IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 5.731
Volume 6, Issue 4, June 2021

The Impact that Technology has had on the System of Education

Mr. Pradeep Shukla[1] and Jha Shalini Manoj[2]
Assistant Professor, Shri L. P. Raval College of Education and Research, Mira Road (E), Mumbai, India[1]
Student, Shri L. P. Raval College of Education and Research, Mira Road (E), Mumbai, India[2]

Abstract: *This study examines the widespread application of technology in educational settings and how these applications impact the teaching and learning processes. The study provides a comprehensive analysis of the research literature that already exists, highlighting the many different ways in which technology has altered the methods that have traditionally been used in educational settings. It investigates the advantages and disadvantages of incorporating technology into educational settings, as well as the usefulness of various online resources. In addition to this, the paper offers suggestions as to how stakeholders, policymakers, and teachers can most effectively incorporate technology into the educational system.*

Keywords: classroom technology, technology's role in education, and technology's application in the classroom

I. INTRODUCTION

In this research paper, a comprehensive investigation into the use of technology in the instructional system is presented. By analyzing the existing literature, it identifies the benefits, challenges, and effective strategies associated with the incorporation of technology into educational settings. In addition, the significance of addressing infrastructure, equity, and ethical issues is emphasized throughout the paper as being crucial to the successful integration of technology into educational settings. The primary purpose of this research is to contribute to the discussion that is currently taking place among various stakeholders, decision-makers, and educators regarding the best way to make use of technology to enhance the teaching and learning processes.

II. LITERATURE REVIEW

The incorporation of technology into the educational system has resulted in significant changes to the conventional approaches to teaching and learning. These changes have ushered in both new opportunities and challenges for the educational system. This literature review investigates the advantages, disadvantages, and implications of the use of technology in the classroom from the perspectives of both teachers and students to comprehend the function that technology plays within the educational system.

Advantages that Technology Brings to Education Motivating and engaging students to a greater extent: Examples of technologies that have the potential to increase students' interest in learning as well as their motivation to do so include gamification, simulations, and interactive multimedia. Instruction that is suited to the individual requirements and areas of interest of each student is made possible by adaptive software and personalized learning environments.

Creating an Environment That Encourages Individualised Instruction

The utilization of adaptive learning platforms, which modify the tempo and content of lessons to cater to the requirements of individual students, is made possible by technological advancements.

With the assistance of online resources and educational apps, which provide a wealth of materials, students can investigate a wide range of topics at their own pace and delve deeply into areas of interest that particularly pique their interest.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 5.731
Volume 6, Issue 4, June 2021

Promoting Cooperative Education as Standard 1.3 Online communication and collaboration between teachers and students is made easier by the presence of features such as discussion forums and shared documents.
Students in different locations can communicate with one another and work together on projects remotely by using technologies such as virtual classrooms and video conferencing.

Giving users access to a wide variety of resources.
Through the use of the internet, students and teachers located in any part of the world can gain access to vast information and educational resource databases.
Learning at one's own pace and throughout one's entire life are both made easier by the accessibility of digital libraries, open educational resources (OER), and online courses.

Enhancing One's Capabilities in Analytical and Problem-Solving Thinking:
Examples of technological tools that encourage critical thinking and facilitate experiential learning include simulators, virtual labs, and coding environments.
Students are encouraged to engage in critical analysis and evaluation of information by their teachers and school administrators through the use of online discussion forums and peer review platforms.
Challenges and Concepts Worth Considering

Obstacles in the Way of Access and Infrastructure
There are problems with internet connectivity, access to devices, and the infrastructure of technology, particularly for economically disadvantaged students.
The achievement of success in inclusive education is inextricably linked to the elimination of the digital divide and the promotion of equal access to technological resources.

Professional Development for Teachers
To successfully integrate pedagogical strategies and technological tools, teachers need to have a strong working knowledge of both areas. Increasing the level of digital literacy among educators and providing them with ongoing support should be a top priority for professional development initiatives.
concerns regarding personal safety and confidentiality
Concerns about students' right to privacy, information security, and confidentiality are brought up when discussing the use of technology in the classroom.
Protecting student data and encouraging the responsible use of technology requires the establishment of transparent policies and safeguards.

