Who Holds the Camera?

Filmmaking Justice in the Era of Generative AI

By

Muhammad Khattak, Samuel Eli Cohen, and Kiyoshi Taylor
Stanford University

"I transitioned from graphic art after AI took over many of the opportunities in the field. Since corporations can't create the authentic Black educational content that I do, I've shifted my focus to documentary filmmaking."

Kiyoshi Taylor, Educator, Filmmaker

"As a computer scientist and ethicist who makes films, I want to see better data practices and model design."

Muhammad Khattak, Cardinal Gray

"Corporations need our consent. Otherwise it's theft."

Samuel Eli Cohen, screenwriter

Abstract

This paper investigates the ethical, legal, and creative implications of generative AI in filmmaking, with a focus on how artists—particularly those from historically excluded communities—are navigating the rapid rise of machine-generated content. Using OpenAI's GPT-4o "Ghibli-style" image controversy as a launch point, the paper traces the broader cultural and legal tensions surrounding generative AI's use of copyrighted work without consent. Through historical parallels from photography and cinema to early AI storytelling systems, the paper explores how generative AI differs in its ambition to mechanize creativity itself. The authors examine recent industry flashpoints, including the 2023 WGA and SAG-AFTRA strikes, alongside new legal precedents and copyright lawsuits challenging data scraping and authorship rights. Drawing on emerging scholarship and official reports, including the January 2025 U.S. Copyright Office statement reaffirming the necessity of human authorship, the paper proposes a framework for accountable fair use and ethical AI implementation in filmmaking. The authors advocate for transparency, licensing reform, cultural authenticity audits, and investment in human-AI collaboration that augments rather than replaces human artistry. The paper concludes that while generative AI may enhance efficiency and idea generation, it cannot replicate the depth of lived

experience, emotion, and cultural understanding that human creators bring to film. Ultimately, the question of "Who holds the camera?" remains central to the future of cinematic storytelling in the age of machine generated art.

Introduction

On March 26, 2025, OpenAI launched its GPT-4o image generator, and within 24 hours, social media platforms were awash with AI-generated portraits mimicking the signature style of Studio Ghibli. Ghibli-style images of Elon Musk, Donald Trump, and characters from *The Lord of the Rings* circulated widely. Users uploaded photographs and asked GPT-4o to transform them into scenes that looked like they came straight out of *My Neighbor Totoro* or *Howl's Moving Castle*. Even OpenAI CEO Sam Altman joined in, changing his profile picture to a Ghibli-style rendering presumably made using his company's new tool. OpenAI claimed that while it prohibits direct emulation of "living artists," it permits the use of broader "studio styles"—a policy loophole that incensed artists and fans. Critics accused the company of profiting from visual signatures painstakingly developed over decades without compensation or consent. The controversy deepened when even the White House posted a Ghibli-style AI-generated image of a woman crying during deportation, highlighting the stakes of deploying such tools to depict emotionally and politically charged narratives. Hayao Miyazaki, Studio Ghibli's co-founder, had already condemned AI-generated art as "an insult to life itself" back in 2016. His long-standing opposition to machine-generated creativity now seems prescient as lawsuits, cultural backlash, and calls for regulatory oversight proliferate (Zeff, 2025). The Ghibli–GPT-4o episode is just one flashpoint in a much larger debate over the ethical, legal, and cultural consequences of AI-generated content. While tech corporations market generative AI as a democratizing force that opens the doors of creative production to anyone with a prompt, artists, screenwriters, and filmmakers have increasingly pushed back, warning that AI threatens not only their jobs but also the core of artistic authorship and cultural integrity. This paper examines how the film industry, screenwriters, and especially creators from historically excluded communities are navigating the rise of generative AI. It argues for preserving human creativity at the center of filmmaking, proposes policies for equitable data use and licensing, and offers strategies to ensure that AI tools augment rather than replace human artistry.

