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## Creative Alienation in Art due to Artificial Intelligence Yapay Zekâ Nedeniyle Sanatta Oluşan Yaratıcı Yabancılaşma

### Abstract

Artificial intelligence is rapidly transforming operations across diverse sectors, including education, healthcare, the arts, economics, pharmaceuticals, and defense. In particular, generative AI has begun to reshape content-driven fields such as text generation, graphic and video production, and cross-lingual translation. Its growing role in artistic domains is especially noteworthy. However, as AI becomes more integrated into creative processes, a range of challenges has emerged. These include concerns about data privacy, biased or inaccurate content, hallucinated outputs, and disruptions to employment. At the same time, efforts to address these issues are underway. Research has also shown that AI tools, while reducing cognitive load, may diminish active engagement in learning. This disengagement can lead to shallow learning, distorted memory formation, and weakened critical thinking. Against this backdrop, the present study explores the issue of alienation that arises in the relationship between the artist and their work as AI becomes a creative agent. It also examines the connection between this alienation and the artist's cognitive and neural engagement during the creative process.

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### Öz

Yapay zekâ, eğitim, sağlık, sanat, ekonomi, ilaç endüstrisi ve savunma dâhil olmak üzere birçok farklı sektörde faaliyetleri hızla dönüştürmektedir. Özellikle üretken yapay zekâ, metin üretimi, grafik ve video oluşturma ile çok dilli çeviri gibi içerik odaklı alanları yeniden şekillendirmeye başlamıştır. Sanatsal alanlardaki artan rolü ise özellikle dikkat çekicidir. Ancak yapay zekâ yaratıcı süreçlere daha fazla entegre oldukça, çeşitli sorunlar da ortaya çıkmaktadır. Bu sorunlar arasında veri gizliliği, önyargılı ya da hatalı içerik üretimi, uydurma çıktıları (halüsinasyonlar) ve istihdamda yaşanan sarsıntılar yer almaktadır. Aynı zamanda bu sorunların çözümüne yönelik çalışmalar da sürmektedir. Araştırmalar, yapay zekâ araçlarının bilişsel yükü azalttığını, ancak öğrenmeye yönelik aktif katılımı da azaltabileceğini göstermiştir. Bu kopuş, yüzeysel öğrenmeye, çarpıtılmış bellek oluşumuna ve eleştirel düşünmenin zayıflamasına yol açabilir. Bu bağlamda, bu çalışma, yapay zekânın yaratıcı bir özne haline gelmesiyle birlikte sanatçı ile eseri arasındaki ilişkide ortaya çıkan yabancılaşma sorununu incelemektedir. Aynı zamanda bu yabancılaşmanın, sanatçının yaratım süreci sırasında yaşadığı bilişsel ve sinirsel katılımla olan bağlantısını da ele almaktadır.

### Keywords

Art, artificial intelligence, alienation, cognitive load, labor, brain activity

### Anahtar Kelimeler

Sanat, yapay zeka, yabancılaşma, bilişsel yük, emek, beyin aktivitesi

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## Introduction

Artificial intelligence has now become a part of everyday life. People of all ages interact directly with AI applications in their daily routines, while institutions and governments are being compelled to review their systems and processes accordingly. For example, ChatGPT, a generative AI technology based on large language models, quickly became an indispensable part of life for individuals of all ages after its release. Through this and similar applications, people seek solutions to everyday problems or ways to improve the quality of services. Today, AI technologies are being widely adopted across all sectors—from education to healthcare, from transportation to infrastructure, and from finance to defense and service industries (Ilikhan et al., 2024; Özer, 2024a; 2024b; Perc et al., 2019; Suleyman, 2023; Suna and Özer, 2025; Tanberkan et al., 2024).

While McKinsey (2018) predicts that generative artificial intelligence will contribute an additional \$13 trillion to the global economy by 2030, IDC (2024) estimates this added value to be \$19.9 trillion. Given these projections, artificial intelligence has now become the focal point of economic competition among nations. Countries are making massive investments to avoid missing out on the economic opportunities AI offers and to position themselves as global leaders in the field. The United States and China are locked in an intense race in this domain. For instance, a major countermove recently came from the Chinese startup DeepSeek. While ChatGPT continues to dominate the field, DeepSeek's AI Assistant reportedly outperforms ChatGPT and its equivalents, while also offering lower operational costs—disrupting the market in the process. As a result, the stocks of Nvidia (NVDA), the leading supplier of AI chips, and its competitors—Marvell, Broadcom, Micron, and TSMC—suffered significant losses.

