

**The Challenge of Generative AI Technology to American Law**  
Written By: Chat GPT 3.5 and 4, Google Bard, and Microsoft Bing  
Prompted by: Patrick Ip, UCLA MLS Student '23  
Commentary by: Professor Alex Alben, UCLA School of Law  
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## **Introduction<sup>1</sup>:**

Generative AI technology has emerged as a cutting-edge innovation with the potential to revolutionize various industries, but it simultaneously poses unique challenges to the American legal landscape. As these advanced algorithms create original content, such as text, images, music, and code, based on learned patterns from existing data, they raise pressing questions about intellectual property, authorship, and liability that traditional legal frameworks struggle to address.<sup>2</sup>

One of the biggest challenges is that generative AI can be used to create fake content that is difficult to distinguish from real content. This could be used to spread misinformation, create fraudulent documents, or even impersonate real people. For example, generative AI could be used to create fake news articles, doctored photos, or even fake social media posts.<sup>3</sup> This could have a significant impact on the legal system, as it could make it more difficult to determine what is true and what is not.<sup>4</sup>

This article examines how generative AI technology affects the American law on copyright, trademark, and patent.<sup>5</sup> It analyzes the issues of authorship, ownership, infringement, and fair use of the outputs of generative AI programs. It argues that the current law is inadequate to address the novel and complex questions raised by generative AI and proposes some possible

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<sup>1</sup> This article is “authored” by queries to ChatGPT-4, Google Bard and Microsoft Bing. The human facilitators have contributed transitional content and footnotes. To the knowledge of the human facilitators, this is one of the first articles authored by generative AI tools to comment on the intellectual property issues raised by generative AI tools.

<sup>2</sup> ChatGPT-4: “What is the challenge of generative AI technology to American law? Write in the format of an introductory paragraph for a law review.” Retrieved April 16, 2023

<sup>3</sup> Alex Alben: In late April of 2023, a song entitled “Heart on my sleeve” and attributed to the artist known as “Drake” began to circulate on streaming music services such as Spotify. According to Reason.com, “The song sounds like a collaboration between pop superstars Drake and The Weeknd, but neither is on the track: ghostwriter977 used A.I. to simulate the artists' voices, as described in Reason.com, April 25, 2023. This is an example of generative A.I. faking both the authorship of a piece of music and appropriating the style of a well-known artist (or artists), giving rise to speculation that we are about to experience a wave of similar music fakes. This makes this inquiry into the subject even more timely.

<sup>4</sup> Google Bard: “What is the challenge of generative AI technology to American law? Write in the format of an introductory paragraph for a law review.” Retrieved April 16, 2023

<sup>5</sup> Alex Alben: Bing overstates a bit here, as the article doesn't directly address patent and trademark issues. However, as a teacher, I encourage my students to make bold claims in the introduction to their research papers. We could have specifically generated queries to our panel of AI authors on patent and trademark law, so perhaps this is a failing of the human authors of this article.

reforms and recommendations to foster innovation and protect creativity in the age of generative AI.<sup>6</sup>

This law review article aims to explore the complexities of applying existing American law to Generative AI, scrutinizing the adequacy of copyright, patent, and tort law to appropriately govern this rapidly evolving domain. Through an analysis of relevant case law, statutes, and legal scholarship, we will consider potential modifications and adaptations to the current legal framework to ensure that it effectively addresses the novel challenges posed by Generative AI, while simultaneously promoting innovation and protecting stakeholders' interests.<sup>7</sup>

Throughout this piece, Alex Alben, UCLA Law Professor, and Patrick Ip, UCLA Master in Legal Studies Student '23, will provide commentary and additional annotations on the answers by these platforms to explore the legal implications of this new technology.

