



# Journal of Frontiers in Multidisciplinary Research

## Redefining the Creative Process in Media Production: A Conceptual Framework for AI-Enhanced Video Editing and Automated Content Creation

Chigozie Emmanuel Benson <sup>1\*</sup>, Chinelo Harriet Okolo <sup>2</sup>, Olatunji Oke <sup>3</sup>

<sup>1</sup> Aljazeera Media Network - Doha, Qatar

<sup>2</sup> United Bank for Africa (UBA), Lagos State, Nigeria

<sup>3</sup> Lagos Indicator Magazine, Lagos, Nigeria

\* Corresponding Author: **Chigozie Emmanuel Benson**

---

### Article Info

**E-ISSN:** 3050-9726

**P-ISSN:** 3050-9718

**Volume:** 03

**Issue:** 02

**July-December 2022**

**Received:** 26-07-2022

**Accepted:** 28-08-2022

**Published:** 03-09-2022

**Page No:** 29-34

### Abstract

Integrating artificial intelligence (AI) into media production redefines traditional creative processes, offering unprecedented efficiency and innovation. This paper explores the transformative role of AI in video editing and automated content creation, highlighting its benefits such as enhanced productivity, creativity, and scalability. Key AI features, including automated cutting, scene detection, and effects application, are examined for their impact on video editing. Furthermore, the paper delves into the applications of AI-driven tools in content generation, such as scriptwriting and voice synthesis, showcasing their potential to streamline media production. A conceptual framework is proposed for integrating AI technologies across media production workflows, addressing theoretical foundations, implementation strategies, and associated challenges. The paper concludes with recommendations for media producers on adopting AI technologies, emphasizing the importance of training, ethical considerations, and continuous evaluation to balance AI capabilities with human creativity. This comprehensive analysis underscores the pivotal role of AI in shaping the future of media production.

**DOI:** <https://doi.org/10.54660/IJFMR.2022.3.2.29-34>

**Keywords:** Artificial Intelligence, Media Production, Video Editing, Automated Content Creation, AI Integration, Creative Processes

---

### 1. Introduction

The traditional media production process has long been labor-intensive, relying heavily on the skill and creativity of human editors and producers. This process typically involves multiple stages, including pre-production planning, shooting, editing, and post-production finishing (Poell, Nieborg, & Duffy, 2021). Editors meticulously sift through hours of raw footage to select the best shots, manually cut and splice video segments, add effects, and ensure the final product aligns with the director's vision. This workflow, while effective, is time-consuming and often constrained by human limitations in speed and precision (Brooks & Pinson, 2022).

In recent years, the creative industries have witnessed a transformative shift with the emergence and integration of artificial intelligence. AI, a branch of computer science focused on creating systems capable of performing tasks that normally require human intelligence, has begun to permeate various aspects of media production (Amato *et al.*, 2019). Its impact has been profound, introducing unprecedented efficiencies and creative possibilities. For instance, AI algorithms can analyze vast amounts of data far more quickly than humans, identifying patterns and making decisions with remarkable accuracy. This capability is particularly valuable in video editing, where AI can automate repetitive tasks, enhance creative decision-making, and significantly reduce production time (Dwivedi, Hughes, *et al.*, 2021).

The advent of AI in media production is not merely an incremental improvement but a paradigm shift.

It has the potential to redefine the creative process, enabling producers to achieve higher levels of efficiency and creativity (Lim, 2018). AI-powered tools can automate mundane tasks such as sorting through footage, generating preliminary edits, and applying visual effects, thereby freeing up human editors to focus on more complex and creative aspects of production. Furthermore, AI can assist in generating new content, from writing scripts to creating synthetic voices and characters, opening up new avenues for storytelling and content creation (Bakke & Barland, 2022).

