

TRANSFORMATIVE POWER OF AI ON SOCIETY AND EDUCATION: IMPACT AND CONCERNS**Dr. Kuntal D. Bompilwar***Professor, Department of English, G.S. Gawande College, Umarkhed
bompilwar@gsgcollege.edu.in***Abstract**

Artificial Intelligence (AI) has rapidly become an integral part of our daily lives, transforming various aspects of society and opening up new possibilities and opportunities. This paper aims to provide a brief examination of key applications of AI in everyday life, professions, business, education etc. and its rapid integration in human society. The paper also talks about transformative and governing power of AI in almost every walk of life including art and culture. However, the growth of AI also raises concerns about its impact on society and the potential consequences of its widespread adoption. It also deliberates on the issue of dependability, ethical threats and challenges for youth to bear the burden of technological advancement, job displacement and the overestimation of machines. The research is qualitative in nature and studies AI from real world observations and literature review. In addition, the paper evaluates the ethical implications of AI and identifies the need for responsible development and deployment of AI systems.

Keywords: Artificial intelligence, education, generative AI, life, impact, threats

Introduction:

AI term is the product of 20th century world that seeks to introduce technology in every field of life. The term Artificial intelligence is coined by Stanford Professor John McCarthy in 1955. AI is defined by him as “the science and engineering of making intelligent machines”¹

In simple words Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy.² It is a gift that scientists, researchers, engineers and developers have bestowed on human society of present era. With its potential use and rapid influence, the common people regardless of intention are using machines for making life easy. Very few aspects of human life might be untouched by the artificial intelligence technology. The abstract word ‘intelligence’ used to describe only human beings till previous century, however, with loads of inventions and investigations, the human intelligence is creating machines that work smartly, intelligently just like human brain. The codes and algorithm that provides command to machines can produce N number of applications and functions offering wise and rapid solutions, provides options and offer decisions. In addition, very recently AI is supplemented with other nomenclatures such as Machine Learning, deep learning and gen AI. They are new terms that are being familiar globally and popularized within a short period due to its extreme usability and ease handling. Generative AI (Gen AI) a new technology launched

in 2024 that can create original text, images, video and other content.³

Impact of AI on Life:

Artificial Intelligence (AI) has become an integral part of modern life, significantly transforming the way individuals, businesses, and governments operate. Its ability to analyse vast amounts of data, recognize patterns, and make decisions with minimal human intervention has led to ground-breaking advancements across multiple sectors. Therefore, it is steadily growing in use in many areas of modern life. People often use this technology without being aware of it. Finger prints and face detection on mobile phones, interactions with virtual assistants like Alexa, google assistance. While driving a car, google map directs with navigation tools, smart phones, modern applications these all are the examples of technological advancement which are built on AI mechanism. It is proven that AI has significant potential to help solve challenging problems by repeating the processes happening in the human mind. Some few years back, machines made life easier, at present intelligence is added to the machines replacing its nature and operations. The complicated tasks are being executed with the help of AI tools.

Areas of life that are strongly impacted by AI technology can be listed as shopping and marketing. Here AI system can understand individual person’s interests and demands and can recommend the products and goods by remembering web history and purchases of the customer. Facial recognition and biometric machine are another AI technology’s

example that is capable to identify a person's face against a database of faces. AI is also used to predict traffic and calculate routes in Maps apps. AI technologies are used in agriculture where weather mapping and forecast is done using AI. In healthcare, AI enhances diagnostics, predicts disease outbreaks, and supports personalized treatment plans. In medicine field, smart machines and robots are performing operations and identifying diseases. In education, it enables adaptive learning platforms and improves accessibility. Businesses leverage AI to streamline operations, enhance customer experience, and drive innovation. In graphics and designing, AI can recognize face, can create similar images, expressions, can give possible future image of a person, can change background of image, remove or add objects in photos, add emotions and lots of creativity identical to creative mind. In automobile, AI technology can be seen in driverless car and sensor based directions. Moreover, AI plays a critical role in sectors like agriculture, transportation, and finance by improving efficiency, reducing costs, and enabling data-driven decision-making. As societies become increasingly digital, AI is also central to addressing complex challenges such as climate change, urban planning, and cyber security. There are always new inventions in the area of artificial intelligence. It can create replica of human being through virtual reality and brain mapping.