It seems that there is no field left untouched by the scope of artificial intelligence. An AI ecosystem has rapidly begun to form across all sectors, continuously expanding its reach. Art is no exception. It was immediately recognized that AI holds strong potential for introducing new forms of expression within the art world (Chatterjee, 2022; Shen and Yu, 2021; Tsiavos and Kitsios, 2025; Zylinska, 2023). In particular, the recent surge of interest in AI-generated artworks has sparked heated debates about how this trend will affect and transform the art market, including artists, galleries, museums, and collectors. OpenAI's deep learning model DALL·E, which can generate innovative images from natural language descriptions, and its newer versions, have created a major impact—not only in the art world but also among individuals of all ages and skill levels. While some support this development on the grounds that it democratizes art, others criticize it for potentially undermining artists and diminishing the value of artistic work.

Generative artificial intelligence technology has rapidly taken hold of the entire process of artistic production, offering benefits ranging from text-to-image generation to design and video creation. In this context, the film industry is among the sectors most rapidly transformed

by AI (Hong et al., 2025; Li, 2022; Sun, 2024; Xiao and Yumeng, 2025; Zhao and Zhao, 2024). AI is now widely used not only during film production but also throughout the entire process—from scriptwriting, casting, and location selection to post-production, distribution, and marketing. Today, AI is not just employed to write scripts but also contributes to their refinement and enhancement (Faughnder, 2025). Moreover, it supports producers in predicting a film’s commercial success. It has long been known that platforms like Netflix use AI algorithms to offer personalized recommendations based on viewing history. Similarly, these technologies are now widely used to develop marketing strategies in the film and television industries.

Artificial intelligence can also take part in the filming process, supporting the efficient and low-cost management of many stages—from planning shooting schedules to identifying locations that fit the script. These types of technologies are transforming film production processes by offering innovative solutions in many areas, from the creation of digital characters to casting decisions. In casting, the focus is no longer solely on selecting actors suitable for specific roles; AI also performs optimization by considering actors’ market value to ensure the film’s financial success. Such AI-based approaches help film studios develop more targeted and effective marketing strategies.

It is already evident that artificial intelligence is being used particularly to predict the commercial success of films. For instance, while Warner Bros. utilizes Cinelytic’s AI-based platform, 20th Century Fox employs a system called Merlin, and Sony Pictures uses another platform known as ScriptBook to develop production, distribution, and release strategies aimed at maximizing economic returns (Frias, 2024). In addition, these tools can offer innovative solutions in both trailer creation and film editing processes—particularly in visual effects—and are even capable of generating music that fits the film. On the other hand, AI is increasingly enhancing its potential to automate film production by automating video generation. The creation of realistic virtual environments, which already reduces the need for physical sets in film production, makes it possible to produce historical films that are fictionally feasible but extremely difficult to shoot. The use of such tools and approaches in the creation of historical films could significantly reduce production costs.

AI-powered tools can also make post-production processes more efficient and effective. Sound effects (Foley effects) that could not be captured during filming but are essential parts of a movie and thus added afterward can now be produced very quickly using artificial intelligence (Dwyer, 2024; Frias, 2024; Wang, 2025). AI can also generate visual effects, facilitate consistent color grading between scenes, reduce noise, and improve the quality of sound synchronization.

While AI technologies are rapidly transforming habits, productivity, processes, and modes of management across all fields—primarily highlighted for the benefits and economic returns they provide—the risks they pose have also begun to be discussed (Özer and Perc,

2024; Suleyman, 2023). Although risks related to data security have been known from the beginning, it has become evident that AI can produce biased content that reinforces inequalities based on religion, culture, socioeconomic status, race, or gender—just like in the real world. These biases stem from flawed assumptions made during the development of AI algorithms and/or the biased data on which the AI is trained (O’Neil, 2016; Özer, 2025; Özer et al., 2024a; 2024b). Beyond biased content, AI has been found to generate outputs—especially in text production—that appear coherent but are factually incorrect, revealing that not every piece of content it produces is accurate. This behavior, known as hallucination or confabulation, serves as a critical warning that AI-generated content should be approached with caution (Özer, 2024c). On the other hand, the changes in skill requirements brought about by AI technologies pose significant risks to employment in labor markets (Ilikhan et al., 2025; Özer and Perc, 2024; Suna and Özer, 2025).

