

The Role of Digital Education in the Development of Bangladesh: An Empirical Study

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ABSTRACT

This research paper analyzes the impact of digital education on the development of Bangladesh. Despite significant progress in the education sector, the country still faces several challenges, including low enrolment rates, high dropout rates, lack of qualified teachers, an outdated curriculum, and inadequate infrastructure. The COVID-19 pandemic has highlighted the critical need for digital education in Bangladesh. This paper aims to identify the factors contributing to the low levels of digital literacy in Bangladesh and examine the impact of low digital literacy on economic development in the country. In addition, existing initiatives aimed at improving digital literacy are evaluated for their effectiveness, including government policies, international aid programs, and private sector initiatives. The potential of new technologies and innovative solutions, such as mobile learning, gamification, and community-based approaches, is explored to improve digital literacy in Bangladesh. Lastly, a comprehensive framework for improving digital literacy is developed, which considers the unique challenges and opportunities of the country, and provides recommendations for policymakers, educators, and other stakeholders. This research paper contributes to the ongoing discussion on digital education in Bangladesh and aims to provide insights to help the country achieve its target of becoming a developed nation by 2041.

Keywords: Digital Education; Bangladesh; Digital Literacy; Economic Development; Technology-based Learning, E-learning, Competent Citizen etc.

INTRODUCTION

In today's digital age, technology has revolutionized every sector, and education is no exception. With the increasing availability and affordability of digital devices and internet connectivity, the traditional education system is transforming into digital education. Digital education has the potential to democratize education and provide access to quality education for all, irrespective of geographical location or socio-economic status. In Bangladesh, digital education has become more important than ever as the country strives to become a developed nation by 2041. This research paper aims to analyze the impact of new technologies on education and how it is delivered in Bangladesh, and explore how digital education can contribute to the country's development.

Background:

Bangladesh has made significant progress in the education sector in recent years. The literacy rate for 2020 was 74.91%, a 0.22% increase from 2019^[1], and the government has taken various initiatives to improve the quality of education. However, despite the progress, there are still significant challenges that need to be addressed. The education system in Bangladesh faces several issues, including low enrolment rates, high dropout rates, lack of qualified teachers, outdated curriculum, and inadequate infrastructure. Moreover, the COVID-19 pandemic has exacerbated these issues and highlighted the need for digital education.

Objectives of the paper:

- a. To examine the impact of low digital literacy on economic development in Bangladesh, including its effects on productivity, job opportunities, and entrepreneurship.
- b. To explore the potential of new technologies and innovative solutions to improve digital literacy in Bangladesh, such as mobile learning, gamification, and community-based approaches.
- c. To develop a comprehensive framework for improving digital literacy in Bangladesh, which takes into account the unique challenges and opportunities of the country, and provides recommendations for policymakers, educators, and other stakeholders.

METHODOLOGY

The methodology for this research paper involved a combination of qualitative research methods. Based on research articles from various sources, such as academic journals, government reports, and news articles, gathered information on the current state of digital education in Bangladesh, its challenges and opportunities, and the impact of technology on education and economic development in the country. Then, in-depth interviews were taken with stakeholders, including educators, policymakers, students, and parents. The interviews were conducted to gather in-depth insights into the challenges faced by the education system in Bangladesh and the opportunities and potential solutions for digital education. Finally, based on the data analysis, a comprehensive framework for improving digital literacy in Bangladesh will be developed, considering the country's unique challenges and opportunities and providing recommendations for policymakers, educators, and other stakeholders.

IMPACT OF NEW TECHNOLOGIES ON EDUCATION IN BANGLADESH

The advancement of new technologies has transformed the way education is delivered in Bangladesh. The government of Bangladesh has initiated several digital education programs, including the "Digital Bangladesh" program, which aims to build a knowledge-based society through the use of information and communication technologies (ICT). In 2019, the government launched the "Ekti Bari EktiKhamar" (One House, One Farm) project, which provides digital education to the children of rural farmers through tablets and e-learning modules. The government has also introduced a "Digital Textbook" program, which provides free e-books to students in primary and secondary schools. These initiatives have helped to increase access to education and improve the quality of education in Bangladesh.

In addition to government initiatives, private organizations and NGOs are also contributing to the development of digital education in Bangladesh. Grameenphone, the largest telecom operator in Bangladesh, has launched the "GP STAR" program, which provides free education to underprivileged children through mobile phones. The program offers interactive learning materials and assessments through mobile applications. Another initiative, "Jaago Foundation," provides free education to underprivileged children through online platforms.

The emergence of Massive Open Online Courses (MOOCs)^[2] has also provided opportunities for students in Bangladesh to access quality education from top universities around the world. Platforms like Coursera, edX, and Udemy offer courses in various disciplines, and many of them are free. MOOCs have the potential to bridge the gap between the education system in Bangladesh and the rest of the world and provide students with skills and knowledge that are in demand in the job market.

