Media and Communication Review (MCR)
Volume 4 Issue 1, Spring 2024
ISSN (P): 2790-8356, ISSN (E): 2790-8364
Homepage: https://journals.umt.edu.pk/index.php/mcr

Article QR

Title:	**Understanding Filmmakers' and Editors' Experiences with AI-Powered Tools**
Author (s):	Tabinda Sadiq, Sana Masood, and Akram Abdul Rehman
Affiliation (s):	Bahria University, Islamabad Campus, Pakistan
DOI:	https://doi.org/10.32350/mcr.41.09
History:	Received: January 19, 2024, Revised: May 23, 2024, Accepted: May 28, 2024, Published: June 28, 2024
Citation:	Sadiq, T., Masood, S., & Rehman, A. A. (2024). Understanding filmmakers' and editors' experiences with AI-powered tools. *Media and Communication Review*, *4*(1), 186–203. https://doi.org/10.32350/mcr.41.09
Copyright:	© The Authors
Licensing:	This article is open access and is distributed under the terms of Creative Commons Attribution 4.0 International License
Conflict of Interest:	Author(s) declared no conflict of interest

A publication of
The School of Media and Communication Studies
University of Management and Technology, Lahore, Pakistan

Understanding Filmmakers' and Editors' Experiences with AI-Powered Tools

Tabinda Sadiq, Sana Masood, and Akram Abdul Rehman*

Bahria University, Islamabad Campus, Pakistan

Abstract

This quantitative inquiry delves into the experiences and views of filmmakers and editors regarding the integration of Artificial Intelligence (AI) powered tools into their editing workflows. Despite the growing prevalence of AI tools in filmmaking and editing, there is a notable gap in understanding how individuals in film making clearly understand and interact with such technology. Grounded in the theoretical framework of Human-Computer Interaction (HCI), this research targets to highlight the nuanced experiences of practitioners, exploring the various perceived benefits and disadvantages of utilizing the AI-powered editing equipments. Through a structured survey questionnaire utilizing Likert scale statements, data from 50 participants had been collected. Data was gathered through Google Forms and links were shared among filmmakers and editors. The findings provided treasured insights into the motivations behind the adoption (or lack thereof) of AI tools in editing workflows, contributing to the improvement of more user-centered technologies inside the area of filmmaking and editing.

***Keywords*:** Artificial Intelligence (AI), creativity, editing, filmmaking, qualitative research, workflow

Introduction

As Artificial Intelligence Technology continues to evolve, its integration into the filmmaking and modifying process become increasingly commonplace. From automated color grading to scene segmentation, AI-powered equipments offer a spectrum of abilities that promise to revolutionize conventional enhancing workflows (Nassar, 2021). Yet, amidst this technological development, its miles imperative to recollect not simplest the technical components of AI but also the human reports and perspectives that accompany its adoption (Argaw et al., 2022).

AI has enhanced the film making process by optimizing its

*Corresponding Author: akram.buic@bahria.edu.pk

performance, hence making it rather important to address how film makers are subjectively utilizing this paradigm to increase productivity (Li, 2022). Cinematography and video production editing are creative processes by default, which depend on the subjectivity of the editor's choice, his/her outlook on art and life, and practical considerations (Li et al., 2024). Hence, it needs to reveal how the incorporation of the AI tool in these processes affects the lives of people that rely on the involved routines.

However, the decision to incorporate the AI-generated editing equipment into ones operation is a complex process that is reinforced by various aspects that comprise of perceived gains, anticipated losses, and prospects (Townsend, 2024). It is crucial for both the practitioners that use this decision-making method and the developers that design technologies to comprehend why such a decision- making process was designed (He, 2018). This kind of study from the perspective of HCI allow us to capture some essential aspects of the interaction when people with creative skills like filmmakers and movie editors engage with AI (Harper, 2019).

Through a structured survey questionnaire and evaluation of Likert scale-based responses from 50 participants, this study seeks to clarify the nuanced relationships between practitioners and AI technology in the context of filmmaking and editing. The current study intends to pave way for the improvement of more user-focused AI equipment that enhances creativity, streamline workflows, and ultimately empower practitioners to realize their artistic vision more efficiently.

Objectives

1. To explore the studies of filmmakers and editors using AI-powered modifyingequipment.
2. To understand how AI modifying tools impact traditional enhancing methods and creative decisions.
3. To study the views of filmmakers and editors on the capability advantages anddownsides of AI in the editing room.
4. To perceive rising trends and future instructions within the use of AI for movie editing.