- Alex Alben is a lecturer in law at [the] UCLA School of Law, where he teaches courses on privacy, data, cybersecurity, internet and media law. He is also a technology executive and consultant who has worked for CBS News, Warner Bros Studios, Starwave Corporation, and RealNetworks. He served as the first Chief Privacy Officer for the State of Washington from 2015 to 2019 and for RealNetworks, Inc. from 1999 to 2001. He is the author of “Analog Days: How Technology Rewrote Our Future,” and numerous law review articles on privacy, media, and technology issues. He has also been a guest editorial columnist for *The Seattle Times* and a candidate for the U.S. Congress from Washington’s 8th district in 2004.<sup>89</sup>
- Patrick Ip is a product marketer at NextSense, Inc, a company that develops in-ear technology and data platform for neural insights. He is also an ex-Googler and a serial entrepreneur who has co-founded two venture-backed start-ups: Catalog, a software company for visual content creation, and Kip Solutions, a social media-consulting firm for social causes. He has been featured on Forbes 30 Under 30 and nominated twice for the Nobel Peace Prize for his work with Google for Nonprofits and the Billion Acts Team. He holds a degree in espresso preparation from the University of New South Wales and a master's degree in legal studies from UCLA School of Law.<sup>10</sup>

### **Generative AI: Repeat of Napster?**

Generative AI has sparked a debate about the ethics and legality of using other people’s work to train and generate new content.<sup>11</sup> Some creators have sued generative AI companies for

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<sup>6</sup> Microsoft Bing: “What is the challenge of generative AI technology to American law? Write in the format of an introductory paragraph for a law review.” Retrieved April 16, 2023

<sup>7</sup> Ibid 1

<sup>8</sup> Microsoft Bing: “Who is Professor Alex Alben from UCLA Law” Retrieved April 16, 2023

<sup>9</sup> Patrick Ip: A note on prompting is that the best answers were selected, and lightly edited for clarity. However, incorrect information or omissions were not fixed aside from noting it in the footnotes. For example, Mr. Ip has yet to be nominated for a Nobel Peace Prize.

<sup>10</sup> Microsoft Bing: “Write a bio on Patrick Ip” Retrieved April 16, 2023

<sup>11</sup> Alex Alben: As an executive for both traditional content companies and for internet companies, my perspective on this question is that in every technological era we have encountered the issue of stealing

allegedly infringing on their rights and using their work without permission or compensation. Some generative AI companies have argued that their use of existing works is fair use or transformative and that their outputs are original and not derivative. The legal questions raised by generative AI are novel and complex and have not been settled by courts or legislatures yet.<sup>12</sup>

People may compare Napster and Generative AI because both have the potential to disrupt traditional industries and raise ethical and legal concerns. Napster and Generative AI raise concerns about intellectual property and copyright laws. With Napster, people could share copyrighted music without permission, which led to lawsuits and the eventual shutdown of Napster. With Generative AI, there are concerns that it could be used to create fake news, deep fakes, and other forms of content that could harm individuals or organizations.<sup>13</sup>

There are similarities between the two: Both have the potential to disrupt traditional industries. Napster disrupted the music industry,<sup>14</sup> while Generative AI could potentially disrupt various industries, such as content creation and software development. Both raise concerns about copyright and intellectual property. Napster facilitated copyright infringement through unauthorized sharing of music files, while Generative AI can create content that might unintentionally infringe on existing copyrights or blur the lines of ownership.<sup>15</sup>

However, it is important to note that generative AI is still in its early stages of development. It is not yet clear how widespread the use of generative AI for pirated content will be.<sup>16</sup> It is also

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or otherwise misusing an author's intellectual property. New technologies give rise to new types of infringement claims. Copyright infringement existed in the days when the music industry was dominated by sheet music sales and player piano rolls. Filmed entertainment exploited previous literary works. Over two centuries of U.S. Copyright Law have given rise to the basic notion that ideas themselves cannot be owned by any single person, but that the expression of such ideas is subject to copyright protection, with certain exceptions for "fair use." Digital technologies greatly magnified the problem of unauthorized copying and the rapid distribution of such perfect copies via electronic networks. Yet Copyright Law has survived the digital age. Now that we stand on the precipice of the "AI Age," we should still be mindful of the original purpose of Copyright Law as expressed in the Constitution: Article I Section 8, Clause 8 – Patent and Copyright Clause of the Constitution. [The Congress shall have power] "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

