Significance of digital literacy in rural education in Bangladesh: A literature review

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Abstract

Purpose: This paper discusses the importance of digital literacy in rural education in Bangladesh, particularly in rural surroundings, and addresses issues that may arise, including the rural-urban digital divide and equity in the provision of quality education in the digital age.

Design/methodology/approach: A descriptive and suggestive literature review was incorporated; whereby secondary resources were used.

Findings: The key findings indicate that the implementation of digital literacy in Bangladesh is unequal, primarily in rural and semi-urban regions because of the low levels of ICT infrastructure and trained personnel that impact negatively on the skills and confidence of learners, although the adoption of digital literacy in the school curriculum and the investment in teacher development is suggested as the solutions, and the recent evidence indicates that the stronger digital competencies play a significant role in increasing the motivation of online learners among teacher trainees.

Research limitations/implications: The research is limited to secondary data and does not involve extensive empirical work in the field. Nevertheless, it provides a basis for future surveys and rural education case studies in Bangladesh

Practical implications: Digital literacy should be integrated into the primary school curriculum, teacher training should be more focused, and rural infrastructure should invest in ICT to provide a substantial opportunity to decrease the digital divide and promote educational equity.

Originality/value: The paper is a synthesis of the literature on digital literacy in Bangladesh in rural education backgrounds that highlights the issue of the digital divide that has remained constant and presents evidence-based suggestions to policymakers.

Keywords: Digital literacy, rural education, ICT infrastructure in rural schools, Bangladesh, teacher training, curriculum development.

1. Introduction

Digital Literacy refers to the ability or competencies, such as the retrieval of information, utilizing digital means of communication, ethical utilization of technology, and producing content. Digital literacy is an essential part of quality education in the era of digital Bangladesh. Digital literacy in the 21st century is a core competency, essential learning environment, and civic practice. In Bangladesh the concept of digital literacy, media literacy, information literacy remains unclear to many people including different educational levels (Tabassum et al., 2024) which is not sufficient to build a knowledge based sustainable society.

71.4 percent internet use by urban residents, as found in the latest BBS survey (FY 2024-25). 36.5 percent of use by rural residents indicates that there was persistent inequality in access to digital devices. Poor infrastructure, high prices, low digital literacy, and inaccessibility to relevant services in rural communities are highlighted by experts as the reasons for such gap. The gap is expanding even in the face of an overall increase in the number of people using the internet and mobiles, although there have been concerns about whether there is unequal availability of education, medical facilities, and economic resources. Researchers call for policy changes, subsidies, on-location training, and low-cost rural internet to narrow the registration, highlighting that it is essential to minimize the disparity to allow every citizen access to national development (Daily Star, 2025). Digital literacy is not only about access to devices but also information retrieval skills, communication skills, critical thinking, and problem-solving (Shadat et al., 2020). Education plays a crucial role in human development, and with the current digital age, digital literacy has become of the same importance. As the use of technology continues to grow fast, learning is no longer reserved in conventional classrooms, and students are turning towards the new tools and platforms that not only improve their abilities but also equip them for the future. Nevertheless, Bangladesh rural societies are still lagging miles behind in this process. Their restriction on resources, infrastructure, and training is what keeps them out of the opportunities that digital education promises. The acknowledgment of the internet as a fundamental right is important in securing equality in education. All rural communities must be equipped with trained specialists who can offer digital literacy and instructions to students. The implementation of ICT courses in most rural institutions and schools is minimal because most institutions do not have qualified teachers to facilitate these courses.

This gap can be addressed by investing in proper infrastructure, training, and community-based programs that enable rural people to take advantage of digital advancements and bridge the rural-urban education gap.

2. Objectives of the study

The research paper is a discussion on the importance of digital literacy in rural education in Bangladesh with special reference to the rural community. Specifically, the discussion covers items like the rural-urban digital gap and the necessity to have access to good education in the digital world. The study emphasizes the long-standing necessity of bridging the rural-urban digital divide and closing the inequality between rural and urban areas as far as access to digital education is concerned in Bangladesh. The aim is-

- to investigate the importance of digital literacy in rural education in Bangladesh.
- to determine and discuss the issues that are encountered by the rural population, specifically the rural-urban digital divide.
- to investigate the necessity of equal opportunities to quality education in the digital age.
- to emphasize the necessity to close the rural-urban digital divide in Bangladesh to enable everyone to have access to digital schooling.