Research Questions

1. How do filmmakers and editors experience the integration of AI tools

into their editing workflows?

2. What are the perceived benefits and drawbacks of utilizing AI-powered editing tools?
3. Why do filmmakers and editors choose to integrate (or not integrate) AI-powered editing tools into their workflows, considering the potential benefits and drawbacks these tools might present?

Significance of the Study

This research contributes to a rapidly growing field that explores the interactions between AI and the creative industries. Delving into the experiences of filmmakers and editors with AI editing tools, this study provides valuable insights for the following:

Film makers and editors adapting AI tools in workflows, can guide the development of user centered AI tools that complement and enhance human creativity. This research paves the path to an industry wide adaptation regarding film editing. It creates discourse on about the potential of AI tools which impactfully will increase productivity and assist in Creativity.

Literature Review

The emergence of Artificial Intelligence (AI) has substantially affected numerous innovative industries and filmmaking is one of them. AI-powered tools guarantee to revolutionize the workflow with the aid of automating specific responsibilities. However, their effect on the productivity and ethical considerations possess a questionable challenge to the film industry.

This literature review explores existing research on AI in creative industries**,** examining the benefits, challenges, ethical considerations, and future directions to understand the potential implications of AI editing tools for the film editing process.

AI in Creative Industries

Effects of AI Voiceovers on the Film and Animation Industries

AI voiceovers streamline the manufacturing workflows, supplying exceptional performance in producing and editing audio content. Unlike traditional voice recording periods, which require coordinating schedules and handling logistics, AI allows for on-demand voice generation with minimum lead time. This agility empowers filmmakers and animators to

iterate on talk, narration, and individual performances hastily, improving the general pleasant and coherence of the very last product (Joomuck, 2024).

Effects on Voice Actors and Income Production

For voice actors, AI voiceovers present both challenges and possibilities. While some explicit worries include job displacement and industry disruption, others see AI as a treasured device for increasing their ability set and market attain (Brako & Mensah, 2023). Voice banking and scaling technology allow actors to maintain and monetize their vocal performances, growing new sales streams from licensing agreements, branded content, and customized voice assistant packages.

Additionally, AI voiceovers allow voice actors to take on more tasks simultaneously, way to the efficiency gains and task flexibility afforded through AI era (Ovsiienko, 2024). This scalability empowers actors to diversify their portfolios, discover niche markets, and collaborate with a broader range of clients and collaborators.

Script and Movie Generation

All forms of creativity, including art, journalism, gaming, and various forms of entertainment, are based on a story or tale. AI has been applied to both memory creation and the best possible use of supporting documentation, such as organising and sorting through massive files to find documentaries. The entire screenplay for the 2016 fictional short film Sunspring was written by New York University's Benjamin AI machine. Technology fiction screenplays were used to train the model, which is based on a recurrent neural network (RNN) structure. The script was created using random seeds from a science fiction filmmaking competition. A few strange plot lines can be found in Sunspring. Benjamin was then used most effectively in predetermined areas and in cooperation with people in the sequel, It's No Game (Hellerman, 2023) creating an even more seamless and organic plot. This supports the idea that current AI technology can collaborate with humans more effectively than if it is left to its own devices (Filmmaker Academy, 2023). Morgan, a horror film, had a 6-minute movie trailer composed by IBM Watson, an AI-based computer device, in 2016. The model was trained using over one hundred horror movie trailers, which helped it pick up on the normative structure and pattern (Anantrasirichai & Bull, 2021).

Ignored Effects of AI Sora on the Film Industry

Open AI Sora's constantly changing era has had a positive effect on social media and the movie business (Huang et al., 2023). The current reseach will explore the various ways that Sora has impacted thousands of lives and how it has evolved, such as by appearing on the other side of the screen. AI Sora has revolutionised social media and the film industry since its release fifteen years ago. Sora has been used by content producers and filmmakers to bring their ideas to life.

Numerous live-action and animated films in every niche field have been released over the years (Webisoft, 2024). The advent of content has been motivated by numerous amazing testimonies and contemporary methods of proportioning. People could also produce their own content and bring their ideas to life. Most people currently agree with Sora's impact on the film making production (Singh et al., 2023).