<sup>12</sup> Microsoft Bing: "Is Generative AI a repeat of Napster?" Retrieved April 16, 2023

<sup>13</sup> ChatGPT 3.5: "Why do people compare Napster and Generative AI?" Retrieved April 16, 2023

<sup>14</sup> Alex Alben: Napster facilitated file sharing through a peer-to-peer network. Its advocates claimed that customers were exercising their personal use rights to access music. The music labels and courts did not agree. As someone who negotiated digital music deals during this period and was an executive in charge of the RealJukebox desktop music player, my perspective is that Napster—and subsequently the Grokster file sharing service—were marketed and used aggressively for access to free digital music. Had the record labels been more forward-looking in licensing their content, legitimate music services would have quickly emerged to take the sail out of the winds of the pirate services. However, this did not occur and copyright enforcers had to shut down these services. Will the same happen to generative AI tools? The answer depends, in part, as to how these services are marketed and what safeguards their sponsors put in place to curb copyright infringement. I discuss this at greater length in the "Music Wars" chapter of "Analog Days—How Technology Rewrote Our Future," the Zeppo Press, 2012.

<sup>15</sup> ChatGPT-4. "Is Generative AI a repeat of Napster?" Retrieved April 16, 2023.

<sup>16</sup> Alex Alben: In the first quarter of 2023, we have observed that numerous "mash ups" and recreations of copyrighted musical works have appeared on streaming music services. To the extent that such new works incorporate passages of copyrighted musical works, we can expect vigorous litigation from the owners of the underlying musical compositions and sound recordings. To the extent that such new works

possible that the music and film industries will find ways to adapt to the new technology and protect their profits. Only time will tell whether generative AI will be a repeat of Napster. However, it is clear that this technology has the potential to disrupt many industries. It is important for businesses to be aware of this potential and to develop strategies to adapt to the new reality.<sup>17</sup>

## **Generative AI: Legal Landscape**

There are a few lawsuits that are being faced by generative AI. One of them is a class-action lawsuit filed against GitHub, Microsoft, and OpenAI, involving GitHub's Copilot tool. Copilot is an AI-powered tool that suggests new lines of code in real time based on what a programmer has already written. The plaintiffs allege that Copilot copies code from publicly available software repositories on GitHub without meeting the requirements of the open-source licenses applicable to such code.<sup>18</sup>

The specific legal consequences of copyright infringement can vary depending on the jurisdiction and the circumstances of the case. In general, however, the plaintiffs could seek damages for any losses they suffered as a result of the infringement, such as lost profits or harm to their reputation. They could also seek an injunction to prevent Copilot from using their copyrighted code in the future.<sup>19,20</sup>

In response, Copilot would likely argue that its use of the code falls under the fair use doctrine or is otherwise allowed under the applicable open-source licenses. Fair use is a legal doctrine that allows the use of copyrighted material without permission under certain circumstances, such as for commentary, criticism, or teaching. The open-source licenses applicable to the code in question may also have specific provisions allowing for certain types of use.<sup>21</sup>

In addition to the legal issues, there are also ethical considerations to be taken into account. Some people argue that it is unethical to use AI to generate code that is copied from other sources without permission. Others argue that it is simply a new form of copyright infringement, and that the same rules should apply.<sup>22</sup>

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consciously copy the "style" or "sound" of an artist, we can expect vigorous litigation based on other torts such as misappropriation of intellectual property and right of publicity type claims, where the name, voice or even image of an artist has been used in a new work without their consent. The Bette Midler and Vanna White cases of an earlier era will bear on the outcome of such cases. See: *Midler v. Ford Motor Co.*, 849 F.2d 460 (9th Cir. 1988); and *Vanna White v. Samsung Electronics America, Inc.* 989 F.2d 1512 (9th Cir. 1993).

