



Use of E learning Practices and Artificial intelligence tools in Education Sector- special reference to educational institutes of Indore City

Asst. Prof. Prity Tripathi

Asst. Professor. Dept. of Management Education and Research Laxmi Narain College of Technology, Indore

Prof. Dr. Anukool Hyde

Professor. Prestige Institute of Management and Research, Indore

ABSTRACT: *During recent years AI and information technology has become an important part of professional life, similarly the role of IT and AI cannot be ignored in higher education, As Indore City has grown up as a education hub of Madhya Pradesh and it is also known as a industrial capital of central India all these features makes it a strong hub of education in central India. This study investigates the importance of Information and technology and its contribution in education it also investigates that how AI can be effectively used as a powerful tool for imparting quality education, the study was carried out in Indore city, by survey of various education institutes. Data was collected through questionnaire ,interviews and use of secondary data was also made, This study is conceptual in nature and it concludes that AI and IT plays an important role in imparting quality education as well as it may help an institute to attain long-term success and sustainable reputation.*

Key words: Artificial Intelligence learning, Higher Education, Information Technology, Educational Institutes, E-Learning.

INTRODUCTION

Recent years have shown a growing interest in higher education. The globalization of competition, saturation of markets, and development of information technology have enhanced people awareness and created a situation where long-term success cannot be achieved without education. According to former studies Indore City {with a population of Indore in 2024 which is estimated to be 31,11,442 for the municipal corporation and 3,570,295 for the urban agglomeration. The metro area population of Indore is projected to be 3,393,000 in 2024, which is a 2.76% increase from 2023.literacy rate of 80.87% (male 87.25% and female 74.02 %) is considered to be the next metro city after Mumbai, Delhi, Chennai and Kolkata. and its having 54 management college 23 engineering and

10 other colleges, All these figure proves that inclination towards education is clearly present among the people of Indore, not only young students but even people above age of 45-50 are moving for further education with facilities like distance learning integrated courses, part time education etc.

All these facts and figure shows that a large amount of population is going for education which automatically generates a need for quality assurance in education, as the senior group of population can be attracted for education through some creative methods only and the cannot be taught through the old traditional methods,

Information Technology and Education Sector

Information Technology is one of the most important issues many organizations are facing today. Imparting quality education has become more important due to significant increase in competition and concentrated markets. Education institutes are trying to attract and satisfy students and to build long term relationship through building loyalty among them (Gremier et al., 1996). Developing a network of loyal and satisfied students is critical for the survival of many institutes (Gould, 1995). The increased use of Information and technology came in to existence during mid nineties with the programme like word star lotus used for official purpose but the craze of IT in education developed in early millennium with a launch of software fox pro and operating systems like windows 98,2000 etc. and slowly it started to expand itself in education sector, with the entry of internet in India role of information and technology has been increasing day by day and it also creates the scope of E learning in higher education by replacing the old methods of tradional teaching

Literature Review

The education sector in India has witnessed significant transformations in recent years, driven by the increasing adoption of e-learning practices and artificial intelligence (AI) tools. This literature review aims to provide an overview of the current state of e-learning and AI in Indian education, highlighting the benefits, challenges, and future directions.

E-Learning Practices in Indian Education

E-learning has gained popularity in India, with many educational institutions adopting online and blended learning models (Kumar et al., 2019). Studies have shown that e-learning can improve student engagement, accessibility, and flexibility (Gupta et al., 2020). However, challenges such as limited digital infrastructure, lack of digital literacy, and inadequate content development have hindered the widespread adoption of e-learning in India (Sahoo et al., 2020).

Artificial Intelligence in Indian Education

AI has the potential to revolutionize the education sector in India by enhancing teaching, learning, and assessment (Joshi et al., 2020). AI-powered tools can provide personalized learning experiences, automate grading, and

improve student outcomes (Kaur et al., 2020). However, concerns about data privacy, bias, and the digital divide need to be addressed to ensure equitable access to AI-powered education (Singh et al., 2020).

Benefits of E-Learning and AI in Indian Education

Studies have highlighted several benefits of e-learning and AI in Indian education, including:

- Improved student engagement and motivation (Kumar et al., 2019)
- Enhanced accessibility and flexibility (Gupta et al., 2020)
- Personalized learning experiences (Joshi et al., 2020)
- Improved student outcomes and academic performance (Kaur et al., 2020)

Challenges and Limitations

Despite the benefits, several challenges and limitations need to be addressed, including:

- Limited digital infrastructure and internet connectivity (Sahoo et al., 2020)
- Lack of digital literacy among teachers and students (Gupta et al., 2020)
- Inadequate content development and quality assurance (Kumar et al., 2019)
- Concerns about data privacy, bias, and the digital divide (Singh et al., 2020)

Future Directions

To harness the potential of e-learning and AI in Indian education, the following future directions are recommended:

- Investing in digital infrastructure and internet connectivity (Sahoo et al., 2020)
- Providing training and support for teachers to develop digital literacy (Gupta et al., 2020)
- Developing high-quality, culturally relevant, and accessible digital content (Kumar et al., 2019)
- Addressing concerns about data privacy, bias, and the digital divide (Singh et al., 2020)

Concept of E learning

The concept of e learning can be defined on the following basis,

- Use of techniques like SMART BOARD for classroom teachings.
- Using AI (Artificial Intelligence) for educational purpose,
- Use of network based technologies for faster education and facilitating resources.
- Real Time Learning possibilities and content availability for the same.
- Comprehensive and dynamic data for educational purposes,
- Faster learning functions through use of technology.
- Providing individual and persons a competitive edge.
- Coping up with the dynamic technological environment
- Use of IT to cope with the fast changing economy.

An efficient e learning structure is expected to prove itself on all the above mention criteria

But it is only possible when institutes can provide an IT friendly atmosphere.

