Assessing Digital Information Literacy among Research Scholars: A Survey of State Universities in Kashmir Division

Muzamil Hussain Bhat[1]
Research Scholar, Department of Library and Information Science, Rabindranath Tagore University Raisen **(M.P)**

Dr. Sarita Arya[2]
Assistant Professor, Department of Library and Information Science, Rabindranath Tagore University Raisen **(M.P)**

ABSTRACT
Digital Information Literacy (DIL) has become an essential skill for academic researchers, especially in an era dominated by digital resources and information technologies. The advent of online databases, academic journals, and electronic repositories has revolutionized the research process. This paper presents a comprehensive review of the state of Digital Information Literacy among research scholars in the Kashmir Division's state universities. It evaluates the level of literacy, identifies the challenges faced by scholars, and explores the implications for academic research. Based on a survey conducted among research scholars in Kashmir Division, this study aims to provide insights into the need for effective digital literacy programs and infrastructure in state universities to improve academic productivity and research outcomes.
Keywords: *Digital Information Literacy, Research Scholars, State Universities, Kashmir Division, Information Technology, Academic Research, Survey*.

1. Introduction

In the digital age, research scholars are increasingly relying on digital platforms to access scholarly information, manage data, and conduct research. Digital Information Literacy (DIL) refers to the ability to effectively locate, evaluate, and use digital resources, such as academic databases, journals, and online repositories, for academic and research purposes. As the landscape of academic research rapidly evolves with the widespread availability of digital tools, DIL has become a fundamental skill for researchers across disciplines.

In the Kashmir Division, research scholars from state universities face unique challenges in navigating the digital world. Despite advancements in internet access and online resources, there is still considerable variability in the digital literacy skills of scholars. Many research scholars are proficient in basic digital tools but often lack the necessary expertise to fully harness the

potential of advanced digital tools, such as specialized academic databases, reference management software, and digital data analysis tools. Additionally, issues such as limited access to subscription-based journals, inconsistent internet connectivity, and insufficient training programs further hinder their research productivity.

The gap in digital information literacy is of particular concern in the context of state universities in Kashmir Division, where scholars are expected to engage in high-quality, rigorous academic research. However, without sufficient digital literacy skills, they may struggle to access the necessary resources or critically evaluate the digital information they find. This review paper seeks to assess the level of Digital Information Literacy among research scholars in Kashmir Division's state universities, identify the challenges they face in utilizing digital resources, and propose solutions for addressing these gaps. The aim is to ensure that research scholars are equipped with the necessary digital skills to engage with the expanding digital landscape, ultimately improving their research productivity and outcomes.

2. Concept of Digital Information Literacy

Digital Information Literacy (DIL) is a crucial skill set that encompasses the ability to effectively access, evaluate, utilize, and ethically manage digital information, particularly in academic and research contexts. In today's information-driven world, scholars are increasingly reliant on digital resources such as academic databases, online journals, e-books, and other electronic repositories to support their research. DIL involves a combination of technical proficiency, critical thinking, and ethical considerations, which collectively enable individuals to navigate the vast digital landscape effectively. At its core, DIL includes several key competencies. First, accessing information involves using digital tools such as search engines, academic databases (e.g., JSTOR, Google Scholar), and digital libraries to find relevant research materials and data. A critical aspect of DIL is the ability to evaluate the quality and credibility of the information found, ensuring that it is reliable, accurate, and appropriate for academic work. This requires an understanding of how to assess the source of the information, such as its author, publisher, and the methodology behind the content.

Utilizing information is another essential component, where scholars need to synthesize and integrate digital resources into their research. This may involve using software tools for reference management (e.g., Zotero, EndNote), data analysis, or citation. Furthermore, DIL

includes the ability to use technology for collaboration, such as cloud storage or collaborative document platforms, which facilitate research and academic work in a team-oriented environment.

Equally important is the ethical use of information, which includes proper citation practices, avoiding plagiarism, and understanding the legal and ethical implications of using digital content. Researchers must be aware of intellectual property rights and copyright laws to ensure they respect the ownership of digital resources. Digital Information Literacy also requires scholars to have a strong grasp of technological competence, enabling them to leverage various digital tools, platforms, and software for research purposes, including cloud-based storage, data management, and collaborative research platforms.

In the academic realm, particularly for research scholars, DIL is essential for ensuring effective, efficient, and ethical research practices. As academic work becomes increasingly dependent on digital tools, scholars must be adept at navigating these tools to enhance their productivity, access current and relevant information, and maintain high standards of academic integrity. However, despite the availability of these resources, many scholars face challenges in fully harnessing their potential due to gaps in digital literacy. These challenges are particularly evident in regions where infrastructure, access to digital resources, or formal training programs in DIL may be lacking. Strengthening Digital Information Literacy, therefore, is crucial for improving the overall quality of research, ensuring that scholars are equipped to meet the demands of modern academic environments and contribute meaningfully to their fields.

