new technology poses threats to the privacy of consumers and to the protection of intellectual property as they are at risk of violation and copyright infringement.

AI generators rely on existing information and creations to respond to user input and requests. Generative AI programs are trained as they are “fed” (for lack of a better word) information that is publicly available on the internet. They use this information to look for patterns and processes, and go on to refine the answers that they provide in response to prompts that they have been fed from a human user.<sup>6</sup> Although the sources and information that AI generators pull work from are usually publicly available, the programs are not always in compliance with licensing stipulations and rules. As AI pulls information and elements from these sources, it frequently can be found in violation of copyright law. Jean Tallinn, one of the founding engineers of Skype, compared the building of advanced AI

---

4 ChatGPT “What Are You Capable Of,” (last visited February 20, 2024).

5 Hugh McIntyre, *The Beatles Are Using AI To Release One Last Song—Why Aren’t More Musicians Doing The Same?*, Forbes, <https://www.forbes.com/sites/hughmcintyre/2023/10/09/the-beatles-are-using-ai-to-release-one-last-songwhy-arent-more-musicians-doing-the-same/?sh=1679185229b2> (last visited February 27, 2024).

6 Adam Zewe, Explained: Generative AI, Massachusetts Institute of Technology, <https://news.mit.edu/2023/explained-generative-ai-1109> (last visited March 12, 2024).

to the building of a rocket, saying, “The first challenge is to maximize acceleration, but once it starts picking up speed, you also need to focus on steering.”<sup>7</sup> As AI continues to grow at an exceedingly rapid pace, it is important that the United States government implement regulations to steer its use in a direction that will allow humans to utilize its transformative potential while mitigating any possible negative effects and establishing guidelines to monitor its use in everyday life. With the goal of putting AI on the right course, American lawmakers must enhance copyright law to meet the increasing concerns on ownership and privacy regarding the creative capacities of AI. They can do this by strengthening the existing fair use doctrine, increasing the property rights of creators, and creating a code of conduct to ensure AI compliance with new regulations.

In his testimony to Congress this past summer, Sam Altman, chief executive of OpenAI, said “My worst fears are that we [the technology industry]...cause significant harm to the world.”<sup>8</sup> Mr. Altman, along with many other experts,<sup>9</sup> believes that AI must be regulated now in order to protect the interests of mankind. If left unregulated, AI could potentially spread disinformation,<sup>10</sup> replace

---

7 Kalev Aasmae, *Building AI is Like Launching a Rocket’: Meet The Man Fighting to Stop Artificial Intelligence Destroying Humanity*, ZDNet, <https://www.zdnet.com/article/building-advanced-ai-is-like-launching-a-rocket-meet-the-man-fighting-to-stop-artificial/> (last visited February 27, 2024).

8 Cecilia Kang, *OpenAI’s Sam Altman Urges A.I. Regulation in Senate Hearing*, The New York Times, <https://www.nytimes.com/2023/05/16/technology/openai-altman-artificial-intelligence-regulation.html> (last visited February 26, 2024).

9 *Governing AI for Humanity*, United Nations AI Advisory Body (December 2023), [https://www.un.org/sites/un2.un.org/files/ai\\_advisory\\_body\\_interim\\_report.pdf?\\_gl=1\\*7uaio6\\*\\_ga\\*MTIzMzM0MDA3MC4xNjk4Njc3NzY3\\*\\_ga\\_S5EKZKSB78\\*MTcwNzI1Nzk0My4xLjEuMTcwNzI1ODI2NC42MC4wLjA.\\*\\_ga\\_TK9BQL5X7Z\\*MTcwNzI1Nzk0My4yLjEuMTcwNzI1ODAwOS4wLjAuMA](https://www.un.org/sites/un2.un.org/files/ai_advisory_body_interim_report.pdf?_gl=1*7uaio6*_ga*MTIzMzM0MDA3MC4xNjk4Njc3NzY3*_ga_S5EKZKSB78*MTcwNzI1Nzk0My4xLjEuMTcwNzI1ODI2NC42MC4wLjA.*_ga_TK9BQL5X7Z*MTcwNzI1Nzk0My4yLjEuMTcwNzI1ODAwOS4wLjAuMA).

