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# Technology for Education and Employment

Dr.K.Sasi Kumar

Editor-in-Chief

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**Technology for Education and Employment**

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## EDITORIAL MESSAGE

We take great pleasure in welcoming you to our Edited Book. The immediacy of e-based publication makes it possible for us all to be fully connected to each other and to developments in our field and to be directly involved in ongoing knowledge construction.

With several economies gearing towards the end of lockdowns, it's time for organizations to implement Post-COVID-19 business recovery strategies. Although it will let organizations restore balance to an extent, total recovery from the crisis is going to be a long and strategic battle. With these concepts in mind, we invited with scholarly discussions to facilitate new ideas for business sectors. This book also stands as a platform for Students and research scholars to express their innovative business models and solutions.

We are thankful to all academicians, research scholars and students who have contributed for this edited book. We also acknowledge the valuable suggestions and support offered by our colleagues and students. We are delighted that you are joining us as readers and hope you will also join us as contributors.



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# IMMINENT TECHNOLOGY FOR LEARNING AND PURSUIT

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## ABSTRACT

Technology is continually changing the way we work and play, create and communicate. So it's only natural that advancements in digital technology are also creating game-changing opportunities in the world of education. From the ancient abacus to handheld calculators, from slide projectors and classroom film strips to virtual reality and next-generation e-learning, educational technology continues to evolve in exciting new ways - inspiring teachers and students alike. For teachers, technology is opening up new possibilities to enrich and stimulate young minds. Today, there is growing excitement around the potential for assistive technology, virtual and augmented reality, high-tech collaboration tools, gamification, podcasting, blogging, 3D printing, artificial intelligence, personalized learning and much more.

## INTRODUCTION

Educational technology is a systematic application of relevant technological processes and resources in teaching, with a goal to improve students' performance. It involves a disciplined approach to identifying the needs of students, applying technology in instructions, and tracking their performance. A thickly populated country like India where mass education is the demand of the time, only educational technology is advisable. Software programme like programmed learning material can make mass education easily available. According to the intellectual level of the learner different programmed material like linear, branching, mathematics can be applied.

Almost all types of courses considering the age level of the student can be programmed. Educational Technology possesses great potential for teaching learning process. It makes curriculum construction and selection of teaching learning strategies easy and also makes teaching-learning more effective. Educational Technology helps in improving quality of teaching by providing varied types of programmes through TV and other media. Educational Technology motivates children for learning. It augments motivation among the learner to learn by using various new machines such as video, computer tape recorder, TV, and other different types of projected aid. Educational technology almost eliminating the obstacles of mass instruction. Different types of programmes developed by different experts for a large population of students can be easily communicated educational opportunities accessible for all: It breaks the barrier of all classes of learners, irrespective of economic, social or geographical stat as and makes education available for all. For example, through mass media, TV, Radio, Film etc., it makes education easily available for all. It also serves as distance mode of learning.

**EDUCATIONAL TECHNOLOGY**

Educational technology focuses on the theory and practice of utilizing new technology to develop and implement innovative educational approaches to learning and student achievement.

Behind all the high-tech tools, the digital bells and whistles, are the teachers who possess the skill — and the inspiration — to use these new technologies to expand the educational universe of their students.

According to a report by the International Society for Technology in Education ("11 Hot EdTech Trends to Watch"), "the most compelling topics among educators who embrace technology for learning and teaching are not about the tech at all, but about the students."

Benefits for students include expanded opportunities for personalized learning, more collaborative classrooms and new strategies such as so-called "flipped learning," in which students are introduced to the subject material outside the classroom (often online), with classroom time then being used to deepen understanding through discussion and problem-solving activities with peers.

For teachers who aspire to make an impact in this discipline, earning a master's in educational technology is obviously about learning new tools, strategies and practices, but it's also about understanding the supporting structures that must be in place to ensure the most successful outcomes. These include:

- Policy and legal issues
- Ethical issues (student privacy, etc.)
- Funding, grants and budgets
- Real-world applications (the world of work, partnership opportunities, etc.)
- Networking basics, hardware, learning management software
- Equity (community/school access and assets, student access)
- Ability to complete a school or district needs assessment/site tech survey analysis

Therefore, for educators who are inspired by the immense potential of educational technology, the value of a master's degree cannot be overstated.

