
Indian Education System and Technology

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ABSTRACT

Due to the enhancement of knowledge and technological expertise in society, our country needs learning skills that can help in keeping pace with the development of science and technology.

The educational system of a country, and as a result, education itself, can never be separated from social institutions, national and international interactions at a global level. Education, in the present scenario, is the soul of all changes and developments. The use of information technology in education must be well-planned, systematic, and under thorough supervision. Only knowing 'how' to use information technology is not enough. The knowledge of 'why' information technology is required, as well as the extent and limit of its usage, must be properly understood by all. People need to be educated about all aspects of information technology; otherwise, the infrastructure built for it would be a complete waste.

Educationists must keep in mind that the use of information technology in education should make the teaching-learning process more effective and fruitful, rather than making it too easy for students. Technology should assist in acquiring new skills but should not compromise essential qualities like hard work, patience, and perseverance. In the last few decades, especially since the COVID-19 lockdown period, the education system has undergone drastic transformations. Many changes have occurred in teaching methods, delivering lectures, explaining lessons, and discussing study materials. On the other hand, these changes have significantly impacted the mindset and personalities of students.

This paper discusses the role of information technology in education through e-learning and presents a discussion on students' attitudes toward e-learning.

KEYWORDS: Information Technology, Education, E-Learning, Attitude toward E-learning

INTRODUCTION

Knowledge and information are the main requirements for achieving success and satisfaction in life. Therefore, all countries worldwide focus on increasing the availability of good-quality education. To develop human resources with proper skills, it is mandatory to examine schools and colleges to determine whether our education system is adequately preparing students—who will become responsible citizens—to compete in a rapidly changing and developing world.

One prominent concern regarding this issue is that while significant changes have occurred in science, medicine, and industry throughout history, the field of education has not experienced such a major transformation. Surprisingly, in many schools, there is little difference between modern classrooms and those from a century ago—students still sit in rows, holding pens and paper, competing to note down the words spoken and written by the teacher without fully understanding their meaning or application. The sole intention often becomes memorization rather than comprehension.

Educational methods—both in terms of how students learn and how teachers instruct—have largely remained unchanged. The International Society for Technology in Education (ISTE) emphasizes the urgent need for modern teachers to prepare students with technology-based learning opportunities. The ability to apply technology to enhance learning should be a fundamental skill for teachers.

Since the 1990s, applying information technology (IT) in higher education has been one of the most effective advancements in many parts of the world.

WHAT IS IT?

Information technology (IT) is the knowledge of processes and their application methods in processing, transferring, and utilizing information. IT includes collecting, organizing, storing, publishing, displaying, and using information in various forms such as sound, pictures, graphics, text, and numbers, using computers and telecommunication tools.

Significant changes brought by IT have led to fundamental transformations in society. One of the most important changes is that technology enables students to access information outside the classroom, increasing their motivation for learning.

The major role of information systems in education is to ensure that necessary information is available when needed. Predicting information requirements and ensuring timely access is crucial.

Some predictions suggest that IT will lead to a unified global village, fostering mutual understanding, peace, and cooperation between countries. Others view IT as a tool for strengthening independence and establishing equality

in society. Many believe that technology has the potential to liberate people in developing nations by providing greater access to information.

However, developing countries face challenges such as limited access to technology and structural and behavioral barriers related to IT. Political, cultural, economic, and technical factors—along with the availability and quality of software—determine a country's efficiency in utilizing IT.

IMPORTANCE AND ROLE OF IT IN EDUCATION

Considering that education has been using technology for spreading and developing various processes for over a century, it is not surprising that the advent of new technology has increased interest in acquiring knowledge through different methods. Today, technology-based education is easily accessible in universities of developed countries. Smart schools offer virtual learning, and online education is in high demand.

With the emergence of new learning environments in the 21st century, individuals and societies place significant responsibility on educational institutions to meet the increasing demand for technology education. Various information and communication technologies facilitate the teaching and learning process. Studies indicate that IT provides effective methods for professional teacher development.

Research by Beauchamp & Parkinson concluded that while high school students were frustrated by limited access to IT, they still enjoyed their studies due to teachers' efforts. Some key features of the education system in the digital age include:

1. The focus is on understanding and applying knowledge rather than rote memorization.
2. Teachers guide students in acquiring, selecting, evaluating, and storing information from diverse sources.
3. Traditional print materials are being replaced by digital books and online resources.

ADVANTAGES OF USING IT IN EDUCATION

- Students learn lessons using technical tools in less time.
- Modern IT tools, such as virtual tutorial programs, accelerate information dissemination.
- IT provides flexible structures for learning, information search, and metacognitive understanding.
- Students and teachers can perform their duties with high flexibility regarding time and location.
- IT contributes to an information-based society where education plays a crucial role in economic and social development.

ADVANTAGES OF THE INFORMATION SOCIETY

1. Enriching leisure time
2. Enabling remote work opportunities
3. Enhancing national productivity and competitiveness
4. Increasing employment opportunities
5. Facilitating lifelong education

IT In The Education System Of India

In India, IT education is seen as both a savior and a challenge. While IT is not neutral and is influenced by social, political, and technological factors, it is crucial to integrate it effectively into the education system. Schools serve as essential platforms for IT awareness. Expanding IT education at various levels has far-reaching benefits, including shaping a generation proficient in IT.

Teachers must understand the existing facilities and actively incorporate IT into education. This requires specialized training programs for both teachers and adults to enhance job opportunities resulting from IT integration.

THE NECESSITY OF CHANGING EDUCATION WITH IT

The advent of personal computers and widespread internet access has compelled global education systems to undergo major structural changes. Educational institutions must adapt by focusing on human resource development and preparing individuals to cope with rapid advancements. Instead of relying solely on past educational models, schools must embrace forward-thinking strategies that equip students for the future.

In the 21st century, education will be central to societal transformations. IT will no longer be seen merely as an economic or political tool but as a means to revolutionize education. The role of IT in education will center on knowledge application, practical techniques, and societal impact.

CONCLUSION

Modern education requires advanced, flexible, and user-friendly technologies to meet its demands effectively. Educational policies should focus on:

1. Expanding human resources through IT education programs.
 2. Enhancing institutional efficiency using IT.
 3. Supporting IT research and development in education.
 4. Encouraging cooperation among different sectors in IT adoption.
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5. Promoting IT culture at all educational levels.

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