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THE FUTURE OF HIGHER EDUCATION AND ROLE OF THE TECHNOLOGY: A REVIEW

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ABSTRACT
This research aims to investigate technology's role and impact on visions of the future in higher education. The study examines how technology is changing the landscape of education and shaping our perceptions of what higher education could look like in the future. The research explores the various technological tools and platforms that are currently being used in higher education, including online learning platforms, virtual reality, artificial intelligence, and social media. The research also looks at the impact of technology on the goals and objectives of higher education, as well as the potential for technology to address current challenges and limitations in the field. The study investigates the ways in which technology is changing the nature of teaching and learning, as well as its impact on the quality and accessibility of education. The findings of this research suggest that technology is playing an increasingly important role in shaping the future of higher education. The integration of technological tools and platforms into traditional classroom settings is changing the way we teach and learn, and creating new opportunities for students, instructors, and institutions.

INTRODUCTION
Technology has become an integral part of modern society, and its impact can be felt in almost every industry, including education. In recent years, technology has played a significant role in higher education, revolutionizing the way we teach and learn. With the increasing adoption of online and blended learning, personalized and adaptive learning technologies, artificial intelligence, and augmented and virtual reality, the future of higher education is likely to be shaped by technology.

One of the most significant impacts of technology on higher education is the ability to offer education online. Online learning has become increasingly popular, with students now able to access education from anywhere in the world. This trend is likely to continue in the future, making education more accessible to students who may not have otherwise had the opportunity to attend traditional on-campus programs. Additionally, blended learning, which combines online and traditional classroom teaching, provides students with more flexibility in their learning, allowing them to study at their own pace and access course materials at any time.

Technology also enables personalized learning, which tailors education to the needs and interests of individual students. Adaptive learning technologies use data analytics to track students' progress and adjust course materials accordingly, which can improve student engagement and learning outcomes. Artificial intelligence (AI) is another technology that is expected to have a significant impact on higher education in the future. Intelligent tutoring systems and virtual teaching assistants can provide students with personalized support and feedback, while predictive analytics can help identify students who are at risk of dropping out, allowing universities to provide timely interventions.(Paul, David A ,2005)

Finally, augmented and virtual reality (AR/VR) technology is being developed for use in higher education, enabling students to experience simulations and immersive learning environments. This technology has the potential to enhance student engagement and understanding of complex concepts.

THE ROLE OF TECHNOLOGY IN EDUCATION
Technology has become an essential component of education in the 21st century, impacting the way we teach and learn. The use of technology in education can enhance learning outcomes, promote collaboration, and provide access to education for students around the globe. Here are some of the roles technology plays in education:

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Enhancing Learning: Technology provides a range of tools and resources that can enhance the learning experience, including multimedia presentations, interactive simulations, and online educational games. These tools can help students understand complex concepts and retain information more effectively.

Promoting Collaboration: Technology can also facilitate collaboration among students and between students and teachers. Online discussion forums, video conferencing, and social media platforms can provide opportunities for students to share ideas, work on projects together, and receive feedback from their peers and instructors.

Providing Access: Technology has made education more accessible to students around the world. Online courses and degree programs enable students to access education from anywhere with an internet connection, and open educational resources provide free access to learning materials. (Ansuman, N,2013)

Personalizing Learning: Technology can also be used to personalize learning to the individual needs and interests of students. Adaptive learning technologies can track students' progress and adjust course materials accordingly, providing personalized support and feedback to each student.

Improving Efficiency: Technology can also improve the efficiency of education, reducing administrative tasks and streamlining processes. Learning management systems, online grading systems, and digital portfolios can help teachers manage student work more efficiently, saving time and resources.

Technology plays a vital role in education, enhancing learning outcomes, promoting collaboration, providing access, personalizing learning, and improving efficiency. As technology continues to evolve, it will undoubtedly continue to shape the future of education, providing new opportunities for teaching and learning. However, it is essential to strike a balance between technology and traditional teaching methods to ensure that students receive a well-rounded education that prepares them for the challenges of the modern world.

The Meaning of Education

Education is the process of acquiring knowledge, skills, values, and attitudes through formal or informal means. It is a lifelong process that begins at birth and continues throughout an individual's life. Education can be formal, such as attending school, college, or university, or informal, such as learning from family, friends, and life experiences.

The purpose of education is to prepare individuals for the challenges of the modern world, enabling them to contribute to society and lead fulfilling lives. Education equips individuals with the knowledge and skills needed to pursue their passions, find meaningful work, and engage with the world around them. Education also plays a crucial role in promoting social and economic mobility, providing opportunities for individuals to improve their lives and the lives of their families.