Although initial debates in the art world resembled those between photographers and painters during the early days of photography, today such discussions are continuing on entirely different levels. One of the most pressing concerns is that artificial intelligence, which is currently automating certain areas of the film industry, will lead to job losses for workers in those areas. While the strong voice of screenwriters is the most prominent for now, in the long term, other professionals are also likely to be affected. As in other fields of art, the ability to produce content rapidly and at a much lower cost may contribute to democratization by increasing access to creative processes; however, the abundance of such AI-generated content is likely to distort the relationship between product and value in the long run. Moreover, it could leave many professionals unemployed or force them to work for lower wages (Özer and Perc, 2024). It appears that the job losses it may cause in the labor market will be significantly greater compared to other fields. On the other hand, while the cost of film production will decrease and profits will increase, the workers involved will not be able to benefit from these increased returns.

Another issue is the rise of deepfake technology, which produces highly realistic video and audio content. While this technology may eliminate the need for actors to reshoot certain scenes during film production, its rapid advancement also increases the potential for unethical uses—such as altering existing videos or creating entirely fake ones—thus heightening risks of personal and societal unrest. In the long term, it may even become possible to produce films featuring actors who are no longer alive. For example, Tom Hanks has stated that he believes he will continue to appear in films in the future thanks to artificial intelligence (Frías, 2024). In summary, since all stages of the film industry are being exposed to digitalization, artificial intelligence—unlike in many other sectors—is increasingly gaining the potential to automate the entire filmmaking process.

Naturally, due to the new opportunities it provides, increased efficiency, and cost advantages, this transformation is occurring at a much faster pace. However, since artificial in-

telligence is a multi-purpose technology, it brings risks along with its benefits. Therefore, this study goes beyond the aforementioned risks to address the alienation of the artist from their work as a result of the transformation in their contribution (labor) to the production process due to AI assistance. It specifically explores the relationship between alienation and brain activity, based on recent findings concerning the impact of artificial intelligence on cognitive processes.

## The Copyright Problem in Artificial Intelligence Learning

One of the most significant issues that arises in the application of artificial intelligence technologies in the field of art is the problem of copyright. Just as in other areas, AI learns from existing data in the realm of art as well. In other words, existing data forms the memory of AI applications, and the responses are generated based on this memory. For this reason, Joanna Zylinska (2023) compares the image-generation approach of AI technologies to that of Salvador Dalí:

Throughout his career, Dalí mined existing repositories of art history resources and used what he found there as inspiration to produce strikingly new artifacts. In effect, the Spanish artist adopted a “combinatorial” method, remixing earlier styles and tropes to arrive at something that looked truly original to his contemporaries.

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Artificial intelligence systems trained on written, visual, and auditory data learn from these materials and generate new content based on commands. Debates continue over how to evaluate the products generated by AI within the scope of copyright law (Dornis and Stober, 2025; Torrance and Tomlinson, 2023). In the context of artistic production, the first major discussions were initiated by Hollywood screenwriters (Faughnder, 2025). When AI is used as a tool to write scripts for films or television shows, questions arise as to whether the data used to train these tools fall under copyright protection. For example, the Writers Guild of America emphasizes that the use of previous scripts in training AI algorithms should be addressed within the framework of copyright law. Otherwise, while previous texts are used as raw material to develop these algorithms, writers will be left defenseless against a tool trained on their own work. A similar concern was raised very recently in copyright infringement lawsuits filed by major music companies such as Sony Music and Universal Music Group against companies that produce music using AI technologies. If these lawsuits result in rulings against the AI companies, it will not only mean significant compensation payments but will also spark complex debates about copyright and ethical violations related to products created with the support of such tools. These debates are also expected to intensify in the visual arts domain, where AI technologies are increasingly used.

## The Artist's Problem of Experience and Alienation from the Work

In this context, there is another dimension that deserves attention but is generally absent from discussions: the artist's development through lived experience as a human being. The formation of an artist is a difficult and continuous process. The artist's interactions and relationships with their environment add depth to their life, while the artworks produced are the outcomes of this process of becoming. In other words, a strong bond is formed between the artist and the artwork through labor. When this bond is severed, the artist becomes alienated from the work. It is precisely at this point that Marx's approach—linking alienation directly to labor—becomes relevant (Sidorkin, 2025). According to Marx, under capitalist modes of production, the worker becomes alienated from the product due to the very nature of the production process (Ollman, 1971).

