How Artificial Intelligence Challenges The Concept Of Authorship

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08-21-2024 ~ *If AI creates the content, who owns the work? Answering this complex question is crucial to understanding the legal and ethical implications of AI-generated content.*

Producing art and text using computers is not new. It has been happening since the 1970s. What is new is that computers are acting independently—without programmers providing any input; the computer program generates the work, even if programmers have set the parameters.

Not only are computers acting more independently but the quality of the content being generated has also increased. How this content is used has changed, too, and it may not always be created with the best motives. This is the new frontier of artificial intelligence or AI.

Coursera, a for-profit open online course provider, stated, "Artificial intelligence is the theory and development of computer systems capable of performing tasks that historically required human intelligence, such as recognizing speech, making

decisions, and identifying patterns. AI is an umbrella term encompassing various technologies, including machine learning, deep learning, and natural language processing."

The "Generative Artificial Intelligence and Copyright Law" report by the Congressional Research Service offers a more specific perspective: "So-called 'generative AI' computer programs—such as OpenAI's DALL-E and ChatGPT programs, Stability AI's Stable Diffusion programs, and Midjourney's self-titled program—can generate new images, texts, and other content (or 'outputs') in response to a user's textual prompts (or 'inputs')."

These AI programs are generated by exposing them to staggeringly large quantities of existing texts, photos, paintings, and other artworks. For example, generative pretrained transformers (GPTs) are a type of large language model (LLM) that use massive datasets comprising articles, books, and essays available on the internet to generate any kind of text. (Paul McDonagh-Smith, a senior lecturer in information technology at the MIT Sloan School of Management, suggested a less technical meaning for the acronym: General purpose technology.)

Programmers create generative AI platforms by searching for patterns and relationships in these vast archives of images and text. Then, the same process used in autofills creates rules and makes judgments and predictions when responding to a prompt or input.

But who has the right to the results or the output? Does copyright, patent, or trademark apply to AI creations? Who owns the content that AI platforms produce for a company or its customers?

Is using LLMs and scraping the internet for texts and images—the term applied to harvesting content online—fair use, as the AI companies claim, or do these companies require permission and owe royalties to the content owners?

Put another way, would it make more sense to confer copyright on a pen manufacturer for a book rather than the writer who used the pen to write it? In digital terms, it's evident that Microsoft Word can't assert copyright over texts created using the program. Why should AI be any different? As it turns out, the answer to this question isn't straightforward.

An Uncertain Legal Situation

Courts have yet to consider how fair use standards apply to AI tools.

"[T]here isn't a clear answer to whether or not in the United States that is copyright infringement or whether it's fair use," stated Ryan Abbott, a lawyer at Brown Neri Smith & Khan. In an interview with the New York Times, he said, "In the meantime, we have lots of lawsuits moving forward with potentially billions of dollars at stake."

Because the lawsuits raising these questions are in the early stages of litigation, it could be years before a federal district court rules on the matter or these cases go to the Supreme Court. Regulators have yet to make definitive rulings on the rights and responsibilities of AI companies using original content or about the creators of that content.

What U.S. Copyright Law Says

The Copyright Office has adopted an official policy declaring that it will "register an original work of authorship, provided that the work was created by a human being." This leads to the question of whether or not AI-generated content can be considered to be created by a human being. In one sense, it is, yet the program usually generates content that no human being is responsible for, leaving the question largely unanswered.

To answer this question, we must consider the concept of authorship. Article I, Section 8 of the U.S. Constitution authorizes Congress to "[secure] for limited times to authors… the exclusive right to their… writings." That means that the Copyright Act affords copyright protection to "original works of authorship." What constitutes authorship? Both the Constitution and Copyright Act are silent on that question.

The September 2023 report published by the Congressional Research Service suggested that the Copyright Office wasn't likely to find the requisite human authorship where an AI program generates works in response to text prompts.

However, we must consider the human creativity required to design AI software. Programmers may make creative choices in coding and training the AI software, giving them a stronger claim to some form of authorship. Would the programmers' contributions warrant copyright protection? Or would AI—or rather the company that owns the AI program like Microsoft or OpenAI—deserve the

protection?

The U.S. Copyright Office acknowledges that the advent of AI presents unprecedented difficulties that Congress must address. "[W]e have concluded that a new law is needed," stated a July 2024 U.S. Copyright Office report "Copyright and Artificial Intelligence." "The speed, precision, and scale of AI-created digital replicas [call] for prompt federal action. Without a robust nationwide remedy, their unauthorized publication and distribution threaten substantial harm… in the entertainment and political arenas."

The report proposes adopting a new federal law that protects all individuals, not just celebrities or public figures, against creating and distributing their digital likenesses without consent. It calls for online service providers to "remove unauthorized digital replicas" upon receiving "effective notice." The report also gives individuals the right to "license and monetize" their digital replica rights. The agency acknowledges that First Amendment concerns need to be accounted for in any new statute. The proposed reforms would also protect "against AI outputs that deliberately imitate an artist's style," but any new law would not define what this style constitutes.

How Other Countries Protect Content

Cases in other countries offer few valuable precedents. In March 2012, for example, in an Australian case (*Acohs Pty Ltd v. Ucorp Pty Ltd*), a court found that a work generated by a computer could not be protected by copyright law because a human did not produce it.

In 2009, the Court of Justice of the European Union declared in the Infopaq decision "that copyright only applies to original works, and that originality must reflect the 'author's own intellectual creation,'" stated WIPO magazine.

Courts in other countries—India, Ireland, New Zealand, and Hong Kong—are more favorable to the programmer as the "author." Copyright law in the United Kingdom appears to hedge its bets: "In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken," added the article.