This paper aims to explore the profound implications of AI-enhanced video editing and automated content creation on the creative process in media production. By examining the current state of AI technologies and their applications in media, the paper seeks to provide a comprehensive conceptual framework for integrating these advanced tools into traditional production workflows. The objective is to highlight the benefits and potential challenges of adopting AI in media production and to offer recommendations for media producers seeking to leverage these technologies.

The scope of this paper encompasses a detailed analysis of how AI is transforming video editing and content creation. It will delve into specific AI technologies that are currently being utilized in the industry, such as machine learning algorithms for video analysis, natural language processing for scriptwriting, and deep learning models for generating visual effects. The paper will also discuss the implications of these technologies on the roles and responsibilities of media professionals, as well as the potential ethical considerations and technical challenges that may arise.

## 2. The Role of AI in Video Editing

### 2.1 Benefits of AI-Driven Video Editing Tools

The advent of artificial intelligence in video editing marks a significant technological leap, transforming a traditionally labor-intensive and time-consuming process into one that is more efficient and creatively liberated. AI technologies are revolutionizing how video content is produced, edited, and finalized, bringing a myriad of benefits to the table (McAfee & Brynjolfsson, 2017). These technologies leverage machine learning, deep learning, and computer vision to automate and enhance various aspects of video editing, significantly reducing the manual effort required and opening up new creative possibilities (Girasa, 2020).

AI technologies have fundamentally altered the landscape of video editing by automating tasks that were previously done manually. For instance, machine learning algorithms can be trained to analyze video footage and identify the most critical moments, significantly speeding up the initial editing process. This automation saves time and allows editors to focus more on the creative aspects of their work. Tools like Adobe Premiere Pro and Final Cut Pro now incorporate AI features that automatically cut and organize clips, detect scenes, and even suggest edits based on the content's emotional tone and narrative structure (Soe, 2021).

One of the primary benefits of AI-driven video editing tools is the dramatic increase in efficiency. Traditional video editing is a meticulous process that involves sorting through hours of footage, selecting the best takes, and manually editing them together (Brynjolfsson, Rock, & Syverson, 2019). This process can take days or even weeks, depending on the complexity of the project. AI can streamline this workflow by automatically identifying and tagging key scenes, cutting clips to the desired length, and even applying

transitions and effects. This level of automation accelerates the editing process and ensures a higher level of consistency and precision, reducing the likelihood of human error (Jago, 2019).

Moreover, AI-driven tools enhance creativity by providing editors with more time and resources to experiment with different styles and techniques. For example, AI can generate multiple versions of an edited sequence, each with a unique combination of shots and effects, allowing editors to choose the one that best fits their vision. Additionally, AI can analyze vast amounts of data to provide insights and suggestions, such as recommending specific shots or effects based on the content's genre or mood. This capability enables editors to push the boundaries of their creativity, exploring new and innovative ways to tell their stories (Marr, 2021).

### 2.2 Key AI Features Enhancing Video Editing

Key AI features that enhance video editing include automated cutting, scene detection, and visual effects application. One of the most significant advancements is automated cutting, allowing AI to analyze footage and make precise cuts based on predefined criteria such as dialogue, action, or camera angles. This feature is particularly useful for creating rough cuts, which human editors can then refine. Scene detection, another powerful AI capability, automatically identifies different video scenes. This is achieved by analyzing visual and audio cues, such as changes in lighting, background noise, or actor positioning. Scene detection not only aids in the organization of footage but also facilitates the application of effects and transitions that are contextually appropriate (Ong, 2021).

In addition to cutting and scene detection, AI can significantly enhance the application of visual effects. Traditional visual effects work requires a high level of skill and can be extremely time-consuming. AI, however, can automate many aspects of this process, such as rotoscoping, color correction, and motion tracking. For example, AI can automatically remove backgrounds, add or enhance visual elements, and even generate realistic simulations of lighting and shadows. These capabilities not only speed up the editing process but also allow for more complex and sophisticated effects to be applied, enhancing the overall quality of the final product (Momot, 2022).