Therefore, what protects a person from becoming alienated from their work is the fact that the product adds depth to the person's process of becoming. What truly matters in this process is that the artist, as a human being, is on a path of becoming—constantly developing their creativity through experience and gaining the ability to perceive life from a different dimension. The tangible products are merely the outcomes of this journey. In other words, they are the living witnesses of that process of becoming. Each product corresponds to a challenging experience and a learning process for the artist. Through the works, we bear witness to the story of an artist's formation. This dimension is increasingly being compromised with the use of artificial intelligence technologies. In the process of creating a work, the human being no longer undergoes a meaningful experience. The person is reduced to someone who merely directs the tool through commands. In other words, the human relationship with AI remains at a technical level, and as a result, the person becomes alienated from the product that is ultimately generated.

Complex and challenging experiences carry artists to a different stage of development; therefore, the works bear witness to the story of an artist's formation. Although artificial intelligence may be able to reproduce works that resemble those created with such emotions, it severs the connection with the emotions behind them or freezes the artist at a particular stage. In this context, Joe Attard (2023) offers an example of the relationship between AI and artworks corresponding to a particular period in Picasso's life:

For instance, Pablo Picasso's 'blue period' – in which his colour palette and subject matter became notably dark and sombre – was inspired in part by the suicide of his friend Carles Casagemas in 1901. An AI perceives Picasso's art merely as an assortment of shapes, colours and defined values. It can imitate the look of these works, but cannot grasp the emotions that inspired them. You could ask an AI to make a 'sad' image, but even if it produced pictures in dark colours of people crying, it wouldn't understand the content of sadness, because it has never been sad, nor happy; nor has it experienced any other feeling.

The term “AI hallucination” refers to a phenomenon in which artificial intelligence generates a fabricated response that appears coherent within the text but is completely disconnected from the user input or prior context (Özer, 2024c). Numerous studies are being conducted to prevent this behavior. However, in the field of art, AI hallucination is being regarded as a new opportunity for creative expansion. Many artists are now creating artworks by intentionally leveraging this hallucinatory behavior of AI. One of the leading figures in this movement is Refik Anadol. At the core of Anadol’s work lies the concept of the machine dreaming or hallucinating. The algorithm, having formed its memory based on massive datasets it has learned, is encouraged to generate creative dreams and hallucinations based on that memory (Anadol and Kıvrak, 2023).

As he himself explains, in his thematic projects, he first processes the available big data related to a particular domain (such as city archives, nature imagery, or musical data) through deep learning, and then encourages the model to focus on new connections among the data—essentially making it “dream” or “hallucinate.” At times, the dream is generated based on historical archive collections; at other times, it is based on the historical testimony of a building, thereby blurring the boundaries of space and time and creating a different kind of narrativity. Yet, even in this process, the artist becomes entirely detached, and the work is produced solely through the hallucinatory behavior of artificial intelligence. Thus, by using deep learning algorithms trained on massive datasets, the hallucinatory images generated in the gaps of data—or in response to complex or conflicting data sets—blend real and virtual elements, offering the viewer an alternative reality. The relationship between the artist and this reality, however, becomes one of estrangement.

With the inclusion of artificial intelligence technologies in creative processes in this manner, the traditional relationship between the artist and their work is being disrupted. During the process of creation, the human does not undergo an instructive or developmental experience. Instead, the individual is reduced to the role of someone who merely directs the system through commands. In other words, the human–AI relationship remains on a technical level, and as a result, the person becomes alienated from the product that is ultimately generated. The phases in which the artist engages with their environment, relationships, and inner emotional states are interrupted. Moreover, the social benefits of art are also being distorted. What does a work generated by AI under the guidance of an artist actually contribute to the artist? Furthermore, when people encounter such works, whose work are they really experiencing, and how will they relate to it? Will they be directed toward the artist through the work—or toward the AI? If toward the artist, what aspect of the artist does the work reflect? And if toward the AI, what kind of meaning will be ascribed to the artwork?

## The Relationship Between Alienation and Cognitive Processes

In recent times, alongside the benefits offered by generative artificial intelligence, studies have increasingly drawn attention to its negative effects on cognitive processes. In this context, a study that examined the effects of AI applications on issues such as personal security and privacy concerns, loss of decision-making capacity, and promotion of laziness among a group of higher education students found that 68.9% of the students' laziness, 68.6% of their concerns about personal privacy and security, and 27.7% of their loss of decision-making ability were attributed to the influence of AI applications (Ahmed et al., 2023). A recent study investigating the impact of AI on critical thinking among university students—particularly in terms of how it promotes or inhibits cognitive engagement—found similar results (Mohammadkarimi and Omar, 2025). A significant portion of participants (73%) acknowledged that the involvement of AI in decision-making processes reduced their engagement in problem-solving and that relying on AI for routine tasks led to a decline in their capacity for independent critical thinking.