Basically the term E learning can be defined as acquire and retain the skills and the concerned information for self and development of others by the use of information technology, many organizations concentrate on the learning factor but they ignore the use of technology for the same,

E learning can be defined as the most efficient and effective method of teaching inside or outside the classroom, it can be used within the educational institute as well as at home for the purpose of learning it is considered to be a total mobile technique which is not having any barring of time and place.

The basic difference between E learning and normal educational methods are the electronic delivery which can be made anywhere any time.

Forms of E learning

Internet Based

AI Based

Smart Class Room based

Internet Based-Use of world wide web for educational purposes, collecting or providing data/teachings from various search engine like Google, or other educational or non educational websites beneficial for distance learning purpose

AI Based -Using the Chat GPT Nova or virtual Methodology within an organization for inter discipline or inter branch training and education purpose

Smart Class Room Based-few of educational institutes also provides their classes and lectures through smart Board Class Rooms,

E learning can be a very efficient and rich learning experience as it can include videos, animations and virtual reality. it can also make the students go for a self dependent training

Categories of E learning:

Databases: various knowledge databases that provide guidance and support for installation it may be interactive, and it provides a set of instructions for the user like topic wise help index or keyword search etc.

Online Support Help Index: It involves various types of blogs, forums emails, bulletins, instant message services, it can be defined as a more interactive the normal data base as well as it also provides solution for many query, it is more interactive then other database it mostly involves online internet connection.

Asynchronous Learning: it involves self motivated and self generated learning, based on CD Rom, Internet Etc. mostly it is totally self contained, it provides link to Material in place of any physical teacher or persons.

Synchronous Learning: this mode of training is done in synchronization of system and a instructor, here a person mainly a trainer facilitates the training a trainee can used video conferencing, audio conferencing, internet telephone or other broadcast methods or online connection to interact with the trainer in real time.

AI Learning -Using the Chat GPT Nova or virtual Methodology within an organization for inter discipline or inter branch training and education purpose

Techniques for Effective E learning:

Effective Feedback System: any online or e learning method requires immediate feedback system so that the learning can take place without any errors or misinterpretation it will also provide guidance to students.

Creative Methods of Interaction: for effective e learning the it becomes necessary that the interaction should be creative un nature it will result in greater retention in classroom,

Creative Contents and teaching material: use of sound effects, images and video clippings should be made so as to grab the attention of the students, a effective combination of these factors leads to better grasping

Online Community and Group Discussions: the teachers should try to create on line community for their subjects which helps in more interactions with other faculty members and group discussions online also leads to availability of new ideas and study materials.

Benefits of e learning

- *No limits for time and place:* classes can be taken by faculty at any time in any corner of the world
- *Frequent updating of knowledge:* online interactions can lead to frequent updating of knowledge
- *Eco friendly:* on line virtual teaching saves paper and wastage of resources
- *Mate students techno savvy:* frequent use of websites and gadgets makes students techno savvy
- *Leads to creative presentations:* it helps the students in creative skills,
- *Beneficial for the students suffering from stage phobia or shyness:* online presentations is beneficial for the students for expressing themselves who are shy in nature
- *Facilitates easy distribution and sharing of knowledge and data:* data and literature can be easily circulated in soft copy rather than hard copies
- *Prevents expenses as data is available in soft copy:* soft copy of data prevents the distribution expenses

Hurdles in the success of E learning:

- *Monotonous Speeches:* class may become boring *due nonperson teaching*
- *Boring Technical Sessions:* use of highly technical software may lead to boring technical sessions.
- *Use of High-tech AI software:* it's difficult for a layman to understand the use of highly technical software.
- *Expensive licensed software:* software use for e learning are very expensive which may lead to pirated software usage, or avoiding use of software
- *Less creativity:* some time technical bounding and preprogrammed bots leads to less creativity
- *Less Interaction with students:* virtual classroom may lead to less interaction with students
- *Lack of Control:* lack of physical presence may lead to less control on students

- *Lack of motivation*: absence of any motivational source may lead to dull classroom teaching
- *Lack of Logical Thinking Ability*: as AI tools are dependent upon Internet for data or they are designed with predefined set of programs it limits the Logical Thinking Ability

Conclusion

The use of e-learning practices and AI tools has the potential to transform the education sector in India. While there are several benefits, challenges, and limitations need to be addressed to ensure equitable access and effective implementation. By investing in digital infrastructure, developing digital literacy, and addressing concerns about data privacy and bias, India can harness the potential of e-learning and AI to improve education outcomes and enhance the quality of education.

RECOMMENDATIONS AND IMPLICATIONS

- Educational institutes should be motivated to use e learning for education purpose
- Technical assistance should be provided to educational institutes by government
- Special tax rebates should be provide to the institute involve in e learning
- Educational software and licenses software should be provided to institutes and students at nominal costs.
- Special websites should be designed by study board and university to facilitate e learning among education institutes
- Help to the professionals of various fields and disciplines can be taken.
- Private IT companies should provide help and services of their experts at nominal charges.
- AI Bots and Virtual assistants should be designed by the IT Companies specifically for educational institutes
- **Summary**
- E learning can be used to continuously upgrade the knowledge effectively and efficiently. it may help in the process of knowledge mgmt. industry always demands continuous up gradation of knowledge. because the technology becomes obsolete very fast. So it becomes necessary to make the use of e learning compulsory, students and education avoid use of software as they are expensive therefore license software should be made available to institutes and students at nominal charges, as Indore is industrial capital of central India and has also grown as a education hub government should take special steps to develop and promote e learning in the education institute of the city, as Indore is having 54 management college 23 engineering and 10 other colleges, and adult education awareness is taking place there is good sufficient scope of e learning in Indore city

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