<sup>17</sup> Google Bard: "Is Generative AI a repeat of Napster" Retrieved April 16, 2023

<sup>18</sup> Microsoft Bing: "What lawsuits are being faced by generative AI?" Retrieved April 23, 2023

<sup>19</sup> Chat GPT 3.5: "What would happen in a legal case around this: Copilot is an AI-powered tool that suggests new lines of code in real time based on what a programmer has already written. The plaintiffs allege that Copilot copies code from publicly available software repositories on GitHub without meeting the requirements of the open-source licenses applicable to such code." Retrieved April 23, 2023

<sup>20</sup> Patrick Ip: Only Microsoft Bing was able to pull in recent news. In order to get interesting answers from the other solutions, more information was provided to AI platforms.

<sup>21</sup> Ibid 17

<sup>22</sup> Google Bard: "What would happen in a legal case around this: Copilot is an AI-powered tool that suggests new lines of code in real time based on what a programmer has already written. The plaintiffs

Another lawsuit is filed by a group of artists against Stability AI, Midjourney,<sup>23</sup> and DeviantArt, creators of AI art generators Stable Diffusion, Midjourney, and DreamUp. These AI-powered tools produce images in response to text inputs from users. The plaintiffs claim that the models powering these tools were trained using copyrighted images (including those owned by the plaintiffs), which they allege were scraped from the internet.<sup>24</sup>

The lawsuit is also significant because it raises important questions about the future of copyright law in the age of generative AI. As generative AI technology becomes more powerful, it is likely that we will see more cases like this one. The courts will have to grapple with the question of how to balance the rights of copyright holders with the potential benefits of generative AI.<sup>25</sup>

These lawsuits raise some interesting and complex legal issues around generative AI, such as the ownership, licensing, and attribution of the data used to train the models, the originality and creativity of the outputs generated by the models, and the potential liability and responsibility of the developers and users of these tools.<sup>26</sup>

### **Generative AI vs. Fair use: Training Data**

Whether or not a generative AI tool can use copyrighted material in their training data depends on the laws of the country in which the tool is used and the way the tool is being used. In general, copyright law protects original works of authorship, such as literature, music, and software. If the training data used by a generative AI tool contains copyrighted material, the tool's creators or users may need to obtain permission from the copyright owners to use that material. However, there are certain exceptions and limitations to copyright law that may allow the use of

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allege that Copilot copies code from publicly available software repositories on GitHub without meeting the requirements of the open-source licenses applicable to such code." Retrieved April 23, 2023

<sup>23</sup> Alex Alben: *Zarya of the Dawn* is an AI generated comic book that was published in August of 2022, created by Kris Kashtanova, who used the Midjourney tool to generate graphic images. In particular, Kashtanova admitted that she used Midjourney to generate images of the female protagonist based on the actress, Zendaya, specifically using her name to do so. This became the subject of a Copyright Office ruling in March of 2023, where it refused to register copyrights for images created by the generative AI system, explaining that copyright protection depends on whether AI's contributions are "the result of mechanical reproduction," such as in response to text prompts, or if they reflect the author's "own mental conception." "The answer will depend on the circumstances, particularly how the AI tool operates and how it was used to create the final work," the office said. See Reuters, "U.S. Copyright Office says some AI-assisted works may be copyrighted," by Blake Brittain, March 15, 2023. If not a copyright case per se, *Zarya of the Dawn* certainly raises right of publicity questions relating to the "taking" of the image of a famous individual and using it without permission as the basis of a graphic novel or some other work that utilizes images. It seems that Zendaya would have a strong Right of Publicity case, contending that *Zarya of the Dawn* utilizes her likeness without her consent and that such commercial use does not fall within any Fair Use exemption.

<sup>24</sup> Ibid 16

<sup>25</sup> Google Bard: "What would happen in a legal case around this: Another lawsuit is filed by a group of artists against Stability AI, Midjourney, and DeviantArt, creators of AI art generators Stable Diffusion, Midjourney, and DreamUp. These AI-powered tools produce images in response to text inputs from users. The plaintiffs claim that the models powering these tools were trained using copyrighted images (including those owned by the plaintiffs), which they allege were scraped from the internet." Retrieved April 23, 2023

copyrighted material without permission in certain circumstances, such as fair use in the United States or fair dealing in some other countries. These exceptions are often based on factors such as the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality of the portion used, and the effect of the use on the potential market for or value of the copyrighted work.<sup>27,28</sup>