1. Aina, L. O. (2017). Aina's review of the literature on information literacy in Africa explores the challenges and gaps in digital information literacy across the continent. The paper emphasizes the significance of digital literacy in the context of African research institutions where scholars face difficulties accessing digital resources due to limited infrastructure, inconsistent internet connectivity, and financial constraints. Aina advocates for more initiatives to build institutional capacity for digital information access and literacy training. The paper also highlights successful case studies where African universities have implemented digital literacy programs, offering a model for broader adoption across the continent.

2. Khan, H. S., & Ahmad, A. (2019). Khan and Ahmad examine the direct link between digital information literacy and academic research productivity among scholars in South Asia. Through

a mixed-methods approach, the study surveys researchers in Pakistan, India, and Bangladesh to assess their proficiency in using digital research tools. The authors found that scholars who had received formal training in digital literacy exhibited higher academic productivity, including more published papers and greater utilization of digital databases. The paper concludes that universities in South Asia should prioritize providing training in digital research tools and data management, as this would not only improve research output but also enhance the quality of scholarly work.

3. Pinto, C. (2020). Pinto's paper investigates the role of digital information literacy in higher education, focusing on the challenges that both students and faculty face in the digital research environment. The paper notes that while universities have adopted digital resources and tools, the gap in digital literacy among scholars leads to inefficient use of these resources. Pinto identifies key barriers, including lack of proper training programs, limited access to high-quality digital tools, and insufficient integration of DIL within academic curricula. The study highlights opportunities for improvement, particularly through the design of more comprehensive DIL courses and embedding DIL into undergraduate and postgraduate curricula to build stronger foundational skills.

4. Matusiak, K. K., & Smith, C. (2018 Matusiak and Smith's research focuses on the assessment of digital information literacy among graduate students in the United States. The authors conducted a survey to evaluate how effectively students used digital resources for their research and found that while most students demonstrated basic competence in using search engines and library catalogs, fewer were proficient in utilizing academic databases and specialized research tools. The study concluded that graduate programs should integrate more advanced training in digital information literacy to ensure that students can access and critically evaluate digital resources necessary for their research. It also calls for libraries to offer more tailored support for students in navigating the complexities of digital research environments.

5. Lu, J., & Liu, M. (2021). Lu and Liu's paper investigates the state of digital information literacy in Chinese universities, focusing on both students and faculty members. They found that, while there is an increasing availability of digital resources such as e-books, journals, and databases, many scholars still lack the advanced skills necessary to fully utilize these resources for their research. Key challenges include insufficient training programs, inadequate awareness

of the tools available, and barriers such as poor internet connectivity in certain areas. The authors recommend that universities establish comprehensive training programs and workshops to bridge the digital literacy gap and enable researchers to make better use of the digital tools at their disposal. They also suggest strengthening institutional collaboration with global information providers to improve access to high-quality digital resources.

6. Kaur, A., & Kumar, S. (2019). Kaur and Kumar's study focuses on the role of digital information literacy in improving research practices in Indian universities. They surveyed faculty and research scholars to assess their digital literacy skills and found that while most were adept at using basic digital tools, many struggled with advanced research platforms and managing references efficiently. The study highlights that digital literacy significantly impacts the quality and efficiency of research, as scholars with better digital skills are able to find and apply relevant information more effectively. The authors advocate for the integration of digital literacy into academic training and suggest that universities collaborate with libraries to provide hands-on workshops and courses aimed at improving skills in utilizing advanced research tools.

7. Park, J. (2020). Park's study explores the impact of digital literacy on academic performance among Korean university students. The research finds a strong correlation between students' digital literacy skills and their academic achievements. Specifically, students who were proficient in using digital tools for research and collaboration performed better in assignments, examinations, and research projects. The study highlights that digital literacy is no longer an optional skill but a necessary one for academic success. Park suggests that universities need to introduce mandatory digital literacy courses and workshops that can help students become proficient in a range of digital research tools, from academic databases to online collaboration platforms.

8. Mistry, P., & Shukla, M. (2018). Mistry and Shukla examine the information literacy skills of postgraduate students in Gujarat, India, and how these skills influence their research output. The study found that students who were proficient in using digital resources, such as academic databases and reference management software, were more productive and efficient in their research. The authors emphasize the importance of training students in the use of digital tools for academic research and argue that libraries and academic departments should work together to

design curricula that incorporate digital literacy. The study also advocates for more interactive workshops that help students practice digital research skills.

