

# A CASE STUDY ON THE IMPLICATION OF AI DRIVEN TOOLS IN THE FIELD OF NEWS PRODUCTION AND DISTRIBUTION

**Mrs. Jothi Keerthana<sup>1\*</sup> and Dr. K. Manikkam<sup>2</sup>**

<sup>1</sup>*Research Scholar (Part time), Department of Visual Communication, Hindusthan College of Arts and Science, Coimbatore – 641028, Tamil Nadu, India.*

<sup>2</sup>*Assistant Professor, Department of Visual Communication, Hindusthan College of Arts and Science, Coimbatore – 641028, Tamil Nadu, India.*

<sup>1\*</sup>*jothikanchana01@gmail.com* , <sup>2</sup>*kmanikkam08@gmail.com*

## **Abstract**

*The development and the implications of advancement in digital technologies have also influenced the news media as the news generated by AI (Artificial Intelligence) is on its rise. The newer technology adoption leads AI driven tools to take part in the process of information gathering, production and news distribution. Advancement in technology has reshaped the news media in many aspects as the journalistic practices are experiencing a big transformation in adopting AI driven tools in the process of news production and dissemination (Jamil & Sadia, 2021).*

*AI generated news anchors had been flooding among Indian news units, where the AI news anchor avatars narrated the news and weather statistics. This study mainly focuses on manifesting the factuality of the news generated by AI, circulated among the public creating reliability. Qualitative case study is equipped to examine and analyze few viral AI generated news stories across the globe that have resulted in social controversies.*

**Keywords:** *Artificial Intelligence, AI Journalism, News Production, News Credibility*

## **1. Introduction**

Advent of AI (Artificial Intelligence) has revolutionized various industries including the field of Journalism. The integration of artificial intelligence in news production has transformed the media landscape, reshaping the way the news is gathered, processed and disseminated.

AI powered tools and its algorithms have been used to generate news stories which aids in producing the content faster and also helps in cost reduction, with this implications of AI in the field of Journalism results in controversies. AI algorithms, while efficient, may lack in critical thinking and fact checking abilities as human journalists.

The potential for misuse of deep fake technology is alarming and can take various forms including spreading false information and fake news. By creating deceptive videos, public opinion can be easily manipulated, leading to confusion and difficulty in distinguishing between what is real and what is fabricated. With the use of this technology the political landscape is at risk as it could be easily manipulated. Political figures can have their reputations damaged, false narratives can be spread, and even election results can be influenced. Individuals will also be affected by the negative effects of deep fake content. With the advancement of deep fake technology, creating fake identities or manipulating financial transactions has become easier, posing a threat to individuals and businesses. It is essential to recognise the danger and just prevent the misuse of this technology (Diaa et al, 2023).

With the spread of misinformation through AI-generated content can have significant societal consequences. These AI technologies are redefining the news industry and that shapes the future of journalism. Through a review of relevant literatures, analysis of real world case studies, this paper aims to provide an understanding of how AI technologies are reshaping the news industry and influencing the future of journalism.

Artificial intelligence, a field of technology which has a potential to perform tasks that are typically associated with human intelligence, is still in its early stages of development, yet it is poised to have a significant impact on the realm of conflict (Esberg & Mikulaschek, 2021).

Artificial Intelligence (AI) has enabled the widespread production of what are now termed as “deep fakes”, which are developed photos and videos that closely resemble authentic ones. Through this, the individuals are more prone to deep fakes. This uncertainty subsequently diminishes the trust in news disseminated through social media (Vaccari & Chadwick., 2020).

As AI technologies continue to evolve, it led to the development of deep fake technology which can manipulate video and audio to make it appear as if someone is saying or doing something they never did. Through this technology there arises a risk of fake images, fake news videos and interviews with public figures, which leads to misinformation and confusion for the public.

