Analyzing the Emerging Trends of Digital Literacy Among Muslim Students Zahid Hussain

Zahid Hussain[✉]

Shaheed Benazir Bhutto University, SBA, Sindh, Pakistan
Zahidhussain9341@gmail.com

Abstract. The purpose of this investigation was to gain a comprehensive understanding of current technologies among Islamic university students so that they could make wise and stable use of their literacy online. We think that students' ability with ICT is directly related to how well they use digital technology resources. We decided to base our study on data discoveries that have been published in a number of journals that are accessible through the Google Scholar information web browser and were published between 2010 as well as 2021 in order to make it simple for readers to understand. To find accurate and trustworthy data, we apply analytical research under phenomenological research. For instance, during the data evaluation process, we examine, assess, and analytically analyze the results before coming up with conclusions that address the study's research questions. One conclusion is that students are able to access learning materials using their understanding of online media to comprehend digital literacy. Individuals had also got training and then used internet devices responsibly, resulting in their favourable and smart use of digital technology as an extra reference resource for appropriate and sensible speech, sports, and entertainment components. Future research should be able to benefit from these research results.

Keywords: digital literacy · muslim students · ict trends · internet

1 Introduction

Technological and scientific advancements have currently accelerated people's existence, and those who pursue new technologies must develop their responsibilities and abilities [1]. The key to meeting these changing requirements is adapting to new developments in big data, including cell-phones, laptops, notebooks, social media platforms, and internet networks. These innovations enable communication and interaction without regard to time or place. The concept of industrial revolution 4.0 has been developed globally as a result of the rapid technological advancements in information technology [2]. Additionally, it affects social paradigms in developed nations like Pakistan as well. For clarity's sake, let's define the Industrial Revolution 4.0 as an age of a digital revolution that transforms human activities from their conventional prior experiences toward a modern generation of life supported by multi-dimensional innovation. Despite

the unpredictable environment, people will continue to exist. People therefore need to be capable of anticipating sudden changes in the future. Each country must respond to such advancements in a comprehensive and holistic manner.

2 Literature Review

This response involves all international political participants from the governmental, corporate, educational, social, and interdenominational communities in order to address the concerns of Industry 4.0. Industrial development is a human-centered manufacturing customer that places a premium on creativity in the utilization of industrial technology. This requirement applies to both producers and makers across all technology models, which includes those who generate computerized systems for usage in education and the workplace. Asserts that people with digital literacy are able to comprehend and use a variety of digital sources for a wide range of purposes in both their personal and professional lives [3]. They contend that e-learning, in addition to more widely dispersed technology, can help people use information and technologies on electronic devices efficiently, effectively, smartly, and responsibly in a variety of contexts, including higher education, the workplace, and everyday life. Therefore, irrespective of whether it is acceptable to outline in the following or substance from the most recent media, it is simpler for the general public to obtain and distribute the information they require. People are turning away from printed materials and toward their advanced technologies because of the convenience and effectiveness of web-app devices that are internet-connected. Without attempting to deny printable texts, the expansion of digital mainstream media also offers greater e-commerce marketing opportunities, new employment options in the sector, and the improvement of reading skills [4].

Additionally, digital literacy techniques aren't only controlled by students who currently need to be semi-technical, but now specialties like motorized vehicles or taxi cabs, social network analysis, and online marketing are developments in digital inside the internet age, and they are already extremely competent and capable of performing efficiently. AI technology is required. Even so, according to [5], a growing number of youngsters in the millennial age are using social networks even though they contain data for their work, entertainment, and skills training in addition to their education. Additionally, he noted that as online technology improved, youngsters both in urban and rural areas began to use advanced technologies excessively [6]. Perhaps one of them involves looking on the internet for content that is inappropriate for their age but not predicated on their interests.

Additionally, the existing use of social networking sites is driven primarily by identifying individuals in the context that forming connections with other people is crucial. It involves updating statuses or leaving comments on or liking photos posted on the other person's social media accounts [7]. Developments in IoT must be researched and utilized as much as possible for more beneficial purposes, including boosting psychological and cognitive skill sets in digital technology and searching for data pertinent to learning achievement. As a result, there are numerous unpleasant examples, such as internet bullying, cyber-attacks, and youth sexual assault [8].