II. Background

To understand how generative AI reached this point of cultural and legal entanglement, we must first consider the longer history of technological disruption in the arts. From photography to cinema to

early AI storytelling systems, each innovation has challenged dominant ideas of creativity, originality, and authorship. Technology has always facilitated access to new forms of public cultural expression. Until the Industrial Revolution, few imagined technology could replace human production—and when it did, many worried. In *The Salon of 1859*, French poet Charles Baudelaire decried photography as a new medium, which he believed was too literal and lacked the imaginative qualities of traditional art forms like painting: "If photography is allowed to supplement art in some of its functions, it will soon have supplanted or corrupted it altogether, thanks to the stupidity of the multitude which is its natural ally" (Baudelaire, 1992, p. 290). Not everyone shared Baudelaire's elitist disdain for the masses and technologically reproduced art, however. In his highly influential essay, *The Work of Art in the Age of Mechanical Reproduction* (1936), German-Jewish cultural theorist Walter Benjamin argued that technologies like film and photography democratized art by making it accessible to the masses, thereby challenging traditional notions of artistic "aura" and exclusivity (Benjamin, 1986).

Another German-Jewish cultural theorist, Siegfried Kracauer, expanded on Benjamin's argument by emphasizing film's ability to reveal the overlooked aspects of everyday life. In *Theory of Film: The Redemption of Physical Reality*, Kracauer (1960) explores how film's capacity to capture physical reality makes it an inherently democratic medium, capable of revealing truths about society that other art forms might miss: "Films awaken and at the same time satisfy a desire for the unadulterated reality, which they capture and project in all its authenticity. They record and communicate experiences that would otherwise remain in the dark, engaging viewers with the social and material conditions of the world around them" (p. 303). However, while Benjamin and Kracauer celebrated the ways film technology could broaden life experiences and amplify human creativity, the development of generative AI in filmmaking represents a different trajectory—one that seeks to mechanize creativity itself.

Tech innovators have long dreamt of "human-like" output. But early AI efforts built with rule-based systems and symbolic AI remained limited in their ability to generate creative content. Instead, they proved successful at merely suggesting possible directions and starting points. For example, programs like *Tale-Spin*, developed by James Meehan in 1976 (Meehan, 1977), *UNIVERSE*, developed by Michael Lebowitz in 1977 (Lebowitz, 1985), and *MINSTREL*, developed by Scott Turner in 1991 (Turner, 1992), used a knowledge base of storytelling elements and predefined rules to create plot outlines. These systems aimed to simulate a human-like understanding at a rudimentary level, upon which humans could build.

Representing a significant step in the application of AI to the creative process in filmmaking, these early programs still demonstrated several limitations compared to modern generative AI like GPT-4. They operated with the constrained computational power of their time, restricted processing capabilities, and reliance on predefined data—unlike modern AIs that use deep learning and vast datasets. Additionally, they were primarily text-based, whereas today's AI can integrate multiple modalities such as text, image, and speech.

The introduction of deep learning, particularly convolutional neural networks (CNNs) and recurrent neural networks (RNNs), enabled AI to learn and generate more complex patterns and content (Goodfellow et al., 2014). Generative Adversarial Networks (GANs) were instrumental in generating high-quality visual effects and animations in films. Likewise, the development of transformer models like GPT-3 revolutionized natural language processing, enabling AI to generate more human-like text with applications in scriptwriting and dialogue generation (Brown et al., 2020; Isola et al., 2017). Now, generative AI platforms like Midjourney, Runway, and WonderDynamics promise AI-powered visual content generation, effects, and animation. Some recent studies have even argued that, even in its nascent state, "artificial intelligence generative language models [are] more creative than humans on divergent thinking tasks" (Hubert et al., 2024; Moore, 2023). Studios can already use AI to render scenes of packed nightclubs or sprawling battlegrounds—and do so more cheaply than paying for dozens of actual actors (Chow, 2023b).

Everything Everywhere All at Once (2022), directed by Daniel Kwan and Daniel Scheinert—known collectively as "the Daniels"—has been widely rumored to have used generative AI. A *Variety* article entitled "Hollywood 2.0: How the rise of AI tools like Runway are changing filmmaking" claimed the filmmakers widely deployed generative AI to create the film's dynamic and often surreal visual effects, which were crucial for depicting the multiverse concept central to the story (Tangcay, 2023). The Daniels deny such use and have expressed frustration with the media's portrayal of the film as an example of AI revolutionizing filmmaking. Instead, they maintain that the film's success was due to the labor and creativity of its human contributors, not AI technology. Daniel Scheinert asserted, "That headline made me upset, because I feel like our movie is frame by frame the opposite of an AI-generated movie. Like, every single prop, costume, frame—my friends worked their asses off" (Sippell, 2023). Their visual effects artist, Ethan Feldbau, added: "I would even say that *Everything Everywhere* was probably one of the last films made before generative AI and stable diffusion really came into the picture" (Sippell, 2023). The film crew's palpable offense at the

suggestion they used generative AI is now characteristic of artists' desire to distance their work from machine output.