Education encompasses a wide range of subjects, including literacy, numeracy, science, social studies, art, music, physical education, and more. It is not only about acquiring knowledge but also developing critical thinking skills, problem-solving abilities, and creativity. Education also plays a crucial role in developing social and emotional skills, such as empathy, self-awareness, and communication.(Saavedra, et al,2012).

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The Importance of Technology in the Education and Persons with Mental Retardation

During the beyond twenty years there has been a multiplication of mechanical progressions in the fields of restoration and specialized curriculum. Innovation assumes a fundamental part in the existences of all people in our general public, in any case, for people with mental impediment, the guarantee of innovation is especially all around perceived (dismissive, 1988, 1989; Garner and Campbell, 1987). In the all areas of working, innovation can assume a basic part in working with ideal cooperation in our general public.

The acknowledgment of this objective recommends that society would never again assess instructive, remedial, or restoration programs on the numbers (as opposed to significance) of the abilities mastered by people with mental impediment. In view of the meaning of this idea to significant innovation administration arrangement, experts are tested to check out at every one of its parts more meticulously.

Useful uses of innovation under such a calculated structure would incorporate such gadgets and variations as PC applications, videodisks, electronic points of interaction, augmentative specialized gadgets, miniature switches. This infers that people with mental impediment and their families have the option to enter the framework through such modes as phone contact, PC modems, and media transmission gadgets for the hard of hearing, mail, sound tapes, and direct contact. This would incorporate the utilization of the thorough and dynamic data set containing the data in regards to where administrations for people with mental impediment, their families, can be gotten; innovations are accessible in assistive innovation.

It is additionally of basic significance that the framework empowers people with mental impediments, their families, or specialist organizations to enter data in regards to fulfillment with administrations got. To foster such a framework, an administration methodology is important to configuration, create, carry out, keep up with, and support the framework. Helpful arrangements could be created among specialist organizations to completely use and foster existing assets, consequently adding to the progress of the framework. (Kaniappan, K.,2001)

Evaluations for Education

These assessments are intended to distinguish an individual's assets and shortcomings, with such discoveries giving important data to people appointed with the obligation of concluding what advancements will help the individual with mental hindrance. Without thorough assessments, it is hard to envision how suitable innovations could be endorsed for people with mental, especially the individuals who are all the more genuinely involved. Now and again, notwithstanding, people have revealed the assessments were not directed preceding the acquisition of required innovations.

Through innovation holds invigorating opportunities for upgrading the personal satisfaction for people with mental hindrance, the guarantee can turn into the truth as perspectives toward the potential and worth of these people prove a relating change. A significant change in the awareness of our general public appears to have been reflected in regards to the worth of innovation for this populace. Experts should keep on endeavoring to expand their insight base in regards to the extent of advances that are accessible for people with mental impediments. For sure, experts perceive that no innovation subs for esteemed results like effective advances into the universe of work and freedom in one's day-to-day living exercises, yet rather that is an instrument to work with ideal working across friendly, professional, and locally incorporated grown-up local area conditions.(Lindberg, J.,2012)

The Pedagogy of Technology Integration

How to integrate technology into teaching and learning has become a long-term issue. Most of the time, technology is not used to improve teaching because there aren't enough computers, people don't know how to use them, or they are terrified of them. Even though these factors may influence the outcomes of incorporating innovation, it is crucial to note that how good teachers are at using innovation to educate may be influenced in part by their ability to investigate the relationship between teaching style and innovation.

Innovation coordination ought to be considered alongside issues engaged with instructing and learning. Such issues incorporate creating learning targets, choosing techniques for guidance, criticism, and assessment and evaluation procedures including follow-up exercises. The innovation utilized for educating and learning should be viewed as an indispensable piece of guidance and not as an item elite to itself. Seeing innovation combinations according to a broad view will give educators the vital establishment to execute innovation into the homeroom all the more effectively. The

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expression "mechanical mix" thinks that such discernment is probably going to bring about an unfortunate utilization of innovation for educational purposes. The extent of the innovation combination is inspected with a perspective on showing its relationship with the teaching method.

Scope of Instructional Technology

Innovation in training is ordinarily characterized as a specialized gadget or device used to upgrade guidance. "Instructive innovation could incorporate media, models, anticipated and non-projected visual, as well as sound, video and advanced media." Technology mix should join the mechanical expertise and capacity to involve educational information as a base for coordinating innovation into instructing and learning. Innovation should be executed in the homeroom provided that its part in a given not entirely settled alongside academic issues connected with given guidance.

