



Realization of Immersive Virtual Reality in the Media and Communication

Industry: Special Reference to Metaverse

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ABSTRACT

Innovation-driven changes have become a consistent theme in the media and communication industry. The new wave of digital media and communication is an example and a crucial aspect of these changes. Information and Communication Technology (ICT) continues to transform the way media works. It is no wonder that news channels and other media platforms are experimenting at present by leveraging digital technology to make media and communication practices more effective. At the same time, it would be an understatement to say that listeners and viewers have been positively responding to, and readily embracing, the technological changes in the medium of communication since the beginning. This study focuses on virtual reality experiences of users in immersive media and communication. The present study analyzes with facts the continuous efforts being made by the industry stakeholders aimed at optimizing the effectiveness of media and mass communication. This study is empirical in nature and has been done by this research study to know and understand the objectives of informing, educating, and encouraging the public in the context of immersive journalism and virtual reality from the future perspectives of



Introduction

Throughout history, humans have valued creativity, and today it holds significant importance in journalism and communication. Whether in science, technical education, or art, presenting content in an engaging and effective way not only draws audiences but also emphasizes its relevance and importance. Television journalism in India began in 1965 when Doordarshan aired its first news bulletin. At that time, radio was the most popular medium. However, the arrival of TV and audio-visual journalism introduced a new dimension to media. Watching news on TV, both in the morning and evening, became an enjoyable experience for many. Initially, journalism relied heavily on print media as it was not technically advanced. Over the years, television and digital platforms have gained immense popularity due to their creative approach and realistic reporting.

In 1995, the newspaper *The Hindu* made a groundbreaking move by launching its e-paper online, marking the start of digital journalism in India. By the year 2000, the country witnessed a revolutionary shift with the rise of web journalism, which transformed the media landscape in the 21st century. Immersive journalism is a modern approach that uses advanced techniques like virtual reality to present information. It allows audiences to experience events or situations described in news reports or documentaries in a more engaging way. This form of journalism enhances the feeling of being present in the context, offering a deeper connection to the story being told.

Review of Literature

Virtual Reality (VR) is not a new term that requires any specific explanation but since it has become more popular, they all have gained additional meaning and importance. It is rooted in technical fields; its general interpretation is related to the medium and focuses on the technical capabilities of the computer (Gerald (2016) and Sherman & Craig (2019)). In the context of journalism, it refers to the user who has an intimate experience with the technology and the content, Steer (1995). A suitable definition has been proposed according to Aronson-Rath (2015, p. 12): "Virtual reality (VR) is analogous to an immersive media experience that reflects reality or fiction and allows users to interact with in which they are actively present." The three key elements of VR are reflected in this definition: immersion, presence, and interactivity. VR journalism is a form of journalism that uses virtual reality technology and immersive



techniques for the production and dissemination of information. It is a form of visual journalism that enables viewers to integrate into the news using VR technology. This mode transforms the audience into a participant, with the aim of making them participants that consider the empathy that can be developed by the participants.

India is the 5th largest media and entertainment market in the world and ranks 4th in exporting ICT services. With 538 million people using smartphones and low mobile data prices (1GB costs about USD 0.17), India has great potential for creating and using visual content. The media industry in India is expected to grow to about 34.62 billion USD by 2025.

Research Questions

The questions and inquiries related to the present study are as follows:

- How has the nature of technological changes in communication media changed?
- What kinds of efforts are being made to make journalism and mass communication very effective?
- On what experiences are the pervasive connections between immersive journalism and virtual reality in mass communication based?
- How has information and communication technology (ICT) changed the way media work?

Objectives of the Study

The main objectives of the present study are as follows:

- To study the transformation of the nature of technological changes in communication mediums.
- To study virtual reality experiences in immersive journalism and mass communication.
- To analyze the efforts to be made to make journalism and mass communication very effective.
- To study the changes in the working process of media through Information and Communication Technology (ICT).

Research Method

Secondary sources and facts have been included for the presented research study. Under this, the facts and ideas presented, etc., have been underlined by selecting the observation method. For the secondary source, an attempt has been made to study the literature related to the subject, in the light of articles and forms written by various journals and well-known experts.

Digital Revolution in India



Since the year 2000, web journalism and communication has been developing slowly with a balanced pace. In the year 2015, Reliance Jio announced the launch of 4G network and in the year 2016 provided free service across the country as a national level 4G network. In the initial phase, free data was made available to the users for a period of up to six months, due to which rapid changes were seen in the development of digital and web media in the area of journalism and mass communication. India is a country with the maximum population of youth in the world, in which youth are most affected by the multifaceted development and innovation taking place in the field of communication. Be it electronic gadgets like mobiles, laptops, tablets with gaming processors, it is the youth who buy all of them in a big way. Also, whenever any software related to communication and any app etc. is developed, usually that too is done keeping the youth in mind.

In the initial phase, when 4G technology emerged, it was no less than a challenge for media persons and media institutions to change the basic form of journalism and enter the digital field. But like every change, the then media world adopted this digital revolution, so it did not take much time for journalism and communication to become accessible. As a result, the YouTube channel 'The Lallan Top', founded by India Today on 23 March 2015, is currently subscribed to by over 25 million people. According to the January-June 2022 report published by the Audit Bureau of Circulation, the circulation number of Dainik Jagran newspaper has seen a decline of more than 10 lakh copies as compared to the circulation number of July-December 2019, not only Dainik Jagran Rather, many big newspapers of the country are considering their role less effective in front of digital media at this time.