As AI models become more prevalent in the industry, they raise many ethical and legal challenges related to data collection, bias, copyright, and fair use—necessitating ongoing discussions and policy development. Artists, writers, and the broader creative community also criticized the AI-generated opening credits of the Marvel Cinematic Universe (MCU) show *Secret Invasion*. The use of AI in such high-profile projects exemplifies the real-world threat to human artists and writers (Coggan, 2023).

Figure 1. Post on X social media platform from concept artist formerly at Marvel Jeff Simpson, June 21, 2023.

III. The 2023 WGA and SAG-AFTRA Strikes

The Writers Guild of America (WGA), the labor union representing writers in the motion picture, broadcast, cable, and new media industries, launched a strike in May 2023 protesting the integration of AI in screenwriting. On July 13, The Alliance of Motion Picture and Television Producers (AMPTP) advertised a "groundbreaking AI proposal" involving the "use of digital replicas or…digital alterations of a performance." The SAG-AFTRA union decried the proposal as a plan to create background actors with AI. The next day, the Screen Actors Guild - American Federation of Television and Radio Artists (SAG-AFTRA), the labor union that represents film and television actors, journalists, radio personalities, recording artists, singers, voice actors, and other media professionals worldwide, joined the strike (Chow, 2023a). The last time both the Writers Guild of America (WGA) and the Screen Actors Guild-American Federation of Television and Radio Artists (SAG-AFTRA) striked together was in 1960. That strike over sixty years ago focused on residual payments for TV reruns and films sold to television, and the establishment of pension and health plans (Pulver & Shoard, 2023). This time both unions objected to industry AI use and demanded salary increases, and job protections. The WGA reached a tentative agreement with the AMPTP on September 24, ending its strike. SAG-AFTRA continued negotiations, culminating in an agreement on November 8, 2023, concluding the strike with new terms on AI and wages.

The strike's resolution included concessions from the AMPTP, including wage increases, better residual terms, and critical provisions to protect writers from the unchecked use of AI. This outcome testified to the collective power of screenwriters and their determination to safeguard their profession in the face of technological advancements. Most importantly, strike underscored the necessity of ensuring that AI serves to enhance rather than replace human creativity in storytelling (Smith, 2023).

IV. Data Ethics Challenges Presented by Generative AI

Generative AI presents serious challenges for data ethics and cultural authenticity in film and screenwriting. These technologies often struggle to accurately represent the experiences of marginalized communities, resulting in content that perpetuates harmful stereotypes and fails to capture the diverse perspectives of these groups. The field-defining essay “Gender Shades” by Joy Buolamwini and Timnit Gebru (2018) illustrates how AI systems trained on biased datasets can reinforce discriminatory practices, highlighting the severe downstream impacts on marginalized communities. Building on that work, Bender et al. in “On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?” 🦜(2021), critically examine the risks associated with Large Language Models (LLMs), such as the amplification of existing biases and the generation of misleading or harmful text. Their call for a shift towards smaller, more transparent models and the careful curation of training data underscores the importance of ethical considerations in AI development. With respect to creative work like film production, Harry H. Jiang et al. in “AI Art and its Impact on Artists” (2023) argue that the rise of AI-generated images has significant negative consequences for artists, including economic losses, plagiarism, and copyright infringement.They decry the unauthorized use of artists' works to train AI models, which not only replicates artistic styles without consent but also perpetuates cultural stereotypes. Filmmakers have also registered these broader concerns about intellectual property protection in the age of AI, where the lines between human and machine-generated creativity are increasingly blurred, where AI systems frequently use copyrighted works without proper attribution or compensation (Sahota, 2024; Clark, 2024; Schomer, 2024). Tech corporation data indiscriminate data scraping praises profound legal and ethical questions about ownership and authorship in the digital age (Gozalo-Brizuela & Garrido-Merchán, 2023). As generative AI technologies become more ingrained in the creative process, it is crucial to establish a balanced legal framework that protects the rights of human creators while accommodating their use of AI (Pai, 2023).

