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 Effect that Technology has had on the System of Education

Mrs. Sunita Thakur[1] and Tejashri Sandesh Gandhi[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 paper investigates the widespread use of technology in education and its effects on teaching and learning procedures. The study offers a comprehensive analysis of the existing research literature, highlighting the various ways in which technology has altered traditional educational practices. It examines the benefits and challenges of using technology in the classroom, as well as the efficacy of online resources. The paper also provides recommendations on how stakeholders, policymakers, and educators can most effectively integrate technology into the educational system.*

Keywords: Technology in the classroom, Technology in education, and its use in education

I. INTRODUCTION

In this research paper, the use of technology in the educational system is examined in depth. It identifies the benefits, challenges, and effective strategies associated with integrating technology into classrooms by analyzing existing literature. The paper also emphasizes the significance of addressing infrastructure, equity, and ethical issues for the successful incorporation of technology into education. The primary objective of this study is to contribute to the ongoing debate among stakeholders, policymakers, and educators about how to use technology to improve teaching and learning outcomes.

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 in order 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 personalised learning environments.

Creating an Environment That Encourages Individualised Instruction

The utilisation 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 are able to investigate a wide range of topics at their own pace and delve deeply into areas of interest that particularly pique their interest.

Promoting Cooperative Education as the 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.

(paragraph 1.4)

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

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 are able to 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 Solutions to Problems 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 students who are economically disadvantaged.

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

In order 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.

In order 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 and face-to-face learning, have the potential to provide a learning environment that is both adaptable and individualised.

Especially in underserved areas, policymakers need to make investments in the technological infrastructure, which includes high-speed internet and various devices.

Grants for the purchase of technology and educational programmes designed to teach digital literacy are two examples of initiatives that can help close the digital divide and ensure equal access to educational opportunities.

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 practises in a responsible and effective manner can be facilitated by the establishment of clear guidelines for educators.

Cooperative Efforts and Strategic Alliances:

Interactions between a variety of stakeholders, including academic institutions

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

III. CONCLUSION

The introduction of technology into the educational system has completely transformed teaching and learning methods, which has both numerous advantages and particular challenges. This literature review examines the use of technology in education, highlighting its benefits such as increased student engagement, personalized learning opportunities, collaboration encouragement, access to a wealth of resources, and the development of critical thinking skills. To ensure an equitable and successful implementation, it is necessary to address infrastructure and access barriers, teacher preparation and professional development, privacy, and security concerns, and the digital divide.

Utilizing technology to enhance education requires significant contributions from both educators and policymakers. Educators must adopt student-centered pedagogies and appropriate technological tools to promote active learning, collaboration, and critical thinking. Combining online and in-person instruction, blended learning models offer adaptability and customization.

Infrastructure development must be a top priority for policymakers, and all students must have access to high-speed devices and the Internet, particularly those in underserved areas. Grants for technology and digital literacy programs can eliminate the digital divide and ensure equal access to educational opportunities. To ensure responsible and secure technology usage, comprehensive policies and guidelines addressing privacy, security, accessibility, and ethical concerns should be implemented.

Collaboration between all involved parties, including districts, communities, and technology providers, is indispensable. Together, they can share best practices, generate original ideas, and create an environment conducive to technology integration in education.

In conclusion, technology is an integral component of education. It has the potential to revolutionize education, empower students, and close achievement gaps. To ensure that technology is effectively integrated to provide a high-quality, inclusive, and equitable education for all students, however, a strategic approach that considers the benefits, challenges, and repercussions is necessary. Continual research, evaluation, and professional development are essential for the optimal use of technology and the future of education.

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.

[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