# Digital Literacy: A Question of Capacity and Safety in the Post-Pandemic Networked World

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# **Abstract**

In this paper, I will address the need to get accustomed to digital literacy in the post-pandemic networked world in the Bangladeshi context. The unanticipated arrival of the deadly coronavirus radically changed the traditional learning zone by shifting it to digital platforms. As a result of this drastic change, in the post-pandemic era, many parts of education still use digital tools to sustain effective modes of knowledge production and transfer. However, digital forums are technology-driven, and the websites contain various unreliable texts. Using these digital tools and utilizing the knowledge effectively and ethically requires an inevitable enhancement of digital literacy among Bangladeshi students (and teachers) at the tertiary level. In this paper, I investigate the challenges related to the capacity and safety of digital literacy and offer recommendations to overcome possible hurdles. I have used the autoethnographic qualitative research method to establish my claim. Secondary data are collected from existing relevant literature to strengthen the research findings and offer a comprehensive analysis. Through this article, my targeted readers, primarily teachers and students at Bangladeshi universities, will get into a dialog and negotiate their positions to navigate digital literacy in their academic and professional areas of study.

Keywords: Digital literacy, capacity, safety, post-pandemic, distance learning.

# Introduction

Before the sudden upsurge of Covid-19, teaching and learning in Bangladesh were mostly classroom-based. Although using digital tools has become one of the popular pedagogical strategies for many educators, a significant proportion of educational practitioners still prefer the traditional mode of instruction. We still believe a classroom can be interactive and engaging without using any digital tool. The reason behind this optimistic belief is not ominous. We have been digitally equipped but ignorant. The onset of the pandemic made us cognizant of our lack of digital literacy because "The field of education has also been one of the areas that has been rapidly and significantly affected by the pandemic" (Kasimoglu et al., 2022). The mode of education essentially switched to distance learning which we have still sustained for various educational purposes, especially in hybrid modes. This paper aims to investigate the challenges related to digital literacy in the Bangladeshi context in the post-pandemic era and provide recommendations for enhancing digital literacy among students and teachers at the tertiary level.

# Literature Review

Distance learning is not a new concept. It dates to the 18th century when distance education "began in the form of education by letter, continued with radio, television, teleconferences, cassettes, faxes, video conferences, and finally, the internet" (Kasimoglu et al., 2022). With the emergence and usage of the internet across the world, the teaching style, defined as "teaching by letters," has started to be recognized by many different names such as "learning at home," "open education," and "distance education" (Kasimoglu et al., 2022). Due to distance learning, knowledge "is no longer stored in deposits (libraries, archives) where it is necessary to go to keep it but is accessible through those same screens which are increasing its diffusion" (Rivoltella, 2008, p. 219). As a result, educators, learners, and researchers now get more opportunities to work in collaboration. Where traditional education offers teachers and students a chance to interact face-to-face, distance learning provides a newer and more innovative opportunity to communicate via technological tools and devices. To use these technological and digital tools for educational purposes requires a certain degree of literacy: digital literacy.

Literacy generally refers to one's ability to read and write in different situations and contexts. In contrast, digital literacy refers to the capacity to use digital tools and platforms for seeking and offering knowledge. Wei defines *digital literacy* as "the ability to search, evaluate, and compose information and do tasks through digital equipment and internet in study, work and social life" (Wei, 2022, p. 2726). The idea of digital literacy was first defined by Paul Gilster

(1997), who claimed that digital literacy is "the ability to understand and use information in multiple formats from a wide variety of sources when it is presented via computers" (Lankshear, 2015, p. 9).