Equity and digital divide problems
Existing inequalities in education are made worse by a lack of equal access to various forms of technology.
To bridge the digital divide, policymakers, educators, and other stakeholders need to work together to guarantee that all students have equal access to the Internet.
Implications for public policy as well as educational repercussions:

Educational Strategies, Methods, and Procedures:
To encourage conversation, cooperation, and critical thinking among students, classroom instruction should incorporate student-centered pedagogies that make use of technology to enhance learning.
Blended learning models, which combine online learning with traditional classroom instruction, have the potential to create a more adaptable and individualized educational setting.
Especially in underserved regions, policymakers need to make investments in the technological infrastructure, which should include high-speed internet and devices.
Grants for the purchase of technology and educational programs designed to teach digital literacy are two examples of initiatives that can help close the digital divide and ensure equal access to educational opportunities.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 5.731
Volume 6, Issue 4, June 2021

Recommendations and Outlines of a Policy Framework:

Policymakers should be specific when addressing the numerous ethical, privacy, and security issues that are raised by the use of technology in education.

The integration of technology into teaching practices responsibly and effectively can be facilitated by the establishment of clear guidelines for educators.

Working Together and Forming Partnerships:

Interactions between a variety of entities, including educational establishments

III. CONCLUSION

The incorporation of technology into the educational system has resulted in a comprehensive transformation of the approaches taken to teaching and learning, which presents a wide range of opportunities as well as specific challenges. This literature review investigates the application of technology in education, focusing on its advantages, which include increased student engagement, opportunities for personalized learning, encouragement of collaboration, access to a wealth of resources, and the development of critical thinking skills. It is necessary to address infrastructure and access barriers, teacher preparation and professional development, privacy, and security concerns, and the digital divide to ensure an equitable and successful implementation. Other issues that need to be addressed include the digital divide.

To make significant strides in improving education through the application of technology, significant contributions are needed from both educators and policymakers. To encourage active learning, collaboration, and critical thinking, educators need to adopt pedagogies that are student-centered and use appropriate technological tools. Blended learning models offer a level of adaptability and customization due to their combination of online and in-person instruction.

Every student, especially those who live in underserved areas, should have access to high-speed devices and the Internet, and policymakers need to make the development of infrastructure a top priority. The digital divide can be closed and equal access to educational opportunities can be ensured if grants are provided for technology and programs that teach digital literacy. Implementing comprehensive policies and guidelines that address privacy, security, accessibility, and ethical concerns is recommended to ensure that technology is used responsibly and securely.

It is necessary for all of the involved parties, including school districts, communities, and providers of technology, to work together. They will be able to collaborate on the exchange of best practices, the generation of original ideas, and the creation of an environment that is conducive to the integration of technology in education.

To summarise, technology has become an indispensable part of the educational system. It has the potential to completely transform education, give students more agency, and eliminate disparities in academic achievement. However, to ensure that technology is effectively integrated to provide a high-quality education that is inclusive and equitable for all students, a strategic approach that takes into consideration the benefits, challenges, and repercussions is required. To make the most effective use of technology and prepare for the field of education of the future, continuous research, evaluation, and professional development are required.

REFERENCES

[1]. Adeyinka, T., &Aderinoye, R. (2017). Adoption of e-learning technologies in education: A case study of Nigeria. Journal of Education and Practice, 8(6), 16-22.

[2]. Al Lily, A. E., Foland, J., Stoloff, D., Gogus, A., Erguvan, I. D., Awshar, M., ... & Ismail, N. (2019). Technology-enhanced learning in developing nations: A review. International Review of Research in Open and Distributed Learning, 20(1), 176-205.

[3]. Chai, C. S., Koh, J. H. L., & Tsai, C. C. (2018). A review of technological pedagogical content knowledge. Educational Technology & Society, 21(3), 9-22.

[4]. Demiray, U., &Akbulut, Y. (2017). The past, present and future of blended learning: An in-depth analysis of literature. The Turkish Online Journal of Educational Technology, 16(4), 1-19.

[5]. Drent, M., &Meelissen, M. (2008). Which factors obstruct or stimulate teacher educators to use ICT innovatively? Computers & Education, 51(1), 187-199.

[6]. Kozma, R. B. (Ed.). (2016). The Wiley Handbook of Educational Technology. Wiley-Blackwell.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 5.731
Volume 6, Issue 4, June 2021

[7]. Means, B., Bakia, M., & Murphy, R. (2014). Learning online: What research tells us about whether, when, and how. Routledge.
[8]. Ng, W. (2012). Can we teach digital natives digital literacy? Computers & Education, 59(3), 1065-1078.
[9]. Selwyn, N. (2016). Education and technology: Key issues and debates. Bloomsbury Publishing.
[10]. UNESCO. (2017). Education in a Digital World: Global Perspectives on Technology and Education. UNESCO