Additionally, it has been demonstrated that students' as well as teenagers' digital literacy abilities must be exposed to growing internet penetration for academic purposes, which represents a step along the way to prayer. By wanting to avoid helping students acquire times that have no connection with lectures, the favourable internet among Muslim students must function. The research of digitalization coaching for both educators and parents on the advantages of parenting apps to protect teenage addiction programmes is examined by Spante et al., 2018, in their article [9]. Since several websites have been identified by actual experts as having inappropriate material, it is hoped that this will prevent children, youths, and elderly people from displaying content that's also inappropriate for each other.

According to the internet, Muslim youths already have a rising digital literacy level. Teenagers have varying levels of online literacy according to the content of the components they evaluate, elevated concentrations of hypermedia digital literacy, and stages of digital understanding that serve as the foundation for their evaluation. They are still in the middle. Accordingly, believes that education providers are necessary in the age of digital technology. Although it has been broadly accepted, there are still numerous students who haven't efficiently and favorably utilized all-digital services. The misappropriation of electronic technology has the capacity to harm the interpersonal and personal lives of students in Islamic academic institutions. It is recommended that literacy skills can be developed into digital-age individuality for a religious society and human team in Muslim nations when it comes to involvement and poll results online. It is essential to increase the digital literacy skills of Muslim students to develop the identity of a devout and righteous Muslim ummah. University digital literacy programmes must cover hardware and software, data and information communication and formation, as well as historic and cultural circumstances [10].

Acknowledging these important advantages and components will enable the development of digital literacy educational methods and resources for use both within and outside of the lecture hall. The primary purpose of this research is to learn more about how students studying digital literacy feel about the 20th century. On either hand, there will be new issues when defining educational experiences in the industrial age with digital media, such as using technology capabilities with the right and centre goals. The next step is to illustrate students' anticipations of developing digital literacy during the Industrial Age in a way that will give them a competitive advantage in the classroom. The accessibility to the internet and its wealth of information from all fields expands the viewpoints of students. Children who use the internet might develop new perspectives. Students are able to comprehend concepts more easily when they have a wide range of essential information, particularly in their study area. University digital literacy programmes must cover hardware and software, data and analysis, communicating and formation, as well as historic and cultural circumstances.

In light of the Industrial Era 4.0, this study may subsequently help provide both students and teachers in particular with explanatory quantitative information about their digital literacy. 18. The aim of this research is also to advance knowledge of the value of using digital literacy to discuss the technological revolution 4.0 in academic achievement

in higher education institutions, specifically universities. Sociocultural and evidence-based research ought to be the basis. Thus, graduates of university education are prepared to face difficulties in an era of expanding social life for individuals [11].

All people, young and old, in urban and rural areas, who need guidance and assistance connected to digital literacy. Students in a simple Islamic source should be adequately prepared with knowledge of the benefits and uses of digital technology; nothing less and nothing more, but a perfect and stable internet literacy, even if technology is something that isn't learned but nonetheless comes. Given that not all ethnic groups in Pakistan fully understand it, the term is still pretty recent. The ability to read, understand, and appreciate a variety of types of communication, such as talking, publishing, mainstream press, and reasonable and smart digital and online formats, is included in literature. Even though students are indeed people who require incredible understanding and balance, this awareness and briefing are crucial. At least the primary source of prior knowledge can be found online. Digitalization has become a hallmark of the twenty-first century in many spheres of life, such as education.

In the twenty-first century, information-literate students must recognize the requirement for information, formulate data study questions, and create research techniques. Since learners are increasingly demanding rapid and efficient access to information, critical analysis of information, and appropriate and correct usage knowledge in accordance with Sharia regulations as well as the Muslim culture, students from Islamic universities have particular regulations in terms of guidelines, which have been required to enhance the quality of education but which, as a foundational element of Islamic classes, could be filed for divorce from God [12].

According to a recent study, mainstream press literacy is essential for engaging in the socioeconomic issues-related sports, performance results, simulation models, cognitive flexibility, comprehension, collective knowledge, judgment, multimedia navigation, connectivity, and mediation that are part of the modern world. But also, because Islamic university students are the intended audience, Islamic elements and material demand are an integral and essential issue with obtaining the data itself.