However, Gilster, in his 1997 book *Digital Literacy*, elaborately discusses the importance of knowing how to use digital websites and tools effectively and ethically. USAID shares "two pillars of digital literacy: capacity and safety. Capacity is the hard skills people need to access the internet and utilize variety of digital platforms," whereas "Safety encompasses the soft skills of using digital tools safely" (USAID, 2022, p. 9). Capacity comes with a few challenges in possessing well-configured digital equipment, whereas safety issues arise concerning the ethical considerations involved. A multitude of web sources disseminates misinformation and misleading, unethical content. As a result, ensuring these sources' credibility, reliability, and trustworthiness becomes challenging. Lankshear states that "Digital literacy involves interacting with information and interacting with information is about assessing its truth (or validity), credibility, reliability and so on" (Lankshear, 2015, p. 11). Therefore, it is crucial to be ethical and digitally literate when employing digital tools for educational objectives.

# Emergence of Digital Literacy During COVID-19 Pandemic

The transition of the education system to online digital platforms resulted in a significant digital divide among teachers and primarily students. Half of the students needed digital tools. Also, the inadequate internet connection played a vital role in impeding learners' progress. The frequent interruptions of internet connectivity from both ends led to significant issues and disruptions. To overcome this challenge, many mobile phone companies, as we witnessed, offered a bundle of internet packages at low cost. Smartphones have become more affordable. Even to tackle the issue, universities like Brac University "built an e-learning platform of its own" (Iqbal, 2021). It temporarily built capacity among digital users and gradually came to a sustainable point.

The emergence of the pandemic has accelerated awareness in third world developing countries like Bangladesh regarding the importance of digital literacy like never before. COVID-19 catapulted the entire education system into remote learning. It is great that education systems swiftly decided to shift the traditional mode of learning to virtual and digital platforms to sustain the knowledge transfer process. Hobbs writes, "Participating in an online community provides a means to cultivate transfer of learning." (Hobbs, 2008, p. 237). To ensure effective learning, universities, colleges, schools, UGC, and the government offered various trainings to empower best and inform teachers to use technology and digital media. Free or funded computer classes were offered to primary-level teachers. We, university teachers, also did

workshops on using Google Classroom and Zoom to conduct and record our live lectures. Although there were challenges in building capacity among the users, "there is satisfactory interaction in distance education among instructors and learners; the content is well-designed, and up to date, the instructors are committed, and trained with the skills and possess the required knowledge. (Adnan and Anwar, 2020, p. 46).

Even in the post-pandemic era, when many learners and students dealing with disability, mental and traumatic issues still prefer enhancing their knowledge through digital and virtual media, digital literacy becomes a means of education as a complement to the traditional mode of teaching and learning. For example, in all my Ph.D. courses at North Dakota State University, teachers have retained the option of Zoom classes for the students who cannot attend the classes in person. The university system ensures that the classrooms are well-equipped with digital multimedia support and that the educators are digitally well-literate. When the graduate students joined the department as graduate teaching assistants, the NDSU IT section offered thorough training on using classroom equipment to stay digitally sound. Both teachers and students, by the course of the pandemic period, have become digitally literate. Even in the post-pandemic era, submissions are still paperless for most cases. The university uses online platforms like Blackboard, TopHat, and Jamboard to help learners with online submissions and make their academic lives easier.

Given the substantial increase and widespread adoption of digital literacy, writing instructors and other teachers have embraced multimodal pedagogical approaches to accommodate students with various forms of impairment. In Bangladesh, when we first started teaching online courses due to the pandemic, we had to work almost double our office time. We were digitally equipped but needed to be literate. Everything was new to us. We prepared PowerPoint slides for conducting in-person classes during pre-pandemic slides. However, it was a whole new experience when we had to prepare an online class-based PPT lecture. I opted for the multimodal teaching style, which, as Pérez-Marín et al. define, "is the combination of multiple modes of knowledge representation such as oral and written language, visual, gestural, tactile, and spatial representations" (Pérez-Marín et al., 2022, p. 79). Many students lacked well-configured digital devices to participate in live online classes. Even when they possessed such devices, the internet connection was often insufficient to sustain a one-and-a-half-hour live-streaming Zoom class. Consequently, I prepared a thorough and precise PowerPoint presentation for each class.