The political risks of generative AI become particularly stark when the

technology is used by state actors. In March 2025, the White House posted a Ghibli-style AI-generated image of a woman crying during a deportation, created using OpenAI's GPT-4o tool. The image depicted Virginia Basora-Gonzalez, a Dominican national and convicted fentanyl trafficker, in a moment of arrest—rendered in the whimsical, emotionally evocative style of Studio Ghibli. Though the administration likely intended the image to humanize its anti-drug messaging, it sparked widespread backlash. Critics accused the White House of aestheticizing state violence, using AI to generate a "kawaii-style" propaganda image that trivialized the trauma of detention and deportation (Times of India, 2025). The controversy laid bare the ethical dangers of deploying generative AI without consent or cultural sensitivity. It also illustrated how AI-generated imagery, stripped from lived experience, can be appropriated to manipulate public perception while sidestepping human accountability. As Hayao Miyazaki warned, such machine-generated art risks becoming "an insult to life itself"—especially when used to soften or distort real-world suffering.

Figure 2. AI-generated image posted by the White House on X, depicting the arrest of Virginia Basora-Gonzalez in Studio Ghibli style. Critics argued this use of aestheticized AI imagery for political messaging was inappropriate and trivialized human suffering (*Times of India*, 2025).

V. Copyright, Accountable Fair Use, and AI in Filmmaking

Under United States law, creative work requires no registration and becomes copyrighted "the moment it is created and fixed in a tangible form that it is perceptible either directly or with the aid of a machine or device" (U.S. Copyright Office n.d.). Yet, despite being copyrighted and requiring consent for usage, corporate AI scrapes vast amounts of data belonging to artists, writers, and programmers whose creations without attribution or compensation (Jiang et al., 2023; Gokaslan et al., 2019; Gao et al., 2020). This tech industry practice of using

creative work for training data has led to several copyright lawsuits in the United States, which could dramatically shape the future of generative AI. Notable cases include:

- *Tremblay v. OpenAI, Inc.*, No. 3:23-cv-03223 (N.D. Cal.):1 A collection of authors sued OpenAI in the U.S. District Court for the Northern District of California, alleging OpenAI infringed plaintiffs' copyrighted books by training OpenAI's ChatGPT and other AI products with those works. Defendants filed a motion to dismiss all causes of action except the direct copyright infringement claim. The court dismissed certain challenged claims but granted leave to amend the plaintiff's complaint.
- *Andersen v. Stability AI Ltd.*, No. 3:23-cv-00201 (N.D. Cal.): Three visual artists sued Stability AI Ltd., Stability AI, Inc., Deviant Art, Inc., and Midjourney, Inc. on behalf of a putative class in the U.S. District Court for the Northern District of California, alleging defendants infringed plaintiffs' copyrighted images by training their respective generative AI systems with those works. Each defendant moved to dismiss, and the court dismissed all claims against all three defendants with leave to amend except the claim of direct infringement against Stability AI. Plaintiffs filed an amended complaint, adding Runway AI, Inc. to the complaint. As of the date of this article, each defendant has moved to dismiss plaintiffs' amended complaints.
- *Authors Guild v. OpenAI, Inc.*, No. 1:23-cv-08292 (S.D.N.Y.): Authors of registered copyrights sued OpenAI in the U.S. District Court for the Southern District of New York, alleging OpenAI infringed the authors' copyrighted works by training ChatGPT with those works.As of the date of this article, defendant has filed its answer and asserted numerous defenses including fair use.
- *Getty Images (US), Inc. v. Stability AI, Inc.*, No. 1:23-cv-00135 (D. Del.): Getty Images sued Stability AI in the U.S. District Court for the District of Delaware, alleging Stability AI infringed Getty's copyrighted works by training Stability AI's accused AI with more than 12 million of Getty's copyrighted images. Defendant moved to dismiss on multiple grounds and moved to transfer. As of the date of this article, the court has not ruled on those motions.
- *The New York Times Co. v. Microsoft Corp.*, No. 1:23-cv-11195 (S.D.N.Y.): *The New York Times* sued OpenAI and Microsoft (and related corporate entities) in the U.S. District Court for the Southern District of New York, alleging Microsoft and OpenAI infringed the *Times'* copyrighted newspaper articles by training the accused chatbots with the *Times'* articles.

Defendants moved to dismiss, and Microsoft moved to intervene and dismiss, stay, or transfer. As of the date of this article, the court has not ruled on those motions.

