



Review Article

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Generative AI Images and Indian Media Industry: An Overview of Opportunities and Challenges

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ABSTRACT

Artificial Intelligence (AI) has gained initial momentum in the past few years. Another side of this is Generative AI, which is growing and has the capacity to transform journalism and media content. There are speculations about the consequences of AI from creating warfare to the making of movies. This article considers notable platforms like Shutterstock, providers of stock photographs, music and editing tools and secondly, DALL.E 2-Open AI, a generative AI platform of Chat GPT.

The proposed research article aims to find out the effects of generative AI images in the media industry, the opportunities of AI generative visuals and the challenges faced by the industry due to the innovative technology. This article will also try to demonstrate the capacity and the limitations of generative AI content and reflect on the implications of generative AI for media education and journalism.

INTRODUCTION

Artificial Intelligence (AI) has gained so much attention in recent months. It has become a major point of talk among the industries, even though many organizations are investing so heavily in developing AI solutions and making this technology one step ahead of time. AI Technology can perform tasks that are associated with human intelligence, but still there are questions about the reasoning and logical problem-solving features of this innovation. Media and entertainment industries are facing significant shifts in the market due to AI-driven power innovations (Bozkurt, 2023). There are many speculations about the consequences of AI, that it will replace itself with human workers or work as a tool to increase the human capacity. The impact of technology, including AI, is an area of study for many researchers and media professionals. Despite the criticism in various parts of the globe, AI has grown significantly in past years. Introduced to the public in 2022, Chat GPT uses Open AI's text interpreter GPT-3, GPT stands for "generative pre-trained transformer. This code can read and write the text fluently (Pavlik, 2023).

Chat GPT has become an area of discussion among every person. Its basic function is like "ask me anything" and "I may have a good answer" has become very trending in many domains including the education sector. While there are two groups, some of them are supporting this innovation and using it as per their needs. While there are other sides, who are criticizing and questioning its potential, highlighting the limited reasoning abilities. Irrespective of all these challenges and support, the global AI market size was expected at \$ 65.48 billion in the EY 2020 and is expected to reach \$ 1,581.70 billion by 2030, as per a recent report from *Bloomberg* report (Online, 2023).

Journalism and Generative AI

Journalism and content development systems have undergone some significant changes in past years, majorly with the growth of innovations and rise of social media. Users have also turned into creators due to the slow and subtle growth of technology. Now, Chat GPT is observed as a new game changer in the content creation field (Bozkurt, 2023). With this rise in digital media technologies,

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journalists and content creators must be able to adapt to the changing circumstances. AI has transformed the ways of working in a newsroom, from gathering information to verifying it. Some of them are using this technology even for publishing information as well. The widespread fear of job loss due to the usage of AI in all sectors is increasing with the development in this AI technology. The world's first news channel producing its whole content entirely with the help of artificial intelligence, NewsGPT, launched in March this year. This has threatened the media industry and now professionals are fearing their job loss in the content publishing industry. Alan Levy, NewsGPT's CEO, described this as a game changer in the field of news gathering and production. But, on the other hand, journalism robots are proliferating, which is another major concern about their impact (Welle, 2023).

Talking in terms of generative AI, many OTT (Over the Top) platforms are using this technique for their content production. It has left a significant impression on the media industry. From generating synthetic images and videos to producing personalized content as per users' demands, generative AI is changing the way of content production by media professionals. The reason this tool is so trending is its ability to create high-quality images and videos. For example, some companies are using this technology for GANs (Generative Adversarial Networks) to generate high-quality images and videos that are indistinguishable from the real ones. (Mathrubhumi, 2023). This technique is also getting used in the video production industry, for creating visual effects, for better video game quality, and virtual reality experiences. Some media organizations are using AI algorithms to develop personalized content for their audiences. For example, some media organizations can tailor some articles which are based on the user's preferences (*How AI Is Transforming the Media & Entertainment Industry - Wipro*, n.d.).