10 *Ai-Generated Disinformation Poses Threat of Misleading Voters In 2024 Election*, PBS News Hour, <https://www.pbs.org/newshour/politics/ai-generated-disinformation-poses-threat-of-misleading-voters-in-2024-election> (last visited February 27, 2024).

important human jobs in the workplace, and violate different privacy and ownership laws in a way that harms human creators. Failing to implement such regulation could make it difficult for the United States to compete with other countries<sup>11</sup> that have already produced such policies to govern AI. Government regulations can slow innovation and fail to adapt in a timely manner to changes in society. It is also possible that in a time where much of society is hesitant about embracing AI, it may be over-regulated, resulting in losing years of progress. However, these concerns can be mitigated through the creation of an updated and adapted version of current copyright law to ensure that human creators will be able to use innovative technologies in ways that continue to promote creativity and originality.

In 2020, the United States Congress created a national initiative to regulate AI to ensure that they would lead the development of AI regulation and “prepare the present and future United States workforce for the integration of AI systems across all sectors of the economy and society.”<sup>12</sup> The initiative was launched in response to the rapid growth of AI over the last few years. Its objectives are to support continued AI research and development, allow for more strategic cooperation with political allies, as well as for the United States to act as a leader throughout the world in establishing regulations of AI. Many other countries are also working on their own proposed legislation at this time, thus, it is imperative that the United States quickly implements its comprehensive regulation in order to remain one of the pioneering world leaders in this new era of AI. In this paper, I will argue that AI generated works should not be protected by section 107 of the Copyright Act of 1976 unless they are able to comply with all four factors listed.

---

11 Mikhail Klimentov, *From China To Brazil, Here's How AI is Regulated Around the World*, The Washington Post <https://www.washingtonpost.com/world/2023/09/03/ai-regulation-law-china-israel-eu/> (last visited February 27, 2024).

12 National Artificial Intelligence Initiative Act of 2020, H.R.6216, 116th Cong. (2019-2020).

---

## II. BACKGROUND

Copyright is a form of intellectual property that “protects original works of authorship as soon as an author fixes the work in a tangible form of expression.”<sup>13</sup> Many different mediums of work are covered under this law, including illustrations, books, movies, plays, photographs, drawings, music, and much more.<sup>14</sup> It focuses on three key elements: fixation, creativity, and originality. These key elements ensure that authors, or creators of original works, hold certain rights instead of their creations.

### A. Fixation

The U.S. Department of Copyright states that works must be “fixed” in a tangible medium in order to qualify for copyright protections. There is a wide range of accepted mediums including: literary, musical, architectural, or dramatic works, sound recordings and motion pictures as well as many others.<sup>15</sup> Tangible mediums of expression can be shared with others, whether that be through auditory or visual means.<sup>16</sup> The “fixation” of works in such mediums allows individuals other than the original creator to access them, thus making them copyrightable.

### B. Creativity

Protected works must also contain some level of creativity, however the threshold for a work to be considered creative is extremely

---

13 The U.S. Copyright Office, *What is Copyright*, Mar. 15, 2024, <https://www.copyright.gov/what-is-copyright/#:~:text=Copyright%20is%20a%20type%20of,a%20tangible%20form%20of%20expression>.

14 17 U.S.C. §102.

