



Impact of Evolving Technology on Literature

Ms. Rekha Dixit

Asst. Professor, English P.R.Govt.Girls Degree College Etawah,U.P.

Abstract- Living in 21st century, we are witnessing rapidly evolving technology. It is occupying the pivotal place in the lives of the people. Every new day some new technology might be introduced so remaining intact is impossible today. The technological advancement is affecting the scenario of the whole world. New trends in technology are shaping the future of the generation. In such an expeditious time literature cannot remain unaffected. Literature is said to be the mirror of the society, it displays the impressions of technology on it. But at present sometimes it appears that it is not completely successful to cope up with the rapid technological advancement. Some most advanced relevant technologies that are showing their effects on the literature of the time can be counted Generative AI, Virtual reality (VR), Augmented Reality (AR) Voice-Activated Technology, Automated Speech Recognition (ASR) Synthetic Media, and Advanced Robotics. Literature is one of the oldest methods of recreation and production of creativity. In twentieth century film and media also become part of literature. In twenty first century, social media has begun to play role in shaping literature. Now the advancement of technology are influencing the literature and compelling to broaden the scope and redefining the literary perspective. These technological advancements are producing some challenges as well as have many possibility of literary advancement. The use of evolving technology in the field of literature is paving the path of experiment to make literature suitable according to the need of the time. It is well known that whatever does not change with time ceases to exist. Therefore acceptance of technology in literature is necessary though there are some challenges in doing so. A balanced and compatible development of literature with technology is need of the age.

Keywords- Technology, AI, VR, AR, ASR, Social Media, Literature.

I. Introduction

In 21st century, technology is occupying the pivotal place in the lives of the people and now it is an inseparable part of their lives. Technology is evolving rapidly and every new day there is possibility of introduction of some new technology, so remaining intact is impossible today. The technological advancement is affecting the scenario of the whole world. New trends in technology are shaping the future of the generation. In such an expeditious time when technology is affecting everything, literature cannot remain unaffected. Literature is said to be the mirror of the society, now it began not only to display the impressions of technology on it but to assimilate it also. The form, treatment and presentation of literature are changing with rapidly advancing technology.

The nature of literature and technology are considered distinct apart. The first is known for permanence and the other is for advancement but the adaptation of technology by literature is surprising. It has been an assumption that technological breakthrough throws catastrophic effect on literature. Introduction of TV, tablet computers, smart phones have threatened the books' cultural authority, and have



shattered the attention and destroyed the reading habit also. Sven Birkets in his *The Gutenberg Elegies* expressed that every new technology destroys literature. He wrote on the cover page, 'We are living in a state of intellectual emergency- an emergency caused by our willingness to embrace new technologies at the expense of the printed word.

As we rush to get "on line" as we make the transition from book to screen, we are turning against some of the core premises of humanism- indeed; we are putting the idea of individualism itself under threat.' (Birkets, ,Cover Page) He considered that "we are in some danger of believing that the speed and wizardry of our gadgets have freed us from the sometimes arduous work of turning pages in."(Birkets,32) And in this way we are losing our sense of historical depth, continuity and feeling of selfhood. But it is a one sided opinion that brings into light only the drawbacks.

The literature is an integral part of society as it connects individuals with larger perspective of truths. It is one of the oldest methods of recreation and production of creativity. As the time passed, in literature experiments were made with the help of technological advancements. Technology has transformed the presentation of the way of living, thinking and creation in literature. From the invention of printing press and paper to the publication in digital form, technology has helped the literature to access more readers. The expansion of film and media in twentieth century compelled to include them in the category of literature.

In twenty first century, social media has begun to play role in the formation of literature. Now the more advanced technologies are influencing the literature and compelling to broaden the scope and redefining the literary perspective. The technological advancements are producing some challenges as well as have many possibilities of literary advancement. Sometimes it appears that literature is not completely successful to cope up with the rapid technological advancement. But it is not true, in spite of various impacts and change, literature is still serving its purpose. Technology has both positive and negative influences on literature. The positive aspect is that it made the process of writing editing and publishing easier and simple. Digital publication of the books provided the opportunity of reaching to the wider range of readers.

About the closure of the first quarter this century, some most advanced relevant technologies are showing their effects on the literature of the time. Worldwide wave, social media platforms, e-books, digital creation has transformed the world of literature. The latest advancement in technology that can influence the literature includes Generative AI, Virtual Reality, Augmented Reality (AR) Voice-Activated Technology, Automated Speech Recognition (ASR), Computational creativity, Synthetic Media, and Advanced Robotics.

Generative AI Generative artificial intelligence is more advanced AI. Traditional AI analyses and makes prediction but generative AI can generate highly sophisticated content similar to a creation created by human being. It can change text and images into audio and visual simulation. ChatGPT, Google's Gemini, Microsoft's Copilot and Meta Llama are some chatbots that simulate conversation by using text and voice.