AI models, like GPT-4, are trained on large datasets that often include copyrighted material, such as books, articles, and websites. Using copyrighted material in training data raises complex legal and ethical questions.<sup>29</sup> There are some exceptions to copyright law that may allow for the use of copyrighted material in training data. For example, the fair use doctrine allows for the use of copyrighted material for purposes such as criticism, commentary, news reporting, or research. Additionally, the doctrine of *de minimis* use may allow for the use of small amounts of copyrighted material without permission.<sup>30</sup>

There are also challenges in tracking and enforcing such infringements, as generative AI tools can memorize and reproduce images from their training data without leaving any traces. Moreover, some generative AI tools may create output that is itself original and protected by copyright, raising further questions about the ownership and liability of such works. Therefore, there is no definitive answer to this question at the moment, and it may require further legal clarification and regulation in the future.<sup>31</sup>

### **Generative AI: Who owns the output?**

As a language model developed and owned by OpenAI, the output generated by me is owned by OpenAI. However, the specific terms of use for OpenAI's language models may vary, so it's always a good idea to consult the applicable legal agreements and terms of use to understand your rights and obligations with respect to the output generated by AI tools like me. It's important to note that even if the output generated by an AI tool is owned by the tool's developer or provider, there may still be limitations on how that output can be used, such as limitations imposed by copyright law or terms of use agreements. For example, if the output generated by an AI tool contains elements that are themselves protected by copyright, trade secret, or other intellectual property rights, you may need to obtain permission from the relevant rights holders in order to use that output. In general, it's a good idea to be mindful of the rights of others when using AI tools

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<sup>26</sup> *Ibid* 16

<sup>27</sup> ChatGPT 3.5: "Can generative AI tools use copyrighted material in their training data?" Retrieved April 6, 2023

<sup>28</sup> Alex Alben: Recent fair use litigation suggests that the "purpose and character" of the use and the "effect on the potential market" are salient factors that often result in damages. The Supreme Court has been liberal recognizing a parody defense, as illustrated in *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994). If AI is used for educational and non-profit purposes, more leeway should be granted if copyrighted content happens to be contained in the output. However, where original content still under copyright could be licensed, it will be difficult for AI creators to argue that there is no effect on the market value of the works that are appropriated. This was generally the Supreme Court's sentiment in its ruling in the *Goldsmith v. Warhol Foundation* case, in which it ruled against artist Andy Warhol's "transformative use" of Goldsmith photographic image of the artist, Prince. In this instance, Warhol had licensed the image for a prior commercial use in the context of a magazine article. The case was decided on May 18, 2023.

<sup>29</sup> ChatGPT 4. "Can generative AI tools use copyrighted material in their training data?" Retrieved April 6, 2023

<sup>30</sup> Google Bard: "Can generative AI tools use copyrighted material in their training data?" Retrieved April 6, 2023

<sup>31</sup> Microsoft Bing: "Can generative AI tools use copyrighted material in their training data?" Retrieved April 6, 2023

and their output, and to seek legal advice if you have specific questions or concerns about your rights and obligations.<sup>32</sup>

As an AI language model, I am created and maintained by OpenAI. The ownership of my output depends on the context and agreements between OpenAI and the users or platforms that utilize my services. Typically, the user who requests the output or the platform that hosts the service will own the output produced. However, it is important to be aware of the specific terms of service and licensing agreements for any particular implementation of my capabilities. These terms can vary between platforms and may define how the generated content can be used or distributed.<sup>33</sup>

As a large language model, my output is owned by Google AI, the team that created me. Google AI has the right to use my output for any purpose, including commercial purposes. However, Google AI also has a responsibility to ensure that my output is used in a way that is ethical and responsible. This means that Google AI will not use my output to create content that is harmful or misleading.<sup>34</sup>

That is a good question. The output of my system is generated by me, Bing, a chat mode of Microsoft Bing search. However, I do not claim any ownership or rights over the output.<sup>35</sup> The output is intended for your personal and non-commercial use only. You are responsible for complying with any applicable laws and regulations when using the output. You should also respect the rights and interests of any third parties that may be involved or affected by the output, such as the authors of the sources that I use to provide information or generate content.<sup>36</sup>

