

A Study on use of Technology in Higher Education

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ABSTRACT

Technology is a gift of God. After the gift of life it is perhaps the greatest of God's gifts. It is the mother of civilizations, of arts and of sciences. Technology has certainly changed the way we live. It has impacted different facets of life and redefined living. Undoubtedly, technology plays an important role in every sphere of life. Several manual tasks can be Automat

Ted, thanks to technology. Also, many complex and critical processes can be carried out with ease and greater efficiency with the help of modern technology. Thanks to the application of technology, living has changed and it has changed for the better. Technology has revolutionized the field of education. The importance of technology in schools cannot be ignored. In fact, with the onset of computers in education, it has become easier for teachers to impart knowledge and for students to acquire it. The use of technology has made the process of teaching and learning all the more enjoyable.

INTRODUCTION

The era of the 21st century is often regarded as an era of technology. Technology, today, plays a very important role in our life. It is seen as a basis of growth of an economy. An economy which is poor in technology can never grow in today's scenario. This is because technology makes our work much easier and less time consuming. The impact of technology can be felt in every possible field one such field is Education.

Modern technology in education: According to the latest insights as to how exactly modern students of today prefer to use technology and how their learning gets an impact if they use technology, it was revealed that the use of modern equipment technology and tools, the learning and interactivity of students increases. They also find it much more interactive, as well as full of interesting areas, when aided by technology.

Internet connection and round the clock connectivity: The internet has grown in importance by many folds, over the process of decade. Its importance in the education world can now never be undermined. Despite the chances of fraud and drawbacks, the use of the internet is like a blessing for students. Today, the internet is something that is present in almost everything we use.

Using projectors and visuals: Visual images always have a strong appeal compared to words. Using projectors and visuals to aid in learning is another form of great technological use. Top institutions around the world, now rely on the use of amazing PowerPoint presentations and projections in order to keep the learning interactive and interesting. Technological use such as projectors within the schools and colleges can take the interaction and interest levels right up and also improve motivation. Students like to see appealing visuals and something that entices them to think rather than just reading words.

The learning part also becomes pretty efficient when it comes to technology.



Digital footprint in the education sector: If we talk about digital and education, then the penetration of digital media within the education sector has now grown. This penetration has resulted in round the clock connectivity with students and different forums that are available for different kinds of assignments or help. As the power of digital increases, there Are and there will be more applications that will assist students in development and learning.

Online degrees with the use of technology: Online degrees now have become a very common phenomenon. People wish to take up online courses for their learning and certifications. Top institutions offer amazing online programs with the use of various applications and the internet. This is a concept that will continue to rise as it gets more support and awareness. The online degree scenario around the world is more famous among students who work and look for flexible studying programs.

Importance of technology in education

The role of technology in the field of education is four-fold: it is included as a part of the curriculum, as an instructional delivery system, as a means of aiding instructions and also as a tool to enhance the entire learning process. Thanks to technology; education has gone from passive and reactive to interactive and aggressive.

Education is essential in corporate and academic settings. In the former, education or training is used to help workers do things differently than they did before. In the latter; education is geared towards creating curiosity in the minds of students. In either case, the use of technology can help students understand and retain concepts better.

Factors affecting technology in education:

- 1. Jung talks about the enormous challenge teachers are facing in our society due to the rapid expansion of knowledge. The modern technologies are demanding that teachers learn how to use these technologies in their teaching. Hence these new technologies increase the teachers' training needs. Gerard and Loyd (1985) asserted that teacher's attitudes toward computers are a key factor in the successful implementation of ICT in education. Also the most commonly cited barriers are:
 - lack of time;
 - lack of access;
 - Lack of resources;
 - lack of expertise

Impact of technology on education:

In an educational context, ICT has the potential to increase access to education and improve its relevance and quality. Tinio (2002) asserted that ICT has a tremendous impact on education in terms of acquisition and absorption of knowledge to both teachers and students through the promotion of:

Active learning: ICT tools help for the calculation and analysis of information obtained for examination and also students' performance reports are all being computerized and made easily available for inquiry. In contrast to memorization-based or rote learning, ICT promotes learner engagement as learners choose what to learn at their own pace and work on real life situations' problems.

Collaborative and Cooperative learning: ICT encourages interaction and cooperation among students, teachers regardless of distance which is between them. It also provides students the chance to work with



people from different cultures and working together in groups, hence helping students to enhance their communication skills as well as their global awareness.

Creative Learning: ICT promotes the manipulation of existing information and to create one's own knowledge to produce a tangible product or a given instructional purpose.

Integrative learning: ICT promotes an integrative approach to teaching and learning, by eliminating the synthetic separation between theory and practice unlike in the traditional classroom where emphasis encloses just a particular aspect.

Evaluative learning: Use of ICT for learning is student-centered and provides useful feedback through various interactive features. ICT allow students to discover and learn through new ways of teaching and learning which are sustained by constructivist theories of learning rather than students do memorization and rote learning.