Furthermore, AI is transforming the post-production phase of video editing by enabling real-time collaboration and feedback. Cloud-based AI tools allow multiple editors to work on the same project simultaneously, updating changes in real-time. This collaborative approach enhances productivity and ensures that the creative vision is maintained throughout the editing process. AI can also facilitate better communication between editors and directors by providing detailed analytics and insights into the editing process, such as identifying potential issues or suggesting improvements (Bolaños-García-Escribano & Díaz-Cintas, 2020).

The integration of AI into video editing also brings about significant cost savings. By automating repetitive and time-consuming tasks, AI reduces the need for extensive manual labor, lowering production costs. Additionally, AI-driven editing tools' increased efficiency and speed mean that projects can be completed faster, reducing overall production timelines and costs. This is particularly beneficial for smaller production companies and independent filmmakers who may have limited budgets and resources (Sawicki & Moody, 2020).

Despite the numerous advantages of AI in video editing, it is essential to acknowledge the challenges and limitations associated with its adoption. One of the primary concerns is the potential loss of jobs due to automation. As AI takes over more tasks traditionally performed by human editors, there is a fear that the demand for skilled editors may decrease. However, it is important to note that AI is not intended to replace human editors but rather to augment their capabilities. By automating mundane tasks, AI allows editors to focus on more complex and creative aspects of their work, potentially leading to new job opportunities and roles within the industry (Nimmagadda, 2022).

Another challenge is the need for significant investment in AI technology and infrastructure. Implementing AI-driven tools requires substantial financial resources and training and upskilling of the existing workforce. Additionally, there are concerns about the ethical implications of AI in video editing, such as the potential for AI-generated content to be used in misleading or harmful ways. The industry must establish guidelines and standards to ensure that AI technologies are used responsibly and ethically (Sharma, Luthra, Joshi, & Kumar, 2022).

### 3. Automated Content Creation

#### 3.1 Automated Content Generation Tools and Their Applications

The transformation of media production through automated content creation represents a significant shift in how content is developed, delivered, and consumed. Automated content generation tools leverage the power of artificial intelligence to produce various forms of media, from text and video to audio and images, with minimal human intervention. These tools are increasingly being integrated into media workflows, offering unprecedented scalability, consistency, and efficiency. This section delves into the applications, advantages, and examples of AI in automated content creation (Chan-Olmsted, 2019).

Automated content generation tools are sophisticated AI systems designed to create media content autonomously. These tools utilize machine learning algorithms, natural language processing, and neural networks to analyze data and generate content that mimics human creativity and style. In text-based content creation, for example, AI can generate news articles, blog posts, and even entire books by analyzing patterns and styles in existing text. Tools like OpenAI's GPT-3 can produce coherent and contextually relevant text, making them invaluable for content creators seeking to automate repetitive writing tasks or generate ideas (Diakopoulos, 2019).

In video production, automated content creation tools can automatically generate video clips based on textual descriptions, compile footage into cohesive narratives, and even add special effects and transitions. These capabilities allow for the rapid production of video content, which is particularly beneficial in newsrooms and marketing departments where quick turnaround times are essential. AI-driven video creation tools can also personalize content for different audiences by adjusting language, tone, and imagery, enhancing viewer engagement and relevance (Aldausari, Sowmya, Marcus, & Mohammadi, 2022).

#### 3.2 Advantages of Automation in Media Production

One of the most significant advantages of automation in media production is scalability. Traditional content creation

methods are often limited by time and human resources. Producing high-quality content at scale requires significant investment in personnel and infrastructure (Anantrasirichai & Bull, 2022). Automated content creation tools, however, can generate large volumes of content quickly and cost-effectively. This scalability is particularly advantageous for media companies and marketers who need to produce vast amounts of content to meet the demands of diverse audiences across multiple platforms (Liu *et al.*, 2017).