3. Methodology

3.1. Research approach

This paper adopts a descriptive and suggestive research design, with secondary data sources playing a major role in this research. It examines the importance of digital literacy in rural education in Bangladesh. The study method is qualitative in orientation and has a focus on interpretation and analysis instead of measuring statistical.

3.2 Population and sample

In order to collect the relevant information, an extensive number of secondary resources were consulted, encompassing academic journals, scholarly books, government reports, newspapers, periodicals, and published research papers. There were around 20 resources reviewed, and they included publications from 2009 to 2025 to avoid obsolete and recent points of view on the selected topic of digital literacy and rural education. This approach is suitable for exploring concepts, challenges, and patterns related to digital literacy and rural education within the Bangladeshi context.

3.3. Data collection method

Moreover, reliable sources on the internet have been used to a great extent to find the latest information, reports, and discussions among scholars regarding the concept of digital literacy and education in Bangladesh. In this regard, important keywords were used, such as digital literacy, rural education, ICT infrastructure in rural schools, Bangladesh, curriculum development, and youth digital literacy to find the related

literature. The sample of secondary data consisted of a broad scope of academic and official publications, such as peer-reviewed scholarly journal articles on Google Scholar, ResearchGate, Elsevier, and SpringerLink, reports by UNESCO, BRAC, the Bangladesh Computer Council, and other government and development organization websites, and relevant news from The Daily Star newspaper were also collected.

3.4. Analysis

The acquired data and insights were interpreted based on themes to identify the trends, common points of concern, and how the problem of the rural-urban digital divide can be resolved. The review aims to determine the current challenges, gaps, and opportunities in the process of integrating digital literacy in rural learning settings. Through this approach, the study will try to describe the situation but will also offer concrete information to policymakers, educators and development practitioners to encourage equal access to digital education in the whole of Bangladesh.

4. Findings and discussion

A considerable body of literature was reviewed to develop this idea. This section focuses on digital access, resources, and literacy, particularly addressing challenges of digital literacy, mapping the digital divide from various perspectives. Additionally, a gap in the existing literature was identified, highlighting the need for and significance of this study. A study entitled; The nexus between teacher trainees' digital literacy and motivation in online learning concerned a cross-sectional survey of a quantitative type and was undertaken in 485 teacher trainees, purposely selected at the Bangladesh Open University. The questionnaires given to the participants were questionnaires of digital literacy and motivation to learn online, and they were on a five-point Likert scale. The observation found an interesting presence of a positive relationship between digital literacy and online learning motivation (OLM) among teacher trainees at the Bangladesh Open University. Otherwise, the trainees in general demonstrated positive rates (satisfactory) of both digital literacy and online learning motivation. The results show that engagement and efficacy of web-based teacher education programs can be directly increased by enhancing digital competencies (Ahmed et al., 2025).

In recent research where online education in Bangladesh is the subject, and according to which, there are prominent challenges that are experienced by students and teachers, especially in rural and semi-urban regions. The study has established that students tend to have poor internet access and unreliable online systems that interfere with their studies and interactions. Some believe that online classes are inefficient compared to real classrooms, and the inability to combine academic life with their personal lives leads to stress. There are also challenges faced by teachers, which include, but are not confined to, a lack of digital literacy, insufficient training, and the issue of assessment integrity. This paper next stressed that these problems are not

independent and instead they are related to technological disparities, pedagogical adjustment, and institutional backing that lack of uniformity impedes digital learning. Besides, the paper recommended adjustment of infrastructure, provided structured training of the faculty, and restructuring assessments to be equitable and reachable, and suggested the need to have complete context-dependent approaches to make online studies equitable and effective in developing nations such as Bangladesh (Karim et al., 2025).