However, creating PowerPoint documents may seem straightforward, but when used as teaching tools, numerous sensitive issues must be carefully considered. Individuals from the Arts and Humanities faculty were not previously exposed to "text design," which encompasses

more than just knowing how to use MS Word for specific purposes. To create an inclusive and equitable learning zone for my students, I integrated diverse modes of texts, including audio and visual. I had to independently determine the visual layout of my PowerPoint slides and carefully consider how I should present myself in tone and delivery during my audio lecture. I knew that "The effective use of digital technology in schools also requires profound changes in teachers' digital literacy" (Li & Yo, 2022, p. 3). Therefore, I remained teachable and worked hard to first literate myself digitally.

To prepare a PowerPoint document, we first consider its design. MS Office offers quite a good number of simple and eye-catching designs. Google has even many more. However, when choosing a design for a specific topic, the colors—the background and text—play a vital role. The choice of color depends on the genre, audience, purpose, and situation. As the presentation catered to an academic genre and targeted undergraduate learners as the audience, I opted for a predominantly light background in the slides. Robin Williams, in the seventh chapter of his book The Non-designer's Design Book (1994), suggests, "colors tend to be either on the warm side (which means they have some yellow or red in them) or on the cool side (which means they have some blue in them) ... cool colors recede into the background and warm colors come to the front" (Williams, 1994, p. 103). By using appropriate colors and images, I did not only prepare study material for, let's say, the Glorious Revolution, I understood and applied "basic principles of visual communication in order to design documents that are effective for their intended users" (Brumberger, 2018, p. 112). I felt glad that my students found those materials helpful. I may not use the same PPT lecture for classroom teaching because the situation is different. All situational awareness results from getting accustomed to the idea of digital literacy.

# Concerns About Digital Safely

Digital literacy is a boon for aspiring researchers due to its vast potential and abundant opportunities for open and collaborative work. However, it can also become a bane if not used ethically and responsibly. Digital safety is a longstanding unresolved riddle in the networked world. When our education system adopted remote learning methods to sustain the progress of the students, learners in huge numbers took its disadvantage and used the tools unethically. We encountered and had to examine plagiarized manuscripts directly copied from many online sources. The teachers endeavored to humanize digital education by crafting creative questions. Despite these efforts, learners still resorted to copying answers from various websites. Kasimoglu et al. point out, "the rapid access to information leads distracts them from creativity causing individuals to be lazy as everything is prepared for them"

(Kasimoglu et al., 2022). Due to indolence and lack of proficiency in digital literacy, students inadvertently and, sometimes, intentionally commit this serious error.

Those periods evoke a sense of nostalgia! Nonetheless, after the global pandemic that profoundly disrupted societal norms, we have transformed a digitalized way of life, particularly in education. There are challenges to remaining safe and ethical while voraciously consuming digital materials. However, by actively seeking opportunities to recover from setbacks and reevaluating digital literacy as a valuable learning area, we can effectively harness digital tools to enhance our knowledge and skills to their fullest potential.

# Concerns about Capacity

Adnan and Anwar suggest, "Online courses are provided by hundreds of institutions, but two problems exist. First, from a macro viewpoint, very little is established regarding the effects and efficacy of online education. Second, the capacity to successfully teach digitally is likely to differ based on the wide range of learning goals that guide our instructional and educational priorities" (Adnan & Anwar, 2020, p. 45). In that case, CCCC's Position Statement on Teaching, Learning, and Assessing Writing in a Digital Environment, which published assumptions and challenges in 2004—long before the pandemic hit the world—shows a few useful directives. The importance of becoming digitally literate is a vital concept in this statement. It guides educators to design courses that would "introduce students to the epistemic (knowledge- constructing) characteristics of information technology" and "provide students with opportunities to apply digital technologies to solve substantial problems common to the academic, professional, civic, and/or personal realm of their lives" (CCCC Position Statement 2004).