Advantages of technology

- It makes students more excited to learn.
- Help students with busy schedules, freedom to work at home on their own time.
- Train students to learn new technology skills they can use later in the workplace.
- Decrease paper and photocopying costs, promoting concept of green revolution"

Disadvantages of technology

- Many experts and experienced people say that, due to such technology in education, students' imagination is affected and their thinking ability is reduced.
- Sometimes it's also time-consuming from a teacher's point of view.
- It is costly to install such technology.
- There can be health issues too when used over limit.
- Some students can't afford modern computer technologies

RESEARCH OBJECTIVES

The main objectives of research are to explore, describe, explain, and predict phenomena by systematically gathering and analyzing information. Research aims to gain new knowledge or deepen existing understanding about a topic or problem. It helps identify issues, find practical solutions, test hypotheses, and validate theories. Through research, we can also improve current practices, explore new ideas, and forecast future trends. Whether in science, business, education, or social studies, the ultimate goal of research is to contribute to informed decision-making and the advancement of knowledge for the benefit of society.

LITERATURE REVIEW

The current trend in teaching and learning in higher education is to incorporate technology into instruction (Weston, 2005). The momentum behind this growing trend is the idea that incoming students are constantly exposed to and interacting with various forms of technology in their personal. academic, and career lives to such an extent that traditional teaching methods might be ineffective (Culp. Honey, & Mandinach, 2005: Kennedy, Judd, Churchward, Gray, & Krause, 2008; Prensky, 2001).



For example, according to the 2005 Teens and Technology study by Pew Internet & American Life Project, "87% of American teens aged 12-17 used the Internet (Lenhart. Madden, & Hilin, 2005, p. 1). However the Teens and Technology study from 2013 shows "leen Internet usage has risen consistently over the years up to 95%" (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013, p. 3).

Similarly, the study found that advanced mobile devices such as smartphones have become very popular among teens (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013). "Compared to just 23% in 2011, 37% of all teens have smartphones" (Madden, Lenhart, Duggan Cortesi, & Gasser, 2013, p. 3). Given that students are constantly exposed to and interacting with technology in nearly every facet of their lives, and it is unlikely to change, instructors are finding it increasingly difficult to connect with their students because of technology-induced communication and skills gaps (Prensky, 2001).

A lot of literature goes into the reasons why professors need to adapt their teaching methods to their students. Marc Prensky (2001) identifies such students as "digital natives." These students grew speaking the language of technology in a way which previous generations had not (Kennedy. Judd, Churchwant, Gray. & Krause, 2008). Digital natives "think and process information fundamentally differently from their predecessors" due to their constant exposure to and interaction with technology (Prensky,2001,p.1). Because of this- " traditional teaching methods do not take into account the differences in thinking processing information, and learning" (Prensky,2001,p.1).

RESEARCH METHODOLOGY

While preparing a report the foremost important element is data, which provides the knowledge needed for analysis and interpretation. Data are often classified as primary or secondary data.

PRIMARY DATA: Primary data are those data which are collected for the primary time. they're Original in character. Primary data is additionally referred to as first hand information. The source of primary data used while preparing this report is through a questionnaire.

SECONDARY DATA : Secondary data are those data which are already collected by somebody else for the aim of study and are available for this study. The secondary source of knowledge include books, periodicals and reports.

The data collected is analyzed by using a bar chart .

Both primary and secondary data has been utilized in the study

SAMPLING SIZE

In this report response of 100 respondents are collected for the data analysis. SAMPLING METHOD

There are many methods of sampling. I have chosen a non-probability sampling method and below that I have taken a convenience sample. I have taken a convenience sample. I prepare a questionnaire to collect the information.

DATA ANALYSIS

Your level of study:



our level of study.			
Results			
Options	%	Count	
Undergraduate	41.76	38	
Graduate or Postgraduate	53.85	49	
Research	4.40	4	
No Answer	·	9	



It Is observed that out of 100 respondents, 41.76% of respondents are undergraduate, 53.85% of respondents are graduate or Postgraduate and 4.40% of respondents are researchers.

Your faculty disciplines:



It is observed that out of 100 respondents, 7.95% of respondents are pursuing humanities, 75% of respondents are pursuing commerce and management, 11.36% of respondents are pursuing science and 5.68% of respondents are pursuing other disciplines.



Are you satisfied with internet speed?

Are you satisfied with internet speed?				
Results				
Options	%	Count		
Very satisfied	21.84	19		
Satisfied	40.23	35		
Neutral	28.74	25		
Not satisfied	6.90	6		
Very dissatisfied	2.30	2		
No Answer	-	13		

It is observed that out of 100 respondents, 21.84% of respondents are very satisfied with internet speed, 40.23% of respondents are satisfied with internet speed, 28.74% of respondents are neutral about internet speed, 6.90% of respondents are not satisfied with internet speed and 2.30% of respondents are very dissatisfied with internet speed

Are you satisfied with Technical support that you receive to support your devices?