Lack of Clarity on What Constitutes Infringement

The generative process of making large language models, image-producing

programs like DALL-E, music composition, and voice recognition require training. AI can only generate something with this training, which invariably involves making digital copies of existing works.

According to the U.S. Patent and Trademark Office, this process "will almost by definition involve the reproduction of entire works or substantial portions thereof." For instance, OpenAI accepts that its programs are trained on "large, publicly available datasets that include copyrighted works."

Whether or not copying constitutes fair use depends on four statutory factors under 17 U.S.C. § 107, according to Cornell Law School:

"[T]he purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

[T]he nature of the copyrighted work;

[T]he amount and substantiality of the portion used in relation to the copyrighted work as a whole;

[T]he effect of the use upon the potential market for or value of the copyrighted work."

Depending on the jurisdiction, different federal circuit courts may respond with varying interpretations of the fair use doctrine, which allows copyrighted work to be used without the owner's permission "for purposes such as criticism (including satire), comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research," according to the nonprofit publication Lawfare. This is called transformative use under the doctrine and lets a person "exploit" copyrighted material in a way it was not originally intended.

In a submission to the House of Lords Communications and Digital Select Committee inquiry in December 2023, OpenAI said it could only train large language models, such as its GPT-4 model, by accessing copyrighted work. "Because copyright today covers virtually every sort of human expression—including blog posts, photographs, forum posts, scraps of software code, and government documents—it would be impossible to train today's leading AI models without using copyrighted materials."

According to the congressional report, "OpenAI argues that its purpose is

‘transformative’ as opposed to ‘expressive’ because the training process creates ‘a useful generative AI system’” and further contends that fair use is applicable because the content it uses is intended exclusively to train its programs and is not shared with the public. If a work is considered “transformative” based on OpenAI interpretation, it has to be significantly altered from the original so it is not viewed as an imitation.

Meanwhile, OpenAI, which has created tools like its groundbreaking chatbot, ChatGPT, stated that it would be impossible without access to copyrighted material. However, the company insists that it has taken steps to avoid the possibility of infringement, asserting, for example, that its visual art program DALL-E 3 “is designed to decline requests that ask for an image in the style of a living artist.”

The AI company also maintains that it needs to use copyrighted materials to produce a relevant system: “Limiting training data to public domain books and drawings created more than a century ago might yield an interesting experiment, but would not provide AI systems that meet the needs of today’s citizens,” stated a January 2024 article in the Guardian.

As a legal precedent, the company cites the *Authors Guild, Inc. v. Google, Inc.*, “in which the U.S. Court of Appeals for the Second Circuit held that Google’s copying of entire books to create a searchable database that displayed excerpts of those books constituted fair use,” the congressional report stated.

Unsurprisingly, OpenAI’s position has met with considerable criticism. “We won’t get fabulously rich if you don’t let us steal, so please don’t make stealing a crime!” wrote AI skeptic Gary Marcus on the social media site X (formerly known as Twitter). “Sure, Netflix might pay billions a year in licensing fees, but ‘we’ (OpenAI) shouldn’t have to!”

When Is a Piece of Work Too Similar?

Copyright owners have to adhere to high standards to demonstrate that the production of an AI program has infringed their rights; for example, if a painter maintains that a DALL-E image bears an uncanny resemblance to their work, it would lead to copyright infringement “if the AI program both 1) had access to their works and 2) created ‘substantially similar’ outputs,” the report stated.

“Courts have variously described the test as requiring, for example, that the

works have 'a substantially similar total concept and feel' or 'overall look and feel' or that 'the ordinary reasonable person would fail to differentiate between the two works,'" added the report.

Leading cases have also pointed out that such deduction should consider "the qualitative and quantitative significance of the copied portion in relation to the plaintiff's work as a whole." However, the painter might be able to prove that an image was scraped off the internet to "train" the program, resulting in an image similar to their original creation in most, if not all, respects.

In OpenAI's words, though, any allegation of infringement by a copyright holder would be "an unlikely accidental outcome."

Courts have been asked to clarify what a "derivative work" is under intellectual property laws. Alternatively, some AI programs may be used to create works involving existing fictional characters, which sometimes enjoy copyright protection in and of themselves. An AI program may also be prompted to create artistic or literary works "in the style of" a particular artist or author. However, emulation of an artist or author's style does not violate copyright law.

These cases also raise the possibility that users of the images and text generated by AI companies, which infringe on the copyrights of existing works, may also be liable, in addition to the AI companies that produced them. (Legal penalties were imposed on users who downloaded music illegally from the now-defunct Napster.)

The AI company could potentially face liability under the doctrine of "vicarious infringement," which pertains to defendants who have "the right and ability to control the infringing activities" and "a direct financial interest in such activities." Of course, users might be innocent of any wrongdoing if they did not prompt the program with any awareness of what they would obtain. How would the owner of a copyrighted work then establish infringement?

For example, OpenAI's terms of use seem to let the company off the hook by assigning any blame for copyright issues on the user: "We hereby assign to you all our right, title, and interest, if any, in and to Output." Andres Guadamuz, an intellectual property law professor at the University of Sussex, wrote in July 2022 that OpenAI appears to "cleverly bypass most copyright questions through contract."

In September 2023, a U.S. district court stated that a jury trial would be needed to determine whether it was fair use for an AI company to copy case summaries from Westlaw—a legal research platform owned by Thomson Reuters—to train an AI program to quote pertinent passages from legal opinions in response to user questions.

"[B]y denying summary judgment on copyright infringement to the AI builder and user, the decision opens the door to the kind of lengthy, expensive and uncertain litigation that could deter builders and users of AI from using copyrighted works as training data," according to Moses Singer, a law firm based in New York.

Does Section 230 Exempt AI Companies From Responsibility?