In their article on the topic of Digital Resources, Digital Access, and Literacy: Mapping the Digital Divide and ICT Learning Challenges among Undergraduate students in Bangladesh, (Aziz & Hossain, 2024) highlighted that in the change of circumstances brought about by the COVID-19 pandemic, world universities have resorted to digital technologies and online teaching as a viable and convenient means of continuing education. It was qualitative research grounded in semi-structured interviews with undergraduate students that indicated that despite numerous digital initiatives launched in Bangladesh, there is still a high level of digital divide because of socioeconomic disparities and also established that ICT education is not effective in developing the requisite digital skills. The authors emphasized the importance of a student-focused learning space that provides equal access to materials and digital literacy, particularly in higher education institutions where technology resources are limited.

Although another study aimed to understand the access of e-reading devices such as e-books and PDFs in rural Bangladesh and whether or not these tools can substitute traditional textbooks, they discovered that during the adoption process, students have increased their use of e-reading to complement their learning; this is because traditional textbooks have become more difficult to obtain post-COVID-19. E-reading enhanced the flexibility and learning performance of the students since they were able to learn anywhere and anytime. They also faced significant obstacles, such as poor internet connectivity, limited access to personal devices, inadequate teacher training, and mobile distractions. The cost-saving made parents feel good about it, but they were concerned with health hazards and excessive screen usage (Munira & bin Ahsan, 2024).

In a study that examined the gender gap in digital competence among 1,059 university students in southwestern Bangladesh, using measures of computer application usage and self-efficacy, the study found that male students consistently outperformed females. Results also showed that older students, those in higher years, and those from wealthier families had stronger digital skills. These findings are discussed by the authors, who believe that gender-sensitive training and policies are necessary to break down stereotypes and provide equal opportunities for all learners in digital education (Hossain et al., 2023).

Another research offers an extensive review as far as issues and difficulties with the Policy implementation in Bangladesh. The research has emphasized that most of the national policies have been put in place to enhance growth and state happiness, but the successful implementation of these policies is still limited due to various structural, administrative, and social-political influences. Their major findings of the review were a lack of accountability, there was little transparency, there was much corruption and misuse of resources, inefficiency in the administration, political and institutional constraints, and suggestions for improvements. (Chowhan et al., 2023). Moreover, the inefficiency of policy can be facilitated by the inadequate institutional structures, excessive centralization, obsolete regulations, and inefficient staff, as well as political pressures and bureaucratic wrangles among the civil servants. The paper highlighted that to achieve better policy outcomes, evidence-based policies, stakeholder integration, adequate resource allocation, effective monitoring and evaluation systems, and participation of the grassroots and full committee to conduct assessments on policies are important. It can be noted that the paper demonstrated that the consideration of these structural, administrative, and political issues is important in the context of ensuring that national policies realize their desired social, economic, and human development outcomes.

In India, a study carried out to investigate the ICT competence of teacher educators in Uttar Pradesh in both government and non-government institutions. The study showed that educators in the field of private institutions exhibited an extremely higher ICT competition than the educators in government departments. The main reason that was made by this difference was that in private surroundings, resources were available and that they had much institutional support. The paper also identified a gender gap in that male teachers were more skilled in ICT than their female counterparts. The researchers proposed that women will not be encouraged to use ICT completely because of societal stereotypes associating it with masculinity. Such results highlighted the importance of focused professional development training, improved allocation of resources, and mentorship to develop ICT competencies in all teacher educators, low-income institutions, and in female educators. By mediating such differences, schools will be better placed to equip teachers in the best way to implement technology in their classroom setting, which will result in quality teaching and learning. (Rubi & Sheikh, 2023).

The researchers, in the article titled The Latent Digital Divide and Its Drivers in E-Learning among Bangladeshi Students during the COVID-19 Pandemic revealed the underbelly of the digital divide in the Bangladesh education system. Most students accessed the Internet and had a smartphone, but a quarter of them were unable to take online classes without issues because of the excessive data price and the lack of connectivity, particularly in rural regions. Students in rural areas were affected in greater proportions as they did not have access to good digital infrastructure in schools,

which caused them to be exposed to poor signals and thus could not learn effectively as compared to their counterparts in urban and city centers (Badiuzzaman et al., 2021). The paper revealed the existence of a multi-level digital divide where students not only experienced inequalities in terms of access, but also in the quality and purpose of using digital tools since students were using them to be entertained and not to study. Further, the authors also contended that in the absence of affordable broadband, more robust rural infrastructure, and enhanced digital literacy, e-learning will become a source of educational inequality in Bangladesh.