15 *Id.*

16 Wex Definitions Team, *fixed in a tangible medium of expression*, Cornell Law School Legal Information Institute, [https://www.law.cornell.edu/wex/fixed\\_in\\_a\\_tangible\\_medium\\_of\\_expression](https://www.law.cornell.edu/wex/fixed_in_a_tangible_medium_of_expression)

low.<sup>17</sup> In *Feist Publications, Inc. v. Rural Tel. Serv. Co.*<sup>18</sup>, Feist Publications had copied several pages from the Rural Telephone Service’s (RTS) Yellowbook to create their own. RTS argued that Feist had committed copyright infringement. The Court ruled that RTS’ pages were not copyrightable, and that Feist could use material from their yellow pages because the material was factual, and facts cannot be copyrighted. In order to be eligible for copyright protection, the Court stated that works must have a “modicum of creativity.”<sup>19</sup> While the bar is low and somewhat ambiguous for what can be considered creative, this allows for authors or creators of original works to hold exclusive rights over their creations.

### C. Originality

The criterion of originality is fundamental to copyright law. In Article I, Section 8 of the United States Constitution, in an effort to encourage innovations in the fields of science and useful arts, Congress guarantees authors exclusive rights to their personal “Writings and Discoveries.”<sup>20</sup> Under copyright law, an author is identified as the creator of an original work. The author also owns the copyright for said work unless they willingly assign the copyright to another party, such as an editor. When a creator makes a work made for hire, the commissioning party is the author.<sup>21</sup> In the case of there being more than one author, all participants share the work’s copyright jointly, unless the authors have made a different agreement among

---

17 *Copyrightable Authorship: What Can Be Registered*, Compendium of U.S. Copyright Office Practices, <https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf> (last visited February 27, 2024).

18 *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

19 *Id.*

20 *A Brief History of Copyright in the United States*, U.S. Copyright Office, <https://www.copyright.gov/timeline/> (last visited February 27, 2024).

21 *Definitions: Who is an Author?*, U.S. Copyright Office, <https://www.copyright.gov/help/faq-definitions.html#:~:text=Under%20the%20copyright%20law%2C%20the,entity%2C%20such%20as%20a%20publisher> (last visited February 27, 2024).

themselves.<sup>22</sup> Copyright owners own exclusive rights over their protected works which include the following: reproducing copies of the work, distributing copies of the work by sale, and making derivative works based on the original work.<sup>23</sup> Clause 8 of the first article of the United States Constitution states that originality is “prerequisite for copyright protection.”<sup>24</sup>

#### *D. Fair Use Doctrine*

Under Fair Use Doctrine, people that are not the original creator are permitted to use another’s copyrighted work without permission from the owner. The Doctrine of Fair Use allows for copyrighted works to be used in transformative ways that differ from their original purpose. Transformative works are “new, with a further purpose or different character, and do not substitute for the original use of the work.”<sup>25</sup> There are four main factors that are required to determine if the use of a certain copyrighted work can be justified under fair use: purpose of use, nature of copyrighted work, amount or substantiality of portion used, and the effect of use on the market for the work.<sup>26</sup> Fair use allows for downstream creators to both benefit and create new works based off of existing ones from first creators in an original way.

It is important to note that as of now, transformative works made by downstream creators are only protected if they were created by a human. The term “downstream creators” refers to individuals who

---

22 *Copyright: Joint Authorship and Collective Works*, University of California, <https://copyright.universityofcalifornia.edu/ownership/joint-works.html#:~:text=Co%2Dauthors%20own%20the%20work's,inherent%20in%20the%20joint%20work> (last visited February 27, 2024).

23 *What Rights Does Copyright Provide?*, U.S. Copyright Office, <https://www.copyright.gov/what-is-copyright/#:~:text=U.S.%20copyright%20law%20provides%20copyright,rental%2C%20lease%2C%20or%20lending> (last visited February 27, 2024).

24 *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

25 U.S. Copyright Office Fair Use Index, U.S. Copyright Office, <https://www.copyright.gov/fair-use/> (last visited February 27, 2024).

