

TRADITIONAL TO DIGITAL TRANSFORMATION IN EDUCATION SECTOR: CHALLENGES AND OPPORTUNITIES

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ABSTRACT

This paper attempts to analyze Traditional to digital transformation in education sectors in India. Digital transformation brings many changes in every sector due that government is also working and promoting this education sector with the help of major initiatives. Digital transformation is educational process allows for more accessibility, inclusion and engagement and contribution to the development of more personalized learning approach. The present study is quantitative in nature and based on secondary data. In this paper researcher has taken impact of digital transformation and its potential challenges and various opportunities. Digital transformation brings many changes in every sector due that government is also working and promoting this sector.

Keywords: Digitalization, Online Learning, MOOCs, AI.

Introduction

Digital transformation in education means digitalizing processes and products to enhance teaching and learning experience using technologies for all parties involved. It allows simplified communication and collaboration between teachers and students. It is not about innovation and technology but more about it because it increases effectiveness and efficiency, supporting students' progression and quality of teaching methods like online learning.

Digital transformation is educational process allows for more accessibility, inclusion and engagement and contribution to the development of more personalized learning approach. This teaching learning process provides a safer and more secure environment where students and teachers can seamlessly interact with each other. To make learning process smooth and seamless, educational institutions and government develop digital transformation plans and implement necessary changes.

Objectives of the Study

- To study an Impact of Digital Transformation in Education Sectors.
- To study the various potential challenges or issues and opportunities in education sectors.
- To find out future perspective of digital education in India.

Research Methodology

Sources of Data Collection

The data for the study has been collected through relevant various research journals, magazines and present available literatures on websites.

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Area of Study

The area selected for the present study is schools, colleges and higher educational institutions.

Scope of the Study

In current times, billions of people connected to the internet in India. Due to increase in use of internet many of the learners and educational institutes rely upon various digital tools and techniques in the education industry. It is potential tools and transformation to educate the students to give better knowledge. There has been an increase in the usage of Digital and Live Virtual Classrooms at different levels of learning incoming years. The digitalization in education sector brings substantial advantages, as it grants the freedom and flexibility to teachers and students to access educational resources at their convenience and from any location which provides better clarity, more accountability and better engagement in learning. This virtual reality concepts has also started by which students can understand the concept in real situation.

Review of Literatures

Dr. Sumita Sinku (2021) in her research paper focused on various potential threats, opportunities as well future prospective in education sector. In this paper it is concluded that education was transformed from a traditional classroom practice to a remote, digitalized one. This required significant adjustments not only from students and their teachers, but also from their families, administration and the entire society. It is surprising to see how smart technologies are changing the overall educational framework in the country. The diffusion of digital education into rural market is evolving fast. Affordable high speed internet and direct to device technologies are empowering rural students to study online and improve their skills and knowledge. The education industry will witness the proliferation of small, medium and large scale Ed – Tech start – ups who will offer a variety of innovative digital products to academic institutions in coming days. The government is also taking radical steps to come up with policies that will boost the digital education market in the country.

Pulkit (2020) explain in his paper about the current education system. In this research it is to be concluded that India holds a very important place all over the world in education industry. The nation has more than 1.5 million schools with more than 260 million students enrolled and around more than 800 universities and 65,000 colleges. Although, lot of scope for continuous improvement in the education framework. Indian education industry is ready to face significant development in the years to come, as India have world's biggest tertiary-age population and second biggest graduate ability internationally.

Goh and Abdul – Wahab(2020) Teachers need to be trained in the usage of new teaching approaches for digital students in a digitalized society because they are the ones who train pupils firsthand. On the other hand, educational institutions must abandon the conventional methods of imparting knowledge and giving teachers independence. They also need to use technology to experiment with novel pedagogies and allow students to set their own pace of learning.

Dr. Radhika Kapur (2018) in her research concentrated on issues facing the Indian educational system, such as the value of a high-quality education, difficulties with the traditional educational model, low student involvement, etc. According to the study's findings, the curriculum, instructional techniques, qualified teachers, and the quality of education all contribute significantly to the problems facing the Indian educational system.