Advantages of Using AI in Movie Making and Cinema

Improve Quality

Filmmakers can use AI-driven algorithms to create captivating movie plots. Analysing vast information can reveal trends and advancements throughout unique stages of the production process (Andra, 2023). For scriptwriters, for instance, the insights gained might be used to develop likeable Characters and ambitious storylines. The following are some methods that AI uses to enhance film watching:

- De-aging elderly actors: Harrison Ford, who is 80 years old, had a dramatictransformation for the film "Indiana Jones and the Dial of Destiny," lasting 12 months.
- Using Machine Learning (ML) techniques to enhance audio and visual content.

Enhanced Effectiveness

Filmmakers no longer have to deal with time-consuming manual processes, such as retakes and editing due to AI-powered tools. Utilizing facial recognition and laptop vision, for instance, allows manufacturing staff to efficiently retouch photos. Businesses, such as Color lab provide AI-driven software that deal with tedious editing tasks, freeing up content creators to focus only on the final details. These devices have the ability to

edit photos, apply creative filters, and balance film shade without any issues.

Future of AI in the Film Industry

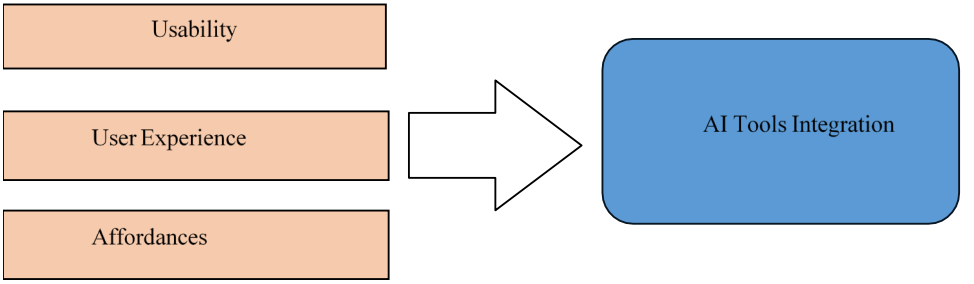
The incorporation of Artificial Intelligence (AI) in filmmaking has surfaced as a viable avenue, revolutionizing the process and influencing the agency's future. While some people might see AI-generated movies as dangerous, they also present a plethora of opportunities for artistic expression, theatricality, and accessibility (Anantrasirichai & Bull, 2021).

Theoretical Framework

The theoretical framework of Human-Computer Interaction (HCI) will guide this research on filmmakers and editors experiences. HCI focuses on the design and use of computer technology, emphasizing the interactions among humans and computer systems.

Concepts from HCI

- *Usability*: Determines how well filmmakers and editors can apply AI tools for theaccomplishment of their objective.
- *User Experience (UX):* Evaluates the general perception and interaction of the users while interacting with AI tools.
- *Affordances:* Outlines the possible activities that AI offers the users along with the impacts that might result from the use of AI.



Methodology

Research Design

This quantitative study consists of a set of structured questions requiring numerical answers related to the stories and perceptions of filmmakers and editors who use AI tools in filmmaking and editing. This research is

underpinned by the theoretical paradigm of HCI that seeks to unravel the social interaction between the user and the technical artefact or product, in this case AI technology.

Population and Sampling

The target population comprised filmmakers and editors from Islamabad that have expertise in different aspects of the filmmaking and film editing processes. The number of participants for this study is 50.

Sampling Technique

In this research study, convenience sampling is employed.

Data Collection

Data collection involved the use of a structured questionnaire designed to elicit quantitative data related to the research questions. The questionnaire included items aimed at capturing participants' experiences, attitudes, and perceptions regarding the use of AI-enabled tools in filmmaking and editing. The survey was administered online using Google Forms to ensure efficient distribution and collection of responses. Participants were recruited through social media channels, professional networks, and industry-specific forums to ensure a diverse sample representing different roles within the filmmaking community. Demographic information, such as age, gender, professional experience, and level of familiarity with AI tools, was also collected to understand better the background and context of the respondents.

Data Analysis

To assess the validity of results obtained from the research, the scores obtained in the questionnaire were measured in terms of average for each response category. Such an approach enabled easy and straightforward analysis of the perceptions and attitudes of the filmmakers and the editors regarding the use of AI powered tools.

Ethical Considerations

Participants were told the general aim of research, their voluntary nature and the fact that the answers given will remain anonymous. From all participants, informed consent was obtained, and all participants' anonymity was preserved during the research process. Any identifiable information collected was kept confidential and used totally for research

purposes.