Consistency is another crucial benefit of automated content creation. Despite their best efforts, human content creators can introduce variability and errors into their work. AI-driven tools, on the other hand, can maintain a consistent style, tone, and quality across all generated content. This consistency is essential for building and maintaining brand identity, ensuring that all communications adhere to the same standards and resonate uniformly with the target audience. For example, a brand using AI to generate social media posts can ensure that every post aligns with its voice and messaging guidelines, creating a cohesive and professional online presence (Dwivedi, Ismagilova, *et al.*, 2021).

The efficiency of automated content creation also allows human creators to focus on more strategic and creative tasks. By offloading repetitive and time-consuming tasks to AI, content creators can dedicate more time to ideation, strategy, and refining the overall quality of their work. This symbiotic relationship between human creativity and AI efficiency can lead to higher-quality content and more innovative media production processes (Javaid, Haleem, Singh, & Suman, 2021).

#### 3.3 Examples of AI Applications in Automated Content Creation

There are numerous examples of AI applications in automated content creation, each showcasing the diverse capabilities of these technologies. In scriptwriting, for instance, AI tools can assist in generating plot ideas, dialogues, and character development. ScriptBook, an AI-driven script analysis tool, can predict the commercial success of scripts by analyzing narrative structure, character arcs, and emotional impact. This allows screenwriters and producers to refine their scripts for better audience reception and financial performance.

Voice synthesis is another area where AI is making significant strides. AI-powered voice synthesis tools can generate realistic and expressive human speech, enabling the creation of voiceovers, audiobooks, and virtual assistants. These tools can mimic different accents, tones, and styles, providing versatility and customization for various applications. Companies like Google and Amazon have developed advanced voice synthesis technologies that power their virtual assistants, creating natural and engaging user interactions (Rose, 2021).

In addition to scriptwriting and voice synthesis, AI transforms image and video synthesis. Tools like DeepArt and Runway ML can generate images and videos based on textual descriptions, allowing creators to visualize their ideas quickly and accurately. These tools use deep learning algorithms to understand the context and details of the descriptions, producing high-quality visual content that can be used in various media projects. This capability is particularly useful in marketing and advertising, where visual content is critical in capturing audience attention and conveying messages effectively (Raustiala & Sprigman,

2019).

The use of AI in automated content creation is not without its challenges and ethical considerations. One of the primary concerns is the potential for AI-generated content to be used in deceptive or malicious ways. Deepfake technology, which uses AI to create realistic but fake videos and images, has raised concerns about misinformation and privacy violations. The industry must establish guidelines and standards to ensure the ethical use of AI technologies and prevent misuse (Partadiredja, Serrano, & Ljubenkov, 2020).

Another challenge is the potential impact on employment in the media industry. As AI takes over more content creation tasks, there is a fear that writing, editing, and production jobs may be at risk. However, viewing AI as a tool that augments human capabilities rather than replaces them is important. By automating routine tasks, AI allows human creators to focus on higher-level creative and strategic work, potentially leading to new roles and opportunities within the industry (Kaplan & Haenlein, 2020).

In conclusion, automated content creation is transforming media production by leveraging the power of AI to generate text, audio, and visual content with unprecedented efficiency, scalability, and consistency. These technologies enable media companies to produce high-quality content at scale, maintain brand consistency, and free human creators to focus on more strategic and creative tasks. While there are challenges and ethical considerations to address, the benefits of AI-driven content creation far outweigh the drawbacks. As AI continues to evolve, it will undoubtedly play an increasingly integral role in the future of media production, driving innovation and enhancing the creative process.

## 4. Conceptual Framework for Integrating AI in Media Production

### 4.1 Theoretical Foundation for AI Integration in Creative Processes

The theoretical foundation for integrating AI in media production is built upon several key concepts from computer science, cognitive psychology, and creativity research. AI technologies, such as machine learning and neural networks, mimic cognitive processes to perform tasks that traditionally require human intelligence. These technologies can analyze vast amounts of data, identify patterns, and make predictions, thus enhancing decision-making in creative processes.