The mainstream press as well as other internet resources are critical to the achievement of the consistency and growth of data and communications in the university context, in addition to the variables of digital beneficiaries and consumers. Because more students choose the internet as their primary source of knowledge and assistance when they are having issues with their education, life, relatives, and society, the use of digital technology is expanding [13]. The primary component of the 21st-century educational paradigm change is the digital era, whose superiority and efficiency have been demonstrated to significantly benefit the campus community. Learning is now more process-focused than content-focused thanks to innovation. By using e-learning, teachers can now provide their students with the intellectual skills they need to succeed in the information era by using e-learning. Problem-solving, common sense, creative thinking, self-study techniques, conceptualization, and rationale are all necessary for managing large quantities of data. Along with learning to read, digital literacy requires extra skills. Muslim college students must have the ability to analyze and produce media to aid in their studies. They should be able to evaluate, analyze, and use data effectively and efficiently, as well as

utilize and maintain knowledge and implement a wise and constructive understanding of legal and moral concerns with accessing information and then using it.

This study aims to identify distinctive digital literacy skills among many Islamic university graduates in the period of Industry Revolution 4.0 in order to analyze the electronic literature pattern among Islamic students in Pakistan.

Predicated on the previously described explanation. This is so even though students make up a segment of the scientific world that ought to have an impact on the larger group of people who use digital literacy. Additionally, students' capacity to comprehend digital literacy has an impact on their ability to adapt to changing circumstances during the fourth industrial age. It is unheard of to conduct research on the concept of Islamic digital student reading skills toward prayer, particularly those that relate to the idea of someone using optimistic digital literacy. This is because it demonstrates a thorough understanding of how to utilize digital technology appropriately and smartly.

Youngsters who are enrolled in university are not an exception when it comes to studying digital literacy. Even so, in the specific situation of industrialization among students, including study on digital literacy among young individuals who are well-educated and cheerful, sensible, and smart, Islamic schools are similar to contemporary Islamic children's homes.

3   Methods

The purpose of this investigation is to comprehend trends in optimistic digital literacy among many students at Islamic universities. We have also effectively reviewed a number of articles published in high-impact journal articles for this objective. We focus on the articles published 10 years ago to make certain that the information we find is fresh (2010–2021). We persisted with the analysis techniques by using a system for coding data, evaluating data, and thoroughly interpreting data [14]. Before coming to a conclusion, we make a connection between the data analysis findings and the research questions to ensure their validity. We are using key phrases like "Digital Literacy," "Islamic Academic Students," "Digital Trends," and "Digital by many Students" when searching the data. We are developing a qualitative approach design to direct the research of digital literacy literary works somewhere at Islamic universities since this research is primarily analytical.

4   Results and Discussion

In this section, we present significant findings from a research study of many publications addressing the function and application of digital literacy by many Muslim students. Through an investigation of cultural writing, technology, humanistic learning, and psycholinguistics, they discovered doubt and mechanical characteristics among teenagers in universities. The focus of this investigation is on the challenges and possibilities of getting ready for a digitally advanced Islamic era that's also endowed with understanding and morality. The trend of specialized training in digital media has shaped the growth of computer skills in young people under the guidance and supervision of educational goals in a sensible and appropriate application. At the conclusion of the study, we recognize

that it is essential to keep teaching students how to operate digital media from the start so that subsequent generations of Muslim students can comprehend and utilize the internet responsibly and effectively [15].

Students at Shaheed Benazir Bhutto University and Nawabshah University's Faculty of Social Science used digital literature to research and analyze current issues. The primary purpose of this research is to learn the most recent trends in basic literacy usage among students at Shaheed Benazir Bhutto University's Faculty of Social Sciences. Students were provided with 189 surveys in total, and 180 of them were given back. The majority of the men who responded were residents of the main campus. They place a high priority on having strong digital literacy abilities, and they effectively as well as sufficiently employ them in their coursework when conducting research. The main takeaway from this figure is that every student can benefit from digital literacy because they've gained knowledge and relevance from universities [16]. When it comes to coordinating digitalization developments for student information as well as imparting cutting-edge knowledge of information technology in science-based libraries, does a good job.