26 *U.S. Copyright Office Fair Use Index*, U.S. Copyright Office, <https://www.copyright.gov/fair-use/> (last visited February 27, 2024).



implement portions of previous works from other original authors to create a new work. This principle was reaffirmed in August of 2023 in the case *Thaler v. Perlmutter*. In this case, the plaintiff tried to register a painting that had been generated by the Creativity Machine, an AI program.<sup>27</sup> The Copyright Office denied this application as the work had not been created by a living individual. The United States District Court for the District of Columbia ruled in favor of the Copyright Office, reaffirming that “Human authorship is a bedrock requirement of copyright” and that AI generated works are ineligible for copyright protection<sup>28</sup>. With the rise of AI, more works that could potentially be considered “transformative” are being generated in massive quantities, using copyrighted works without any consideration for proper licensing or fair use factors.

### III. PROOF OF CLAIM

Section 107 of the Copyright Act of 1976 outlines the four fair use factors – purpose of use, nature of copyrighted work, amount of substantiality of portion used, and the effect of use on the market for work- and explains the qualifiers needed for a work to meet each part.<sup>29</sup> In the following section, we will analyze AI’s ability (or inability) to meet the legal requirements that are listed under section 107 of the Copyright Act of 1976. If AI can meet all four factors, a strong argument could be made for it to benefit from Fair Use protections. However, if it does not, a new form of regulation will have to be created. It is important to note that works where the original creator is human (and not AI), that a piece can be justified under Fair Use even if it does not meet each of the four factors. In order to protect human creators, AI must be required to meet all four factors of fair use when using their work.

---

27 *Thaler v. Perlmutter et al*, No. 1:2022cv01564 - Document 24 (D.D.C. 2023).

28 *Thaler v. Vidal*, No. 21-2347 (Fed. Cir. 2022).

29 17 U.S.C. §102.

### A. Purpose of Use

In order to determine whether or not the secondary use of a work can be justified under fair use, a court will examine how the party is using the work. While the law does not stipulate conditions to determine whether or not something is a good use, if being used for nonprofit or educational purposes, it is likely that a court will rule that the use can be justified.<sup>30</sup> Although educational and nonprofit uses are easier to justify in front of a court, this does not mean that commercial and noneducational uses cannot be determined as fair. It rather means that there must be a strong argument for those cases under the other three remaining factors to decide if the use can be justified. It is also important under this factor that the use of the work is transformative and adds an element that is new, or that furthers or changes the purpose of it. The new work cannot serve as a substitute for the original use of the work; it would be a violation of fair use and copyright law. In *Campbell v. Acuff-Rose Music, Inc.*, a rap group named *2 Live Crew* used portions of Roy Orbison's "Oh, Pretty Woman" to create their own parody of the song titled "Pretty Woman." Acuff-Rose Music filed a suit against the band, accusing them of copyright infringement. The Court of Appeals ruled that the commercial nature of the use of the work (both being songs, although one a parody) rendered the use unfair, violating both this first factor and the rights of the copyright holder.<sup>31</sup> Artificial intelligence is used in both commercial and noncommercial ways, as well as having been utilized in educational manners (and in noneducational ways). Thus it can be seen that AI is not inherently in violation of this factor, but could be depending on the way it is being used.

### B. Nature of Copyright Work

The nature of the copyrighted work is also extremely important in determining whether or not the use meets the legal requirements. It is easier to justify the use of a work that is more factual (news

---

30 17 U.S.C. §107.

31 *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994).

article or technical item) than it is a work that is more imaginative and creative (novel, song, film).<sup>32</sup> It is also nearly impossible for the use of an unpublished work to be considered fair. In 2023, a group of artists filed suit against Midjourney, a generative AI company, stating that the company had used the work of the artists to train AI algorithms how to draw/generate art in the same style as the artists. In order to train these AI image products, they were fed billions of images, “almost all of which were copied without the artists’ permission and without compensation.”<sup>33</sup> Using this Midjourney product, consumers are able to simply enter the artists’ name and then generate strikingly similar works that appear to have been made by the artists themselves. Consumers have created such images through Midjourney, and have sold them for a profit as well. Midjourney continues to promote their new product with the names of the Plaintiff without having offered any licensing agreements. While this case has not yet been ruled on, it is very unlikely that AI will be allowed to continue performing such tasks as they take advantage of creative works, doing substantial damage to human creators.