Moreover, first-year students in many Bangladeshi universities must take a core course in the Computer Science department. Unfortunately, it is not the same for every university in the country. Many English departments need to offer fundamental computer classes to English majors. I did the first year of my undergraduate program at East West University in 2011. I am glad I took the Basic Computer Skills course in my first semester there. The young faculty from the computer science department taught us basic computer skills. In the second year, I transferred my credits to ULAB, where I found students doing their computer classes in their first semester. Both universities' English departments are undoubtedly, well-structured and outcome based. The foundation or core courses can build capacity among the learners.

However, many other universities do not offer general education courses, including Basic Computer Skills, to the students. As a result, students lack basic computer literacy, which also

creates a significant gap in their digital literacy. Thanks to the University Grants Commission of Bangladesh for taking measures and making many universities work on their syllabi following an outcome-based education system. As soon as these English departments implement a new syllabus, students will start to know, learn, and understand computer literacy. At least, the capacity to use digital devices for educational purposes will be ensured.

The aforementioned way is a lengthy process as it takes some time for the universities to implement the outcome-based syllabus and make the students better users of technological devices such as laptops, computers, and smartphones. Even for smartphones, it took a whole pandemic to make many users of smartphones understand and confess that smartphones can be a useful educational tool. Moreover, there has been a negative mindset among students, which is mostly caused by the generation gap between teachers and students. Many students considered their instructors inefficient and incapable of using digital tools in online classes. A Bangladeshi columnist Faisal Bin Iqbal published an article in The Daily Star in 2021 in which he mentions that the students "say most instructors do not know how to make use of the technology to conduct these classes. However, these students often forget that many of these teachers did not grow up surrounded by such technology" (Iqbal, 2021). Still, teachers did and still do what the CCCC statement (2004) suggests, that is to "provide for the needs of students who are place--bound and time--bound."

# Bridging the Gap

It is now a vital responsibility of the students to learn and the institutions to create appropriate learning zones to discuss, know and understand digital literacy to enhance their hard skills and soft skills digital literacy. Nonetheless, in the post-pandemic era, when some portions of education like thesis and dissertation are permanently shifted to digital media, understanding digital literacy becomes a pivotal issue. Students need to know how to participate effectively and critically in a networked world because only capacity is not enough as it does not ensure safety. NCTE's position statement, "Definition of Literacy in a Digital Age" (2019), raises a set of questions to evaluate and assess learners' capacity and sense of safety of using digital platforms as educational tools. A few of the questions are as follows:

- Do learners select, evaluate, and use digital tools and resources that match the work they are doing?
- Do learners analyze information for authorial intent, positioning, and how language, visuals, and audio are being used?
- Do learners find relevant and reliable sources that meet their needs?
- Do learners select and use appropriate tools and modalities for audience and purpose?

• Do learners take responsibility for communicating their ideas in a variety of ways with different modalities and clear intentions? (NCTE, 2019, para 6)

All these questions indicate that users' sense of ethics and responsibility are vital to learning and mastering digital literacy. When the question of ethics comes, consulting with ethically produced digital texts becomes essential. In the age of misinformation, a text's credibility matters as much as its existence. Teachers, while doing their research work, and students, while working on their educational project, must think of the ethical aspects of digital literacy more. Frank Baker comments in one of the NCTE position statements, "Understanding how to identify credible sources is a critical skill and an important step toward full digital citizenship" (Baker, 2021, para 23).

# **Understanding Digital Contents**

Now the crucial questions are: How can we determine the credibility of a digital text? How can we know whether the source of credible and trustworthy or not? Many researchers have already worked on the credibility of online sources. For the students and young researchers, I may refer to the University of Texas-El Paso website, in which UTEP Connect publishes "4 ways to differentiate a good source from a bad source". It suggests that students should check the domain name of a website first. Among the three letter suffixes like —edu, -com, -gov, and —org, ".edu and .gov websites are credible," but it also asks students to "beware of sites that use these suffixes in an attempt to mislead" (UTEP Connect, para 2). Having a close look at the text and finding the author's information and date of publication is also important to determine its credibility. Students read and refer to websites like Wikipedia, Sparks Notes, personal blogs, social media posts, etc. UTEP suggests that these websites "can be used to fuel further research but shouldn't be relied upon as sources of dependable information" (UTEP Connect, para 7).