From a cognitive psychology perspective, creativity is often viewed as recombining existing ideas in novel ways. AI systems, particularly those using generative algorithms, excel at this by drawing from extensive datasets to generate new content. This capability aligns with the theory of combinatorial creativity, which posits that innovation arises from combining existing knowledge in unique ways. Thus, AI catalyzes creativity, providing creators with new tools and insights to enhance their work (Ren, Silpasuwanchai, & Cahill, 2019).

Furthermore, the integration of AI in media production is supported by theories of human-computer interaction, which emphasize the symbiotic relationship between humans and machines. This interaction is particularly relevant in creative industries, where AI can augment human creativity by handling repetitive tasks, offering new perspectives, and enabling creators to focus on more complex and nuanced aspects of their work (Zhou *et al.*, 2021).

### 4.2 Proposed Framework for AI-Enhanced Media Production Workflows

To harness the full potential of AI in media production, it is essential to develop a structured framework that integrates AI technologies into existing workflows. This framework should encompass the entire production process, from ideation and pre-production to post-production and distribution.

In the initial stages, AI can assist in generating ideas, developing scripts, and planning projects. Tools that analyze audience preferences and trends can help creators tailor their content to meet market demands. AI-driven scriptwriting tools can also generate plot ideas and dialogues, streamlining the pre-production phase. During the production phase, AI can optimize various aspects of the process. For instance, AI-powered cameras and drones can capture high-quality footage autonomously, adjusting settings in real-time based on environmental conditions. AI can also assist in managing logistics, scheduling shoots, and ensuring that all production elements align with the project's creative vision.

The post-production phase benefits significantly from AI technologies. Automated video editing tools can perform tasks such as cutting, scene detection, and applying effects, drastically reducing the time required to edit footage. AI-driven color correction and audio enhancement tools can ensure that the final product meets professional standards. Furthermore, AI can assist in creating subtitles and translations, making content accessible to a global audience. AI can optimize the distribution and marketing of media content by analyzing viewer data and predicting trends. Automated marketing tools can create personalized campaigns, ensuring that the content reaches the right audience. Additionally, AI can monitor social media engagement and provide insights into audience reception, enabling creators to refine their strategies for future projects.

### 4.3 Challenges and Considerations in Implementing AI Technologies

While integrating AI in media production offers numerous benefits, it also presents challenges and considerations that must be addressed to ensure successful implementation. Implementing AI technologies requires significant technical expertise and infrastructure. Media companies must invest in high-performance computing resources and skilled personnel to develop and maintain AI systems. Integrating AI tools with existing production workflows can also be complex, requiring careful planning and coordination.

The use of AI in media production raises several ethical issues. For instance, the potential for AI-generated content to be used deceptively or to spread misinformation is a significant concern. Ensuring the ethical use of AI technologies requires the development of industry standards and guidelines. Transparency in AI decision-making processes is also crucial to maintain trust with audiences. While AI can enhance creativity, there is a risk that over-reliance on AI tools may lead to a loss of creative control. Creators must balance the use of AI with their own creative intuition and judgment. Ensuring that AI serves as a tool to augment human creativity rather than replace it is essential for maintaining the authenticity and originality of the content. The adoption of AI in media production can have significant economic implications. While AI can reduce production costs and increase efficiency, it may also lead to job displacement in certain roles. Media companies must navigate these economic shifts carefully, potentially retraining employees

and creating new roles that leverage AI technologies. As AI technologies continue to evolve, regulatory frameworks must keep pace. Media companies must ensure compliance with data protection and privacy regulations, particularly when using AI to analyze audience data. Staying informed about regulatory changes and adapting practices accordingly is essential for sustainable AI integration.

## 5. Conclusion

The integration of artificial intelligence into media production represents a significant evolution in the creative process. Several key findings and insights have emerged throughout this paper, highlighting the transformative potential and practical considerations of adopting AI technologies in the media industry. These advancements are revolutionizing media production, enabling greater efficiency and creativity while presenting unique challenges that must be addressed.