**CAREERS IN EDUCATIONAL TECHNOLOGY: [Value of a Master's Degree]**

"We need technology in every classroom and in every student and teacher's hand," says education technology pioneer David Warlick, "because it is the pen and paper of our time, and it is the lens through which we experience much of our world."

In recent years, rising interest in educational technology has led to the emergence of new advanced degree programs that are designed to prepare educators to shift into an innovator's mindset and become transformative technology leaders in their classroom, school or district.

The best programs are structured to impart a comprehensive understanding of the tools used in educational technology, the theories and practices, and critically important related issues (budgeting, legal/ethical considerations, real-world partnership opportunities, educational equity, etc.) that are essential for such technology-enhanced programs to deliver on their potential to inspire student learning, achievement and creativity.

For example, the University of San Diego, well-known for its innovative, online Master of Education program, is launching a new specialization. The program is designed to prepare

teachers to become effective K-12 technology leaders and coaches, virtual educators and instructional innovators who embrace technology-influenced teaching practices to empower student learning.

The program's fully online format - in which students learn from expert instructors who possess deep experience in the field, while also interacting with fellow teachers from across the country - enables busy education professionals to complete their master's degree in 20 months while working full time.

**ASSISTIVE TECHNOLOGY**

The UK government has defined assistive technology (AT) as "products or systems that support and help individuals with disabilities, restricted mobility or other impairments to perform functions that might otherwise be difficult or impossible". Such devices can support individuals to improve or maintain their daily quality of life by easing or compensating for an injury or disability. In 2018, the House of Commons Work and Pensions Committee published a report that argued that AT can help people to do daily tasks, be more mobile and participate more fully in society and in employment. It also described the various types of AT:

In additin, the committee noted that advances in technology had driven, and continued to drive, "cutting edge advances in AT", with such technology also increasingly becoming integrated in mainstream devices. It argued that this helped to reduce costs and improve accessibility for disabled people.

**ASSISTIVE TECHNOLOGY IN EDUCATION:**

The statutory SEND code of practice states that a child or young person has a SEND if they have a learning difficulty or disability which calls for special education provision to be made for them. A child of compulsory school age or a young person has a learning difficulty or disability if they have:

a. A significantly greater difficulty in learning than the majority of others of the same age; or

b. A disability which prevents or hinders them from making use of the same kind of facilities generally provided to others of the same age in mainstream schools or post-16 institutions.

The government reported in June 2022 that just under 1.5 million pupils in England had special educational needs.

SEND can affect a child or young person's ability to learn. The National Audit Office has noted that pupils with SEND have diverse needs with different levels of severity. They may also have more than one type of need. The government has said that SEND can affect a pupil's

- behaviour or ability to socialise
- reading and writing
- ability to understand things
- concentration levels
- physical ability

Several companies supply AT to support students with SEND. For example, the telecommunications company BT has considered how SEND can affect students. It has said that students with speech, language and communication needs will most likely have difficulty communicating with teachers and fellow students. These students may struggle with saying what they want to, understanding what is being said to them, or the social aspects of communication. Students with cognition and learning difficulties may need to learn at a slower pace than their peers, while those who have a sensory and/or physical disability may need specialist support and/or equipment to aid their learning. In addition, students may suffer from a wide range of social and emotional difficulties which can manifest themselves in a variety of ways. This can result in pupils becoming withdrawn or isolated, as well as displaying challenging and disruptive behaviour. In some cases, students may need to remove themselves to calm down, while others may need more intensive measures to help.

BT has also said that while AT cannot eliminate learning difficulties, it can improve a student's capabilities. In addition, it set out four broad areas of need which students may require support in, and which AT may be able to help with: communication and interaction; cognition and

learning; social, emotion and mental health; and sensory and/or physical disabilities. Within these four areas, BT gave examples of how AT can help students. These included:

- Text to speech software. This form of AT can be used for students who struggle with speech but are more capable of typing. It can also help to improve reading levels for students with mild cognition and learning difficulties who can benefit from hearing a word as it is being read. Interactive storybooks can also help students relate to the text.
- Personal devices and interactive whiteboards. Personal touch-screen devices like laptops and tablets, with big, clear on-screen keyboards and word prediction software can help students to type. Interactive whiteboards and tablets can also help by giving students visuals to relate to words. They also assist students who struggle to understand the meaning behind words and who find it difficult to explain themselves clearly as well as those whose first language is not English.