- In February 2025, a Delaware federal court ruled against ROSS Intelligence Inc. for using copyrighted material to train its AI, concluding that depriving copyright owners of the ability to license their work as AI training data undermines the fair use defense. This decision may have significant implications for future cases involving AI and copyright.

On January 29, 2025, the U.S. Copyright Office released Part 2 of its "Report on Copyright and Artificial Intelligence," offering an authoritative stance on the copyrightability of AI-generated works. The report reaffirms that copyright protection requires sufficient human authorship, stating that mere prompt engineering or machine-generated output is not enough. However, works containing AI-generated material may still be protected if they also reflect meaningful human creative input—such as arrangement, modification, or incorporation into a larger human-authored work. The Office further concluded that there is currently no need to revise existing copyright laws to extend protection to AI-only outputs. "Our conclusions turn on the centrality of human creativity to copyright," explained Shira Perlmutter, Register of Copyrights. The report draws a bright line around human authorship as the threshold for protection, clarifying the legal gray area facing creators who use generative AI as part of their process (U.S. Copyright Office, 2025).

The outcomes of these cases, which now number over 50 and involve major AI companies and copyright owners, could lead to significant changes in how AI is developed and utilized. If plaintiffs succeed, only AI systems trained on public domain works or licensed content may be legal in the U.S., impacting anyone utilizing generative AI for product development or scientific research. In response, tech corporations complain that such legislation will drive them to countries with more permissive copyright laws (Gilbert, 2023). Currently, most corps ask the cases to be dismissed on the basis of "fair use" and the fact that their use is "transformative" (U.S. Copyright Office. n.d.).

Fair use in U.S. copyright law allows for the limited use of copyrighted material without needing permission from the copyright holder. This doctrine, found in Section 107 of the U.S. Copyright Act, (U.S. Copyright Act, 1976, § 107) applies to specific purposes such as criticism, comment, news reporting, teaching, scholarship, and research. A new work is transformative if it adds new expression, meaning, or message to the original work, effectively altering it in a way that provides new insights or value. Transformative uses include parodies, commentaries, and educational materials that repurpose parts of the original work in a novel way. A key factor in courts' decisions on whether a

particular use qualifies as fair use requires the new work does not merely copy the original but instead builds upon it to create something new and different.

Mark Lemley and Bryan Casey (2020) argue that training machine learning models on copyrighted data should be considered fair use if the final model does not generate content directly from the data. Moreover, they argue that licensing remains a practical impossibility "because training sets are likely to contain millions of different works with thousands of different owners, there is no plausible option simply to license all of the underlying photographs, videos, audio files, or texts for the new use," (Lemley & Casey 2020, p. 748). However, Lemley and Casey as well as Peter Henderson, et al., (2023) also argue generative models can also produce content similar to the original copyrighted material, potentially affecting the market for the original works. In such cases, fair use may not apply, especially when AI generates content similar to existing work that competes with or devalues the original content. Thus, fair use only applies in filmmaking cases where AI references a small part of the work and transforms content, and such instances are difficult to decide because the law remains "murky and evolving," (Henderson, et al., 2023; Shroff, 2024). In AI filmmaking, deploying AI to create new, transformative works could support a fair use claim under these conditions:

- AI filmmakers using factual content for new, creative outputs may have a stronger fair use case.
- How much of the original work is being used and does it constitute the "heart" of the work. Much of the parody and fan fiction that fails to count as fair use adopts main characters, themes or elements from the original. In AI filmmaking, using only small, non-central parts of a work can favor a fair use claim.

Shroff (2024) calls for a "fair" use of fair use, meaning that there needs to be a more accountable approach to this unclear law, which too often sides with the tech corporations. To help ensure such an accountability, Henderson et al. (2023) research technical solutions that might mitigate some of the harms that large models can cause. Their strategies include aligning model outputs with fair use, such as filtering training data, implementing output filters to prevent verbatim copying, and developing new models that are more transformative in nature because the output would differ significantly from the training data. Going beyond mere verbatim overlap, models could be designed to avoid generating outputs that offer close replicas of specific copyrighted works. With reinforcement learning from human feedback (RLHF) human raters can be trained to identify when model outputs are transformative versus when they are derivative so humans can in turn teach

models to create new narratives, combine elements from multiple sources in novel ways, or generate content that shifts the perspective, tone, or purpose of the original material, training them to develop unique styles, themes, or conceptual approaches that distinguish their outputs from the inputs. Acknowledging the technical interventions alone fail to provide the necessary accountability, Henderson et al. (2023) also advocate for a co-evolution of legal standards and technical mitigations, suggesting that strong technical safeguards could help justify safe harbors under the law. For filmmakers, this means working closely with legal experts and AI developers so that the film industry remains accountable to its human creators. Such a responsibility remains difficult to implement because even AI works that surmount all legal and policy hurdles still impact data creators greatly.