Issues about the infringement of Intellectual Property Rights such as copyrights issue and trademarks have been noticed with the development in this technology. Because Generative AI models are trained with large datasets, it include previous works of different people, and these contents are scrapped from Internet. Using AI services can lead a person to expose individual or organizational legal responsibilities (Ivankov, 2023).

Case Studies on usage of Generative AI in the Media Industry

Within a very short span of time, when this AI technology gripped the market, there are many instances and discussions about its usage in the media industry. Many media industries are taking aid from this technology. Some of the recent case studies are mentioned in the article below, and concerned to this it may lead to creating some challenges for employees in the media industry. The case studies are as follows-

- NewsGPT, a news website that is fully operated by AI technology, from generating text for news to creating real-like visuals for the stories. The website was launched in March this year and it is quickly getting noticed by people due to its unique method of content production. The website asks the readers to rate their articles between zero to five, for the improvement of the content creation. In the past two months, this website has been featured on recognized websites like Yahoo Finance, Digital Journal, Yahoo News, and Times Now (Welle, 2023).
- Chinese News agency, Xinhua, has used the technology of Generative AI to create virtual news anchors. The company used machine algorithms to analyze the facial expressions, tone of voice, and body language of human anchors and later developed a virtual news anchor who can deliver news in multiple languages. It definitely has helped the organization to cut costs and improve the efficacy of news delivery (Gopalkrishnan, 2022).
- Indian media company, TVF (The Viral Fever), creates content on YouTube, and delivers some web series under the banner has using this generative technology for creating digital arts. The company uses machine algorithms in such a way that it analyzes and generates images that mimic the styles of famous artists like Van Gogh and Picasso. It has helped the company to create some stunning extraordinary content for its audiences (Superadmin, 2022).
- IBM has developed an AI-powered tool for automated video production. The tool uses generative AI algorithms to analyze written scripts and formats and generates videos based on the key points of those written articles. This will definitely help media companies to speed up the video production process and allow them to save money (Superadmin, 2022).
- The Washington Post, a renowned news organization, is also using AI-generated technology to write articles on the finance and sports beat. The organization uses machine learning algorithms to analyze the data based on the mentioned formats. It has helped them to make a wider audience reach (Superadmin, 2022).
- Government agencies across the world like DARPA (Defense Advanced Research Projects Agency) which is a US-based agency, use and develop AI skill set to enhance working in deepfake detection. They are integrated with many academic institutions to work upon this technology to enhance for better usage. Other named organizations like Amber, Sensity, and Serelay are also focusing on developing this technology further. Deeptrace, now a part of Microsoft, was one of the pioneering companies in deepfake detection. Their technology focused on identifying and mitigating synthetic media, including deepfakes, using AI-powered tools.



- News organizations like Al Jazeera, Fox Sports, Reuters, CBS Sports, and BBC have incorporated the usage of artificial intelligence-based video editing. BBC has used meta-data tagging, content analysis, and video optimization tasks in video production. On the other hand, CBS and Fox Sports both are using automated AI techniques for creating highlights creation, analyzing and clipping key moments from live games. AL Jazeera is using AI-driven systems to automate processes like video summarization, transcription, and scene analysis for their news and documentary production.
- The New York Times has used AI to create interactive and immersive storytelling experiences. They have developed projects like “The Privacy Project” and “The New York Times VR” that incorporate AI-driven elements to engage audiences in innovative and immersive storytelling formats. Vice Media has also experimented with AI technologies to create interactive content, exploring new narrative formats and engaging audiences through immersive experiences. Even OTT platforms like Netflix, Prime Video, and others leverage AI algorithms to recommend content based on viewers’ preferences and behaviors, providing an immersive and personalized streaming experience.
- Media outlets use AI algorithms to analyze user behavior, preferences, and interactions with content. By understanding individual interests, AI helps personalize content recommendations, suggesting articles, videos, or music that align with user preferences. Some media companies develop custom AI-generated voices that represent their brands. These unique voices are used in virtual assistants, podcasts, or audio branding elements, creating a distinctive auditory identity for the brand. AI-driven predictive analytics help media companies anticipate audience preferences and trends. By analyzing vast amounts of data, AI provides insights into audience behavior, aiding in strategic decisions for content creation and branding strategies.