**CHALLENGES DO ADULTS WITH SEND FACE IN EMPLOYMENT:**

People with disabilities can face challenges in employment that AT may be able to help with; this includes people with special educational needs. This section explores these issues.

In a recent briefing on invisible disabilities, POST reported that the employment rate for disabled people is lower than for non-disabled people, with lower rates observed for those with certain invisible disabilities. POST also noted that disabled workers are likely to be paid less and more likely to be employed part-time, self-employed, or employed in the public sector. Job applicants who have disclosed a disability have also been found to have lower call-back rates.

On the barriers to hiring disabled people, POST reported that employers mentioned a variety of issues, including:

- cost and practicalities of making adjustments
- impact on other staff
- lack of applications from disabled people
- risk to health and safety
- inaccessible application processes
- low employer capability
- potential for mistreatment from co-workers

Disabled people were also found to be underrepresented among employees responsible for recruitment decisions: only 6% of such employees were disabled.

In addition, some recruitment processes have been found to be inaccessible and inadvertently discouraging for prospective disabled applicants. For example, including generic essential job criteria such as ‘excellent communication skills’could dissuade people who stammer from applying. Similarly, biases in performance management policies have been highlighted. For example, POST reported that in a 2021 NHS staff survey of pandemic experiences, disabled workers reported missing out on training and learning opportunities while shielding.

Other common workplace policies, such as inflexible work hours and location, have also been found to be problematic for disabled individuals. POST also highlighted that public services linked to employment, such as transport, have been found to be a barrier to participation in work and education for disabled individuals.

**GOVERNMENT POLICIES FOR ASSISTIVE TECHNOLOGY AND EMPLOYMENT:**

There are several government schemes to support disabled people in employment. The main scheme is ‘Access to work’, which provides both practical and financial support. However, the scheme does not pay for reasonable adjustments, which are the changes an employer must legally make to support an employee.

In July 2022, Chloe Smith, the then minister for disabled people, health and work, answered a written question about the training offered to disability employment advisors and work coaches on AT. Ms Smith said that as part of their training, they are expected to complete the module ‘assisted digital’ which provides them with relevant knowledge and skills. She also noted a new product, ‘accessibility fundamentals learning’, which provides knowledge on the various features in Microsoft products that can be used to make employment opportunities more accessible.

**IMPORTANCE OF TECHNOLOGY IN EDUCATION:**

In Sanskrit. the word for education is "shiksha." The meaning of "shiksha" is the sense of learning and acquiring knowledge.

**The Meaning Of Education**

Knowledge, learning, and information: the word "education" is used in the English language, and is derived from the Latin word "educatum" which means "teaching work." Some great scholars have attributed its origin to "educare" which means "to raise."

**1. Narrow Meaning**

This is the education given to the child in the school. The place, duration, curriculum, etc. of such education is fixed. In this sense, the person's school life is their education. Mackenzie has written: "In a narrow sense, education refers to the conscious efforts made for the development and promotion of our powers."

**2. Broader Meaning**

In this sense, education is a lifelong process by which a person develops their overall personality and their ability to adjust to their environment.

**The Meaning Of Technology**

The use of scientific inventions, rules, principles, and processes in different aspects of life comes under the use of technology. Many types of technologies exist, including educational technology. In other words, the application of scientific principles to different areas of life is called technology. Therefore, the meaning of technology is "the art of science." Therefore, when scientific, orderly, and well-organized knowledge is used to do daily work, then it is given the name of technology. The word "technology" is usually associated with machines, but it is not necessary that machines should always be used.

**The Meaning Of Educational Technology**

When scientific, technical, and psychological principles and methods are properly used to make the teaching/learning process easy, simple, efficient, and effective, it comes under the umbrella of educational technology. As new discoveries are made, there is also a change in its meaning, definition, and form. Today, scientific and technological inventions have affected every aspect of human life. Education, teaching, and learning have also been greatly affected by them. In the field of education, as a result of the latest research, discoveries, and investigations, such techniques (i.e., skills) have been developed, which are helping in achieving all the objectives of education. These competencies and skills, which are especially based on science, are given the name of educational technology.