Purdue Online Writing Lab can be a great source of looking for citations and guidance. It also suggests that "While there is no universal rule for whether a website's domain extension makes it credible, it's important to know that .com, .org, and .net domain extensions can be purchased and used by anyone. However, the .edu domain extension is reserved only for educational institutions, and the .gov domain extension is only used by governmental institutions." (Purdue OWL, para 5). However, many websites have .org and still can be reliable as they are parts of government and educational affiliations. Now learners may know where to get the study materials for ethical research and which websites they might ignore.

Also, online databases can be confusing. However, sources like JSTOR are great for consulting and referring to secondary materials for supporting the research argument of a primary text. Students at ULAB, like students at a few other good-ranked Bangladeshi private universities, have access to JSTOR, which helps them emerge as aspiring researchers. JSTOR offers citations too, so it becomes easier for the learners to cite the source effectively. However, it is always important to double-check the citation style from digital guidebooks like Purdue OWL, which is a reliable source to consult APA, Chicago, or MLA citations.

All these practices make a learner a better and more ethical user of digital tools. These are part of digital literacy to be addressed by our students. Moreover, students' rhetorical awareness helps them opt for safer digital options as "Rhetorical invention in networked digital contexts arises from user interaction both with archives and with other users" (Eyman, 2015, p. 67). In dealing with a text digitally, students make the best choice when they are rhetorically aware of the text's source, author, purpose, and credibility. It is the teachers' job to make them aware of digital rhetoric, which is way beyond the classical idea of Cicero or Aristotle's rhetoric concept (incorporating Kairos, logos, ethos, and pathos). Making explicit links to e-safety is beneficial for the researchers' ethics and for ensuring a strong position against plagiarism.

Although terms like "digital" or "technology" do not sound like they belong to the Arts and Humanities faculty, it is high time we thought of including them in our discipline and across the conventional curriculum. Like Rhetoric, which has long been a subject of communication studies and later included in English studies, digital literacy deserves to be read, understood and taught in the discipline. Besides offering an introduction to basic computer skills course, universities can offer a course entirely on digital literacy to the students of all departments. Research is not department-bound. It is for all students. Therefore, a full-fledged course can be offered to the students.

# Conclusion

When new teachers are recruited, they are offered various pedagogical training and workshops. In the post-pandemic era, knowing and understanding digital literacy and spreading knowledge among students must be a part of the job responsibility. Before informing the students about the safety concerns of digital literacy, we must expect a better result from their online research. Many techs savvy people need to be made aware of e-safety because this issue is not much discussed in the academic and professional spheres. Digital literacy, like writing, is a process and a collaborative work that requires the active involvement of the stakeholders who supply digital devices, the authorities who offer effective training and workshops on capacity building, teachers who would learn and then inform the students about it and students who would

finally implement the knowledge of digital literacy and emerge as efficient self-directed learners and researchers.

To conclude, enhancing digital literacy among teachers and learners goes beyond providing access to and training in building the capacity to use digital devices. It is no longer a sectoral issue in the post-pandemic era. While bringing unimaginable and unfathomable losses, the pandemic comes up with this blessing in disguise, for which now the learners can avail opportunities and acquire knowledge from many digital sources. It is indeed a global issue, but it is to be handled and tailored based on local needs, demands, and supplies. The public and private sectors must work collaboratively to ensure digital literacy among educators and learners. There is a proverb, "When you walk alone, you walk fast. When you walk together, you walk far". So, a collaborative march towards the way of digital literacy while ensuring its capacity and safety can make us, as a nation, go a long way and help us contribute our ideas and knowledge in the world forum that is also digitalized.