The rapid spread of news on social media platforms makes it challenging to verify the accuracy of information before it reaches a wide audience. This false information can quickly go viral and reach larger audiences within a short period of time making it difficult to control and prevent its negative impact. The lack of gatekeepers or editorial oversight on social media platforms allows fake news to circulate freely (Gawande, A. 2023).

In the contemporary era individuals increasingly turn to social media as their primary source for news consumption rather than traditional news media. This shift results in the widespread of misinformation because online news often lacks credibility and reliability. With this abundant value of false information being spread may mislead the readers or viewers to have a negative impact over the society and the people in the news that are being telecasted (Abedalla et. al, 2019).

## 2. Review of Literature

Artificial intelligence is increasingly becoming a part of our daily lives, but it is also important to know that AI also brings foreseen risks by the dissemination of fake news. There are videos created for entertainment purposes while others are employed in producing fake news across various social media platforms. Fake news is now disseminated through video formats that extend beyond the video format. The facial swapping capability of a few AI tools undoubtedly create videos and images that appear highly realistic, but society may not yet be fully prepared for this technology. While only a limited number of people possess the video editing skills to produce fake news, the advent of this technology made the process more accessible. Ultimately, the responsibility lies with us in terms of how well informed we are about AI and how we choose to utilize it (Nazar & Bustam, 2020).

Deepfake technologies offer various valuable applications. It can be used to create modified audio or video content featuring historical figures which can serve as an educational tool. But these technologies emerged at a time when distinguishing between reality and fiction has become increasingly challenging. Today, people shift towards social media platforms as their primary source of information. Through this platform individuals pass along information shared by others without verifying its level of accuracy. As a result, false information can spread more rapidly which makes it increasingly difficult to get to know about fact from fiction in this digital age. This capability of creating highly convincing falsehoods could incite violence, discredit leaders and institutions, or even sway the outcomes of elections (Chesney & Citron, 2019).

Advanced machine learning methods are simplifying the process of manipulating and producing convincing video and audio content, as well as flawlessly imitating anyone of our choice. This trend is being driven by innovative video capture technologies. With these technologies, one can enable the video footage alteration by synchronizing a person's expressions resulting in striking lifelike results. This realistic manipulation of voices and faces could give rise to various issues. Like many tasks in artificial intelligence, these networks are trained to provide desired responses to the new inputs, by recognizing faces of a person. These can be trained to generate their own idea by acquiring the knowledge by training a dataset. In the future, by employing similar techniques, video manipulation could become considerably more accessible as well (Knight, 2017).

## 3. Research Objective

AI generated fake news alters the structure of genuine news using highly convincing fake news articles, blogs and social media content. Artificial Intelligence can be used to generate realistic text, audio and video content. This technology can be exploited to create fake news articles, audio recordings or video content that are difficult to distinguish from real news. These fake news make it challenging for readers to differentiate the falsehood from facts. It manipulates the words and actions of public figures that blurs the line between reality and fiction. This paper aims in studying the following objectives:

- To study the dissemination of fake news spread through social media allowing misinformation to spread rapidly and widely.
- Analysis of how the news has been manipulated and that creates the impact on readers or viewers.
- To study the mentioned objectives, few AI generated news which became viral across the globe was analysed and this case study exploration is done through Media Dependency Theory (Rokeach & DeFleur, 1976).

#### **4. Research Methodology**

The Media Dependency Theory of Sandra Ball-Rokeach and Melvin DeFleur explains the relationship between media, society and the individuals. This theory suggests that the media plays a vital role in shaping the opinion of the public, the attitudes of the public and their behavior by influencing the dependency of people for the information and the entertainment.

Media has a power to influence the way people perceive events, issues and the individuals as they are dependent on the media, their attitude and beliefs can be shaped by the media's portrayal of reality.

Media Dependency Theory is a first kind of theory which considers the audience as an active participant in the communication process.

This theory evolved from the concept of Uses and Gratification Theory (Blumler & Katz, 1974). According to the Uses and Gratification theory developed by Jay G Blumler and Elihu Katz, it focuses on understanding how individuals use media and what they derive from it. It is based on the idea that the people select and use media for specific purposes to satisfy their psychological and social needs.