Results

An online questionnaire was primarily builton Google Forms and was designed with three main parts.

Findings of Statements 1-6

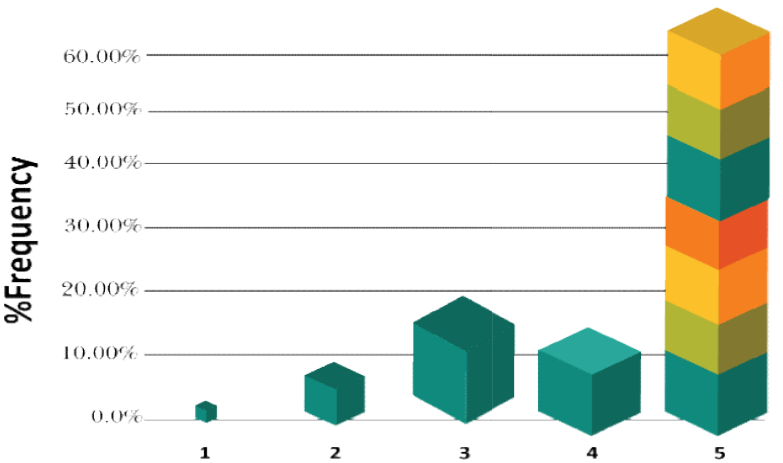
The first part focuses on the impact of Artificial Intelligence (AI) tools on filmmakers and editors. For this purpose, a series of Likert scale statements were presented. Respondents were provided with options ranging from strongly agree to strongly disagree. A total of 50 responses were collected. The statements were based on respondents' views of AI as a tool that would aid them and be a resource for them to enhance their learning experience by providing magical experiences, overcoming learning gaps, and promoting critical thinking.

Research Question (RQ1) focuses on the unique experiences filmmakers and editors have withAI tools integration, with the dependent variable being their experiences and the independent variable being the numerous factors of AI tool integration.

The findings suggested a predominantly effective experience among filmmakers and editorsregarding the combination of AI tools into their workflows.

Figure 1

AI Tool Integration



Statements from 1-6 in the questionnaire are related to the factor focusing on the uniqueexperiences filmmakers and editors have with AI tool integration, which is the independent variable in this research. The further indicators, based on which AI tool integration is measured, are strongly agree, agree, neutral, disagree, and strongly disagree.

The above graph demonstrates how the respondent's decision-making process is impacted by the factor "AI tool integration." The majority of participants expressed agreement or strong agreement with the statements included in the survey. About the statements from the questionnaire, some respondents have no opinion. The above graph makes it quite evident that very few respondents did not agree with the assertions in the questionnaire.

Table 1

Filmmakers and Editors Experience the Integration of AI Tools

Sr	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Editing workflow efficiency	76%	17%	7%	0%	0%
2.	Perceived learning curve.	63%	6%	22%	9%	0%
3.	Reduction in repetitive tasks.	71%	11%	14%	4%	0%
4.	Improvement in final project quality.	69%	10%	15%	5%	1%
5.	Creative control in editing.	44%	32%	10%	13%	1%
6.	Seamlessness and intuitiveness of integration.	40%	7%	49%	3%	1%

Findings of Statements 7-12

RQ 2 investigates the perceived benefits and disadvantages of AI tools, with the dependent variable being the perceptions of advantages/drawbacks and the independent variable being the particular traits and effects of the AI tools.

The findings indicated a mix of perceived benefits and disadvantages

concerning the usage of AI- powered tools in editing workflows.

As per the responses obtained from second part of the questionnaire, the respondents probably face vast demanding situations with AI equipment, along with high fees, errors requiring correction, or a robust notion that AI tools negatively affect their innovative system.

Simultaneously, the results suggested that as the majority of filmmakers and editors perceived many advantages from the use of AI-powered equipment, there are notable concerns about drawbacks. Several respondents respect the efficiency and consistency supplied by the AI equipments. However, problems related to the mistakes made with the aid of AI, costs, and potential over-reliance on AI tools are also highlighted. The impartial responses proposed that the experiences with AI tools may be numerous, with a few users benefiting more than the others.