Under Section 230 of the Communications Decency Act—which shields companies from hosting potentially litigious content posted by others and social media companies like X and Meta (the parent company of Facebook) that carry content, including ads of AI-generated actors—"can claim immunity." Since it was established in 1996, Section 230 has been invoked to justify why tech firms have significant legal protection from liability as third-party publishers.

Chamber of Progress, a tech industry coalition whose members include Amazon, Apple, and Meta, argued that Section 230 should be expanded to protect AI companies from some infringement claims. That raises the issue of whether Section 230's exemption can also cover advertising and publicity for intellectual property rights.

AI Companies Offer Their Justifications

Tech companies with AI products have advanced arguments justifying their methods, including using copyrighted material to "train" their programs. Meta asserts that "a first-of-its-kind licensing regime now" will lead to chaos and send developers scrambling to identify many millions of rights holders "for very little benefit, given that any fair royalty due would be incredibly small in light of the insignificance of any one work among an Al training set."

Google points out that there wouldn't be any copyright questions if training could occur without creating copies. It further declares that the act of "knowledge harvesting"—like reading a book and learning information from it—hasn't been considered an infringement by the courts. In that sense, Google is not doing anything different when it propagates AI outputs and makes them available to

users.

Microsoft claims that if the company were to obtain consent for accessible works to be used for training, AI innovation would be stifled. It would not be possible to attain the "scale of data necessary to develop responsible AI models even when the identity of a work and its owner is known." Licensing arrangements could also prevent startups and companies in smaller countries from training their own AI models.

Anthropic, an AI company, echoes Microsoft's argument, maintaining that "appropriate limits to copyright" are necessary "to support creativity, innovation, and other values."

Andreessen Horowitz, a venture capital company with many tech investments, says it has worked on the premise that the current copyright law allows any copying necessary to extract statistical facts to develop AI technologies. "Those expectations have been a critical factor in the enormous investment of private capital into U.S.-based AI companies, which, in turn, has made the U.S. a global leader in AI."

If these expectations are compromised, Andreessen Horowitz contends, it could jeopardize future investment in AI and put the United States' economic prospects and national security at risk.

Hugging Face, an AI company, asserts that using a given work in training its models "is of a broadly beneficial purpose"—namely, an AI model "capable of creating a wide variety of different sort of outputs wholly unrelated to that underlying, copyrightable expression." Like OpenAI and other tech companies, Hugging Face relies on the fair use doctrine in collecting content to build its models.

Art, Photos, and AI

Many companies with copyrighted content argue against the justification provided by tech companies for using their material under "fair use." In February 2023, Getty, an image licensing service, filed a lawsuit against the creators of the AI art generator Stable Diffusion, alleging "brazen infringement of Getty Images' intellectual property on a staggering scale." Getty Images stated that Stability AI, which owns Stable Diffusion, had copied 12 million images without permission, violating the copyright and trademark rights.

Getty also dismissed any defense that relied on fair use, arguing that Stable Diffusion produced commercial products that could jeopardize Getty's image marketing.

Getty asserted that the images produced by the AI company's system were similar or derivative enough to constitute infringement. In another case filed in late 2022, *Andersen et. al. v. Stability AI et. al.*, three artists filed a class-action complaint against several generative AI platforms, claiming that Stability AI had used their "original works without license to train AI in their styles," stated a Harvard Business Review article. The software could generate images responding to users' prompts, which were insufficiently "transformative… and, as a result, would be unauthorized derivative works." In legal terms, the artists claimed that Stability AI was guilty of "vicarious infringement."

Stability AI announced in 2022 that artists could opt out of the next generation of the image generator, which was released to some developers for preview in April 2024. This is not only "too little, too late" but also puts the burden of intellectual property protection on the artists, not the company, since Stability AI will only make an exception for works created by artists who opted out.

The practice of using original works is widespread. This fact was further highlighted in December 2023 when a database of artists whose works were used to train Midjourney—a generative AI program—was leaked online. The database listed 16,000 artists, including Keith Haring, Salvador Dalí, David Hockney, and Yayoi Kusama.

Artists protested in various ways, posting "No to AI-Generated Images" on social media, adopting a tool that "poisoned" image-generating software, and filing several lawsuits accusing AI companies of infringing on intellectual property rights.

One of these tools is called Nightshade, whose website says that it is designed to "address" the "power asymmetry" between image owners and AI by transforming "images into 'poison' samples so that models training on them without consent will see their models learn unpredictable behaviors that deviate from expected norms," the software website stated.

"Generative AI is hurting artists everywhere by stealing not only from our pre-existing work to build its libraries without consent, but our jobs too, and it doesn't

even do it authentically or well," said artist Brooke Peachley, according to a January 2024 article in Hyperallergic.

Not all artists, however, oppose the use of AI in the creative process. In September 2022, the artist Kris Kashtanova registered a copyright for a graphic novel whose images were generated by Midjourney. In February 2023, the Copyright Office revoked the registration, arguing that Kashtanova had failed to reveal that an AI model had created the images for her novel.

The Copyright Office determined that Midjourney, not Kashtanova, was responsible for the "visual material." A month later, guidance was released stating that when AI "determines the expressive elements of its output, the generated material is not the product of human authorship."

One of the artist's lawyers disagreed, stating that the Copyright Act doesn't need such creative control and that original art can incorporate "a degree of happenstance." His position runs contrary to that of a law professor who said that a human user "who enters a text prompt into an AI program has… 'contributed nothing more than an idea' to the finished work," stated the Congressional Research Service report. As a result, the work produced by this idea cannot be copyrighted.

In another case involving an inventor named Stephen Thaler, a federal judge in Washington, D.C., affirmed the policy adopted by the Copyright Office. In this case, Thaler "listed his computer system as the artwork's creator" and wanted a copyright issued and given to him as the machine's owner. When the Copyright Office rejected his request, he sued the agency's director. Meanwhile, the judge ruled that an AI-generated artwork wasn't subject to copyright protection because it lacks "human involvement."

