Chapter 3
Technology–Enabled Education:
Paradigm Shift in Higher Education

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ABSTRACT

The Government of India has especially focused on artificial intelligence and machine learning-based courses in the higher education system as they have realized that the strength of India lies in higher education. Keeping in view the importance of technology in bringing a paradigm shift in the education sector, the Ministry of Human Resource Development (MHRD) is putting continuous efforts to give a push to digitize higher education. In this chapter, the authors have studied various initiatives taken by the Indian government to promote digital education in higher education by imparting artificial intelligence. By developing techniques and algorithms using AI, one can impart basic cognitive skills of teachers to computers; by this, one can delegate some teaching to machines and thus improve educational outcomes. Online digital learning will play an important role in transforming Ancient India into Digital India.

INTRODUCTION

The society is moving fast from the industrial age towards the information age. The impact of technology can be seen in many fields like industry, hospitals, banks, agriculture, weather forecasting, politics, commerce and education etc. One must agree that technology has grabbed the whole world in its fists and has affected every person in our society.

Way back in the 20th Century, an educated person was he who could read and write. But now, the up-gradation of technology particularly Machine-learning and Artificial Intelligence is conquering the whole world, so the definition has changed to those who can read, write and at the same time are computer literate and the complexity of acquiring education is no longer achievable within the closed boundaries of a classroom. Education (Nayor, 1982) is a social process that is deemed to develop desirable qualities and traits in people. The need and capability to acquire these qualities vary with time, place, and technology. Education is thus a process which apart from acquiring certain skills, also helps in using them efficiently in a relevant context and with understanding. During the last 20 years, the importance of education has increased in all the most every walk of life. With the support of AI and ICT as in the current environment-conscious world importance of education and acceptability of AI have emerged as a social necessity.

Although the use of AI in the education sector in India is not very old, it has picked up very fast. Today using this new platform of digital learning, meticulously planned virtual classes are being conducted throughout the country by the ever sincere teachers that have enabled the young learners to connect with their teachers and classmates from the comfort of their homes. Through these technologies- enabled classes all possible efforts are being made to reach out to the students with academic input. Parents have the opportunity not only to monitor and supervise but also to get a direct insight into the teaching-learning process is carried out on this virtual platform. It is a new experience and a new way of learning. To make learning easy PPT with text can be shared on a specific app from where it can be downloaded easily. App can be accessed by laptop, mobile phone, or desktop.

Higher education can better inculcate knowledge among the students through the e-Learning process and virtual classes. Keeping all this in view, today's Government, as well as institutions, have started formulating the policies for the better use of digital learning so that education does not take a backseat. This new environment will enable teachers and learners to continue to interact with each other and will also ensure that children are actively and meaningfully engaged. Higher education has a social responsibility to be proactive in the efforts towards incorporating digital age skills as education must be relevant in changing local, national, and global contexts.

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