Table 2

Perceived Benefits and Drawbacks of Using AI tools

Sr	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Speed of the editing process.	59%	16%	21%	3%	1%
2.	Time required for corrections.	51%	21%	21%	5%	2%
3.	Justification of cost.	45%	8%	32%	14%	1%
4.	Understanding of creativity and storytelling.	52%	30%	11%	6%	1%
5.	Consistency in style and quality.	35%	9%	30%	20%	6%
6.	Dependency and skill level in manual editing.	61%	21%	10%	6%	2%

Findings of Statements 13-18

RQ 3 examines the utility of AI tool, with the dependent variable being the choice to combine or not and the independent variable being the perceived advantages and downsides influencing that choice.

The findings indicated varied motivations and concerns among

filmmakers and editors regarding the combination of AI-powered tools into their workflows.

As per the findings, the respondents probably have tremendous worries about the the effect of AI tools on their creative process or do not find them beneficial at all.

The results suggested that the majority of filmmakers and editors opt to integrate AI-powered tools into their workflows normally for their time-saving advantages and to stay competitive in the enterprise. However, there are notable concerns about the reliability, accuracy, and capability compromise of artistic quality. The presence of neutral and disagreeing respondents highlightedthe varied experiences and considerations that have an effect on the decision whether to use AI equipment or not.

Figure 2

AI Intergration Tool

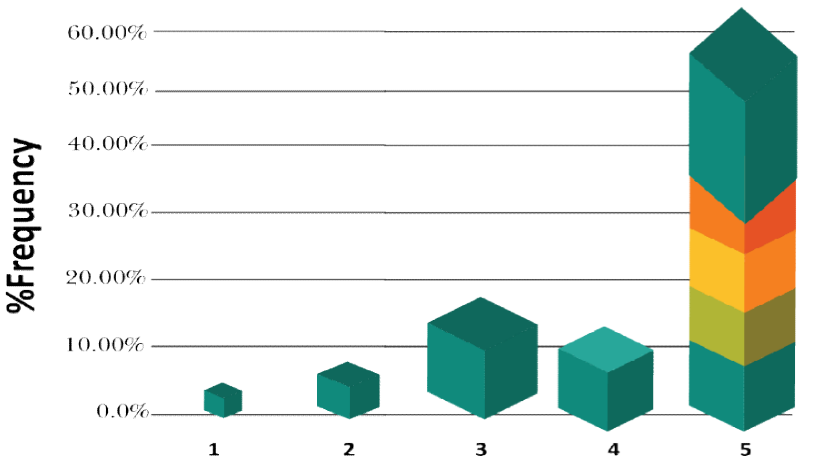


Table 3

Filmmakers and Editors Decision Whether to Integrate AI Tools or Not

Sr	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Choice to use AI tools.	68%	15%	14%	1%	2%
2.	Avoidance of AI tools.	53%	14%	20%	11%	2%

Sr	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3.	Integration influenced by trends and recommendation.	68%	10%	19%	2%	1%
4.	Preference to avoid AI tools.	42%	9%	22%	27%	0%
5.	Integration to stay competitive.	35%	9%	30%	20%	6%
6.	Decision based on efficiency vs creative input.	61%	21%	10%	6%	2%

Discussion

The findings from the survey indicated a blended, yet positive reception towards the integration of AI tools into editing workflows. Respondents suggested that AI tools have extensively streamlined their techniques, making workflows efficient and reducing the quantity of repetitive and mundane tasks. This efficiency benefit became widely favored, with many editors enormously highlighting the financial savings and improved productivity.

However, Adapting to new technology is difficult, even though the equipment provides a useful mean for film production (Cheng, 2024), the process of familiarizing oneself to the technology requires time and efforts. This shows that extra education and help might be necessary to absolutely leverage the ability of AI tools.

The impact of AI tools on the final quality of projects was another area of interest. Many filmmakers and editors observed a major improvement in the quality of their work (Nassar, 2021), attributing this to the precision and consistency offered via AI-powered tools. However, there has been a growing concern regarding innovative control. Several of the respondents indicated that the use of AI tools reduced the input that they can make in the project.

Some of the editors had appreciated how AI tools should be able to do such activities quickly freeing up their time for more creative aspects of the tasks (Sookhom et al., 2023). Also considered was the equipment's ability to maintain style and quality of edits throughout which society's experts

often require.

However, the disadvantage had been also significant (Harper, 2019). They involved factors that entailed accuracy and reliability of AI equipment that are operational in a given line of business. Several respondents responded that AI often conducts mistakes that have to be corrected by human beings, which may eliminate several of the time-saving benefits. The above entails that the development of AI algorithms should not stop but rather go on with the aim of arriving at an accurate representation of the error free outcome.