# References

- Adnan, M., & Anwar, K. (2020). Online Learning amid the COVID-19 Pandemic: Students' Perspectives. *Online Submission*, 2(1), 45-51.
- Baker, F. W. (2021). What Will We Do about Internet Literacy? https://ncte.org/blog/2021/12/will-internet-literacy/
- Brumberger, E. (2018). Designing teaching to teach design. *Teaching professional and technical communication: A practicum in a book*, 105-121.
- Eyman, D. (2015). Digital rhetoric: Theory, method, practice. University of Michigan Press.
- Hobbs, R., & Rowe, J. (2011). Creative remixing and digital learning: Developing an online media literacy learning tool for girls. In *Gaming and Simulations: Concepts, Methodologies, Tools and Applications* (pp. 971-978). IGI Global.
- Iqbal, F. B. (2021). Online Education: A failed experiment? The Daily Star. https://www.thedailystar.net/shout/news/online-education-failed-experiment-2923396
- Kasimoglu, S., Bahçelerli, N. M., & Çelik, M. U. (2022). Digital literacy during COVID-19 distance education; evaluation of communication-based problems in line with student opinions. *Frontiers in Psychology*, *13*, 809171.

- Knobel, M., & Lankshear, C. (2006). Digital literacy and digital literacies: Policy, pedagogy and research considerations for education. *Nordic Journal of digital literacy*, 1(1), 12-24.
- Li, M., & Yu, Z. (2022). Teachers' satisfaction, role, and digital literacy during the COVID-19 pandemic. *Sustainability*, 14(3), 1121.
- Luke, C. (2003). Pedagogy, connectivity, multimodality, and interdisciplinarity. *Reading research quarterly*, 38(3), 397-403.
- NCTE 21st Century Literacies Definition and Framework Revision Committee. (2019).

  Definition of Literacy in a Digital Age. https://ncte.org/statement/nctes-definition-literacy-digital

  age/#:~:text=Having%20knowledge%20and%20understanding%20of,in%20ways
  %20that%20match%20purpose.
- Pérez-Marín, D., Paredes-Velasco, M., & Pizarro, C. (2022). Multi-mode digital teaching and learning of human-computer interaction (HCI) using the VARK model during COVID-19. Educational Technology & Society, 25(1), 78-91.
- Rivoltella, P. C. (2008). From media education to digital literacy: A paradigm change? In Digital literacy: Tools and methodologies for information society (pp. 217-229). IGI Global.
- Sthanumurthy, K., Church, K., & Sapara-Grant, A. (2022). *Digital Literacy Primer*. USAID. https://www.usaid.gov/sites/default/files/2022-05/USAID\_Digital\_Literacy\_Primer.pdf
- Taskin, B., & Ok, C. (2022). Impact of digital literacy and problematic smartphone use on life satisfaction: Comparing pre-and post-covid-19 pandemic. *European Journal of Investigation in Health, Psychology and Education*, 12(9), 1311-1322.
- UTEP Connect. (n.d.). 4 ways to differentiate a good source from a bad source. https://www.utep.edu/extendeduniversity/utepconnect/blog/march-2017/4-ways-todifferentiate-a-good-source-from-a-bad-source.html.
- Wei, Y. (2022). Digital Literacy in Education: From Local to Global. 2022 8th International Conference on Humanities and Social Science Research (ICHSSR 2022),

- Williams, R. (1994). The non-designer's design book: design and typographic principles for the visual novice. Berkeley, CA: Peachpit Press, [1994] ©1994. https://search.library.wisc.edu/catalog/999808866502121
- Yancey, K., Lunsford, A., McDonald, J., Moran, C., Neal, M., Pryor, C., . . . Selfe, C. (2004). CCCC position statement on teaching, learning, and assessing writing in digital environments. *College Composition and Communication*, 55(4), 785-790.