The importance of papers in assessing students' technical ability in using digital data resources and continuing to search online databases Students' computerized academic performance and structural digital skills are also developed by scientific libraries connected to high-level developments. It makes sense that the creative integration of libraries will help students' literacy-based technology skills grow. The findings can assist librarians in developing a long-term strategy for using digital technology to promote guidance in innovative literacy skills. Additionally, an investigation was conducted into how to teach university students how to know and use digital technology [17].

In their insightful investigation of ways to teach cutting-edge information technology abilities in science-based libraries and co-ordinate automation innovations for student information. The importance of papers in assessing students' technical proficiency in using digital information assets and going to search online databases Students' computerized academic performance and structural digital skills are further developed by science-based libraries connected to high-level developments. It makes sense that the creative integration of libraries will help students' literacy-based innovation skills grow. The findings can help librarians create a long-term technique for utilizing digital innovation to promote instruction in innovative literacy skills. Izni (2019) conducted research on teaching university students how to know and use digital media, as well as the digital literacy skills those students would require investigating fake news or other online media.

University students' digital rehabilitation through improved digital literacy demonstrates how crucial it is to This research demonstrates the need for universities to be innovative in incorporating materials that communicate information about Islam's virtues and play a crucial role in deradicalizing internet activity. In many educational competitions conducted using online content, the students ought to be the primary users.

They should be provided with electronics and online application tools for digitizing innovations that will advance their learning. In this, it is clear that university students must have a thorough understanding of digital literacy [18]. By creating a digital individual learning plan for ingrained learning that may be preserved until graduation, later findings

by investigation into self-managed learning methods in university education. This essay will examine how individualized learning strategies can help students develop their literacy skills. This research will help teachers and students establish guidelines for the most effective ways to incorporate digital literacy rock knowledge into university education. The three digital literacy areas significantly improve college-level metacognitive awareness, executive skills, and convincing beliefs through virtual activities, according to the four funded hypotheses [19]. Have demonstrated that, at the academic level of digital technological skills, teenagers are primarily capable of assisting Muslim females with their schoolwork. 45 early-aged Muslim women as well as adults, ranging in age from 13 to 19, participated in these experiments conducted at three British Muslim schools. The data was collected in loosely structured meetings, and it was examined using case studies, conceptual model controls, as well as format investigations. Even though their contributions and methods for promoting innovation are dispersed, students still want to support their own learning and progress in academics and digital literacy. This study's main finding would be that Muslim youth education programmes need to be taught computer literacy so they can use technology for instruction. Identical studies have also been found at Muslim universities in Pakistan [20]. Also noted that a study conducted at three European institutions found that perhaps the students' incredible skills inside the DigCom 2.1 framework are prevalent. Further studies have been conducted on the computer skills of 1,073 students from two universities in Italy and two in Spain. Information and data, interaction, teamwork, and the electronic creation of content are all included. The findings indicate that while potential students can have extra training and high-level transition phase data knowledge, automatic data output will only be at the reduced intermediate values. Additionally, Durriyah (2018) examining the fundamental knowledge of Indonesian student teachers about integrating cutting-edge advancements into academic units, the findings demonstrate computerized competency with EFL student classroom teachers. Numerous student teachers are active users of PC innovations, according to studies, but they're reluctant to put them into use in the classroom. The need for substitute educators who can incorporate innovations calls for immediate action. This study examined a classroom research study that looked into Indonesian student teachers' fundamental knowledge of utilizing cutting-edge technology for EFL instruction. Choose among remarkable computerized innovations like Facebook, blogs, video chat, as well as WhatsApp [21].

Ambitious young Indonesian instructors have been shown how to employ digital literacy as a study aid by They carry out research on universities based on research needs in order to differentiate between student-teacher valuable skills in the face of an increase in non-linear destabilization substances [22]. Ideas are a critical justifiable reason for making it extremely This demonstrates each teacher candidate's computerized academic ability is reflected in a very based system (excellent), with an overview of the aggregate rating of 3.55 and the off-hand result of the main meeting discussion. Finally, we summarize Mubarok's (2019) research results, which look at digital reading skills for elementary school personal development. He came across issues with technology as well as family literacy in the deliberations of a world conference on Islamic education. The ability of parents to impart advanced knowledge to children, particularly those under the age of 12, can be seen in their instruction of young children in their own families. Basic

concepts about computer technology skills as well as family-sophisticated proficiency tests for those able to work in primary education served as the driving forces behind all this research. The journals and publications that define computerized family literacy on personality serve as the better understanding of the material for this article. The research findings are highly pertinent to the government's requirement that awareness education continue at home [23].