In this context, a recent study examines the relationship between the use of AI tools and critical thinking skills by using the phenomenon of cognitive offloading as a mediating variable (Gerlich, 2025). The study's findings indicate that intensive use of AI tools leads to a decline in critical thinking skills, and that cognitive offloading plays a significant role in this relationship. Moreover, it was shown that increased use of AI tools is quantitatively associated with lower scores in critical thinking. Excessive reliance on these tools increases cognitive offloading, which in turn prevents individuals from engaging deeply with the information being processed. In short, the study's findings suggest that over-reliance on AI tools increases the likelihood of delegating cognitive tasks to these systems, and that the resulting increase in cognitive offloading weakens critical thinking abilities. Thus, a powerful feedback loop emerges—one that reduces critical thinking and fosters dependency. The study highlights the critical role of cognitive offloading within this cycle.

In this context, another study focuses on the effects of using large language models (LLMs) versus traditional search engines for information gathering during learning, particularly in terms of cognitive load and learning outcomes (Stadler et al., 2024). In the study, 91 university students were divided into two groups. One group used ChatGPT, while the other used the search engine Google to research a topic and generate recommendations. The findings indicate that students who used LLMs experienced lower cognitive load across all three dimensions of cognitive load (extraneous, intrinsic, and germane) compared to those using traditional search engines. The largest difference was observed in germane cognitive load, while the smallest was found in extraneous cognitive load. Thus, students using traditional search engines engaged in deeper processing and applied more germane cognitive load in constructing well-reasoned texts than those using LLMs. In short, because LLMs provide quick and easy access to information and reduce cognitive load, they lead students to exert less effort on the information and tend toward more superficial processing.



On the other hand, the findings of the study regarding the diversity of reasoned arguments produced by students show that those who used traditional search engines were able to generate significantly more valid arguments. Since LLMs reduce cognitive load and minimize human input, the diversity of reasoning also declines. These findings indicate that while LLMs may be effective in providing information to students, they simultaneously reduce students' capacity to process this information critically and transform it into well-structured arguments. In other words, easy access to information decreases self-regulation and deep thinking. The study clearly demonstrates that the impact of LLM use on the quality of reasoning stems from a lack of cognitive effort (i.e., low germane cognitive load). Therefore, systems like LLMs, by substituting for the learner's self-regulatory abilities, can lead students to bypass essential processes such as planning, monitoring, and evaluation.

In this context, a comprehensive new study was published by a research group from MIT (Kosmyrna et al., 2025). The study aims to reveal the cognitive cost of using large language model (LLM) tools like ChatGPT in educational contexts—specifically when writing an essay. Participants were divided into three groups: an LLM group that used an LLM while writing, a search engine group that used traditional internet searches, and a brain-only group that used no external tools. Each group was assigned four sessions to write essays, during which participants' brain activity was recorded. The findings of this extensive study show that each group exhibited distinct neural connectivity patterns, yet the patterns were consistent within each group. As expected, the extent of brain connectivity varied based on the intensity of brain use. In the LLM group, which involved the least cognitive effort, the weakest overall neural connectivity was observed. Conversely, the brain-only group, which relied entirely on mental effort, exhibited the strongest and most extensive connectivity networks. Moreover, the essays produced by participants in the brain-only group displayed a wide range of topic-specific approaches, whereas those in the LLM group generated statistically homogeneous essays on each topic, with significantly less variation compared to the other groups. In other words, LLM tools not only keep brain activity at a lower level but also increase uniformity in the content produced, thereby weakening diversity and richness.

The most important finding of the study in the context of our discussion concerns the level of ownership or sense of belonging participants felt toward the essays they produced. The effort invested in the product was tracked through brain activity, and the intensity of this activity determined the degree of ownership felt toward the work. Accordingly, the highest sense of ownership was observed among participants in the brain-only group—those who used no external tools and thus exerted the most effort during essay writing. Participants in the LLM group not only exhibited the lowest level of ownership, but also demonstrated a significantly diminished ability to recall and quote from the essays they had written just a short time earlier. In other words, for participants in the LLM group, alienation from the content they produced occurred at the highest level. The reduction in cognitive load in the LLM group weakened memory retention.