For the purpose of this study, various news outlets were selected from different sources which published fake news in order to create publicity and spread rumours among peoples. To observe these news articles, qualitative research methodology was used in this study. This approach aims to address the growing concern over the potential misuse of this technology by providing a more effective means of detecting and classifying deep fake content.

This paper draws a diverse range of sources by examining various news that are distributed by the implementation of AI(artificial Intelligence) and a review of relevant literature. The study aims to provide a comprehensive examination of the future of the media industry in the age of AI(Artificial Intelligence) and its impact on various aspects such as personalization, real time news generation, providing misinformation, etc,. This study explores the challenges associated with the adoption and implementation of AI (Artificial Intelligence) in the media industry such as lack of understanding, data manipulation and ethical concerns and how such technology is shaping the future of the news industry.

## 5. Data Analysis & Interpretation

### 5.1 Case Study 1

Amnesty International, a human rights advocacy organization, to highlight their second anniversary of Colombia's National Strike, has unveiled a series of AI generated images accompanied by captions of police reforms in the South American nation (Deccan Herald, 2023). Amnesty International has retracted images generated by an Artificial Intelligence tool to publicly showcase the brutality of Colombia police amidst the nationwide protest of 2021.



*Figure 1. Photo of Amnesty International*

The image of a woman being dragged by police officers features the scenes of the 2021 Colombian protest. Although it is widely acknowledged that Colombian authorities employed brutality towards the public, the photographs employed by Amnesty International to spotlight this problem were fabricated.

As the faces of the protesters and police are smoothed off and it shows distorted facial features. Although the protester's tricolor flag features the correct colors of red, yellow and blue, they are arranged in the wrong sequence, and also the uniform appears to be outdated.



*Figure 2. AI generated image by Amnesty International*

Amnesty International and other observers have recorded many instances of human rights violations committed by Colombian police during the protests of 2021. It encompasses the acts of violence, sexual harassment and the torture (The Guardian, 2023).

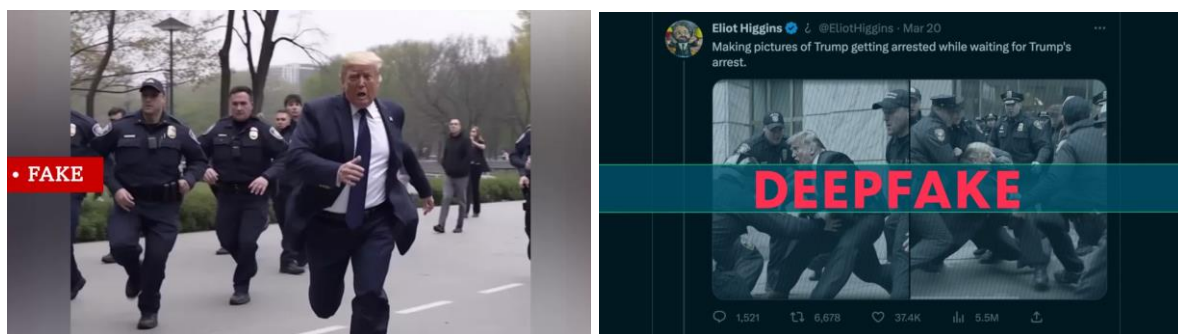
### 5.2 Case Study 2

In the month of March 2023, the social media had been flooded with artificial intelligence generated deep fake photos of former US president Donald Trump resisting his arrest and trying to run from the police. Several of these images falsely depicted the arrest of the former president, who may face indictment for making hush money payments to a woman he had an affair with. It's crucial to emphasize that he had not formally charged with any crime. While many individuals who shared these images mentioned that they were fake, but a few individuals appeared to be fooled by those images (BBC, 2023).