It is observed that out of 100 respondents, 17.86% of respondents are very satisfied with technical support that they receive to support their devices, 41.67% of respondents are satisfied with technical support that they receive to support their devices, 36.90% of respondents are neutral about technical support that they receive to support their devices, 2.38% of respondents are not satisfied with technical support that they receive to support their devices and 1.19% of respondents are very dissatisfied with technical support that they receive to support their devices and 1.19% of respondents are very dissatisfied with technical support that they receive to support their devices.

Do you get Wi-Fi connectivity on your campus?



It is observed that out of 100 respondents, 68.29% respondents get wifi connectivity at their campus and 31.37% of respondents do not get wifi connectivity at their campus.

How much do you use the internet?

It is observed that out of 100 respondents, 89.41% of respondents use the internet daily, 1.18% of respondents us the internet in alternative days, 1.18% of respondents use the internet once a week, 2.35% of respondents use the irregularly and 5.88% of respondents us the internet rarely.

On average how much time so you spend on internet related activities

It is observed that out of 100 respondents, 4.76% of respondents spend less than 1 hour on internet related activities, 23.81% of respondents spend 1- 2 hours on internet related activities, 44.05% of respondents spend 3-5 hours on internet related activities, 27.38% of respondents spend more than 5 hours on internet related activities.

What technologies are you using to perform tasks?

It is observed that out of 100 respondents, 15.12% of respondents use MS Powerpoint to perform tasks, 6.98% of respondents use MS Word to perform tasks, 19.77% of respondents use MS Excel to perform tasks, 16.28% of respondents use multimedia to perform tasks and 41.86% of respondents use internet to perform tasks.

Why do you use a computer?

It is observed that out of 100 respondents, 12.15% of respondents use a computer to access class material on its learning, 5.26% of respondents use a computer to check their grades, 6.07% of respondents use a computer to create computer programs, 5.26% of respondents use a computer to create graphs or tables, 7.29% of respondents use a computer to create multimedia presentations, 5.26% of respondents use a computer to communicate with their fellow students, 13.77% of respondents use a computer to find information on internet, 6.07% of respondents use a computer to play games, 10.93% of respondents use a computer to Watch movies and shows for entertainment and 8.10% of respondents use a computer for other purposes.

FINDINGS AND SUGGESTIONS

Findings:

- 1. Increased Accessibility and Flexibility
 - Technology enables access to learning materials anytime and anywhere.
 - Online platforms and recorded lectures allow students to learn at their own pace.
 - 2. Enhanced Student Engagement



• Use of multimedia tools, virtual labs, simulations, and gamification increases student participation.

- Interactive apps and online quizzes promote active learning.
- 3. Improved Communication and Collaboration

• Tools like Google Classroom, Zoom, and Microsoft Teams foster teacher-student and peer collaboration.

- Discussion forums, emails, and instant messaging ensure continuous communication.
- 4. Digital Divide

• A gap exists between students who have access to devices and high-speed internet and those who do not.

- Rural and economically weaker students face challenges in accessing online education.
- 5. Faculty Adaptability and Training Issues

• Some faculty lack digital literacy or training to use advanced educational tools effectively.

• Resistance to change among older faculty members is observed.

Suggestions:

1. Digital Infrastructure Development

• Government and institutions should invest in digital infrastructure, especially in rural and semi-urban areas.

- Provide free or subsidized internet access and devices to needy students.
- 2. Regular Faculty Training

• Organize workshops and training sessions for faculty to improve their digital teaching skills.

- Encourage adoption of blended learning models.
- 3. Curriculum Integration
- Integrate technology tools and platforms into the curriculum design.
- Promote digital literacy and responsible use of technology as part of the syllabus.
- 4. Student Support Services
- Establish helplines, FAQs, and peer-support groups for technical assistance.
- Offer orientation programs on using educational software and platforms.
- 5. Monitoring and Evaluation
- Set clear guidelines and methods to ensure fair and transparent online assessment.
- Use analytics to track student performance and engagement for timely interventions.



CONCLUSIONS

Technology has a positive impact on education and at the same time may also pose negative effects. Teachers and students should take advantage of this in a good light and eliminate the drawbacks which are pulling back many students as well as schools from achieving experience. It is thus time for every country to introduce a more technological equipped education sector in the future.

The study highlights the growing significance of technology in transforming higher education. With the integration of digital tools, learning has become more flexible, accessible, and engaging for students and educators alike. Online learning platforms, virtual classrooms, educational apps, and multimedia resources are increasingly supporting personalized and collaborative learning experiences.

It is evident that technology enhances not only the delivery of academic content but also the management of educational institutions, promoting efficiency and transparency. However, the study also reveals challenges such as the digital divide, lack of training among faculty, resistance to change, and issues of data privacy and security.

To fully leverage the benefits of technology in higher education, institutions must invest in infrastructure, faculty development, and inclusive policies that bridge the digital gap. When used thoughtfully, technology has the potential to revolutionize education by making it more inclusive, interactive, and outcome-driven

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