AI in education:

Throughout the history of education and particularly from 18th century, the field has seen many transformations in terms of methodology, terminology, pedagogy, educational technology and approaches. At present in 21st century education has tremendously adopted changes assimilating all these facets under one term i.e artificial intelligence. AI is quickly revolutionizing the world of education, especially higher education. It is creating new methods for learning that are challenging conventional methods of teaching and learning. Integrating AI within educational institutions offers unprecedented opportunities to tailor the learning environment, increasing student engagement as well as enhancing learning outcomes. It is not just a technological issue but also one that involves pedagogy since it calls for a review of the instructional methods and the creation of a curriculum that maximizes the potential of AI-powered instruments⁴

AI in education calls for learners and teachers growth at the same time. At learners' side, it provides

personalized learning, active learning and personalized assessment. At teachers' side, it provides scope for professional growth. "Teachers need not only the technical capabilities to utilize AI tools in a productive manner and efficiently but also the knowledge and skills to integrate AI into their teaching to enhance the quality of education. This will require ongoing training as well as support for teachers."⁵

In education, intelligent tutoring systems offer real-time feedback and support, mimicking one-on-one instruction and helping students overcome learning gaps. In addition, AI-powered tools assist educators by automating administrative tasks such as grading, scheduling, and performance tracking, allowing them to focus more on teaching and student interaction. AI also facilitates inclusive education by providing assistive technologies for students with disabilities, including speech-to-text, language translation, and predictive text tools. Furthermore, AI enables decision-making, allowing institutions to identify at-risk students, optimize curricula, and improve learning outcomes. As education systems worldwide strive to become more equitable and future-ready, AI serves as a powerful enabler, fostering innovation and transforming how knowledge is delivered, assessed, and accessed.

The incorporation of AI offers a variety of possibilities for personalizing education and also to improve the abilities of students' technology. AI can be used to deliver individualized learning experiences, based on the learner's competency. The use of AI for high-schools, higher secondary schools and colleges can transform the method of classroom teaching by shuffling the traditional roles of teachers and learners. Teacher, by using technology can bring the topics at the learner's level while learners can maximize learning by utilizing both the sources i.e. teacher and technology. Many tough subjects can be taught with activities, gaming tools, generating tools, videos creation, etc. which are extensively provided by AI which bears the power to create sets of activities matching their strengths, needs, skills, and interests.

According to Zawacki, "AI tools, through the use of technologies for adaptive learning, are able to evaluate the students' patterns of learning along with their weaknesses and strengths so that they can adapt the curriculum as well as its pace according to particular preferences"⁶

Future of AI in India:

As the world witnesses a multi-billion dollar AI race between nations, India is rapidly emerging as the next hub for AI talent and innovation, creating immense opportunities for our young generation. Unlike in the past, AI in India is no longer confined to a privileged few or dominated by global tech giants. Initiatives such as the India AI Mission and the establishment of Centers of Excellence for AI are strengthening the country's AI ecosystem, paving the way for innovation and self-reliance in this critical sector. These efforts align with the vision of *Viksit Bharat* by 2047, where India aspires to become a global AI powerhouse, leveraging cutting-edge technology for economic growth, governance, and societal progress.⁷ According to the report published by Government of India, India has emerged as the fastest-growing developer population globally and ranks second in public generative AI projects on GitHub. The country is home to 16% of the world's AI talent, showcasing its growing influence in AI innovation and adoption.⁸ India has emerged as a global leader in artificial intelligence, driven by swift progress and targeted government efforts. Through the expansion of AI computing capabilities, support for home-grown AI models, and the strengthening of digital public infrastructure, the country is building an innovation-focused and inclusive AI environment. Investments in talent development, along with a strong focus on open data, accessible high-performance computing, and locally relevant AI applications, are ensuring that the advantages of AI extend to businesses, researchers, educators and everyday citizens. With the rapid adoption of AI across various industries, India's forward-thinking strategy is reinforcing its digital economy while also laying the foundation for technological self-reliance. Guided by a strong and future-focused vision, the country is on track to lead in AI innovation and play a defining role in shaping the global AI ecosystem in the coming years.

Concerns and Threats:

AI carries a magic wand that holds the power to create things as and when wanted. However, many concerns and threats can also be pay hid for its long term sustainability and authenticity. Major threats that the globe is discussing on AI is its attack on human resources and employment. If 80 % of the human work is done by software, it certainly affects the number of the human brains in a company. "It is also crucial to think about concerns regarding privacy, information security, as well as biases present within AI algorithms in addition to equitable

access to the latest technological advances"⁹ Many times privacy invasion, bias and discrimination, over dependability on AI can be caused especially in education sector. Academic integrity and chastity may be sometimes at stake. As far as long term challenges and threats are concerned, AI can bring disinterestedness in every field of knowledge as human creativity and individualism will be at risk. While AI offers immense opportunities in life and education its integration must be approached with caution, ensuring ethical guidelines, equity in access and transparency. "The incorporation of AI into higher secondary education is a significant feat that will require more than the implementation of technology by itself. In order to ensure its effectiveness, the process requires an examination of pedagogy and the syllabus while also taking into account ethics and equity and preparing pupils and teachers to live in a world that is based on AI. When you look at all of these factors combined, educators will be able to benefit from AI's abilities in order to improve learning and also provide students with the skills as well as the skills needed to be successful in an ever-evolving world controlled by AI"¹⁰ As rightly said by Sarwar in his article on AI

Conclusion:

Technology itself is not good or bad; rather, it's a tool that should be applied responsibly and equitably. AI's growing presence underscores the need for ethical frameworks and inclusive policies to ensure equitable access and responsible deployment. Ultimately, AI is not just a tool for technological advancement—it is a catalyst for shaping a smarter, more connected, and sustainable future.

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