**Figure 3. AI generated image by Eliot Higgins using Midjourney v5**

These Photos of Donald Trump, which inaccurately portrayed events that had not occurred, were produced by Eliot Higgins, the founder of Netherlands-based investigative news outlet Bellingcat using an app called mid-journey, an AI image generator where the text is being imported and that gives an image which is called as prompt.. He shared the images on Twitter with the caption,“Making pictures of Trump getting arrested while waiting for Trump’s arrest” clarifying that he had created the series of fake images for fun. He also expressed his surprise as these fake images had gained attention of many (Higgins, ABC News, 2023).



**Figure 4. AI generated image by Eliot Higgins using Midjourney v5**

In some images, there are noticeable cartoonish textures that clearly indicate the artificial nature. However there are also some images that are realistic and effectively captures the likeness of Donald trump. Some users actually thought that these images were real. To address this issue one user recommended the use of watermarks as a way to clearly indicate that these images were fake (India Times, 2023).

### 5.3 Case Study 3

The manipulated video of Ukraine President Volodymr Zelenskyy calling on citizens to surrender to Russia has been shared online. This false video appears to show Zelenskyy addressing the nation and encouraging the citizen to “lay down arms” (Holroyd & Matthew, 2022).



*Figure 5. A fake manipulated video of Ukrainian President Volodymr Zelenskyy by hackers*

A manipulated video which depicted Ukrainian President Volodymr Zelenskyy circulated on social media and was posted on a Ukrainian news website by hackers. His face and voice have been edited using Artificial Intelligence tools which created a deep fake video. “ It’s time to face the truth, It didn’t work out, there is no future at least for me.. And now I’m making another hard decision to say goodbye to you. I advise you to lay down your arms and return to your families, you shouldn’t die in this war. I advise you to live and I’m going to do the same” the fake footage concluded.

The real video of President Zelenskyy appeared in the video shared on Twitter by Ukraine’s Ministry of defense. In that video he expressed his determination not to surrender in the ongoing conflict with Russian troops, “We are not going to lay down weapons. To our victory” (Miller, Nypost, 2022).

## 6. Findings & Conclusions

### 6.1 Findings of Case Study 1

Using AI images not only loses the reality, it also loses the connection between journalists and the people (Torres, 2023).

The tweet, which has since been removed, faced significant criticism particularly from photojournalist and media experts who cautioned that the use of Artificial Intelligence generated images would contribute to the conspiracy theories. In the era of the internet, allegations of fake news are at its rise. The utilisation of generative artificial images, has an adverse effect of undermining genuine journalism. It significantly breaks the trust of people towards the media and diminishes the confidence in future information by damaging credibility (Techhq, 2023).

## **6.2 Findings of Case Study 2**

“Often people share pictures to amplify their broader political views, even if they haven’t checked whether the photos are authentic” (Ajder, BBC, 2023).

Artificial Intelligence has indeed made significant advancements in recent years, with impressive achievement from ChatGPT and art generation tools which showcases its impressive capabilities. However, the recent emergence of Artificial Intelligence generated images depicting the arrest of former US President Donald Trump are very convincing, highlighting the extent to which Artificial Intelligence can create realistic content. While this demonstrates the power of Artificial Intelligence in various creative applications, it also has the potential for misuse and spread of misinformation (Sharma, 2023).

## **6.3 Findings of Case Study 3**

A manipulated and deceptive video, which depicted Ukrainian President posted by hackers on a news website was subsequently debunked and removed however this incident underscores the ongoing challenges of misinformation and cyberattacks in the digital age, it highlights the importance of fact checking and cybersecurity measures to combat such threats.

The origin of the manipulated video are uncertain, but it was uploaded to a Ukrainian news website by hackers. Subsequently the footage gained significant circulation on social media. This incident underscores the use of manipulated media for disinformation purposes and highlights the challenges of combating false narratives in the digital age (Nypost, 2022).

According to Artificial Intelligence experts, the technology is getting better day by day. The fake imagery is nothing new in today’s technological world, but the progress of its speed and the potential for misuse is to be concerned. The fake images of famous personalities could be identified easily but if the same technology was imposed on the common public, it would be more difficult to identify them.