Deepseek is the latest AI that has been introduced by China. It is chatbot based AI that answers question and generate written content. It is more fast and cost effective AI than others. DELL-E, Stable Diffusion, Midjourney generate images by using text. TensorFlow is virtual learning platform that is used in research and production. Computer vision helps to identify the pictures. Meta AI is a chatbot that is used on social media platforms like WhatsApp, Facebook, Instagram and Messenger. It is a voice assistant tool that creates images according to the instruction. These are some AI generative models that have transformed the world of reality. These applications help to create content, it's designing automation and embed interactive experience. "AI-generated texts show that machines are capable of imitating creative expression, even though they do not have the emotional nuance and complexity of works written by human authors."(Jebaselvi 54).

With the help of these tools, an author can produce more lively and interesting piece of literature. But he must remain aware that these are tools that can be used to sharpen the effect. The creative genius is always more important than the tools. Generative AI can be used to generate literary content such as plot development, description of character, ideas for story writing, the way of narration. A creative writer with generative AI can get new perspective and new way of description for his creative writing. These AI tools can help an author in brainstorming ideas; eradicating hindrances and exploring new possibilities by creating artificial plot, character and setting. It can also help to reach the work to a wider range of readers and audiences.

II. Augmented Reality (AR) And Virtual Reality (VR)

AR and VR are two technologies that sound similar, yet they are two distinct technologies with different purposes. Augmented Reality (AR) combines the real world experience with computer generated 3D content in such a way that user experiences a seamless overlay of real and digital information. AR bridges the gap between digital and physical experiences. In fact AR is an interaction based experience that enhances the real world experience with computer generated perceptual atmosphere. The main objective of AR is to improve and enhances perfection of surroundings by combining visual, audio and tactile perception. (Kumar,41)

In the process of literary creation the author can use AR to create multi-layered more complex narrative, visual presentation of landscape, setting and characters for the active engagement of the readers. Whereas on the part of readers they can visualize the story in 3D space, interact with virtual objects, learn about complex topics and explore hidden detail and different perspectives in the story. Augmented Reality can be constructed through software, through apps and hardware also. Tools available for AR creation are ARtoolkit, Adobe Aero, Wikitude, Niantic, Sketchfab, Unity ARcore etc. The creation of AR is not simple, there are some challenges that come in the process of creating AR. Necessary Technology is not easily accessible as well as excessive use of AR will destroy the substantive narrative. For the creation of high quality AR literature, technical expertise of writer is also necessary. ARLOOPA is the best tool for AR creation in literature. Some other tools are Blippar, Vuforia, ARCore by google.



Virtual Reality (VR) is more advanced technology that offers more immersing and realistic experiences. Whereas AR complements the real world environment by overlaying digital objects onto it, augmenting it with extra information or enhancing its functionalities, VR immerses users in a completely new digital environment, providing an interactive experience through the use of headsets or glasses. AR blends digital experience with real world, VR creates full virtual environment. Motion tracking, display resolution and interactive elements are the attractive features of Virtual reality. It enables to produce lifelike creation and avatars by using computer generated environment that feigns reality. In Literature VR can make presentation more interactive and immersive.

With its help writer can transport the readers into the world of books to experience the sights and sounds generated by virtual reality. The work of fantasy, science fiction, space fiction, historical fiction and world of romance produced with the help of VR can involve the active participation of the readers. Unity, Unreal Engine CryEngine, WarpVR, 3D Max, A-Frame, Google VR, Open VR are some platforms or tools that help to create VR. There are some challenges also in using VR in literature. High hardware cost, balance of traditional reading and virtual immersion, a perfect transmission of literature to virtual environment, and perfect balance between necessary information and sensory overlay are challenges that might come in the implementation of VR technology in literature.

III. Automated Speech Recognition (ASR)

In automated speech recognition technology, computer recognizes the speech and transcribes it into written text form. It is known as computer speech recognition or speech to text technology. Speech recognition “enables machines to respond correctly and reliably to human voices, and provide useful and valuable services.”(Juang,4) It is considered that ASR helps in developing better human - human and human - machine communication.

Its ability to understand different language dialects and accents makes it useful. In literature, an author can take help of ASR in writing a literary work. At present ASR is used in AI tools therefore a writer can use AI or ASR according to the need. Amazon Transcribe, Microsoft Azure Speech Service, IBM Watson Speech to text, DeepSpeech, Dragon NaturallySpeaking, Kaldi, SpeechBrain and ESPnet are some tools that convert speech into written form.

Synthetic media is another emerging technological trend in which the content is created by AI in a way that is indistinguishable from the content created by human being. Deepfakes, automated videos, virtual influences are the product of synthetic media.

Advanced robotics technology equipped with AI can also affect the literature. It can help in creating the themes and content of the stories.



IV. Conclusion

The use of evolving technology in the field of literature is paving the path of experiment to make literature suitable according to the need of the time. It is well known that whatever does not change with time ceases to exist. Therefore acceptance of technology in literature is necessary though there are some challenges in doing so. The very first challenge is the technical expertise of the writer. Essential Technological equipments are not easily accessible to all. There is also the chance of the destruction of the substantive narrative due to excessive use of technology. A balanced and compatible development of literature with technology is needed.

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