

The Historical Evolution of Artificial Intelligence Technology in Cinema

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Abstract:

The film industry has witnessed a remarkable evolution in the use of artificial intelligence (AI) technology, as these advancements have played an increasingly significant role in various stages of production. AI has been instrumental in reshaping filmmaking techniques, from visual effects to editing and pre-visualization. No longer just an auxiliary tool, AI has become a central element in creating advanced visual experiences, providing directors and cinematographers with unprecedented tools to expand the scope of cinematic creativity. AI's influence on cinema initially emerged through the enhancement of computer-generated imagery (CGI) and the use of algorithms in visual effects. However, it has since evolved to incorporate more sophisticated tools such as deep learning and generative AI, enabling the creation of high-quality virtual images and scenes without the need for actual filming. This research focuses on reviewing the historical development of AI technology in cinema, examining both the use of AI as a subject in films and its application as a tool in the filmmaking process.

Statement of the Problem: The film industry has undergone radical transformations with the continuous advancement of artificial intelligence (AI) technology, as these technologies have increasingly influenced various stages of film production. This raises the following question: How has the historical development of artificial intelligence technology impacted cinema, with a focus on its stages of evolution?

Research Objectives: The research aims at: Tracking the historical development of artificial intelligence technology in the film industry and analysing its stages of evolution. Establishing the connection between artificial intelligence technology and cinema. Presenting a future vision of the integration between artificial intelligence and cinematic art and how to utilize it for industry development.

Significance: Highlighting the role of artificial intelligence in the evolution of cinematic technologies and its impact on the film industry. Bridging the research gap regarding the changes that have occurred in the film industry. Providing valuable insights for cinematographers and directors on how to effectively integrate artificial intelligence into their work.

Research Methodology: The research uses the descriptive approach

Results: 1- Artificial intelligence has evolved from being merely an assistive tool to becoming a fundamental partner in cinematic creativity, as it is now used to generate entire scenes without the need for actual filming. 2- The research concluded that the integration of artificial intelligence and cinematic art can open new horizons for the film industry; however, this integration must be carefully managed to preserve the creative essence of filmmaking. 3- The results showed that artificial intelligence has contributed to reducing both time and costs required for creating cinematic scenes through automated simulation tools and generative AI techniques.

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