Firstly, AI technologies have proven powerful tools in enhancing video editing processes. They offer numerous benefits, including increased efficiency, enhanced creativity, and the ability to handle complex tasks such as automated cutting, scene detection, and the application of visual effects. These capabilities allow media producers to focus more on the creative aspects of their projects rather than getting bogged down by repetitive and time-consuming tasks. This shift not only speeds up the production process but also elevates the quality of the final product by allowing for more intricate and polished editing.

Secondly, automated content creation tools are revolutionizing media production by enabling the generation of high-quality content at scale. These tools facilitate consistent and rapid production, ensuring that media producers can meet the growing demand for content across various platforms. AI applications such as scriptwriting and voice synthesis are just a few examples of how automation can streamline production, leading to significant cost savings and increased productivity. By automating these aspects, media companies can maintain a steady flow of content, keeping up with the fast-paced nature of the digital landscape. Thirdly, the conceptual framework for integrating AI into media production emphasizes the need for a structured approach that spans the entire production lifecycle. AI technologies can optimize each phase, from ideation and pre-production to post-production and distribution, ensuring a seamless and efficient workflow. However, the successful implementation of AI requires addressing several challenges, including technical, ethical, creative, economic, and regulatory considerations. These challenges necessitate careful planning and management to ensure that AI integration enhances rather than disrupts production processes.

Media producers should consider several recommendations to fully leverage AI's benefits in media production. Investing in training and education is crucial to ensure that teams understand and can effectively utilize AI technologies. This includes fostering a culture of innovation and creativity that embraces AI to enhance human creativity rather than replace it. Adopting a phased implementation approach can help manage the transition smoothly, starting with pilot projects to test and refine AI tools before scaling up their use across various aspects of production.

Finally, ensuring the ethical use of AI is paramount. Media producers must establish clear ethical guidelines for using AI,

including transparency in AI-driven decision-making processes, protecting audience data, and avoiding using AI for deceptive or harmful purposes. Balancing AI with human creativity is essential to maintain the authenticity and originality of content. Additionally, staying informed about regulatory changes and exploring collaborative opportunities with AI developers and other media companies can lead to innovative solutions and best practices. Continuous evaluation and optimization of AI tools are necessary to stay ahead and ensure they meet production goals while maintaining high-quality standards.

## 6. References

1. Aldausari N, Sowmya A, Marcus N, Mohammadi G. Video generative adversarial networks: a review. *ACM Comput Surv.* 2022;55(2):1–25.
2. Amato G, Behrmann M, Bimbot F, *et al.* AI in the media and creative industries. *arXiv preprint.* 2019;arXiv:1905.04175.
3. Anantrasirichai N, Bull D. Artificial intelligence in the creative industries: a review. *Artif Intell Rev.* 2022;55(1):589–656.
4. Bakke NA, Barland J. Disruptive innovations and paradigm shifts in journalism as a business: From advertisers first to readers first and traditional operational models to the AI factory. *SAGE Open.* 2022;12(2):21582440221094819.
5. Bolaños-García-Escribano A, Díaz-Cintas J. The cloud turn in audiovisual translation. In: *The Palgrave Handbook of Audiovisual Translation and Media Accessibility.* 2020. p. 519–44.
6. Brooks BS, Pinson JL. *The Art of Editing: In the Age of Convergence.* Routledge; 2022.
7. Brynjolfsson E, Rock D, Syverson C. Artificial intelligence and the modern productivity paradox. In: *The Economics of Artificial Intelligence: An Agenda.* 2019. p. 23–57.
8. Chan-Olmsted SM. A review of artificial intelligence adoptions in the media industry. *Int J Media Manag.* 2019;21(3-4):193–215.
9. Diakopoulos N. *Automating the News: How Algorithms Are Rewriting the Media.* Harvard University Press; 2019.
10. Dwivedi YK, Hughes L, Ismagilova E, *et al.* Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *Int J Inf Manag.* 2021;57:101994.
11. Dwivedi YK, Ismagilova E, Hughes DL, *et al.* Setting the future of digital and social media marketing research: Perspectives and research propositions. *Int J Inf Manag.* 2021;59:102168.
12. Girasa R. *Artificial Intelligence as a Disruptive Technology: Economic Transformation and Government Regulation.* Springer Nature; 2020.
13. Jago M. *Adobe Premiere Pro CC Classroom in a Book.* Adobe Press; 2019.
14. Javaid M, Haleem A, Singh RP, Suman R. Substantial capabilities of robotics in enhancing industry 4.0 implementation. *Cogn Robot.* 2021;1:58–75.
15. Kaplan A, Haenlein M. Rulers of the world, unite! The challenges and opportunities of artificial intelligence. *Bus Horiz.* 2020;63(1):37–50.
16. Lim D. AI & IP: Innovation & creativity in an age of