The Copyright Office also turned down an artwork titled "Théâtre D'opéra Spatial" by the artist Jason Michael Allen, whose piece won first prize at the Colorado State Fair in 2022. According to a September 2023 article in Wired, Allen vowed, "I'm going to fight this like hell," declaring that he would file a suit against the federal government for denying him copyright protection even though he used Midjourney to create his work.

The Copyright Office stated Allen was entitled to apply for copyright solely for the parts of the work he had altered using Adobe Photoshop software. "The

underlying AI-generated work merely constitutes raw material which Mr. Allen has transformed through his artistic contributions," Allen wrote. The Copyright Office was unpersuaded.

Despite the Copyright Office's position and the artists' vehement opposition, some auction houses and museums have embraced AI. Several artists are happy to exhibit or sell their creations in these institutions. German artist Mario Klingemann, who specializes in AI works, created a series of portraits under the title *Memories of Passersby I*, exhibited in 2019 at Sotheby's, a premier auction house.

For his work, Klingemann used a type of AI program known as a generative adversarial network (GAN), which consists of two modules; the resulting images are bounced back and forth between the modules. In this case, the program was trained with exposure to a vast collection of portraits from the 17th, 18th, and 19th centuries, shortlisted by Klingemann. His was one of several AI-generated artworks that were put up for sale at Sotheby's.

The Museum of Modern Art (MoMA) in New York has also exhibited AI-generated work, hosting the AI installation "Unsupervised" in 2022. Assembled by the artist Refik Anadol, the work ponders what a machine might dream about after seeing more than 200 years of art in MoMA's collection. In the Hague, the Mauritshuis mounted an AI version of Johannes Vermeer's "Girl With a Pearl Earring" while the original was on loan.

Writers Confront AI

Like artists, writers have viewed AI warily, concerned that the ability of the software—specifically ChatGPT—to compose and draft essays, novels, and other forms of writing in response to user prompts could put them out of business. Publishers Weekly, which covers the publishing landscape, reminds readers that AI has existed for many years and is already integrated into much of the industry's software.

The Authors Guild, as well as authors Paul Tremblay, Ta-Nehisi Coates, Michael Chabon, and comedian and writer Sarah Silverman, have filed multiple lawsuits against OpenAI and Meta, claiming the training process for AI programs infringed on their copyrights in written and visual works. In February 2024, however, a federal district court threw out most of the arguments made in the copyright

infringement lawsuits filed against OpenAI by these authors, stating that the plaintiffs had failed to show examples where AI-generated output was "substantially similar—or similar at all—to their books."

The ruling, which left the authors' central argument that the OpenAI system "copied and ingested" their copyrighted work without permission or compensation, was similar to an earlier ruling in a lawsuit filed by authors against Meta's generative AI system, Llama. "When I make a query of Llama, I'm not asking for a copy of Sarah Silverman's book," the judge, in that case, wrote, "I'm not even asking for an excerpt."

E-books, probably produced by AI (with little or no human author involvement), have begun to appear on Amazon's online bookstore. AI researcher Melanie Mitchell was concerned that a book with the same title as hers—*Artificial Intelligence: A Guide for Thinking Humans*, published in 2019—had appeared on Amazon but was only 45 pages long, poorly written (though it contained some of Mitchell's original ideas), and attributed to one "Shumaila Majid." Despite not having an author bio or internet presence, a search brought up several other titles by "Majid."

An investigation by Wired magazine using deepfake detection software revealed that Mitchell's suspicion was correct. The software found that the knockoff was 99 percent likely AI-generated. Amazon took down the Majid version, stating: "While we allow AI-generated content, we don't allow AI-generated content that violates our Kindle Direct Publishing content guidelines, including content that creates a disappointing customer experience."

AI-generated summaries of books, marketed as e-books, are another widespread phenomenon that has daunted writers. Computer scientist Fei-Fei Li, author of *The Worlds I See: Curiosity, Exploration, and Discovery at the Dawn of AI*, found more than a dozen different summaries of her work on Amazon, which she had nothing to do with.

These e-books, which are summaries of original works, have been "dramatically increasing in number," said Jane Friedman, a publishing expert, who herself was victimized by another "AI-generated book scheme." "It's common right now for a nonfiction author to celebrate the launch of their book, then within a few days discover one of these summaries for sale," wrote Kate Knibbs, a senior writer at

Wired, in January 2024.

However, the writers of these summaries may not be liable for infringement. Some experts specializing in intellectual property believe summaries are legal because they don't copy "word-for-word" from the book they're summarizing. Other IP experts are more skeptical. "Simply summarizing a book is harder to defend," said James Grimmelmann, an internet law professor at Cornell University. "There is still substantial similarity in the selection and arrangement of topics and probably some similarity in language."

"It's disturbing to me, and on multiple moral levels seems wrong, to pull the heart and sensitivity out of the stories," said author Sarah Stankorb, according to the Wired report. "And the language—it seemed like they just ran it through some sort of thesaurus program, and it came out really bizarre."

She suspects that her book *Disobedient Women: How a Small Group of Faithful Women Exposed Abuse, Brought Down Powerful Pastors, and Ignited an Evangelical Reckoning* was summarized and posted on Amazon before publication, based on an advance copy of the book distributed only to reviewers. She found the imitation blatant when she compared the two texts. "In my early days reporting, I might do an interview with a mompreneur, then spend the afternoon poring over Pew Research Center stats on Americans disaffiliating from religion."

That's the opening line from Stankorb's book. A summary version of that line stated: "In the early years of their reporting, they might conduct a mompreneur interview, followed by a day spent delving into Pew Research Center statistics about Americans who had abandoned their religious affiliations." The same software that Wired used to determine that AI generated Majid's e-book revealed that Stankorb's summary was as well.