### *C. Amount of Substantiality of Portion Used*

Under this, a court will factor in the quality and quantity of copyrighted material that has been used. It is more likely that the smaller portion of the work used, that it can be justified by fair use. However, there are situations where if a very small portion is used that could be considered the “heart” of the work, a fair use justification will not be valid.<sup>34</sup> For example, if a person chooses to use a few lines that make up the chorus of another person’s song, this small chorus could be considered the “heart” of the work. Although the portion is small, it is still incredibly significant to the work as a whole if it is the heart of the copyrighted work. In 2023, the Supreme Court decided on the case *Goldsmith v. Warhol*. Andy Warhol created

---

32 17 U.S.C. §107.

33 *Andersen et al v. Stability AI Ltd. et al*, No. 3:23-cv-00201-WHO (D. Cal. filed on June 2, 2023).

34 17 U.S.C. §107.

a magazine cover of Prince based off of an image taken by Lynn Goldsmith. The court found that Warhol's image of Prince was "substantially the same as that of Goldsmith's original photograph."<sup>35</sup> Although this case was decided long after Warhol's death, he was found in violation of fair use as he had used essentially the whole, or "heart," of Goldsmith's work, and was also in violation of the other factors. Just like Warhol, AI has also been guilty many times of using the "heart" of a copyrighted work, or of even just using too much of a work. While it is important to note that not every AI generated work violates this factor, this factor should raise concern among communities of human creators as they stand to lose much of their own creations if AI remains unregulated. A possible solution to issues that this factor poses could be requiring AI machines to be trained or programmed in a way that allows them to easily identify the "heart" of a work, and thus take steps to ensure that they are not in violation of this factor.

#### *D. Potential Market Effects*

It is also important to consider how the unlicensed use of copyrighted material can potentially harm the current or future market for the original work. If the new work takes away from potential purposes or renders the purchasing of the original work obsolete, it is unlikely that the court will find this use fair.<sup>36</sup> In *Andersen et al v. Stability AI Ltd.*,<sup>37</sup> as discussed earlier, Midjourney's generative AI products allowed consumers to create art that looked very similar to that of other artists, and many consumers then sold these new pieces without any licensing deals with the original artists. This has caused significant financial damage to the artists as they have lost business as well as parts of their artistic expression. Here it is clearly seen

---

35 *Andy Warhol Foundation for Visual Arts, Inc. v. Goldsmith*, 598 U.S. \_\_\_\_ (2023)

36 17 U.S.C. §107.

37 *Andersen et al v. Stability AI Ltd. et al*, No. 3:23-cv-00201-WHO (D. Cal. filed on June 2, 2023).

that in the case of *Andersen et al v. Stability AI Ltd*<sup>38</sup> AI has violated this factor as it has caused significant market effects that have hurt human creators. This case makes it extremely difficult to argue that fair use doctrine could be applied to this technology as AI has clearly limited the power of individuals to compete with it.

#### IV. CONCLUSION

The rapid growth and increasing presence of artificial intelligence in society presents a critical period in which we must decide how to best regulate it. Its innovative abilities pose many concerns about its impact on copyright law and the ways in which it impacts communities of human creators. Fair Use Doctrine requires reevaluation and must be updated if it is able to be applied to AI-generated products. Ongoing legal battles between AI corporations and individuals show that the current doctrine is insufficient for present-day needs. Going back to the words of Jean Tallinn, AI is a rocket that has accelerated quickly- and must be steered in the right direction. Requiring AI to comply with all factors of fair use doctrine, increasing the property rights of creators, and creating a code of conduct to ensure AI compliance with new regulations are vital to accomplish this goal. It is imperative that human creators are able to continue working in their fields without having to worry about competing with artificial intelligence, and the best way that we will be able to protect them as a society is through implementing such measures.