5   Conclusion

The conclusion of our research, which attempted to comprehend trends in digital literacy by many students at universities through a thorough analysis of many articles published on communications technologies, will be presented towards the end of this concluding part. In this research, we discovered that the electronic trend by many students and students in universities is an optimistic literacy trend in which they do understand aspects and applications of technology, particularly in literacy that they require in university and then when they confront the world of task. Field evidence indicates that students are applying the literacy trend wisely, according to the evidence.

To ensure that students remain able to benefit from and be taken care of by innovation, the university should still fully comprehend and implement all students' technology capabilities to beneficial life and educational objectives.

References

1. S.-H. Lee, "Digital Literacy Education for the Development of Digital Literacy," *Int. J. Digit. Lit. Digit. Competence*, vol. 5, no. 3, pp. 1–15, 2014, https://doi.org/10.4018/IJDLDC.2014070103.
2. D. Buckingham, "Epilogue: Rethinking digital literacy: Media education in the age of digital capitalism," *Digit. Educ. Rev.*, no. 37, pp. 230–239, 2020.
3. A. I. Santos and S. Serpa, "The Importance of Promoting Digital Literacy in Higher Education," *Int. J. Soc. Sci. Stud.*, vol. 5, no. 6, pp. 90–93, Jun. 2017, Accessed: Aug. 28, 2022. [Online]. Available: http://ijsss.redfame.com
4. N. A. Husin, N. A. Razak, M. S. H. Khairi, and N. S. Mohamad Nazeri, "Full enforcement of e-Learning during first movement control operation of COVID-19 pandemic: are Malaysian university students ready?," *J. E-Learning Knowl. Soc.*, vol. 18, no. 1, pp. 87–93, 2022, https://doi.org/10.20368/1971-8829/1135471.
5. G. P. Yustika and S. Iswati, "Digital Literacy in Formal Online Education: A Short Review," *Din. Pendidik.*, vol. 15, no. 1, pp. 66–76, Jun. 2020, https://doi.org/10.15294/dp.v15i1.23779.
6. M. Coffin Murray and J. Pérez, "Unraveling the Digital Literacy Paradox: How Higher Education Fails at the Fourth Literacy," *Issues Informing Sci. Inf. Technol.*, vol. 11, pp. 85–100, 2014, Accessed: Aug. 28, 2022. [Online]. Available: http://iisit.org/Vol11/IISITv11p085-100Murray0507.pdf
7. S. Tejedor, L. Cervi, A. Pérez-Escoda, and F. T. Jumbo, "Digital literacy and higher education during COVID-19 lockdown: Spain, Italy, and Ecuador," *Publications*, vol. 8, no. 4, pp. 1–17, Dec. 2020, https://doi.org/10.3390/PUBLICATIONS8040048.
8. M. Leaning, "An approach to digital literacy through the integration of media and information literacy," *Media Commun.*, vol. 7, no. 2, pp. 4–13, 2019, https://doi.org/10.17645/MAC.V7I2.1931.

9. M. Spante, S. S. Hashemi, M. Lundin, and A. Algers, "Digital competence and digital literacy in higher education research: Systematic review of concept use," *Cogent Educ.*, vol. 5, pp. 1–21, Dec. 2018, https://doi.org/10.1080/2331186X.2018.1519143.

10. F. Mardiani, M. Z. A. Anis, and M. D. Hermawan, "Digital Literacy in the Transformation of Historical Learning in the Time of Covid-19," *J. Socius*, vol. 10, no. 2, pp. 1–10, 2021, https://doi.org/10.20527/jurnalsocius.v10i2.11198.

11. B. S. K. Chan, D. Churchill, and T. K. F. Chiu, "Digital Literacy Learning In Higher Education Through Digital Storytelling Approach," *J. Int. Educ. Res.*, vol. 13, no. 1, pp. 1–16, Jun. 2017, Accessed: Aug. 28, 2022. [Online]. Available: https://clutejournals.com/index.php/JIER/article/view/9907/10005

12. P. P. Nedungadi, R. Menon, G. Gutjahr, L. Erickson, and R. Raman, "Towards an inclusive digital literacy framework for digital India," *Educ. Train.*, vol. 60, no. 6, pp. 516–528, 2018, https://doi.org/10.1108/ET-03-2018-0061.