According to Dave Karpf, an associate professor of media at George Washington University, AI might not be as dangerous as people predict. "I suspect… that 2024 will be the year we are reminded of the Ghost of Napster—and other failed digital futures," he wrote in Foreign Policy magazine in December 2023. "The story that I often hear from AI evangelists is that technologies such as ChatGPT are here, and they are inevitable."

"If outdated copyright laws are at odds with the scraping behavior of large

language models, copyright law will surely need to bend as a result," Karpf wrote. But he believes that AI could be "another Amazon," or it may turn out more like WeWork, "a company that so heavily inflated its own revenue projections that it couldn't break even in today's rental market."

"Copyright law doesn't bend to accommodate your vision of the digital future—the digital future bends to accommodate copyright law," Karpf added.

AI-Generated Song Goes Viral

The controversy surrounding the AI-generated song "Heart on My Sleeve,"using AI versions of the voices of rap star Drake and singer The Weeknd, raises some of the unprecedented issues posed by AI. While "Heart" received a lot of attention, it is only one in a spate of AI-generated songs with accompanying videos. An AI-generated version of Johnny Cash singing a Taylor Swift song went viral online in 2023.

After its release in April 2023, "Heart on My Sleeve" was credited to Ghostwriter and heard millions of times on streaming services. Although Universal Music Group, which represents both artists, argued that AI companies violate copyright by using these artists' songs in training data, legal observers say the song was original even if it was imitative. They also claim that Ghostwriter wasn't infringing on any existing work whose rights belonged to Drake, The Weeknd, and Universal. By the time Universal sent take-down notices, third parties had copied and uploaded the song.

Copyright does not protect an artist's voice, style, or flow. However, infringement may occur if a song is similar enough to an earlier work in style and "feel," an ambiguous determination that courts are frequently called upon to adjudicate.

Jered Chavez has also been steadily making AI-generated music clips, producing a cappella versions of songs trained to sound like the most recognizable musicians in the world. These clips have proven remarkably popular on TikTok and are cheap and simple to make.

Sting and other music artists have denounced the production of AI songs that use famous artists' vocals. In a May 2023 interview with BBC News, Sting criticized the use of AI in music, saying that it would require musicians to defend their "human capital against AI," declaring, "The building blocks of music belong to us, to human beings."

“It’s easy to use copyright as a cudgel in this kind of circumstance to go after new creative content that you feel like crosses some kind of line, even if you don’t have a really strong legal basis for it, because of how strong the copyright system is,” said Nick Garcia, policy counsel at Public Knowledge, to the Verge.

Another matter of concern is violating the artists’ rights by using their voices to train AI programs. Yet, creators and publishers are armed with relevant laws to fight back. The right of publicity (sometimes called the “right of privacy”) can be invoked by a singer whose voice has been cloned. Still, this right is only on record in certain states—notably New York and California, where many major entertainment companies are located. Real Drake and The Weeknd could sue Ghostwriter using the same law that Wheel of Fortune’s longtime co-host Vanna White relied on to sue a metallic android lookalike used in a Samsung advertisement in 1992, pointed out in the Verge article.

These right of publicity laws protect against unauthorized commercial uses of a person’s name, likeness, and persona while protecting individuals’ exclusive rights to profit from their identities.

‘If You Can’t Beat ’Em, Join ’Em’

The singer Grimes has taken a different approach to AI by allowing her fans to create and distribute songs using an AI-produced version of the artist’s voice without legal penalty.

However, she isn’t giving up all rights since the invitation requires fans to use a customized “GrimesAI voiceprint” using a software program called Elf.Tech. While they can use the program to produce original songs, they still need to credit the singer as the main or featured artist.

Anyone who uses her voiceprint will also have to split the royalties with her on a 50/50 basis, and Grimes will have to approve the “collaboration.” Grimes further stipulates that she “does not claim any ownership of the sound recording or the underlying composition” unless the composition originated with Grimes. Fans should feel free to use her voice “without penalty,” and added that she liked the idea of “open-sourcing all art and killing copyright.”

The New York Times and Other Publications Sue

In December 2023, the New York Times sued the tech companies OpenAI and Microsoft for copyright infringement. It was the first such challenge by a major

American news organization. The Times contends that OpenAI's ChatGPT and Microsoft's Copilot can produce content nearly identical to the Times articles, giving them a "free ride on its massive investment in journalism to build substitutive products without permission or payment." NYT claims that Microsoft's search engine Copilot, which uses OpenAI's ChatGPT, provided results that substantially copied "verbatim" from the paper's Wirecutter content.

OpenAI disputed these claims: "We support journalism, partner with news organizations, and believe the New York Times lawsuit is without merit." NYT admitted in its suit that it had been in talks with Microsoft and OpenAI about terms for resolving the dispute "but failed to reach a solution," according to a December 2023 article in the Verge.

In April 2024, eight daily newspapers (including the New York Daily News, Chicago Tribune, and Denver Post) owned by Alden Global Capital followed the Times' example. They sued OpenAI and Microsoft, alleging that the tech companies used millions of copyrighted articles without permission to train their generative AI products.

Alden's suit also cited errors by OpenAI's ChatGPT in response to user prompts and accused them of "reputational damage." One OpenAI response stated that the Chicago Tribune had recommended an infant lounger, which was not the case. Moreover, the product had been recalled because it was linked to newborn deaths. In another example, the AI "made-up answers" falsely said that "research" published in the Denver Post stated that smoking could "cure" asthma, according to the new website Axios. An OpenAI spokeswoman claimed the company "was not previously aware of Alden's concerns."