Anticipating tech industry claims of machine creativity, filmmakers and screenwriters fight to define art as a uniquely human creation, for which only humans can retain copyright. The Berne Convention, a cornerstone of international copyright law, underscores the principle of human authorship. As Jane C. Ginsburg highlights in her article "People Not Machines: Authorship and What It Means in the Berne Convention," the Convention does not define authorship but implies that authorship pertains to human creators (Ginsburg, 2018). This human-centered notion is crucial when considering the legal status of AI-generated works. Ginsburg argues that while technology evolves, the essence of copyright should remain rooted in human creativity, warning against conflating commercial value with the protection of human authorship.

VI. The Role of Human Creativity

Reflecting on the long history of the art work in the age of mechanical reproduction, Sungjin Park offers a cautiously optimistic reading of Walter Benjamin's "Work of Art" essay even claiming there could be an "artification of democracy," which imagines a "revolutionizing the art world by freeing it from the constraints of subjectivity and, at the same time, challenging traditional artists and artwork hierarchies by positioning them in a subordinate relationship to technology," (Park, 2024). Such a tech positive, post-human aesthetic may work for theorists and non-artists, but from the perspective of creators from marginalized groups who have long fought to have their subjectivity and positionality recognized, there is no "artification of democracy" as long as large models continue to use datasets built on unconsented work that produces outputs harmful to the communities they supposedly represent. Instead, there are greater chances for liberation and democratization in foregrounding human lived experience and cultural understanding in film. Deeply rooted in personal and collective experiences, films, when they succeed, convey authentic emotions, complex

characters, and relatable narratives (Dhillon, 2023). The subtleties of human interaction, the richness of cultural diversity, and the depth of personal struggle and triumph are elements that AI, despite its advancements, cannot fully replicate. In fact, research now exposes some of the limitations of AI generated content, when comparing the models to human output. In the study "Artificial Creativity? Evaluating AI Against Human Performance in Creative Interpretation of Visual Stimuli" Simone Grassini and Mika Koivisto demonstrated the limited creative capabilities of ChatGPT-4, in comparison with human creativity. Deploying the Figural Interpretation Quest (FIQ), a multimodal assessment tool for evaluating creative thinking that challenges participants to produce multiple, novel interpretations of the same abstract figure (Erwin et al., 2022), Grassini and Koivisto tested both AI and human participants' creative interpretations. Results indicate that while AI demonstrates a higher average flexibility in generating diverse interpretations, human participants excel in subjectively perceived creativity. In fact, most creative human responses surpass those of AI in both flexibility and perceived creativity (Grassini & Koivisto 2024). Thus, while generative AI might produce diverse and semantically rich ideas when it describes an abstract figure as a “necklace,” “bracelet,” “rope,” or “scarf,” each representing a different concept and context, it nevertheless failed to replicate the nuanced complexity of human creativity. No matter how large the model, no matter how much stolen data they train, models demonstrate a limited understanding of cultural contexts and an inability to innovate beyond patterns (Runco et al., 2012; Kenett & Faust, 2019; Millett et al., 2023). Unable to fully grasp complex social, historical, and cultural layers, model outputs may be semantically diverse but culturally or contextually inappropriate or shallow (Millet, et al., 2023). Meanwhile AI tech corporations promise these shortcomings will soon disappear, the question remains, why we’d want a tool that so closely mimics our own thinking (Fizer 2024).