**Features Of Educational Technology**

1. Educational technology affects both the science of education and the art of teaching.
2. It fully reflects the influence of science and technology.

3. The practical side of learning is given more importance in educational technology. Educational technology affects the student, teacher, administrator, and the entire school environment.
4. It simplifies and empowers the teaching/learning process. Educational technology proves helpful in the spread of education, and is a continuously developing subject.
5. It mainly emphasizes achieving the objectives of education. It is capable of bringing necessary changes in the learning situation to fulfill the educational objectives. It is related to cognitive, affective, and psychomotor objectives.
6. As science progresses, so does the development of educational technology. The various rules and inventions of science are the basis of educational technology.

**Functions Of Educational Technology And The Need For It**

Just as there is a need in our life to use science and technology to get the maximum benefits in the least time, using less energy, in the same way educational technology is needed in the field of education. The need for educational technology in education is due to the following reasons:

1. It gives positive emphasis to the development of the latest methods for effective education.
2. Educational technology makes the teaching process scientific, objective, clear, simple, easy, interesting, and effective.
3. Educational technology gives proper guidance to solve teaching problems.
4. It provides proper guidance to make the teaching/learning process effective, such as setting teaching goals, examining the initial behavior of students, selecting and organizing appropriate curricula, appropriate teaching methods and strategies, and supporting materials.
5. It offers effective means of communication between teachers and learners to engage in the exchange of ideas.
6. It includes the use of all types of arts, methods, materials, skills, principles, and instruments of science, psychology, and technology.
7. It can be used to arrange and control the learning conditions required to achieve educational technical objectives.

8. Just as science and technology help us to do more work with less energy and effort in our daily life, in the same way educational technology controls the waste of energy and time in the teaching process.
9. It also lays emphasis on the development of appropriate evaluation methods for measuring behavior change and for checking the results of the teaching process.
10. After the evaluation process, by examining the final behavior of the students, emphasis is also given to providing the expected reinforcement and support required.

## CONCLUSION

It is a doorway to success which requires hard work, dedication and more after which can you open it successfully. All of these things together will make you successful in life. In conclusion, education makes you a better person and teaches you various skills.So education brings people closer to each other, helps them to understand each other better. To conclude, education has played a major role in the modern life to all individuals in the society, because it provides us with knowledge for future, it paves the way for a good career and it leads to enlightenment.Ultimately, the relationship between education and employment is a two-way street. Education can be a key factor in obtaining employment, and employment can be a key factor in obtaining the education necessary to succeed in the workplace.

## REFERENCES


1. Achieve, Inc. (2018). On Track or Falling Behind? How States Include Measures of 9th Grade Performance in Their ESSA Plans. Washington, DC: Author.
2. Adelman, H.S., and Taylor, L. (1997). Addressing barriers to learning: Beyond school-linked services and full-service schools. American Journal of Orthopsychiatry, 67(3), 408-421.
3. National Academies of Sciences, Engineering, and Medicine. 2019. Monitoring Educational Equity. Washington, DC: The National Academies Press. https://doi.org/10.17226/25389.
4. Buysse, V., and Peisner-Feinberg, E. (2010). Recognition & response: Response to intervention for PreK. Young Exceptional Children, 13(4), 2-13. Available: https://doi.org/10.1177/1096250610373586 [April 2019].

5. Callahan, R.M., and Shifrer, D. (2016). Equitable access for secondary English learner students: Course taking as evidence of EL program effectiveness. Educational Administration Quarterly, 52(3), 463-496.
6. National Academies of Sciences, Engineering, and Medicine. 2019. Monitoring Educational Equity. Washington, DC: The National Academies Press. https://doi.org/10.17226/25389.
7. Duncombe, W., and Yinger, J. (2005). How much more does a disadvantaged student cost? Economics of Education Review, 24(5), 513-532.
8. Easton, J.Q., Johnson, E., and Sartain, L. (2017). The Predictive Power of Ninth-Grade GPA. Chicago, IL: University of Chicago Consortium on School Research.