The suit comes as other major media companies, such as the Associated Press and Axel Springer, the German owner of outlets like Politico and Business Insider, have reached data licensing agreements with OpenAI.

OpenAI has also conducted discussions with the News/Media Alliance, a journalism trade group representing more than 2,200 media outlets worldwide, "to explore opportunities, discuss their concerns, and provide solutions." In addition, the AI company has also been in conversations with Gannett, CNN, and IAC, an internet media company.

Some companies have realized that it's better to collaborate with AI companies

than to fight them. In May 2024, News Corp and OpenAI announced a multiyear agreement to bring the news media's content to OpenAI. That gives the software company access to "current and archived content" from the Wall Street Journal, Barron's, MarketWatch, New York Post, the Times and the Sunday Times, and the Sun (UK), as well as such Australian newspapers as the Daily Telegraph, the Courier Mail, the Advertiser and, the Herald Sun.

In May 2024, Atlantic Magazine and Vox Media (which includes Vox, the Verge, Eater, the Cut, and Vulture) reached an agreement with OpenAI that allows the software company to use its archived content to train its AI models. "Both agreements also allow OpenAI to tap into the respective publishers' current content to fuel responses to user queries in OpenAI products, including ChatGPT," wrote Axios senior media reporter Sara Fischer.

Not everyone involved was pleased with this arrangement. In the Atlantic, writer Damon Beres called the multiyear agreement a "Devil's Bargain," pointing out that the technology has "not exactly felt like a friend to the news industry." However, Beres conceded that "generative AI could turn out to be fine" but that it would take time to find out.

Predictably, compensation is a crucial issue. OpenAI has reportedly offered between $1 and $5 million annually to license copyrighted articles, although for some top publishers, the amount OpenAI has proposed is too low.

Marc Benioff, Salesforce Inc.'s chief executive officer and owner of Time magazine, asserted that AI companies have been ripping off "intellectual property to build their technology." "All the training data has been stolen," he said at the World Economic Forum in Davos in January 2024.

Benioff said, "Nobody really exactly knows" what an equitable compensation for their data would be but suggested that "AI companies should standardize payments to treat content creators fairly." Despite his concerns, Benioff's Time is among publications negotiating with OpenAI to license their work.

In February 2024, three online media companies—Raw Story, Alternet, and the Intercept—sued OpenAI, claiming that the company had trained its chatbot using copyrighted works without proper attribution. The three companies sought $2,500 per violation and asked OpenAI to remove all copyrighted articles in its data training sets. The Intercept also sued Microsoft, an OpenAI partner that

created its own chatbot using the same articles.

“It is time that news organizations fight back against Big Tech’s continued attempts to monetize other people’s work,” said John Byrne, the chief executive and founder of Raw Story, which owns Alternet, according to an article in the New York Times. “Big Tech has decimated journalism. It’s time that publishers take a stand.”

The SAG/AFTRA Strike: Why AI Matters to Screen, Television, and Streamer Actors

The use of AI was one of the major points of contention for the labor union, the Screen Actors Guild-American Federation of Television and Radio Actors (SAG-AFTRA), which went on strike from July to November 2023. The screen actors’ strike overlapped for several months with the screenwriters’ walkout. For the Writers Guild of America (WGA), as the screenwriters guild is known, AI was also one of the outstanding issues in negotiating a new contract with the studios.

SAG-AFTRA’s March 2023 statement left no room for ambiguity: “Human creators are the foundation of the creative industries, and we must ensure that they are respected and paid for their work. Governments should not create new copyright or other IP exemptions that allow AI developers to exploit creative works, or professional voices and likenesses, without permission or compensation. Trustworthiness and transparency are essential to the success of AI.”

SAG-AFTRA’s executive director Duncan Crabtree-Ireland “called out the ‘double standard’ in the relationship between actors and corporations when it comes to copyright infringement,” wrote Katyannah Quach in an October 2023 article in the Register. Why was it permissible for businesses to use AI to generate material as they wish, he asked, but if a person were to use a business’s intellectual property, it becomes a problem?

“After all, if an individual decided to infringe on one of these companies’ copyright protected content and distribute it without paying for the licensing rights, that individual would face a great deal of financial and legal ramifications,” Crabtree-Ireland said at a conference titled “Creative Economy and Generative AI.” “So why is the reverse not true? Shouldn’t the individuals whose intellectual property was used to train the AI algorithm be at least equally protected?”

Actors feared corporations could consistently exploit their likenesses for free once

the actors were scanned. Tom Hanks has already denounced using his likeness for commercial purposes: “There’s a video out there promoting some dental plan with an AI version of me. I have nothing to do with it.” The daughter of actor Robin Williams has issued a statement finding it “disturbing” that her father’s voice was being replicated in AI tests.

Actress Scarlett Johansson also found that her voice and likeness were used in a 22-second online ad on X. Her attorney filed a suit. Taylor Swift’s face and voice were featured in advertisements for Le Creuset cookware. In the ads, the singer’s clone addressed her fans as “Swifties” and said she was “thrilled to be handing out free cookware sets,” stated a New York Times article. While Swift reportedly likes Le Creuset products, she never appeared in one of their ads.

Johansson was in the news again in May 2024 when she alleged that OpenAI was using her voice for its conversational ChatGPT called Sky. (Sky was one of five voice assistants OpenAI introduced.) Sam Altman, OpenAI’s CEO, asserted that the voice wasn’t Johansson’s but the voice of another actress whose identity he declined to disclose. He had, however, approached Johansson initially, based on his expressed admiration for the 2013 film “Her,” for which “she provided the voice for an AI system.”

In response to Johansson’s complaint, Altman announced that he was suspending the use of Sky’s voice. “Out of respect for Ms. Johansson, we have paused using Sky’s voice in our products,” Altman said in a statement to NPR. “We are sorry to Ms. Johansson that we didn’t communicate better.” The actress wasn’t appeased. “When I heard the release demo, I was shocked, angered, and in disbelief that Mr. Altman would pursue a voice that sounded so eerily similar to mine that my closest friends and news outlets could not tell the difference,” she said.