These are some of the trending case studies that are related to the usage of generative AI technologies in the media industries across the globe. This technology, after reading such case studies, seems like an opportunity for the upcoming generation but also it may also curb the rate of employment in any sector.

Boom or Bane?

While talking about the impact of this GPT and Generative AI technology, it is a complex issue. It is difficult to make a statement that it is a boom or bane for this media industry. People have mixed feelings about this technology. On the one hand, this technology has the ability to revolutionize many industries including media and can drive the country’s economic growth to a higher level. It can help to create new products and services, automate tasks, and

enhance people’s decision-making power (Greene, 2023). This tech has the potential to unlock new insights in the fields of healthcare, climate sciences, and social sciences. There are such discussions in the market that after the further development of this technology, it will be able to predict future events and trends. But on the other hand, the impact of AI is discussed in terms of ethical and societal issues. People are concerned about the potential bias of this technology; it can be easily done by discriminating in the AI algorithms. It will be impactful for the employment of many people (Online, 2023).

According to a media columnist and ombudsperson, *Pamela Philipose* said that the threats created by AI and its applications were real in the initial stages and hinted that the “Alexas” of the newsrooms in media channels will perform the tasks more effectively and efficiently rather than a journalist who is working in the industry for so long. Many media professionals when relying upon this technology may threaten the credibility and trustworthiness of journalism. People will raise questions on the ability and efficacy of a particular media tool (Welle, 2023).

According to the senior Indian TV anchor, *Rajdeep Sardesai*, people lost their jobs when computers were first used in the history of content production, and jobs will be slashed again when this AI technology enters the media newsrooms. He warned that technology should be kept as a tool for help not for the replacement of workers. “We need to use AI and Chat GPT as tools for advancement in the media newsrooms functioning not for replacing human skills” (Online, 2023).

CONCLUSION

Generative AI has shown so much potential in every domain including media education and content development sector. It has shown its capability of generating new forms of content, like real images and videos, automated tasks accomplishment, and many other activities. From writing all the content by AI algorithms to the virtual news anchors in TV studios. Even, Google has also discovered their AI generative tool Tacotron-2, which can synthesize human voice, specially built to improve voice-based Google assistant in Android smartphones. With this emerging and ever-evolving technology, it is very crucial to carefully consider the ethical and societal implications of this technology in the media industry.

According to overall scenarios till date, generative AI technology has shown promising and reliable results in the professional market. It has shown the potential to revolutionize the media markets in the upcoming years. As long as ethical considerations are taken into account, generative AI can help media companies improve their workflows, create unique content, and enhance user experiences. Talking specifically about the media industry, this field has seen the utmost growth in few decades.

From collecting information and data from the fields to the journey of exploring facts and data on search engines. Another step taken into account is this AI technology which will try to dominate the search engine technique and may make the tasks easy in the organizations. This will definitely make a big difference to the research and desk work. As seen, for news production speed is an important factor, this AI generative tool is definitely an opportunity to media professionals.

But there are limitations to this technology as well. This technology is still used as a pilot program in many media industries, and they are working on limited genres (finance, sports, and entertainment). If we talk about hardcore journalism and special feature writing, this generative technology may find it difficult to decode things in a proper manner. The further scope of AI technology determines the future economies and national security to influence global politics. Data quality is still a major concern associated with this technology because it relies upon high-quality data to process and show results, and if the dataset is incomplete, there are higher chances of inaccurate, incomplete and outdated results.

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