Researchers focused on the report concerning the Digital Literacy of Rural Households in Bangladesh that digital skills and competencies keep individuals out of the tech-based services, and the idea of Bangladesh becoming a digital country cannot be realized. The research employed a stratified random sampling and cross-sectional survey design with questionnaires and mini-FGD type of interview. The paper concluded that although Bangladesh achieved gains, many rural communities continue to lag in the digital revolution, with few people with limited skills to access online services to their fullest, whereas problem-solving and practical digital skills are especially weak (Shadat et al., 2020).

On the research of marking Digital inclusion issues in Bangladesh: the case of the National ICT Policy, evaluated the effectiveness and influences of the National Information and Communications Technology Policy (NIP) in Bangladesh, as per the markers of the digital inclusion analytical framework, including ICT access, ICT use, and ICT skills. The paper also highlighted that although the ICT policy of Bangladesh has opened up the country to digital inclusion, rural-urban disparities, affordability, as well as digital lack of digital skills remain factors that keep people behind. The research points out that failure to have better infrastructure, local level support, and focus on equity means a lot of communities will be left behind in the advantages of digitization (Aziz, 2020).

According to a policy brief and survey of BRAC Institute of Governance and Development (BIGD) titled, Digital Literacy in Rural Bangladesh 2019, results showed that there is a presence of basic digital access, digital skills are very low, and access to productively use digital tools is minimal, like online payments, trainings, etc. (Jahan et al., 2020). The majority of households are very weak in terms of digital literacy and cannot cope with tasks such as emailing, video calls, online services, etc. This gap is further increased by regional, income, and educational disparities, although in some instances, female-headed households were relatively skillful. In general, rural populations are still unprepared to enjoy the full benefits of the digital age, thus making it crucial to focus on digital literacy programs.

In the case of investigating the importance of ICT in the rural schools of Bangladesh and discovered that the integration of ICT is very useful in terms of teaching and

learning. The survey revealed that students attending ICT-based schools would say that they found it easier to comprehend the lessons, were happy with the teacher performance, and had access to updated learning materials than their non-ICT schools' counterparts (Saha et al., 2014). Multimedia and e-books, together with access to the internet, enabled more interactive learning, which is more student-centered and thus narrows the rural-urban gap in education. ICT was also attributed to releasing administrative work and was cost-saving due to free digital textbooks, which benefited students with low-income backgrounds mostly. It was statistically found out that institutions based on ICT cost more to run monthly, but provided a higher quality of education, transferred more information in lectures, and took less time in administrative tasks. Although these advantages exist, the authors point out certain issues which include poor infrastructure, teacher training requirements and connectivity. All in all, the paper highlighted ICT as a key driving force behind human capital growth and fulfillment of the Bangladesh vision of "Digital Bangladesh".

According to another study conducted on Exploring Digital Literacy Competencies among the Library and Information Professionals of Bangladesh: Problems and Recommendations, it is observed that the level of digital literacy competence in information professionals in Bangladesh remains at an inconclusive stage to the point that further investment, systematic ICT training, and recruitment of digitally competent information professionals should be done (Siddike, 2010). After conducting the review, two viable recommendations are made, one of them being the implementation of digital literacy in the national school curriculum during the primary level, and the other is professional development of teachers in an attempt to promote digital literacy. These strategies have the potential to both empower educators and students as well as enhance inclusive education as well as prepare young people in Bangladesh to be competitive in the digital economy of the world.

A study was conducted where there has been irregularity in the implementation of digital literacy, particularly in rural and semi-rural areas where access and exposure to ICT infrastructure, trained instructors, as well as digital content is not a nonexistent issue. Therefore, the percentage of learners who cannot acquire the essential digital competencies in those locations is significant, which adversely reflects on their self-confidence, innovative abilities, and educational achievements (Mutula & Wamukoya, 2009).

