



Artificial Intelligence and School Education in India: A Step Towards Digitalisation in Education

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ABSTRACT

This study emphasises on influence of Artificial Intelligence on school education in India and its future aspect on digital advancement in education sector. Adapting AI and Digital Technologies in schools can revolutionise teaching-learning process with better and fast administration and management. Scientific use of Artificial Intelligence provides a learner centred stress free disciplined classroom environment with equality in educational opportunities strengthening the concept of inclusion. The study also identifies some barriers related to infrastructure, technical supports, trained educators, cost-effectiveness etc. in case of implementation of AI in Indian classrooms. Some adequate and necessary collaborative measures taken by both Government and Private Organisation can bring hope to overcome those obstacles successfully. Proper Initiatives and mindful use of Artificial Intelligence can develop Digitalised Education System in India to a Global standard with sustainable knowledge economy.

Introduction:-

Artificial Intelligence and advanced Technologies have spread their influence in Education sector in India like many other area of works. NEP-2020 has emphasises the emerging need to redesign the future of School Education with sustainable and productive use of AI. AI Technologies such as personalised learning platforms ,virtual assistance , automated monitoring and assessment tools are now changing the teaching- learning and disciplinary scenario in modern Indian classrooms. Modern software technologies



are giving protection through proper monitoring, behaviour assessment with data privacy. Undoubtedly, it has reduced the workload for teachers and administrators in schools to perform their duties peacefully. Moreover, AI monitoring in schools provides safe and bias free environment which helps to increase the enrolment in schools. This is a tremendous effort to establish equal educational opportunities in schools. Challenges due to lack of infrastructure, digital divide, dearth of well trained educators are also there but with the growing advent of AI technology, digital India is adopting the changes in her thought and action to establish a future compatible and sustainable knowledge economy.

Influence of AI in School Education in India:-

Artificial Intelligence is playing a vital role in school education sector in modern India. AI tools and Technologies are now managing various duties with high accuracy and speed. AI offers personalised learning teaching instructions based on individual's need and diversity. Chat GPT, Google Assistance, Virtual Assistant are very supportive for giving instant answer to the queries of learners and help them in problem solving to move forward. Based on their interest and strength, AI guide learners to choose their academic stream, careers as per their aptitude concern. AI tools like speech to text, image to text, text to speech and many more software assistance are very supportive to differently abled learners to learn as per their own pace and interest in a suitable teaching-learning environment. Administrative duties like attendance taking, official record maintenance, official letters, important documents, communication with higher officials and management of whole institutional activities can be easily maintained through automated administrative AI support. Artificial Intelligence can be used for effective content writing keeping in mind the learners interest, learning standard and scientific approach of writing. Moreover, Teaching- Learning Process is revolutionised by introduction of AI tools. Teachers can manage their tasks like attendance taking, grading, assessing individual with the help of databased AI tools so that they can interact more face to face with learners provide them personalised teaching learning experience, conduct remedial classes and prepare their own lesson plans and perform their duties peacefully with more accuracy. While for learners, various AI software technologies provide them opportunities to learn a topic of their interest at their own speed, clear doubts instantly and instant feedback system of AI can help the learners to detect their strength and weakness and guide them to perform better in future. AI provides databased grading for assessment of learners, categorise them as per their ability and interest and also helps to compare progress of learners and their institutions both in longitudinal as well as vertical approach. Modern AI softwares can easily convert a content or instruction from one language to another language and some useful language learning applications can help a learner to comprehend a new language with fluency and accuracy very fast. This really provide a great opportunity to



overcome the deep rooted language barrier problem of Indian education system. Behaviour Analytic Software, AI-driven Chatbots, Predictive Discipline System, Smart CCTV Surveillance are very useful applications to maintain safe healthy discipline in educational institutions.

Challenges of AI in School Education System in India:-

Although artificial intelligence has revolutionised the modern education system, still as a beginner in this path, India is facing major challenges in properly utilising it for optimum development of school education system. UDISE+ 2021-22 data indicates a disparity in internet access between private and government aided schools. It is 35.4% more in private schools in almost all states. This disparity is creating digital divide and without internet access backward areas are far away to get the benefit of AI. After survey of 27 states including union territories, UDISE+2021-22 data suggest that less than 10% of Government Schools are equipped with personalised computers (PCs) and other necessary technical assistance for proper utilisation of AI in education. Technical support can be provided to learners with proper utilisation and implementation of AI by educators in schools. But, unfortunately there is a large number of educators who are not even familiar to deal with PCs and other technical devices. This is a real barrier in the developmental path of AI facilitated school education in India. AI tools work on data processing and Metadata analysis. In case of data privacy and security concern, software developing companies have easy access for those data. We have nothing but to believe in them completely for this issue. Education not only provides material knowledge and develop skills, but also develops the beauty of ethical and moral aspects of human characteristics. AI is completely helpless in this matter till now. AI can provide us comfort, speed and accuracy but those human feelings and psychological traits can never be nurtured by AI Technologies. AI can provide a prompt and accurate solution to a problem which a learner is facing. But, this actually hampers the critical thinking abilities and self-confidence level of learners. AI technical assistance has created an environment of digital interaction replacing face-to-face mode of communication. This is actually destroying the socialisation and communication skills in humans. Digital Divide based on geography, Government and Private Institutes, Gender, socio-economic conditions are actually disturbing the process of establishing universalisation and equity in educational opportunities. Modern technical support for fruitful outcomes of AI needs a huge amount of investment for building initial setup and maintenance. This huge amount of cost is really a matter of concern for a developing country like India.

**Useful Measures to overcome the Barriers:-**

For effective utilisation and desired outcome of AI, some sort of measures can be taken. Government should initiate more programme and campaign policies like "Digital India" , "AI Summit "for a clear vision of future of AI in various fields including education sector. A proper collaboration of Government and Technical companies are necessary to get optimum outcomes of AI utilisation in education. AI tools can be gradually implemented for smooth and cost benefit application in future education. Both Government and Private collaborative training programmes can be beneficial for the educators to properly use AI for optimum learning outcomes. For Pilot Programmes, small group of schools can be selected first to study the outcomes of using AI tools in school education sector and then it can be implemented to a larger portion , depending on the positive aspects of results. Proper digital and technical infrastructure should be established so that every school can get benefit of AI. This will certainly create a joyful learning environment and hence reduce the drop-out rate with significant increase in quality.

Conclusion:-

Artificial Intelligence can play crucial role in transforming education system in India from conventional to digital one with proper and reliable use of technology. From teaching learning to administration, from disciplinary to personalised guidance, almost every wing of education is benefited by AI. Although there are challenges of infrastructure, scarcity of trained educators, cost effectiveness, still the benefits of AI can cover up all those barriers. Proper utilisation and positive mind-set of adapting new technologies can revolutionise education system in modern India with perfect collaboration of material and human resources. AI ensures equal opportunity and access for true inclusion in school education so that globally India can flourish as a sustainable knowledge economy.

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