Fig.1 The job of innovation in technology

The job of innovation in technology not entirely set in stone in the event that educators who carry out innovation at the study hall level are engaged with innovation decision-production since instructors have the obligation of working with guidance. Innovation combination ought to be considered as a component of the interaction informative planning. Unfortunate execution of innovation mix is probably going to influence the ideal result.

In the event that aggregate undertaking and interactive abilities will ascend in significance, their improvement needs to begin early and be upheld in the optional and tertiary stages by suitable educational plan approaches, instructional methods, and techniques for appraisal. This will be difficult for school systems that favor customary, individualized, controlled ways to deal with the association and conveyance of learning. It is reality that similar mechanical developments can bring about various results relying upon the degree to which organizations and nations take on practices and strategies that intend to enhance occupations as opposed to amplify administrative control.(Chattopadhyay,2009)

LITERATURE REVIEW

THE ROLE OF TECHNOLOGY

Because technology is changing so quickly and becoming more difficult, engineers must constantly update their knowledge and abilities in their applications. Unfortunately, most recently graduated technical personnel use the trial-and-error method in most applications due to a lack of knowledge and training. However, this method could result in significant economic losses as well as harm to workers' health and safety on the job.(Steven Brint,,2016)

Obtaining a Bachelor of Science in engineering currently takes four years in most countries. Despite the fact that the Bologna Declaration has resulted in a recent trend in EU countries toward 3-year Bachelor's degrees, engineering education should be more science-based. This is due to the fact that engineering operations today necessitate a high degree of education in theory, relevant knowledge, and training in the application of several, interconnected disciplines of science and technology. Students who have recently graduated from high school will need more than three years to complete this type of education.

Today, everyone agrees that obtaining a professional engineering degree should take a total of five years, divided into two sections following high school. According to this study, the first cycle of engineering school should span at least three years for persons who attended technical high schools and at least four years for people who attended other schools. Instead of Master of Science programs, a professional engineering degree should require a Master of Engineering program with courses that

teach basic knowledge about the design of engineering systems and structures and the operation details of complex engineering systems that does not need to be updated every few years.

Technology faculties' mission statements are reviewed and analyzed. The mission of Technology Faculties, which were founded as an alternative to Engineering Faculties and have already been offering education for a few years (in Turkey), should be reviewed. These institutions should be reformed as graduate schools to take on the task of training Engineering Faculties graduates who choose a technical route to become professional engineers, providing them with application information in a scientific manner.

IMPACT OF TECHNOLOGY ON EDUCATION

Technology is a divine gift. It could be God's second finest gift to us after life. It is the birthplace of all cultures, arts, and sciences. Without a doubt, technology has altered the way we live. It has altered many aspects of life and how people live. Without a question, technology is vital in many aspects of life. Several jobs that were formerly done by hand can now be done automatically thanks to advances in technology.

Furthermore, many tough and critical processes can be completed more swiftly and easily with the assistance of current technology. Because of the way technology is used, people's lives have changed. Technology has revolutionized the way education is delivered. Nobody can deny the importance of technology in schools. Indeed, the use of computers in classrooms has made it easier for teachers to teach and pupils to learn. The use of technology in teaching and learning has made both of these tasks more enjoyable.

People frequently consider the twenty-first century to be the age of technology. Today, technology is a huge aspect of our life. It is regarded as a means of boosting an economy's growth. In today's environment, an economy that lacks technology would never grow. This is because technology makes our jobs easier and faster. Technology has an impact on every industry, including education.(Stagg, Adrian,2016)

Modern Technology in Education

According to the most recent studies on how modern students choose to utilize technology and how technology affects their learning, students' learning and interactivity enhance when they use modern equipment, technology, and tools. They find it lot more interactive and full of interesting places when technology is employed to aid them. Knowledge transfer becomes very simple, convenient, and effective. This means that, when helped by modern technology, our minds now operate more quickly in many aspects of life, including schooling.

Even in schools, universities, and colleges, dependency and dependence on such an innovation that just makes life a simple, smooth journey is unavoidable these days. Students can use technology in the following ways today: Internet access and availability 24 hours a day, 7 days a week over the course of a decade, the internet has expanded in importance by a factor of ten. Its importance in the field of education can no longer be overstated. Despite the risks of fraud and disadvantages, kids find that using the internet is a boon.