4.1 Initiatives taken in Bangladesh

Bangladesh has several projects developed by the government, non-governmental, and international projects to enhance digital literacy and fair access to digital opportunities. In 2013, in a project known as Light of Hope, an initiative was set to support solar-powered digital school classes, supplying them with laptops, projectors and localized e-learning resources to overcome the infrastructural challenges (Wikipedia, 2025). An

analogous scenario was the Digital School pilot by the JAAGO foundation that enhanced quality education through video conferencing where learners in remote areas can proceed with learning even during the COVID-19 pandemic, often through the use of bare-bones mobile phone technology (Wikipedia, 2025). Besides making more people have access to Union Digital Centers and smart schools, the Bangladesh Computer Council (BCC) has also educated numerous individuals in the country in ICT and new technologies (Bangladesh Computer Council, 2023). Conversely, the a2i program of UNDP, supported by BCC invited the youth to potential opportunities via AI-driven NISE platform and reached out to learners via MuktoPaath (UNDP, 2025). Globally, the Media and Information Literacy (MIL) campaign by UNESCO promotes important digital participation and counters disinformation at least in part of the Smart Nation Vision 2041 in Bangladesh (UNESCO, 2024). To resolve the digital divide in education, Teach for Bangladesh (TFB) is currently working on the BRIDGE (Beyond Reach -Internet Drive for Growth and Empowerment) program. TFB is developing an inclusive learning space by launching digital devices and enhancing the digital capability of students, teachers, and parents and equip them to succeed in a more technology-fueled world (Teach for Bangladesh, n.d.).

Although several activities aimed at enhancing digital literacy in Bangladesh are undertaken, there is a poor knowledge of how digital tools and online learning can be employed and utilized by students of the university, particularly those living in semi-urban and rural regions. The interrelationship between digital literacy and motivation and the outcomes of learning has not been largely researched and the initiatives put forward have not been thoroughly examined as to whether they work. Further, there is no research on how AI-driven learning scenery is ready for them (students). The Literature review demonstrates that, despite the rising digital literacy in Bangladesh, considerable discrimination persists, particularly in rural and semi-urban regions, and urges the integration of digital literacy in rural education in Bangladesh.

4.2 Importance of digital literacy in rural education in Bangladesh

The literature underlines the importance of engagement and motivation in the digital learning process. Students who are better digitally literate feel more motivated and possess more expertise with the online learning mediums (Ahmed et al., 2025). This proves that the learning outcomes can be directly improved through the development of digital skills. Digital literacy allows students and teachers to make efficient use of the existing digital technologies, and change access to digital devices and online services into useful learning processes. Also, digitally prepared teachers can be more willing to conduct blended and online teaching and encourage interactive and learner-focused lessons. The results reported by the author point to the fact that digital literacy is not just a facilitating ability, but a constituent element of good leadership in rural areas. Furthermore, the absence of digital skills, training, or guidance makes electronic

devices unproductive to many teachers and students despite their availability, as they do not have these skills (Rubi & Sheikh, 2023; Karim et al., 2025). These results prove that digital literacy is an essential element of good rural education and not a supplementary skill.

4.3 Issues encountered by the rural population and the rural-urban digital divide

Despite growing digital initiatives, studies keep on revealing that the digital divide exists and pulls down the ability of students to benefit in online education as there is no equal access to devices, internet connection, and online resources (Aziz & Hossain, 2024; Badiuzzaman et al., 2021; Shadat et al., 2020). Socioeconomic and gender variables are significant as well. Although female learners and students living in low-income families often face additional challenges when working with digital technologies and act with less confidence, male students and their counterparts living in more prosperous families always illustrate better results in the domain of digital competence (Hossain et al., 2023; Rubi and Sheikh, 2023). Such an imbalance means that equal learning opportunities cannot be offered without special support and training; it is not enough to provide access.

4.4 Necessity of equal opportunities to quality education in the digital age

The literature reviewed outlines the importance of equal access to digital literacy in a bid to provide quality education in the digital era. Without having skills and competencies of utilizing digital devices and internet services, which merely provide access to this, then there cannot be sufficient skills and competencies in their use. Digital disparity among students also results in unfair learning experiences and results, especially for those in the countryside, females, and the economically disadvantaged. There is also some evidence that digitally more competent students exhibit greater degrees of engaging, motivating, and learning efficacy, which pushes the need to erase disparities in acquiring these skills (Ahmed et al., 2025). Thus, it is important to close the gap in skills by involving a special digital literacy training to ensure that education remains inclusive and of high quality for all learners.