Numerous other AI celebrity endorsements, such as an AI clone of country singer Luke Combs promoting weight loss gummies, have popped up. AI versions of the journalist Gayle King and the YouTube influencer Jimmy Donaldson (“MrBeast”) have also manifested in ads without their permission.

In November 2023, SAG signed a deal that allowed for the use of the digital replication of members’ voices for video games and other forms of entertainment if the companies secured consent and guaranteed minimum payments. The agreement will be a “big benefit to talent and a big benefit to studios,” said

Shreyas Nivas, co-founder and chief executive officer of Replica, a voice AI technology company, adding that it would "[provide] a framework for use of AI in the production of video games," according to Business Standard.

Video Games Actors Strike

Video game performers walked off the job in July 2024 after contract negotiations between the union and the entertainment industry collapsed. Negotiations with gaming companies, including divisions of Activision, Warner Brothers, Electronic Arts, Insomniac Games, and Walt Disney Co., over a new interactive media agreement had been ongoing for two years. The industry accounts for more than $100 billion in profit annually, according to game market forecaster Newzoo. While the union is part of SAG-AFTRA, it has a different contract than the one covering TV and film actors.

As in the case of the SAG strike, AI was at the forefront of the dispute. The union believes its members are harmed if their likenesses are used to train AI to replicate an actor's voice or create a digital replica without consent or fair compensation. "The industry has told us point-blank that they do not necessarily consider everyone who is rendering movement performance to be a performer that is covered by the collective bargaining agreement," said Ray Rodriguez, chief contracts officer for SAG-AFTRA.

The industry negotiators, meanwhile, have been unable to find common ground with the union's stance. "We have already found common ground on 24 out of 25 proposals, including historic wage increases and additional safety provisions," said Audrey Cooling, a spokesperson for the video games companies in the negotiations. "Our offer is directly responsive to SAG-AFTRA's concerns and extends meaningful AI protections that include requiring consent and fair compensation to all performers working under the IMA [Interactive Media Agreement]. These terms are among the strongest in the entertainment industry."

WGA Strike: Why Screenwriters Fear AI

When the screenwriters—who work on film scripts and TV programs (including late-night shows)—struck in early 2023, they also demanded that their work's rights be protected from being used to train AI software and write or rewrite scripts. Using AI for these purposes could theoretically save the studios a lot of money—and potentially put a lot of writers out of work.

In their statement, the Writers Guild of America declared that "GAI (generative artificial intelligence) cannot be a 'writer' or 'professional writer' as defined in the MBA [minimum basic agreement] because it is not a person, and therefore materials produced by GAI should not be considered literary material under any MBA."

The WGA held that AI is allowed in some instances, such as when the employer discloses that AI wrote the material or when the writer uses AI in preparing their screenplay or teleplay with the company's consent.

When the contract was agreed upon, and the strike ended in September 2023, the guild received much of what it wanted regarding salary increases and AI.

The studios agreed that AI-generated content couldn't be used to generate source material, meaning that a studio executive couldn't ask writers to create a story using ChatGPT and then ask them to turn it into a script (with the executive claiming rights to the original story). The WGA also "reserves the right to assert that exploitation of writers' material to train AI is prohibited by MBA or other law."

Film Directors Accept AI

In marked contrast to SAG-AFTRA and the WGA, which went out on strike in 2023 to secure better terms in their contracts, the Directors Guild of America (DGA) quickly agreed to a new contract. However, film and TV directors share the same situation as writers and actors. They are hired for each work they direct.

Under U.S. copyright law, they are considered employers. At the same time, producers are the owners of any copyright (more rights accrue to directors in other countries, including the United Kingdom, France, and Italy). Rights are allocated as a result of union contracts with studios. However, the absence of laws recognizing creators' rights to their creations is alarming because of the advent of generative AI tools, which studios may exploit.

In a statement, the DGA warned: "These third parties, who are not bound to our collective bargaining agreements, may ingest and regurgitate copyrighted films and television shows into AI systems without the participation of the copyright owner or the need to agree to the terms of our new agreement."

In case the courts are unequipped to deal with this issue, the DGA and WGA have

called for the "establishment of moral rights" that would recognize directors (and writers) as the original authors of their work, "[giving] them larger financial and creative control over exploitation of their material even when they don't own the copyrights," stated the Hollywood Reporter.

Why the Studios Defend AI

The Movie Picture Association (MPA), AI companies like OpenAI and Meta, and tech advocacy groups see opportunities where the unions see a threat. The MPA and software companies differ on "whether new legislation is warranted to address the unauthorized use of copyrighted material to train AI systems and the mass generation of potentially infringing works based on existing content," according to the Hollywood Reporter article.

The MPA, meanwhile, also declared that the question of fair use should be determined on a "case-by-case basis." "For example, fine-tuning an AI model, specifically using the library of James Bond movies for the purpose of making a competing movie that appeals to the same audience, likely would weigh against fair use."

Despite exceptions like the hypothetical new Bond movie, the MPA argued in favor of "looser standards" when copyrighting works created by AI. It maintained that the Copyright Office is "too rigid" by conferring intellectual property rights only on works created by humans because "it does not take into account the human creativity that goes into creating a work using AI as a tool."

The Legal Future of AI

In 2023, two bills were introduced in Congress to address scams that use AI—the DEEPFAKES Accountability Act in the House and the No Fakes Act in the Senate. Both bills require guardrails such as content labels or permission to use someone's voice or image.

