Chapter 2
Empowering Inclusive Higher Education:
AI-Supported Student Learning

V. Krishnamoorthy
https://orcid.org/0000-0001-6264-0239
Department of Management Studies, Kongu Engineering College, Perundurai, India

Nishant Bhuvanesh Trivedi
Department of Animation and VFX, Parul Institute of Design, Parul University, Waghodia, India

Ratan Sarkar
https://orcid.org/0009-0008-5480-0165
School of Humanities and Social Sciences, Tezpur University (A Central University), Tezpur, India

Ranjeeta Saini
https://orcid.org/0000-0003-0178-7469
University Institute of Teachers Training and Research, Chandigarh University, Mohali, India

Archudha Arjunasamy
https://orcid.org/0009-0006-6033-9825
School of Artificial Intelligence, Amrita Vishwa Vidyapeetham, Coimbatore, India

ABSTRACT

The chapter describes how AI, as the author considers it revolutionary in terms of its past, has progressed in the use of AI in the improvement of learning possibilities for students with disabilities and other special needs. The chapter deals with the class

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of intelligent adaptive learning systems, such as speech recognizers and intelligent tutors, which are AI technologies that are able to address in several and rich ways the problems of great diversity of students. AI has the ability to create opportunities for more inclusion of all learners who have specific learning difficulties including dyslexia, autism, limb impairment, and many others. The chapter details how, with the support of AI, effective teachers can modify their class contents, materials, and methods of communication so that no child is left behind. Among the advantages of AI are virtually unlimited mobility during activities, improved academic results, and social incorporation.

INTRODUCTION

Today, education is very progressive; infusion in education by means of technological support has been very significant in transforming modes of learning. The transformation that stands out most and the one that is most in progress is artificial intelligence. This is already reshaping educational practice at the global level. For students with disabilities and special needs, AI offers unprecedented opportunities to overcome traditional barriers in learning. This is the case because people will be more involved in the exercise of education through a sharper provision of services that can be personalized based on the circumstances of a given learner. The largest focus in this chapter is to explore what AI is for students with a disability and how many tools, collaborations, or applications driven by AI innovate special education and favor conditions of learning for all students (Shuford, 2023).

Teaching and learning issues related to disabled children and children with special learning requirements have not changed a lot; they equally do not have equal opportunity to access quality education. Challenges to such learners may be as simple as barriers having to do with being physically unable to reach a classroom or as complex as being unable to grasp letters, words, or even ideas. Gradually and progressively, each conventional extant can bear with this convoluted assignment of meeting these various and complicated needs of students. Though there are some educational approaches and specified courses that are aimed at the provision of these services now, there is still a huge gap between existing good-quality solutions that are easily adjustable, as well as sufficiently effective, for helping teachers provide individual learning to every learner. It can be postulated that artificial intelligence will indeed be disruptive at this level (Wald, 2021).

To consider artificial intelligence in education is to look at a vast and still rapidly growing field. It invokes a number of learning environment technologies, learning accessibility for all, and functions added to the work done by teachers in providing individual learning environments. For the students with disabilities, options for