4.5 Necessity to close the rural-urban digital divide for digital schooling

The findings highly underscore the importance of bridging the rural-urban digital gap in order to have inclusive digital education in Bangladesh. Although the current initiatives have helped to increase access and create learning opportunities, both through government efforts, such as a2i and BCC training, and non-government entities such as Light of Hope, JAAGO Digital School, and BRIDGE by Teach for Bangladesh. They are still limited in their efficiency and reach, especially among pupils who are located too far away or do not get the assistance needed. Also, there is little effort that targets the emergent problems of critical digital engagement and AI learning, which are increasingly growing more important in modern education (UNESCO, 2024; UNDP, 2025).

Overall, the results indicate that there is still a serious problem of a lack of successful incorporation of digital literacy in education in many rural regions of Bangladesh. Most of the teachers themselves are not skilled enough to use digital devices with a lot of confidence, and they do not know any original and trustworthy sources of information presented digitally. During crises like COVID-19 pandemic, such restrictions are even more severe, because it does not always happen that many rural schools have sufficient devices available, and where such devices are available, the teachers and students are not always aware of the digital platforms to utilize and when it comes to the online or blended learning process, they are not always aware of how to engage learners. In addition, lack of internet connectivity in rural areas also minimizes their access to online education. These issues bring out the need to have continuous and affordable internet for teachers and students. Besides the development of infrastructure, precise training and practical learning spaces are necessary to ensure that instructors and students can acquire practical digital skills, build confidence through practice as well and apply technology to optimize learning results. The strategy of enhancing digital literacy via systematic training and practical practice is, therefore, essential in improving rural education in the long-term improvement as well as equipping students and teachers to handle upcoming educational tasks.

5. Recommendations

- Ensuring that the government provides access to all students to reliable internet, affordable digital devices and working virtual classrooms.
- All people are supposed to be able to use the internet. Give both the instructors and the students practical training in digital skills, including gender sensitive programs.
- Promote student-driven learning through interactive websites, e-reading and using digital devices.
- To equip more students, evaluate and rate effective interventions to enhance digital literacy at regular intervals.
- Develop context-sensitive and evidence-based strategies, involving stakeholders and maintaining a watch on them.

6. Conclusion

Although digital literacy has increased over time in Bangladesh, there are still issues, particularly for kids who attend school in rural and semi-urban areas. The current digital divide due to differences in access and resources and capabilities affects learning outcomes and motivation. Digital tools also contribute to the ability of students to benefit, depending on the socioeconomic and gender issues.

More focus is needed to provide both training and infrastructure improvement and support AI-driven learning environments in students, despite the fact that non-governmental and governmental efforts have made significant progress in this regard. With geography and background being no longer an obstacle, all students will have an opportunity to engage in digital education completely and learn the skills they will use later in life as long as these spheres are reinforced.