Some editors stated that AI is quite correct or in other words, positive duties can be done by using AI, but it does not contain vast information of creativity, as well as the story telling ability that is present in the editing manner.

Moreover, people had different views regarding the cost aspect of AI integration. Respondent with perception of cost stated that it was cost effective to invest in AI-powered tools for the amount of time and effort the tools saved. For others, the cost of employing AI-powered tools was too expensive. This proves that the financial feasibility of AI equipment might depend on the size and price bracket of the editing initiatives involved (Expand My Business, 2024).

Lately, there have been some discussions being made on the effect that reliance on artificial intelligence equipment could lead to a weakening of the manual editing abilities (He, 2018). Certain editors thought that over-reliance on the use of AI may make them less effective in conventional enhancing approaches, which remain valuable in the enterprise.

The decision to integrate AI-based editing tools into processes is solved with the help of gross assessment of benefits and risks (Caballero & Sora-Domenjó, 2024). As for the other equipment that was chosen by the respondents pertaining to their vehicle selection, they often cited time-saving as the reason and the need to keep up with the change in technology in the enterprise. Industry trend coupled with peer recommendations also played an extensive role and showed that social and professional network affect the adoption of latest technologies.

However, people who did not adopt AI tools in their work, stated their concerns regarding the loss of artistic value and effectiveness of AI results. According to them, AI equipment could reduce the innovative element of

editing. Alongside, concerns with the reliability and accuracy of AI tools caused several editors not to embrace them.

Some of the editors mentioned that they used to avoid AI tools since using it made them lose improved manual editing skills, which they feared much. This highlights reluctance towards embracing new technologies and keeping traditional skills which are nonetheless deemed valuable.

The findings revealed that the AI equipment was quite often a strategic decision derived from comparing advantages of increasing productivity at the cost of decreasing values of creativity or control. Press editors who have achieved a moderation of AI tools have been more inclined to accept AI tools (Hilal, 2024), while the editors who have maintained the artistic and manual aspect remained cautious.

Conclusion

The integration of AI-powered enhancing equipment into filmmaking and enhancing workflows provides a complex interplay of benefits and demanding situations. The findings displayed that whilst AI tools appreciably enhance efficiency and consistency of edits, they additionally pose challenges which include a steep learning curve, potential mistakes, and concerns approximately diminishing creative control.

Editors and filmmakers are commonly receptive to AI tools, mainly for their time-saving competencies and the capability to streamline mundane tasks. However, the preliminary adoption segment may be disturbing, necessitating adequate schooling and guide. The impact of AI on creative aspects of editing remains a contentious difficulty, with a few professionals feeling that such tools can restrict their artisitc input.

The perceived benefits, which include advanced workflow performance and project quality, are huge enough to inspire the adoption of AI tools. Yet, drawbacks including the dearth of nuanced understanding by AI, cost concerns, and the threat of over-reliance highlight the need for a balanced method.

Concludingly, while AI-powered modifying tools offer substantial benefits, their integration need to be approached with careful attention of both their potential and obstacles. Continued improvements in AI technology, coupled with complete training for users, can help mitigate some of the contemporary challenges and enhance the general editing

experience. Editors ought to find a stability that leverages the strengths of AI whilst keeping the critical human elements of creativity and storytelling.

Recommendations

1. The study is specifically conducted in restricted pattern length, therefore future researchers ought to bear in mind that increasing the pattern length to encompass a wide range of filmmakers and editors from numerous geographic locations and specific styles of production environments. This will broaden the horizon of the research.
2. The study focused on a selected set of AI-powered enhancing tools.Future research should explore the impact and effectiveness of various AI equipment available, this will enable filmmakers in deciding the best tool useful for the work.
3. The current study primarily reflects the experiences of filmmakers and editors. Future research should be based on the views of other stakeholders in the editing, inclusive of producers, customers, and post-production supervisors, to gain a holistic view of the impact of AI tools within the industry.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

Data availability is not applicable as no new data was created.

References

Anantrasirichai, N., & Bull, D. (2021). Artificial intelligence in the creative industries: A review. *Artificial Intelligence Review*, *54*, 3311–3334. https://doi.org/10.1007/s10462-020-09853-w

Andra, A. (2023, Ausgust 15). *Will AI replace human video editors?* Flixier. https://flixier.com/blog/will-ai-replace-human-video-editors

Argaw, D. M., Heilbron, F. C., Lee, J. Y., Woodson, M., & Kweon, I. S. (2022, October 23–27). *The anatomy of video editing: A dataset and benchmark suite for AI-assisted video editing* [Paper presentation]. Proceedings of 17th European Conference on Computer Vision. Tel Aviv, Israel.