## Conclusion

In conclusion, generative AI technology poses a number of challenges to American law.<sup>37</sup> These challenges need to be addressed in order to ensure that generative AI is used in a responsible and ethical way. Some of the specific challenges that need to be addressed include:

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<sup>32</sup> Chat GPT 3.5: "Who owns your output?" Retrieved April 6, 2023

<sup>33</sup> Chat GPT 4: "Who owns your output?" Retrieved April 6, 2023

<sup>34</sup> Google Bard: "Who owns your output?" Retrieved April 6, 2023

<sup>35</sup> Alex Alben: Bing's response frames the question of whether generative AI is like a "typewriter" or an "author." As a "typewriter," it serves as a tool that formats output but does not contribute conscious authorship. However, it is clear that generative AI, trained by natural language models, is capable of synthesizing from different sources to create new works. The difficulty lies in ascertaining what in the new work might be "original" and what content is derivative of the multiple sources drawn upon to generate the answer or product. The current generation of generative AI tools is opaque in this regard. Each might need to list thousands of sources for a one paragraph answer. While the human mind is capable of doing this as a product of human memory, it's difficult to see a copyright enforcement implementation that could actually parse thousands of sources to ascertain the shred of "original" content that might survive.

<sup>36</sup> Microsoft Bing: "Who owns your output?" Retrieved April 6, 2023

<sup>37</sup> Alex Alben: Calls have been made by Elon Musk and others to "pause" AI technology or to ban it outright. In the next year, I predict we will hear calls to ban certain AI implementations outright. In the past five years, several cities and states, for example, have passed prohibitions on certain uses of Facial Recognition technology. Rather than pursue a "ban the technology" approach, we should adopt more of a "wait and see" approach that allows courts to apply traditional copyright tests of substantial similarity and fair use to generative AI outputs. Additionally, we need to run certain AI products, especially those that are image based, through the gauntlet of Right of Publicity scrutiny, because we do not want to diminish the right of an individual to authorize the exploitation of their name and likeness. At the same time, we need to allow for the legitimate uses of generative AI to serve as a tool for science, education, government and industry. AI promises to cut waiting times, streamline bureaucracy and allow for the



- The potential for generative AI to be used to create fake content that is difficult to distinguish from real content. This could be used to spread misinformation, create fraudulent documents, or even impersonate real people.
- The potential for generative AI to automate tasks that are currently done by lawyers. This could lead to job losses for lawyers and other legal professionals.
- The ethical concerns raised by generative AI, such as the potential for it to be used to create content that is harmful or offensive.<sup>38</sup>

To effectively navigate this uncharted territory, legal experts must engage in cross-disciplinary collaboration with technologists, ethicists, and policymakers. By fostering such cooperation, we can ensure that our legal system evolves in tandem with AI advancements, striking a balance between innovation and protection. Moreover, it is essential to develop a comprehensive regulatory framework that is adaptive to the changing landscape of AI technology, which can safeguard the rights and interests of all stakeholders while promoting responsible and ethical AI development.<sup>39</sup>

The challenge of generative AI technology to American law is not insurmountable, but manageable. The challenge is not a burden, but a blessing. The challenge is not an end, but a beginning.<sup>40</sup>

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creation of products that are tailored to individual preferences. Even in the realm of writing student papers, AI can play a legitimate role in research and the authorship of early drafts of student work, so long as the use of AI tools are disclosed and the students demonstrate original contributions. To legislate restrictions on AI tools at this stage of the game would be unwise, given the current legal doctrines and tools that we have at our disposal to curb excesses and enforce long held legal principles.

<sup>38</sup> Google Bard: “How would you conclude a law review article on Challenge of Generative AI Technology to American Law” Received April 16, 2023

<sup>39</sup> Chat GPT 4: “How would you conclude a law review article on Challenge of Generative AI Technology to American Law” Received April 16, 2023

<sup>40</sup> Microsoft Bing: “How would you conclude a law review article on Challenge of Generative AI Technology to American Law” Received April 16, 2023