Deep fake technology studies face and facial expressions by the use of machine learning. Facial features are converted into data like a space between nose and lips, wrinkles in a face and the frequency of eyes blinking, lip movements, etc. becomes a data. It deeply analyzes and understands all kinds of facial expressions of a person. As Artificial Intelligence is limited in its ability, those fake expressions were similar and became easy to identify.



With the advent of Artificial Intelligence technology there exist many similar cases like social media reports circulating online about an explosion near the Pentagon and it was covered by top channels but it was AI generated fake news.

Scammers using Artificial Intelligence tool in creating emotional images of a firefighter holding a child surrounded by a collapsed building due to the earthquake in turkey and Syria to trick the people into donating money. The Greek newspaper OEMA later discovered that the image was generated by Midjourney, AI text to image generator tool. It is a sign of increase in online scams with the use of AI generated images (Bandara, 2023).

## 7. Conclusion

The deep fake generative apps are getting more sophisticated and they are becoming more accessible. As a common people we must be well prepared for those fake news as we have entered into a new era of misinformation and disinformation. If such technology has reached the wrong hands it has the ability to create confusion among the society which destroys the peace of the nation as these fake images have been deployed very quickly.

As Artificial Intelligence continues to evolve, it becomes increasingly important to address the ethical, legal and societal implications associated with its capabilities, including issues related to the creation and dissemination of realistic but fake content. Artificial Intelligence may take advantage of human mentality and develop fake news, which will make the truth hard to discern. Artificial Intelligence tools are like double edged swords which have both positive and negative sides. Social media platforms need to implement measures to recognize the content generated by Artificial Intelligence tools.

Implications of deep fake photos and videos examines the impact created over belief of people and their trust in news on social media finding that these kinds of exposures to deep fake videos and photos increases uncertainty but not necessarily lead to deception. It emphasizes the need for chaos and the sharing of negative political rumors in advanced democracies. This study also discusses the potential impact of deep fakes on various actors, social media platforms, journalists, and other citizens by raising various questions on people's belief, their trust in social media, and the consequences on online civic culture and democracy (Cristian et.al, 2020).

Artificial Intelligence tools have been integrated into news production and resulting in controversies. While it offers powerful tools for content generation and dissemination of information, it also brings challenges for society. News organizations must establish guidelines and standards that ensures Artificial Intelligence tools are used responsibly and also that upholds the integrity of journalism in the digital age. The peoples of society are much more dependent on the media than before. The responsibilities of individuals also lie in this case. While passing the information through this platform must be verified before it is shared to others. This factor could result in spreading of wrong information more rapidly.

The use of Artificial Intelligence tools in journalism to create fake news threatens the credibility of journalism, public trust and the functioning of society. This kind of inaccurate or manipulated news can even influence the election, public discourse. It is our collective responsibility to safeguard the integrity of information in our digital age.

Artificial Intelligence and technology can also be a part of the solution. These Artificial intelligence tools can also be used to detect the fake content which helps in ensuring the authenticity of news sources. At the same time, the public needs to be educated on how to recognize and verify the sources of information.