Congress needs to do much more to update copyright protections related to AI. By mid-2024, Congress had yet to make significant progress in enacting legislation on this issue. According to the nonprofit Brennan Center for Justice, several bills introduced in the 118th Congress (2023-2024) focused on high-risk AI, required purveyors of these systems to assess the technology, imposed transparency requirements, created a new regulatory authority to oversee AI or designated the role to an existing agency, and offered some protections to consumers by taking

liability measures. Despite sharply polarized divisions between Democrats and Republicans, there is bipartisan agreement that regulation of AI is needed.

On January 10, 2024, at a Senate hearing on AI's impact on journalism, Republican and Democratic lawmakers agreed that OpenAI and other AI companies should pay media organizations for using their content AI projects. "It's not only morally right," said Richard Blumenthal, the Democrat who chairs the Judiciary Subcommittee on Privacy, Technology, and the Law. "It's legally required," stated a November 2023 Wired article.

Josh Hawley, a Republican, agreed. "It shouldn't be that just because the biggest companies in the world want to gobble up your data, they should be able to do it," he said.

Media industry leaders have decried AI's uncompensated use of their content. Only one voice—a journalism professor—objected at the congressional hearing on the issue, insisting that data obtained without payment for training purposes was fair use. "I must say that I am offended to see publishers lobby for protectionist legislation, trading on the political capital earned through journalism," said Jeff Jarvis, a professor at the Craig Newmark Graduate School of Journalism.

However, experts on AI who were not at the hearing have yet to reach a consensus on the issue of compensation. "What would that even look like?" asked Sarah Kreps, who directs the Tech Policy Institute at Cornell University. "Requiring licensing data will be impractical, favor the big firms like OpenAI and Microsoft that have the resources to pay for these licenses, and create enormous costs for startup AI firms that could diversify the marketplace and guard against hegemonic domination and potential antitrust behavior of the big firms."

There's some disagreement, even among those favoring some form of licensing for AI training data. Northwestern computational journalism professor Nick Diakopoulos underscored the ambiguity: "As a high-quality and up-to-date source of information, news media is a valuable source of data for AI companies. My opinion is that they should pay to license it and that it is in their interest to do so. But I do not think a mandatory licensing regime is tenable."

If Congress doesn't intervene, it will fall to the courts to determine the legality of using copyrighted works in training datasets for AI companies. Is it fair use if the content produced is considered "transformative" as it differs significantly from

the original books or images used to train the software system?

The fact that AI companies are training their systems for profit may sway the Supreme Court in another direction. Do AI companies need to pay for the training data that powers their generative AI systems? Several lawsuits against Meta, Alphabet, and OpenAI may offer an answer about whether training on copyrighted material constitutes infringement.

"It seems everybody thinks that AI needs to be regulated," said artist Stephanie Dinkins, an AI practitioner, during an interview with LG Electronics Associate Curator at Guggenheim Museum, Noam Segal. "I think we need to be thinking about the idea of context and knowing what we're looking at versus just seeing some materialization of something that nobody understands and thinks exists but maybe doesn't. I think that we're so far behind [in] thinking about this in a real way… It still feels like now there are meetings happening, but we're dragging our feet. And it feels as if, at a governmental level, we don't quite understand what we're dealing with yet."

Echoing Dinkins' view, Kevin Roose, tech correspondent for the New York Times, said in a Times podcast that new copyright laws for AI were unnecessary. "But… it feels bizarre that when we talk about these AI models, we're citing case law from 30, 40, 50 years ago. … [It] just feels a little bit like we don't quite have the legal and copyright frameworks that we would need because what's happening under the hood of these AI models is actually quite different from other kinds of technologies."

Impending Peril or Profound Revolution—or Both?
Forget "doomscrolling." It's not half as much fun as the dystopian revels. AI has inspired all sorts of catastrophic scenarios that, in the worst cases, may spell the end of civilization as we know it.

By now, we all know the stories—the deepfakes, including pornographic images of Taylor Swift, that were widely seen before being taken down, or more disturbingly, the naked images of high school girls produced by AI, or for that matter, the synthetic robocalls by AI mimicking the voice of President Joe Biden just before the 2024 New Hampshire primaries.

And we're familiar enough with the hallucinations—the seemingly authentic, even oracular, statements by AI that have no basis.

And there are all those jobs that may soon be redundant because of AI—accountants, reporters, data programmers, retailers, paralegals.—In the 2023 Hulu series, "A Murder at the End of the World," the villain (spoiler alert!) turns out to be AI, echoing the plot of Robert Harris' 2011 novel, *The Fear Index*, published long before the advent of AI, in which a sinister computer program manipulates the financial markets.

But while the machinery operating the malicious software can be destroyed in the Hulu streamer, the malevolent force in Harris's novel can't be unplugged or blown up because it can always make endless copies of itself.

People fear AI networks because they can't predict what the technology can do. While we can feed it with images, music, and data galore, we—users and programmers alike—do not know what the result will be.

AI may turn out to be as profound and revolutionary as the telephone, radio, television, desktop computers, and smartphones. But as with those inventions, which we tend to take for granted, AI may also become incorporated into the fabric of our lives to such a degree that its impact is blunted by its familiarity.

Americans tend to fall in love with the "next big thing." Or, in the case of AI, the "current big thing." Yet another "next big thing" will always emerge. Maybe it will be neural prosthetics—implants inserted in the brain that will enhance our intelligence, ramp up our motor skills, improve memory, and allow us to read somebody else's thoughts.

Such technological advances could give AI a whole new meaning. Then, as is the case now, alarmists will warn us of the looming perils and impending disasters of these new inventions. Congressional hearings are sure to follow. Ideas for guardrails will be considered and dismissed or neglected—even if they are adopted.

Only time will tell whether AI will improve our quality of life or threaten our livelihood and existence.

By Leslie Alan Horvitz

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