In the year 2020, after the sudden covid 19 infection, the youth achieved a major achievement in the field of digital media. Along with building its future, he also played a major role in increasing the skill-development of the country technically. From the development of web technology to the help of software technology, it did not take much time for the journalists of the country to learn and understand the skills of journalism from their home places. This was the time when the Hon'ble Prime Minister Narendra Modi converted this terrible disaster into an opportunity, all the countrymen to cooperate step by step in the development of the country in this adverse situation. If we talk about smartphone users in the country, then in the third quarter of the year 2022, there has been a shipment of 44.6 million units. Everyday e-devices with innovative technologies are entering the global market. According to these statistics, to make the communication world more convenient, consumers are always ready for these changes from time to time. In the year 2022, India Today News Group launched the country's first AI (Artificial Intelligence) TV anchor Sana in its program Black and White. In the year 2018, a Chinese government



news agency 'Jinwa' featured the anchor at the China World Conference, which gained a lot of popularity from a technical perspective.

On 30 November 2022, a chat bot named Chat GPT was officially launched. Which is a platform created by Open AI (Artificial Intelligence), the special thing about this platform is that it prepares the answer to any question with the help of AI technology and provides it to the user. According to an article on the NDTV website; around 2 million users are using this technology in the initial phase itself. If seen from the perspective of journalism and communication, it has the ability to generate automatic news in a short time. Till recently, radio used to be a very influential medium of communication, but in the last few years, there has been a decline in the number of radio listeners. Nowadays, in this era where everything is available on the internet, audio podcasts are making their important contribution in the field of telling stories and news through voice. Big organizations like The Quint and Dainik Bhaskar are nowadays creatively delivering news and information to the audience through audio podcasts through Spotify and YouTube.

Virtual Communication and Journalism

Creativity has always been highly valued, and today it plays a key role in journalism and communication. In modern times, presenting news and information using virtual visuals has become especially important. These visuals create a sense of reality for the audience, making the content more engaging and enjoyable. This process, often referred to as virtual communication, involves presenting information in a way that feels realistic and immersive.

Using technologies like CGI (Computer Generated Imagery) and virtual reality, journalism today explores various dimensions to make reporting more creative. For example, chroma screens (green screens) are used to transform backgrounds and make scenes appear realistic and appealing. This technique is widely used in news channels, movies, and debates to depict events like natural disasters, create virtual sets, or explain complex scenarios visually. For instance, during the 2019 Balakot airstrikes, news channels used satellite images and CGI animations to explain the event in a simple and impactful way.

Technological advancements have also led to the development of VR boxes, which enhance the experience of virtual reality. These devices, worn like 3D glasses, allow users to watch 360-degree videos and feel immersed in the content. Many organizations, such as The New York Times, have adopted virtual reality in journalism. In 2015, they released a VR app showcasing impactful stories of children displaced by war, receiving global appreciation.



In 2021, Meta CEO Mark Zuckerberg announced plans to transform Facebook into a metaverse company, aiming to make virtual reality a central part of the user experience. Research has shown that virtual reality is more effective at evoking emotions compared to traditional media. According to reports, MetaVR plans to launch new virtual and mixed reality devices by 2024, promising even more immersive experiences.

Over the past two decades, advancements in audio-visual technology and the internet have significantly changed how visuals are presented. From HD to Ultra HD displays, devices like smartphones and TVs are constantly being upgraded to provide better viewing experiences. With the rise of 5G services in India, announced by Jio in 2022, new opportunities are emerging in fields like education, healthcare, business, and media. The Indian government has also initiated efforts to develop 6G technologies by 2030, ensuring India stays at the forefront of technological innovation.

In journalism, creativity is essential not only to present the truth effectively but also to keep the audience engaged. Features like theme selection, storytelling style, VFX, and sound effects play a significant role in retaining viewers on digital platforms. Visual elements such as illustrations, animations, and GIFs have become vital tools for communication. For example, emojis and GIFs are now widely used on social media platforms like WhatsApp, Instagram, and Facebook to enhance chats and express emotions more effectively.

However, with the rapid growth of digital platforms like e-papers and OTT services, competition among media outlets is increasing. While some resort to sensationalism and exaggeration, presenting news in a simple yet creative manner can be more impactful and trustworthy. Immersive journalism, which focuses on providing a first-person experience, has gained popularity for helping audiences feel directly connected to the events being reported. Ultimately, the goal of modern journalism is to deliver truthful information while making it engaging and relatable for the audience. As technology evolves, it continues to shape how stories are told and experienced, ensuring that viewers and listeners feel more connected to the world around them.

Conclusion

In the presented research study, after a detailed discussion about immersive journalism and virtual reality in mass communication, it can be concluded that a new trend of journalism is on the way to be established in the present era. In this, any program or news package designed for viewers and listeners is made in a completely original and creative way as a technical efficiency.



It seems that after watching and listening to it, they get the feeling that they are really feeling connected to that program. Immersive journalism and virtual reality both complement each other. Looking at the possibility of the future, it can also be said in conclusion that as soon as 5G service becomes popular and smooth in India, once again revolutionary initiatives and results will be seen in the field of journalism and communication.

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