## References

- [1] Abedalla, A., Al-Sadi, A., & Abdullah, M. (2019, October). A closer look at fake news detection: A deep learning perspective. In *Proceedings of the 3rd International Conference on Advances in Artificial Intelligence* (pp. 24-28).
- [2] Amol, Gawande. (2023). Artificial Intelligence for Fake News.
- [3] Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A dependency model of mass-media effects. *Communication research*, 3(1), 3-21.
- [4] Bharat Sharma., (2023, March 22) AI-Generated Images Of Donald Trump Being Arrested Are Eerily Realistic. *India Times*. <https://www.indiatimes.com/technology/news/ai-generated-images-of-donald-trumps-arrest-596629.html>
- [5] Chesney, R., & Citron, D. (2019). Deepfakes and the new disinformation war: The coming age of post-truth geopolitics. *Foreign Aff.*, 98, 147.
- [6] Cristian, Vaccari., Andrew, Chadwick. (2020). Deepfakes and Disinformation: Exploring the Impact of Synthetic Political Video on Deception, Uncertainty, and Trust in News:. *Social media and society*.
- [7] DH Web Desk., (2023, May 03). Amnesty retracts AI-generated images of 2021 Colombian protests after backlash. *Deccan Herald*. <https://www.deccanherald.com/world/amnesty-retracts-ai-generated-images-of-2021-colombian-protests-after-backlash-1215299.html>
- [8] Daa, Salama, Abdelminaam., Natalie, S., Sherif., Maria, Mohamed. (2023). DeepFakeDG: A Deep Learning Approach for Deep Fake Detection and Generation.
- [9] Esberg, J., & Mikulaschek, C. (2021). Digital Technologies, Peace and Security: Challenges and Opportunities for United Nations Peace Operations. *United Nations Peacekeeping*, 7.
- [10] Emmanuelle Saliba. (2023, April 7) 'A real worry': How AI is making it harder to spot fake images. Fake images of Donald Trump and Pope Francis have emerged recently. *Abc News*. <https://abcnews.go.com/US/real-worry-ai-making-harder-spot-fake-images/story?id=98188795>
- [11] Gregory, S. (2018). Mal-uses of ai-generated synthetic media and deepfakes: pragmatic solutions discovery convening, june 2018: summary of discussions and next step recommendations. report, WITNESS.
- [12] Jamil, S. (2021). Artificial intelligence and journalistic practice: The crossroads of obstacles and opportunities for the Pakistani journalists. *Journalism Practice*, 15(10), 1400-1422.

- [13] Joshua Rhett Miller., (2022, March 17). Deepfake video of Zelensky telling Ukrainians to surrender removed from social platforms. New York Post. <https://nypost.com/2022/03/17/deepfake-video-shows-volodymyr-zelensky-telling-ukrainians-to-surrender/>
- [14] Kayleen Devlin and Joshua Cheetham., (2023, March 24) Fake Trump arrest photos: How to spot an AI-generated image. BBC News. <https://www.bbc.com/news/world-us-canada-65069316>
- [15] Luke Taylor., (2023, May 02). Amnesty International criticised for using AI-generated images. *The Guardian* <https://www.theguardian.com/world/2023/may/02/amnesty-international-ai-generated-images-criticism>
- [16] Matthew Holroyd & Fola Olorunselu., (2022, March 16). The manipulated video appears to show Ukraine's President calling on citizens to lay down arms. *Euronews*. <https://www.euronews.com/my-europe/2022/03/16/deepfake-zelenskyy-surrender-video-is-the-first-intentionally-used-in-ukraine-war>
- [17] Molly Loe., (2023, May 05). Amnesty International faces backlash for use of AI-generated images AI image generation becomes the latest morality debate around the use of generative artificial intelligence. Tech HQ. <https://techhq.com/2023/05/ai-image-generation-backlash-amnesty-international/>
- [18] Nazar, S., & Bustam, M. R. (2020, July). Artificial intelligence and new level of fake news. In IOP Conference Series: Materials Science and Engineering (Vol. 879, No. 1, p. 012006). IOP Publishing.
- [19] Pesala Bandara., (2023, Feb 15). Scammers Using AI Images to Profit from Turkey-Syria Earthquake. Petapixel. <https://petapixel.com/2023/02/15/scammers-using-ai-images-to-profit-from-turkey-syria-earthquake/>
- [20] Vaccari, C., & Chadwick, A. (2020). Deepfakes and disinformation: Exploring the impact of synthetic political video on deception, uncertainty, and trust in news. *Social Media+ Society*, 6(1), 2056305120903408.
- [21] Will Knight, Real or Fake? AI is Making it Very Hard to Know, MIT TECH. REV. (May 1, 2017), <https://perma.cc/3MQN-A4VH> Aff., 98, 147.