Brako, D. K., & Mensah, A. K. (2023). Robots over humans? The place of artificial intelligence in the pedagogy of art direction in film education. *Journal of Emerging Technologies*, *3*(2), 51–59. https://doi.org/10.57040/jet.v3i2.484

Caballero, J., & Sora-Domenjó, C. (2024). Automation and creativity in AI-driven film editing: The view from the professional documentary sector. *Communication & Society*, *37*(1), 115–131. https://doi.org/10.15581/003.37.1.115-131

Cheng, G. (2024). Research on the displacement impact of Artificial Intelligence on the film industry. *Highlights in Business, Economics and Management*, *28*, 48–53. https://doi.org/10.54097/waqav705

Expand My Business. (2024, June 18). *The role of AI in transforming the magic of film and video production*. https://blog.emb.global/the-role-of-ai-in-transforming-production/

Filmmaker Academy. (2023). *How AI video tools are changing the film industry 2023*. https://www.filmmakersacademy.com/blog-how-ai-video-tools-are-changing-the-film-industry-2023/

Harper, R. H. (2019). The role of HCI in the age of AI. *International Journal of Human-Computer Interaction*, *35*(15), 1331–1344. https://doi.org/10.1080/10447318.2019.1631527

He, M., Chen, D., Liao, J., Sander, P. V., & Yuan, L. (2018). Deep exemplar-based colorization. *ACM Transactions on Graphics*, *37*(4), 1–16. https://doi.org/10.1145/3197517.3201365

Hellerman, J. (2023, April 18). *How is AI affecting the democratization of filmmaking?* No Film School. https://nofilmschool.com/how-ai-affecting-democratization-filmmaking

Hilal, R. (2024). Artificial intelligence systems impact on film sets in the 21st century. *International Design Journal*, *14*(4), 319–326. https://doi.org/10.21608/idj.2024.357883

Huang, Y., Lv, S., Tseng, K. K., Tseng, P. J., Xie, X., & Lin, R. F. Y. (2023). Recent advances in artificial intelligence for video production system. *Enterprise Information Systems*, *17*(11), Article e2246188. https://doi.org/10.1080/17517575.2023.2246188

Joomuck, N. (2024). Exploring AI in movies: Present, future, and

implications. *International Journal of Science and Research*, *13*(5), 1066–1069. http://dx.doi.org/10.21275/SR24515142421

Li, X., Tamprasirt, A., & Ying, F. (2024, November 23–25). *Leveraging big data algorithms to improve content quality and user experience in large-scale video production* [Paper presentation]. Proceedings of the 1st International Conference on Artificial Intelligence, Communication, IoT, Data Engineering and Security. Lavasa, Pune, India.

Li, Y. (2022). Research on the application of artificial intelligence in the film industry. *SHS Web of Conferences*, *140*, Article e01006. https://doi.org/10.1051/shsconf/202214001006

Nassar, S. (2021). The ramifications of employing artificial intelligence and advanced technologies in the film industry. *Technology*, *4*(1), 111–123.

Ovsiienko, V. (2024). *The rise of AI voiceovers in film and animation.* Respeecher. https://www.respeecher.com/blog/ai-voiceovers-film-animation

Singh, H., Kaur, K., & Singh, P. P. (2023, January 27–29). *Artificial intelligence as a facilitator for the film production process* [Paper presentation]. Proceedings of 2023 International Conference on Artificial Intelligence and Smart Communication (AISC). Noida, India.

Sookhom, A., Klinthai, P., A-Masiri, P., & Kerdvibulvech, C. (2023). A new study of AI artists for changing the movie industries. *Digital Society*, *2*(3), Article e37. https://doi.org/10.1007/s44206-023-00065-z

Townsend, S. (2024, March 2). *Exploring the impact of AI on film production in 2024.* Medium. https://medium.com/@channelasaservice/exploring-the-impact-of-ai-on-film-production-in-2024-f02da745af00

Webisoft. (2024, July 18). *What is the role of AI in the entertainment industry?* https://webisoft.com/articles/ai-in-entertainment-industry/