Almost everything we use nowadays is connected to the internet. From our phones to our TVs to our game consoles, the internet is absolutely everywhere. On the internet, students can access a wealth of assistance, tutorials, and other things that might help them study and do better in school.

Digital Footprint in the Education sector

When it comes to digital and education, we can claim that digital media is now employed in education more than ever before. As a result, students may now communicate with one another around the clock and use various forums for various types of assignments or support. There are and will be more apps that help students study and flourish as the power of digital grows.

Online Degrees with the use of Technology

A growing number of people are pursuing online degrees. People desire to attend online courses to learn new skills and obtain certificates. Top schools have fantastic online programs that make advantage of the internet and other software. This notion will grow in popularity as more people support it and learn about it. Online degrees are becoming increasingly popular among students who work and require flexible study programs around the world.

Importance of Technology in Education

Technology is used in education in four different ways: as part of the curriculum, as a way to deliver lessons, as a way to help teachers, and as a way to improve the whole learning process. Technology

has changed education from being passive and reactive to being active and interactive. Education is important in both business and school settings. In the first, workers learn how to do things differently than they did before through education or training. In the second, students are taught in a way that makes them want to learn more. In either case, students can learn and remember things better if they use technology.(Gale, Fred, et al.,2015)

NEED OF THE STUDY

The study of technology's role and impact on the future of higher education is essential for several reasons:

Understanding the Changing Landscape: As technology continues to evolve, it is changing the way we teach and learn. Understanding the impact of technology on higher education is critical for educators, policymakers, and students to adapt to these changes effectively.

Improving Learning Outcomes: Technology has the potential to enhance learning outcomes, but it is essential to understand how to use it effectively. Research on the impact of technology on higher education can help educators develop best practices for integrating technology into the classroom.

Addressing Access Issues: Technology has the potential to make education more accessible to students around the world. However, it is essential to understand the barriers to access and how technology can help overcome them.

Preparing Students for the Future: The skills and knowledge required for success in the modern world are rapidly evolving. Understanding the role of technology in higher education is essential for ensuring that students are prepared for the challenges of the future.

Supporting Innovation: Technology is a key driver of innovation in higher education. Research on the impact of technology can help identify new opportunities for innovation and support the development of new technologies and teaching methods.

The study of technology's role and impact on the future of higher education is essential for ensuring that education remains relevant, effective, and accessible to all students. By understanding the impact of technology on education, we can develop strategies to leverage its potential effectively and prepare students for the challenges of the modern world.

SCOPE OF THE RESEARCH

The scope of research on technology's role and impact on visions of the future in higher education would involve investigating the ways in which technology is changing the landscape of education and shaping our perceptions of what higher education could look like in the future. The research would examine the various technological tools and platforms that are currently being used in higher education, including online learning platforms, virtual reality, artificial intelligence, and social media. It would also explore how these tools are being integrated into traditional classroom settings and the implications of this integration for students, instructors, and institutions. The research would also look at the impact of technology on the goals and objectives of higher education, as well as the potential for technology to address current challenges and limitations in the field. This would involve examining the ways in which technology is changing the nature of teaching and learning, as well as its impact on the quality and accessibility of education.

PROBLEM STATEMENT

The problem statement for the research on technology's role and impact on visions of the future in higher education would be: As technology continues to advance, it is increasingly influencing the way we teach and learn in higher education. While technological tools and platforms have the potential to enhance the quality and accessibility of education, they also present challenges and limitations that must be addressed. Therefore, there is a need to examine the ways in which technology is changing the landscape of higher education and shaping our perceptions of what education could look like in the future. This research aims to explore the role of technology in higher education, the impact of technology on teaching and learning, and the potential for technology to address current challenges and limitations in the field.

CONCLUSION

In conclusion, technology is playing an increasingly important role in shaping the future of higher education. The integration of technological tools and platforms into traditional classroom settings is changing the way we teach and learn, and creating new opportunities for students, instructors, and institutions. While technology has the potential to enhance the quality and accessibility of education,

it also presents challenges and limitations that must be addressed. For example, the overreliance on technology in education may lead to a lack of critical thinking and interpersonal skills. Additionally, the cost of implementing and maintaining technological infrastructure can be prohibitive for some institutions. Therefore, it is essential to continue to explore the ways in which technology is changing the landscape of higher education and to consider the implications of this transformation. This research can help to identify best practices for integrating technology into education and to develop strategies for addressing the challenges and limitations presented by technology. Ultimately, by harnessing the power of technology while also being mindful of its limitations, we can create a future in higher education that is more accessible, inclusive, and innovative.