Challenges/Issues of Digital Transformation in Education

- **No Digitalization Strategy**

Determining the best course for digital transformation in each given sector or industry is one of the major obstacles to success in the modern world. It might be intimidating to consider the possibility of mass change, making it challenging to decide which course of action to pursue or how to formulate a winning plan.

- **System Breakdown**

One of the biggest challenges facing every organizations is security. The system breakdown can happen due to technical problems and hackers attacks. As more and more data moves online, it may lead to substantial data leak and losses which is unacceptable for reputed institutions. The lack of technical expertise and knowledge of cyber security are the key factors that can highly affect the E – learning system.

- **Adoption of New Practices**

Another potential challenge for every educational institutions is adoption of new practices. This can lead to confusion and frustration as well as struggle to learn and implement all of the procedures. It is important to adopt this things slowly and gradually so that everyone can get time to adjust with new practices.

- **Lack of Communication and Collaboration**

One of the main issues that can arise is a lack of communication and collaboration between the development and operations teams. If these groups are not working together effectively, the entire process can be slow down.

- **Insufficient Technologies and Knowledge**

Another challenge in the educational sector is lack of knowledge and insufficient technologies. Many institutions have no sufficient technologies to transform educational system from traditional to digital learning system. This digital learning process requires sufficient technologies and up to date knowledge.

- **Inadequate Expertise or Abilities**

Enough competence, trust, and abilities are necessary to foster innovation inside the company. To guarantee a seamless and effective digital conversion, educational institutions must either compete to attract a limited pool of talent or use novel strategies for upgrading rising players using cloud infrastructure.

Opportunities of Digital Transformation in Education

- **Performance Tracking for Students**

In the educational field, technology can make it easier for parents and teachers to monitor their children's growth. Teachers can compare student handwriting and creative work to discover who is improving and who might need more assistance by digitizing these materials.

- **Time Saving Opportunities**

In the fast-paced world of today, where time is money, a traditional to digitalization transformation can save time. But outside of metro areas, a lot of cities lack a well – developed transportation network. Students might have to travel for many hours to go to their educational institutions as a result. In this case, a digital education can help pupils in even the most remote areas of the nation.

Traveling between locations can be made more efficient and time saving with this digitalization education.

- **Focus on the Future Curricula**

Future – focused courses like robotics, automation, and Artificial Intelligence need to be taught in schools. These are no longer only made – upfields; rather, they are growing more and more important in the workplace. But perhaps educational establishments nowadays don't feel equipped to teach these subjects. The curriculum will now be developed and updated more quickly because students will have access to timely and relevant content. Effortless updating means access to up – to – date material content and features regularly.

- **Enhanced Relationship between Parents and Teachers**

When parents support their children's academic achievement, the youngsters perform better in school and are generally healthier. Automation provides parents with computerized reports and progress notes, as well as reminders to pay custody costs on time. The education sector has gone digital, which has made parents feel more at ease and gives them peace of mind when their kids miss school.

Major Government Initiatives

- **New Education Policy (2020)**

The National Education Policy, 2020 introduces a number of reforms to the Indian education system from the school to college level with a focus on digital education in an effort to make India a worldwide knowledge superpower.

- **Digital Infrastructure for Knowledge Sharing (DIKSHA) Platform**

The DIKSHA platform or Digital Infrastructure for Knowledge Sharing launched in September 2017. DIKSHA is a nationwide school education portal accessible to all states and the federal government for grades 1 through 12. As part of the Atmanirbhar Bharat Programme, Prime Minister E – Vidya introduced DIKSHA, the "one nation, one digital platform" for Indian school education.

- **Swayam Prabha TV Channel**

To support and reach those who do not have access to the internet.

- **Massive Open Online Courses**

MOOCs courses offered by the National Institute of Open Schooling (grades 9 to 12 open schooling) are posted on SWYAM portal. Approximately 1.5 crore students are registered in the 92 courses that have already been started.