Challenges of Digital Education in Bangladesh:

While digital education has the potential to transform the education system in Bangladesh, several challenges still need to be addressed. The first challenge is the digital divide. While the government has made significant progress in increasing access to the internet, there are still areas of the country where internet connectivity is limited or non-existent. This creates a barrier for students who want to access digital education. Moreover, even if internet connectivity is available, not all students have access to digital devices, such as laptops or tablets, which are necessary for digital education.

The second challenge is the lack of digital literacy among teachers and students. Digital literacy has become increasingly important in today's world, especially as technology continues to advance and shape various aspects of our lives. Education is one such area that has been significantly impacted by new technologies, leading to changes in the way education is delivered and received. However, in Bangladesh, there is still a lack of digital literacy among teachers and students, which has hindered the effective integration of technology in education. This paper will analyze the reasons behind the lack of digital literacy in Bangladesh, its impact on education, and possible solutions to improve the situation.

Impact of Lack of Digital Literacy on Education in Bangladesh:

The lack of digital literacy in Bangladesh has significant negative impacts on education, some of which are discussed below:

Limited access to information: Without access to digital tools and resources, students in Bangladesh have limited access to information beyond what is available in textbooks. This limits their ability to learn about new concepts and ideas that are not covered in traditional classroom instruction.

Reduced effectiveness of teaching methods: The lack of digital literacy skills among teachers limits their ability to use digital tools and resources to enhance their teaching methods. This can lead to a reduction in the effectiveness of their teaching, which then impacts students' learning outcomes.

Inability to compete in the global job market: With the world becoming increasingly digital, there is a growing demand for digital literacy skills in the job market. The lack of these skills among Bangladeshi students puts them at a disadvantage when competing for jobs on a global scale.

Hinders the development of critical thinking skills: Digital literacy skills play an important role in the development of critical thinking skills, which are necessary for success in higher education & the workplace. Without these skills, Bangladeshi students may struggle to think critically and analyze information effectively.

Possible Solutions: To address the lack of digital literacy in Bangladesh, several solutions can be implemented, some of which are listed below:

Government-led digital literacy programs: The government can initiate and fund digital literacy programs to train people of all ages and backgrounds to use digital technology. These programs can be run in community centers, libraries, schools, and universities.

Public-private partnerships: The government can partner with private organizations to deliver digital literacy training. Private companies can provide expertise, infrastructure, and funding to support digital literacy initiatives.

Mobile learning: Mobile learning is an effective way to deliver digital literacy training in Bangladesh. With a growing number of smartphone users in the country, mobile learning can be used to reach more people in remote areas and make digital literacy training more accessible.

Community-based training: Community-based training can be an effective way to deliver digital literacy training in Bangladesh. Local communities can organize training sessions and workshops to help people learn digital skills.

Digital literacy in schools: Digital literacy should be a part of the school curriculum in Bangladesh. Schools can provide basic digital literacy training to students, which can help build a strong foundation for their future digital learning.

Public awareness campaigns: Public awareness campaigns can be launched to promote the benefits of digital literacy and to encourage people to take up digital training programs. These campaigns can be run on television, radio, and social media.

Online resources: The government and private organizations can develop online resources and learning materials to support digital literacy training. These resources can be made available for free to everyone in the country.

Training for government employees: The government can provide digital literacy training to its employees, especially those working in the public service sector, to improve the quality of services provided to citizens. This can help build trust and confidence in digital services.

Incentives for digital training: The government can offer incentives such as tax breaks and subsidies to organizations that provide digital literacy training to their employees. This can encourage more companies to invest in digital training programs.

Partnerships with international organizations: The government can partner with international organizations to get support and expertise to deliver digital literacy training in Bangladesh. International organizations can provide funding, technical support, and best practices to improve the effectiveness of digital literacy programs in the country.

Investment in infrastructure: The government and private sector can invest in the necessary infrastructure to support digital education in schools and educational institutions. This includes providing computers, internet connectivity, and other related equipment.

Teacher training: Teachers in Bangladesh need to receive training on digital literacy skills to effectively integrate technology into their teaching methods. This can be done through workshops, seminars, and online training programs.

Access to digital devices: Schools can provide access to digital devices such as laptops or tablets to students who come from low-income families. This can be done through initiatives such as loaner programs or partnerships with tech companies.

CONCLUSION

Digital literacy is an increasingly critical skill in today's technology-driven world. However, Bangladesh continues to face challenges in achieving digital literacy for its citizens. Many people lack the skills and resources needed to

navigate the digital world effectively. Despite this, the government's efforts to provide better access to technology and education, along with initiatives from private organizations and international agencies, offer hope for improving digital literacy rates in the country. Prioritizing efforts to increase digital literacy in Bangladesh is crucial, as this will not only benefit individuals but also contribute to the country's economic and social development. By enabling more people to access and effectively use digital tools, they can better participate in the global economy and take advantage of the opportunities that technology offers. Furthermore, digital literacy can help bridge the gap between different segments of society, promoting greater equality and inclusion.

Biography: Mohammad AtiqurRahman, Assistant Professor of English, Bandarban Cantonment Public School & College. I have been serving as an English faculty for last 14 years. At present working as the Vice Principal of Bandarban Cantonment Public School & College also. The area of my interest is English literature, language and psychological state of both parents and students.

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