Challenges of Educational Technology

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Mujibul Hasan Siddiqui is the author of the book entitled Challenges of Educational Technology. He has Bachelor of Arts and Master of Arts (Economics) degrees from Kumaun University, Naintal; Bachelor of Education, Master of Education, M.Phil., and Doctor of Philosophy (Education) degrees from Aligarh Muslim University, Aligarh. He had experiences at the National Council of Educational Research and Training, New Delhi as Junior Project Fellow in the Department of Measurement, Evaluation, Survey of Data Processing, prior to work as a Lecturer in Education at Jamia Millia Islamia University. He is also the author of 2 other books: "Models of Teaching: Theory and Research" and "Excellence of Teaching: A Model Approach".

This book considers the innovative information and communication technologies which have affected the education system, the teaching and learning methods, and pedagogical approaches. This publication also explains the analysis of challenges of digital technology faced by education system and educational technology. The educational technology with modern digital technologies plays important roles to support teachers and students' activities. Technology can contribute to teaching and learning processes. Many stakeholders; students, teachers/lecturers, educational administrators, educational policy makers, and academicians will receive high benefits. This edition of the book has been published in the year 2017 and consists of 358 pages, and is a part of the International Encyclopedia of Professional Education. This book is highly recommended for teachers/lecturers, educational administrators, educational policy makers, and academicians in education field.

This book consists of six chapters. Chapter I is about the challenges and opportunities in educational technology, Chapter II talks about hypermedia as an educational technology, Chapter III discusses online learning, Chapter IV discusses virtual learning environment while Chapter V concentrates on net oriented technology, and knowledge mapping system concept is in the last chapter (Chapter VI). These knowledge will help all educational stakeholders to understand, apply, analyze, synthesize, and evaluate the educational technology.

In Chapter I: Challenges and Opportunities in Educational Technology, the author discusses that technology is changing teaching and learning processes. New technology can

improve educational outcomes. It gives ideas including: multimedia purchasing, new technology-based models, challenges of digital divide and educational opportunities, digital technology access, educational technology in classroom, a guide for educational technology, how technology enhances student achievements and prepare students to be ready for their careers , how technology removes learning barriers. The concept of technology education is introduced. Education and digital technology issues in Latin American countries are used as guidelines for applying technology in education.

In Chapter II: Hypermedia as an Educational Technology, the reasons why hypermedia can support educational technology are discussed. Various topics related to hypermedia used in education are explained ; hypermedia uses in educational environment, asynchronous multimedia conference, access to hybrid audio-data collaboration, information superhighway, distance education delivery system, product creativity in technology education, computer and creative products. Technological problem-solving is discussed as well.

In Chapter III: Online Learning, the internet-based educational technologies are the focus: tools for online learning, concept mapping, online collaborative learning activities, and online problem-based learning. Recommendations for online technology education providers to fulfil technological needs are; offering more online courses and workshops in many areas related to information and communication technology, maintaining a high quality of online learning experience and contents, interpersonal interaction and facilitation of learners' needs and capabilities, promotion of online opportunities using various techniques to support technology education professionals, and conduct needs assessments of learners and teachers continuously.

In Chapter IV: Virtual Learning Environment, the author described the virtual learning environment as online domains that allow collaborative interaction and synchronization between students and teachers, and provide asynchronous learning resources to students at any time. Virtual learning environments include internet-based courses, teleconferencing courses, and any virtual courses. These types of courses will give students more flexibility in learning. Virtual resources room, online learning communities, and the NETAcademy project are also important platforms for the students and teachers. Framework for learning methods; online teaching, online tutorials, online discussions are explained to be part of the virtual learning environment.

In Chapter V: Net Oriented Technology, the internet plays a crucial role in changing the way the students and teachers assimilate information. The internet can develop the students' abilities to understand, apply, synthesize, and evaluate those information and create new knowledge at last. Asynchronous communications, collaborative foreign language learning, internet-supported learning environment, and telematic learning environment are discussed to help support effective online learning.

In Chapter VI: Knowledge Mapping System, many issues related to knowledge acquisition are discussed to meet the objectives of teaching and learning in the new trends of technology and educational technology; good sources of knowledge, learning environment, teaching and learning methods, paradigm shifts and theory, cultural changes in educational technology, knowledge depot system, communication networks, knowledge networks, internet stability and accessibility.

This book gives knowledge about concepts of educational technology and various educational technology challenges. Now, educational technology plays an important role in education. Its main purpose is to create understanding of educational technology and the applications or methods of technology that can support teaching and learning effectively. Students' quality and achievement are expected. The author explains all issues or topics related to educational technology. He also gives guidelines to arrange good technology in teaching and some issues to prevent problems in educational technology. There are many key terms that stakeholders in the education sector have to consider when they set up and implement methods of using technology integration in education. All matters in every chapter are related.

Siddiqui, M. H. (2017). *Challenges of Educational Technology.* New Delhi: A P H Publishing Corporation.