- **On Air**

Shiksha Vani, E – PathShala, the National Institute of Open Schooling's Digitally Accessible Information System (DAISY) for students with disabilities, in remote places, children who are unable to access the internet are able to participate through radio transmission.

Future Perspectives of Digital Transformation in Education Sector

Even while the Covid – 19 epidemic presented numerous difficulties for the education sector, there was also a positive development that may raise the bar for the educational system and its practices. The epidemic has created opportunities for creative global information transmission strategies. India faced significant challenges because a large number of people live in places without internet access and attend government schools that are more inadequately equipped. Though many attempts were made to use online resources to continue education at all levels, not everyone was able to access them. Digital technology use for educational delivery has advanced due to COVID-19. Educational establishments shifted toward blended learning and promoted technology proficiency among instructors and students. Teleconferencing, virtual classrooms, internet webinars, soft technology.

The digitization of education is increasing the educational programs on a daily basis. More possibilities to teach and learn are being given to teachers and students through digital education, which will increase participation in the learning process as a whole. The introduction of new technology – assisted teaching tools including computers, tablets, smartphones, smartboards and MOOCs has completely changed how education is taught in schools and universities. More evidence points to the Internet of Things (IoT) as one of the most economical means of student education. Additionally, it is an effective approach for integrating a top-notch educational experience for all. The EdTech businesses are always looking for new and creative ways to broaden access to education.

India's educational system is in dismal shape, particularly in rural areas. The industry is now dealing with major issues such as obsolete teaching methods, scarcity of teachers, poor student-teacher ratio, insufficient instructional resources etc. But as education becomes more digital, students in underdeveloped places are receiving instruction using the newest resources and approaches. Teachers can now remotely engage with kids from multiple locations at once thanks to technology. Additionally, digital technology is assisting in bridging all linguistic divides. Learning materials can now be digitally made available in other regional languages. First and foremost, the public must be encouraged to become digitally literate. This includes providing constant Internet access and mobile network connections in remote areas.

Enhanced Accessibility

Enhanced accessibility is among the most promising digital transformation themes in education. The progress of technology keeps making it easier to get information from many locations. Students can attend colleges and degree programs that may not be nearby by taking advantage of online learning alternatives. The boundaries of a student's immediate geographic area are no longer applicable. Surprisingly, distance learning is becoming more widely available than in-person instruction. With the increasing prevalence of voice – over for texts, colorblind online versions, and many other accessibility features, everyone has equal access to education.

VR Possibilities

Including a virtual reality component does more than merely boost student engagement and attention spans. It also lets students experience from home all the benefits of in-person instruction. The

key benefits of using virtual reality (VR) technologies in education are the ability to acquire skills instead of just reading about them, go on virtual field excursions, and use simulators for actual activities. Virtual reality has grown to be a crucial component of every sector. Virtual reality in education gives pupils the opportunity to explore content before they come across it in practical applications.

Conclusion

Fast moving technologies and innovation traditional education is transforming and moving very fast to digitalization. It is very challenging task for teachers, students and parents to cope up with technologies and their technological know how. Many institution and governments are trying to improve and taking initiatives to improve the Online Learning. Researcher has concluded that having some potential issues in digitalization there are even some opportunities for every learners so that this digital education will be successful.

References

1. Dr. Sumita Sinku (2021), Digital Transformation in Education Sector: The Way Forward for India, Journal of Emerging Technologies and Innovative Research, Volume – 8, Issue – 9, pp f38 - f48.
2. Goh P. S. C. & Abdul Wahab N. (2020), Paradigms to Drive Higher Education 4.0, Indian Journal of Learning, Teaching and Educational Research, 19(1), pp 159 – 171.
3. <https://doi.org/10.26803/ijlter.19.1.9>
4. Dr. Kapoor Radhika, (2018), Challenges in Indian Higher Education-Indian Context. Research Gate.
5. <https://en.unesco.org/covid19/educationresponse>
6. <http://www.researchgate.net>.