- accelerated change. *Akron Law Rev.* 2018;52:813.
17. Liu X, Nourbakhsh A, Li Q, *et al.* Reuters Tracer: Toward automated news production using large scale social media data. In: 2017 IEEE International Conference on Big Data (Big Data). 2017.
  18. Marr B. *Data Strategy: How to Profit from a World of Big Data, Analytics and Artificial Intelligence.* Kogan Page Publishers; 2021.
  19. McAfee A, Brynjolfsson E. *Machine, Platform, Crowd: Harnessing Our Digital Future.* WW Norton & Company; 2017.
  20. Momot I. Artificial intelligence in filmmaking process: future scenarios. 2022.
  21. Nimmagadda VSP. Artificial Intelligence for Predictive Maintenance of Banking IT Infrastructure: Advanced Techniques, Applications, and Real-World Case Studies. *J Deep Learn Genomic Data Anal.* 2022;2(1):86–122.
  22. Ong V. Artificial intelligence in digital visual effects. 2021.
  23. Partadiredja RA, Serrano CE, Ljubenkov D. AI or human: the socio-ethical implications of AI-generated media content. In: 2020 13th CMI Conference on Cybersecurity and Privacy (CMI). 2020.
  24. Poell T, Nieborg DB, Duffy BE. *Platforms and Cultural Production.* John Wiley & Sons; 2021.
  25. Raustiala K, Sprigman CJ. The second digital disruption: Streaming and the dawn of data-driven creativity. *NY Univ Law Rev.* 2019;94:1555.
  26. Ren X, Silpasuwanchai C, Cahill J. Human-engaged computing: the future of human–computer interaction. *CCF Trans Pervasive Comput Interact.* 2019;1:47–68.
  27. Rose D. *Supersight: What Augmented Reality Means for Our Lives, Our Work, and the Way We Imagine the Future.* BenBella Books; 2021.
  28. Sawicki M, Moody J. *Filming the Fantastic with Virtual Technology: Filmmaking on the Digital Backlot.* Routledge; 2020.
  29. Bitragunta SL, Gadde G. Optimized Technique for Maximizing Efficiency in GW-Scale EHVAC Offshore Wind Farm Connections through Voltage and Reactive Power Control. 2021;9(6).
  30. Sharma M, Luthra S, Joshi S, Kumar A. Implementing challenges of artificial intelligence: Evidence from public manufacturing sector of an emerging economy. *Gov Inf Q.* 2022;39(4):101624.
  31. Soe TH. AI video editing tools. What editors want and how far is AI from delivering? *arXiv preprint.* 2021;arXiv:2109.07809.
  32. Zhou L, Paul S, Demirkan H, *et al.* Intelligence augmentation: Towards building human-machine symbiotic relationship. *AIS Trans Hum-Comput Interact.* 2021;13(2):243–64.