It is already known that learning tasks that involve greater cognitive demand result in higher germane cognitive load and, ultimately, better learning outcomes. Therefore, in the context of our topic, it becomes evident that alienation from the product is directly related to the level of brain activity involved.

## Discussion

This study examines the widespread application of artificial intelligence in the field of art through the lens of the concept of alienation, focusing on the relationship between the artist and their work. Artworks produced without the use of AI bear witness to critical turning points in the artist's life; the intense mental engagement with the product not only strengthens the artist's connection to the work but also propels them, through these powerful experiences, toward the creation of new and diverse works. As AI becomes more involved in the creative process, the artist's cognitive engagement—particularly their mental participation—gradually weakens. In this context, the findings of recent studies cited in this article suggest that while AI reduces cognitive load, it simultaneously weakens the connection between the individual and the learning process. In other words, the cognitive load taken over by AI during learning and production leads to a form of alienation from the resulting product.

The studies also indicate that as an individual's cognitive engagement in the production process decreases, so too does their sense of ownership and memory associated with the product. In the context of art, the more AI is involved and the less effort the artist exerts, the more brain activity declines—ultimately severing the bond of ownership with the work and increasing alienation. As a result, the artist's ability to move forward into new creative processes through new lived experiences is also impaired.

Recent research findings show that people perceive artworks created entirely by artificial intelligence as less valuable than those created by human artists (Horton Jr et al., 2023). The study also indicates that artworks produced collaboratively by a human artist and AI are considered more valuable than those created solely by AI, but still less valuable than those created solely by a human artist. In short, when people are aware that a work has been produced by artificial intelligence, their perception of its value tends to decrease.

As generative artificial intelligence continues to advance, the capabilities of these applications will reach an entirely new level. This raises the question, as expressed in the literature: will AI become an artist in its own right? In fact, this debate is reminiscent of the ongoing discussions about whether such applications should be credited as “authors” in the production of scientific articles (Özer, 2024b). With the emergence of articles listing AI as a co-author, scientific journals have felt the need to reconsider their policies on how to acknowledge AI contributions. For example, *Science*, one of the most prestigious journals, has very clearly

stated that not only can AI tools like ChatGPT not be considered as authors, but even text generated by such tools cannot be used in published articles (Thorp, 2023).

Similar debates are also taking place in the field of art. For instance, in 2022, the U.S. Copyright Office issued a decision stating that works created by artificial intelligence are not eligible for copyright protection (Artforum, 2022). The rejection of Stephen Thaler's copyright application for the AI-generated work titled *A Recent Entrance to Paradise* indicates that without human involvement in the creation process, copyright registration cannot be granted. Just as AI cannot be considered an author of scientific papers, it also cannot be regarded as an artist in the context of artistic works. In fact, this decision underscores the notion of alienation in the relationship between the artist and the work. A creation that emerges through alienation is no longer considered the artist's own work—and thus falls outside the scope of legal protection.

Although people currently tend to perceive AI-generated works as less valuable, considering the rapid pace of development and production capacity of artificial intelligence in the long term, access to these works will become much easier and cheaper despite their lower perceived value. Therefore, the path toward automation in the field of art is expected to gain even more momentum. On the other hand, the use of realistic virtual environments instead of physical sets in film production may expand in scope and could eventually replace real film sets altogether. This would not only raise questions about the nature of the resulting product but also lead to significant job losses for workers in the industry. Furthermore, as virtual productions based on actors' past data become more widespread, the ecosystem that fosters the development of equally skilled actors will gradually weaken. Additionally, as the substitution rate of AI for human actors increases, the real-world dataset from which AI learns will shrink over time, reducing diversity. Or, in the words of renowned director Steven Spielberg, the creative spirit of the human being will be taken away (Frías, 2024). Consequently, the creative and experiential learning process of human artists will also suffer.

Finally, since artificial intelligence functions as a "black box" and increasingly takes the place of the human in the creative process, the human artist will remain an outsider and become alienated from that part of the product. In short, human artists will, over time, move away from the challenging experiential processes through which they learn and develop themselves. The complex and enriching relationship between the artwork and the artist will deteriorate, diversity and depth will diminish, and ultimately, societies will be deprived of the unique value that human artists can contribute. Especially as AI increasingly incorporates these co-created works into its learning datasets, the AI-driven production cycle will grow stronger, while genuine human data will steadily diminish—and with it, the alienation will deepen even further.

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