13. I. Y. Maureen, H. van der Meij, and T. de Jong, "Supporting Literacy and Digital Literacy Development in Early Childhood Education Using Storytelling Activities," *Int. J. Early Child.*, vol. 50, no. 3, pp. 371–389, Oct. 2018, https://doi.org/10.1007/S13158-018-0230-Z.

14. S. S. Eraku, M. K. Baruadi, S. P. Anantadjaya, S. Fadjarajani, U. Supriatna, and A. Arifin, "Digital Literacy and Educators of Islamic Education," *Edukasi Islam. J. Pendidik. Islam*, vol. 10, no. 1, pp. 569–576, 2021, https://doi.org/10.30868/ei.v10i01.1533.

15. N. Musa, N. A. Hamid, and M. S. Ishak, "Understanding the Trends of Digital Literacy Among Islamic Students (Positive Internet Analysis Study)," *DAYAH J. Islam. Educ.*, vol. 4, no. 2, pp. 141–158, Aug. 2021, https://doi.org/10.22373/jie.v4i2.10360.

16. A. Hafidzi, "THE ABILITY OF ISLAMIC BOARDING SCHOOL STUDENTS IN FACING THE DIGITAL LITERACY ERA WITH CRITICAL READING," *J. Ilm. IJGIEInternational J. Grad. Islam. Educ.*, vol. 1, no. 2, pp. 141–153, 2020, Accessed: Aug. 28, 2022. [Online]. Available: http://journal.iaisambas.ac.id/index.php/IJGIE/article/view/231/219

17. K. Zada, Fathudin, D. Khairani, and Y. Durachman, "Reduce Extremism through Digital Literacy," *7th Int. Conf. Cyber IT Serv. Manag. (CITSM 2019)*, 2019, https://doi.org/10.1109/CITSM47753.2019.8965393.

18. D. D. Harmoko, "Digital Literacy As A Solution To Improve The Quality Of Indonesia's Human Resources," *Res. Dev. J. Educ.*, vol. 7, no. 2, pp. 413–423, Oct. 2021, https://doi.org/10.30998/rdje.v7i2.10569.

19. F. Amanta and N. F. Azzahra, "Promoting Digital Literacy Skill for Students through Improved School Curriculum," *CIPS Cent. Indones. Policy Stud.*, no. 11, pp. 1–13, 2021, https://doi.org/10.1016/J.COMPEDU.2014.03.008.

20. J. Traxler, "Digital literacy: a Palestinian refugee perspective," *Res. Learn. Technol.*, vol. 26, pp. 1–21, 2018, Accessed: Aug. 28, 2022. [Online]. Available: https://journal.alt.ac.uk/index.php/rlt/article/view/1983/pdf_1

21. Q. Khoiri and B. Bustomi, "Literacy Culture of Islamic Education Teachers in Senior High School of Bengkulu City," *Din. Ilmu*, pp. 133–145, Jun. 2020, https://doi.org/10.21093/DI.V20I1.2156.

22. S. Santosa and M. F. Jazuli, "The Digital Madrasah as an Idea of IT-Based Islamic Education," *Nazhruna J. Pendidik. Islam*, vol. 5, no. 2, pp. 379–391, Apr. 2022, Accessed: Aug. 28, 2022. [Online]. Available: https://e-journal.ikhac.ac.id/index.php/NAZHRUNA/article/view/2121/903

23. D. Rickles, *The Philosophy of Physics*. Cambridge: Polity Press, 2016. Accessed: Aug. 28, 2022. [Online]. Available: https://books.google.co.id/books?id=O6bIDAAAQBAJ&pg=PT6&lpg=PT6&dq=Rickles,+2016&source=bl&ots=henmwBjMb_&sig=ACfU3U0y0dj_KN_5KasnDLaR8nE143Acdw&hl=id&sa=X&ved=2ahUKEwjUyLjkoun5AhWp4HMBHXTICY4Q6AF6BAgVEAM#v=onepage&q=Rickles%2C2016&f=false