References

1. Ahmed, M., Sultana, M., Rokonuzzaman, M., & Hossain, M. K. (2025). The nexus between teacher trainees' digital literacy and online learning motivation. *Asian Association of Open Universities Journal,20*(1),40-53. https://doi.org/10.1108/AAOUJ-01-2024-0004.
2. Aziz, A. (2020). Digital inclusion challenges in Bangladesh: the case of the National ICT Policy. *Contemporary South Asia,28*(3), 304-319. https://doi.org/10.1080/09584935.2020.1793912.
3. Aziz, A. & Hossain, T. (2024). Digital access, resources, and literacy: mapping the digital divide and ICT learning challenges among undergraduate students in Bangladesh. *Asiascape: Digital Asia*, *11*(3), 246–267. doi:10.1163/22142312-bja10064.
4. Badiuzzaman, M., Rafiquzzaman, M., Rabby, M.I.I. & Rahman, M.M. (2021). The Latent digital divide and its drivers in e-learning among Bangladeshi students during the COVID-19 pandemic. *Information 12*(8), 287. https://doi.org/ 10.3390/info12080287.
5. Bangladesh Computer Council. (2023). Enhancing digital government & economy projects. Retrieved from https://bcc.portal.gov.bd/sites/default/files/files/bcc.portal.gov.bd/notices/fa10d6bf_9230_44c2_94f1_7193430f399c/2022-04-07-13-58-5aeb0a0998dba240f7076f86daa4ddcb.pdf.
6. Chowhan, S., Islam, M., & Sultana, R. (2023). Challenges and problems in implementing policy in Bangladesh. *Scientific Journal of Research and Reviews, 3*(5), 1–6. https://doi.org/10.33552/SJRR.2023.03.000572
7. The Daily Star. (2025). Internet shows stark rural-urban divide. *The Daily Star.*
8. Hossain M. T, Akter S, Nishu N. A, Khan L, Shuha T. T, Jahan N, Rahman M. M & Khatun M. T (2023). The gender divide in digital competence: a cross-sectional study on university students in southwestern Bangladesh. *Frontiers in Education*, *8*. doi: 10.3389/feduc.2023.1258447
9. JAAGO Foundation. (2025). *Digital School Program*. Retrieved from https://jaago.com.bd/digital-school-program.
10. Jahan, N., Islam, S., Zahan, I. & Matin, M. (2020). *Digital Literacy in Rural Bangladesh: survey 2019.* Dhaka: BRAC Institute of Governance and Development, BRAC University. Retrieved from https://www.researchgate.net/publication/353658493_Policy_Brief_Digital_Literacy_in_Rural_Bangladesh.

11. Karim, S. M. S., Parvin, S., Ahmed, C. B. U., & Hossain, M. T. (2025). Teachers' and students' perceptions of online education in Bangladesh: challenges and solutions. *Discover Education, 4* (234). https://doi.org/10.1007/s44217-025-00653-w.
12. Munira, S., & bin Ahsan, W. (2024). E-reading adoption and digital literacy in rural Bangladesh: overcoming barriers and improving educational outcomes. *Userhub.* https://doi.org/10.58947/journal.rkmd65.
13. Mutula, S., & Wamukoya, J. M. (2009). Public sector information management in East and Southern Africa: implications for FOI, democracy and integrity in government. *International Journal of Information Management*, *29*(5), 333–341. https://doi.org/10.1016/j.ijinfomgt.2009.04.004
14. Rubi, & Sheikh, M. (2023). ICT skills in the context of teacher educators: an analytical study. *International Journal of Novel Research and Development, 8*(5), 904–908. https://www.ijnrd.org
15. Shadat, M. W. B., Islam, M. S., Zahan, I., & Matin, M. (2020). *Digital literacy of rural households in Bangladesh (Working Paper No. 02).* Dhaka: BRAC Institute of Governance and Development (BIGD), BRAC University. Retrieved from https://www.researchgate.net/publication/353658642_
16. Siddike, A. K. (2010). *Exploring digital literacy competencies among the library and information professionals of Bangladesh: problems and recommendations*. Fifty-Fifth ILA National Conference on Library and Information Science in the Digital Era. Retrieved from https://core.ac.uk/download/pdf/290483547.pdf
17. Tabassum, R., Elahi, M. H., & Begum, D. (2024). Media and information literacy self-efficacy of LIS students in Bangladesh. *The International Information & Library Review, 56*(2), 118-134. https://doi.org/10.1080/10572317.2023.2264129
18. Teach For Bangladesh. (n.d.). *Digital Literacy & EdTech*. Retrieved August 24, 2025, from https://teachforbangladesh.org/impact/edtech/
19. UNESCO Dhaka Office. (2024). *Media and information literacy initiatives in Bangladesh.* Retrieved from https://www.unesco.org/dhaka
20. United Nations Development Programme (UNDP) Bangladesh. (2025). *Empowering youth with digital skills and AI.* Retrieved from https://www.undp.org/bangladesh/news/empowering-youth-digital-skills-and-ai.
21. Wikipedia (2025). *Light of hope*. Retrieved from https://en.wikipedia.org/wiki/Light_of_Hope.

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