REFERENCES

1. Patrick, Rebecca, et al. "Health-Related Education for Sustainability: Public Health Workforce Needs and the Role of Higher Education." *Australian Journal of Environmental Education*, vol. 32, no. 2, Cambridge University Press, 2016, pp. 192–205, https://www.jstor.org/stable/26422928.

2. Paul, David A. "HIGHER EDUCATION IN COMPETITIVE MARKETS: LITERATURE ON ORGANIZATIONAL DECLINE AND TURNAROUND." *The Journal of General Education*, vol. 54, no. 2, Penn State University Press, 2005, pp. 106–38, http://www.jstor.org/stable/27798012.

3. Ansuman, N. "HIGHER EDUCATION IN INDIA - A TRANSITION." *The Indian Journal of Political Science*, vol. 74, no. 3, Indian Political Science Association, 2013, pp. 489–500, http://www.jstor.org/stable/24701059.

4. RAMASWAMY, RAMAKRISHNA. "Indian Higher Education in the Digital Age." *Economic and Political Weekly*, vol. 49, no. 25, Economic and Political Weekly, 2014, pp. 27–30, http://www.jstor.org/stable/24479673.

5. Saavedra, Anna Rosefsky, and V. Darleen Opfer. "Learning 21st-Century Skills Requires 21st-Century Teaching." *The Phi Delta Kappan*, vol. 94, no. 2, Phi Delta Kappa International, 2012, pp. 8–13, http://www.jstor.org/stable/41763587.

6. Kolb, Alice Y., and David A. Kolb. "Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education." *Academy of Management Learning & Education*, vol. 4, no. 2, Academy of Management, 2005, pp. 193–212, http://www.jstor.org/stable/40214287.

7. Rowse, Glenwood L., et al. "Role Based Curriculum Development in Higher Education." *Educational Technology*, vol. 15, no. 7, Educational Technology Publications, Inc., 1975, pp. 13–22, http://www.jstor.org/stable/44418016.

8. Kaniappan, K. "Role of Science in Higher Education." *Current Science*, vol. 81, no. 3, Temporary Publisher, 2001, pp. 233–34, http://www.jstor.org/stable/24106313.

9. TERLEVIĆ, Maja, et al. "Sustainable Spatial Development in Higher Education." *UrbaniIzziv*, vol. 26, no. 1, UrbanističniinštitutRepublikeSlovenije, 2015, pp. 105–20, http://www.jstor.org/stable/24920968.

10. Lindberg, J. Ola, and Anders D. Olofsson. "Sustaining a Professional Dimension in the Use of Educational Technology in European Higher Educational Practices." *Educational Technology*, vol. 52, no. 2, Educational Technology Publications, Inc., 2012, pp. 34–38, http://www.jstor.org/stable/44430026.

11. Cardon, Phillip. "Technology Education Curriculum Designs in Michigan Secondary Education." *The Journal of Technology Studies*, vol. 28, no. 1/2, Epsilon Pi Tau, Inc., 2002, pp. 142–49, http://www.jstor.org/stable/43604624.

12. Kurland, Norman D. "The Impact of Technology on Education." *Educational Technology*, vol. 8, no. 20, Educational Technology Publications, Inc., 1968, pp. 12–15, http://www.jstor.org/stable/44422429.

13. Chattopadhyay, Saumen. "The Market in Higher Education: Concern for Equity and Quality." *Economic and Political Weekly*, vol. 44, no. 29, Economic and Political Weekly, 2009, pp. 53–61, http://www.jstor.org/stable/40279288.

14. Gale, Fred, et al. "Four Impediments to Embedding Education for Sustainability in Higher Education." *Australian Journal of Environmental Education*, vol. 31, no. 2, Cambridge University Press, 2015, pp. 248–63, https://www.jstor.org/stable/26422897.

15. Stagg, Adrian, and Carina Bossu. "Educational Policy and Open Educational Practice in Australian Higher Education." *Open Education: International Perspectives in Higher Education*, edited by Patrick Blessinger and TJ Bliss, 1st ed., Open Book Publishers, 2016, pp. 115–36, http://www.jstor.org/stable/j.ctt1sq5v9n.11.

16. Steven Brint, and Charles T. Clotfelter. "U.S. Higher Education Effectiveness." *RSF: The Russell Sage Foundation Journal of the Social Sciences*, vol. 2, no. 1, Russell Sage Foundation, 2016, pp. 2–37, https://doi.org/10.7758/rsf.2016.2.1.01.