Despite such limitations, AI, when used as a collaborative tool, has the potential to significantly augment human creativity in filmmaking. Rather than replacing human creators, AI can serve as an assistant that handles repetitive tasks and provides suggestions when creators reflect on different aesthetic or thematic choices. Generative AI is a good tutor when used not to provide an end product, but to build intuitions, survey possible choices, and help one get “unstuck.” Even banal machine output can encourage innovation by negative, repelling example, an image of horror, or *ein Schreckbild*, as the Germans would say, or a "恐ろしい画像" (osoroshī gazō), in Japanese: a horrifying image that sends humans running in the other direction. With enough AI banality, humans can avoid the incessant cliches that have long plagued industry filmmaking. To use AI as a support

tool requires transparency about AI's role, ensuring that human creators retain control over the final output. Additionally, proper attribution and compensation for artists whose works contribute to AI training datasets are crucial to maintaining ethical standards. By embracing AI as a tool rather than a replacement for human labor, the film industry can leverage technological advancements while preserving the indispensable value of human creativity and experience (Batty & Taylor, 2018; Estupiñán et al., 2018). One pre-generative AI collaboration from a team of researchers from ETH Zurich and Disney Research is CARDINAL, which demonstrates how newer generative AI efforts could serve as a collaborative partner to human creativity. This tool, along with others like it, underscores the potential for AI to enhance the filmmaking process while safeguarding the essential role of human authorship (Marti, et al., 2018).

VII. Policy Recommendations

To address the ethical and creative challenges posed by the integration of generative AI in filmmaking, several policy recommendations are essential. First, the film industry should mandate transparency regarding the use of AI in pre-production processes, such as scriptwriting and visual effects. This transparency will help maintain trust in the authenticity of creative works and ensure that human contributions are acknowledged. Furthermore, introducing certifications for films that meet certain standards of human creativity in AI-assisted works could serve as a mark of quality, signaling to audiences that AI was used ethically and that human input remained central to the creative process.

Building on such transparency measures, it is crucial to establish clear boundaries that protect the most creative stages of filmmaking—especially in pre-production—from excessive AI influence. As highlighted in discussions on the infiltration of AI into various industries, including film, certain aspects of filmmaking, such as scriptwriting and costume design, must remain human-driven to preserve the integrity and originality of the creative process. AI should primarily be utilized in early ideation like a tutor to help test ideas and in post-production tasks, where its capabilities can enhance technical aspects without undermining the artistic contributions of human creators. Protecting the pre-production labor of humans will prevent the potential erosion of authentic human experience and the displacement of creative jobs, ensuring that AI serves as a tool to assist rather than replacement.

Additionally, clearer guidelines around fair use and data licensing are necessary to protect the rights of original creators. AI models used in filmmaking should be trained exclusively on licensed or public domain data to avoid copyright infringement and ensure that creators are fairly compensated for their work. To further safeguard cultural integrity, the

implementation of cultural authenticity audits is recommended. These audits would verify that AI-generated content does not perpetuate stereotypes or misrepresent diverse cultural contexts, particularly in the creation of scripts or visual elements for films set in varied cultural settings.

Support for human creators is also crucial. Providing competitive grants for filmmakers and screenwriters to develop skills in using AI tools will ensure that they can effectively integrate AI into their creative processes without being overshadowed by technology. Moreover, filmmakers should collaborate closely with legal experts to navigate the evolving legal landscape surrounding AI and intellectual property. This collaboration will help filmmakers protect their rights and ensure their works are not unfairly exploited by AI technologies. Lastly, industry-wide standards for AI accountability in creative processes should be established to guarantee that AI is used in ways that enhance, rather than replace, human creativity.

VIII. Conclusion

The integration of AI in filmmaking, particularly in screenwriting, presents formidable challenges for filmmakers and screenwriters. AI models, often trained on biased data collected without consent, can perpetuate harmful stereotypes and fail to capture the nuanced cultural contexts of marginalized communities. AI developers need to collaborate with screenwriters to curate training datasets that include diverse and authentic representations of marginalized communities. Furthermore, the film industry must adopt proactive policies to safeguard human creativity and protect cultural authenticity. Mandating transparency in AI usage during pre-production, introducing certifications for films that meet ethical AI standards, and implementing cultural authenticity audits are essential steps. Clear guidelines around fair use and data licensing will protect the rights of original creators, ensuring that AI models are trained exclusively on licensed or public domain data.

The integration of AI in filmmaking offers exciting possibilities for enhancing human creativity, but it also necessitates careful consideration of the ethical and practical challenges involved. By adopting collaborative approaches, incorporating cultural consultants, and advocating for ethical AI use, filmmakers can protect their roles and contribute to more inclusive and culturally authentic storytelling. Now is the time for filmmakers, policymakers, and industry leaders to take decisive action to shape the future of filmmaking in a way that respects and uplifts human contribution, ensuring that technology serves to enhance rather than diminish the art of cinema.

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