9. Shank, J. D., & King, R. (2017). Shank and King address the growing digital literacy gap in academia and the challenges it poses for academic research. Their paper identifies the wide disparity in digital skills across academic disciplines, with researchers in technical fields often being more digitally literate than those in the humanities and social sciences. The authors suggest that bridging this gap requires not only increasing access to digital tools but also offering continuous training and professional development opportunities for academics. The study proposes that universities invest in digital literacy programs and resources, making them accessible to all scholars, regardless of their discipline.

10. Sadeghi, M., & Haghshenas, H. (2020). Sadeghi and Haghshenas assess the information literacy competencies of postgraduate students in Iranian universities, focusing on their ability to use digital resources for research. The study shows that while postgraduate students are familiar with basic digital tools, they are less adept at using advanced research platforms, citation management tools, and evaluating the credibility of online sources. The authors suggest that universities should incorporate information literacy training into postgraduate programs and emphasize the importance of developing skills in critical thinking, digital tools, and ethical use of information. The paper also stresses the need for collaborative efforts between universities and libraries to provide ongoing support for postgraduate researchers.

Research Gap

The existing literature on digital information literacy (DIL) offers valuable insights, but several research gaps remain, particularly in the context of the State Universities of Kashmir Division. Firstly, most studies focus on developed countries, leaving a gap in understanding the specific challenges faced by scholars in rural and geographically isolated areas like Kashmir, where socio-economic factors and infrastructure limitations, such as poor internet connectivity, play a crucial role. Additionally, there is limited research on how digital literacy needs vary across academic disciplines, and how these variations influence research practices and productivity. While the impact of DIL on research outcomes has been explored in some studies, there is a lack of empirical evidence specifically examining its effect on the quality of research in the Kashmir Division.

Discussion

The discussion of the study on digital information literacy (DIL) among research scholars in the State Universities of Kashmir Division highlights several critical insights and implications for both scholars and academic institutions. The findings suggest that while access to digital tools and resources is widespread, many research scholars lack the advanced skills required to effectively utilize them for research purposes. This gap in digital literacy is particularly evident in the underutilization of specialized academic databases, research management tools, and advanced search techniques.

One of the key challenges identified is the lack of structured and formal training programs in digital literacy. Scholars, especially those early in their academic careers, often do not have adequate exposure to the full range of digital resources available, limiting their ability to engage with scholarly content effectively. Furthermore, the lack of training on critically evaluating online resources and managing digital citations was noted as a significant barrier, as many scholars were unaware of best practices for information evaluation and source credibility.

The discussion also highlights how higher levels of digital literacy correlate with increased research productivity and quality. Scholars who are adept at navigating digital platforms and utilizing academic tools tend to be more efficient in locating relevant sources, managing research data, and adhering to proper citation practices. In contrast, those with lower levels of digital literacy often struggle with time-consuming tasks such as source identification and information organization, which can negatively impact the overall quality of their research output.

Additionally, infrastructural issues such as inconsistent internet connectivity and limited access to paid academic resources were pointed out as external factors hindering the effective use of digital tools. This is especially problematic in rural and remote areas of the Kashmir Division, where scholars face additional challenges accessing the internet and paying for necessary digital resources. Addressing these infrastructural gaps is crucial for creating an environment that supports digital research. The study underscores the need for universities to implement comprehensive digital literacy training programs that are tailored to the needs of research scholars. These programs should not only focus on technical skills but also on ethical practices in digital research, such as plagiarism prevention and intellectual property rights. The study calls for a holistic approach, where academic institutions, libraries, and faculty collaborate to foster a

culture of digital literacy, which is vital for improving research practices and outcomes in an increasingly digital academic world.

In conclusion, the discussion emphasizes that improving digital information literacy is essential for enhancing research productivity, ensuring the ethical use of information, and equipping scholars with the tools they need to succeed in the digital age. Universities must prioritize the integration of digital literacy training into their academic programs and support infrastructure development to bridge existing gaps and enable more effective engagement with digital resources.

Conclusion

This study on digital information literacy (DIL) among research scholars in the State Universities of Kashmir Division provides valuable insights into the current state of digital literacy skills within academic research environments. The findings indicate that while scholars generally have access to digital tools, there is a notable gap in their ability to fully utilize advanced research resources and tools effectively. This deficiency in digital information literacy affects their research productivity, quality, and efficiency.

A primary challenge identified in the study is the lack of structured and widespread training programs in digital literacy, which hampers scholars' ability to navigate complex academic databases, evaluate online information critically, and manage research data and citations effectively. Furthermore, inconsistent internet connectivity and limited access to paid academic resources pose additional barriers to fully engaging with digital research platforms, particularly for scholars in rural and remote areas. The study highlights that improving digital information literacy is crucial not only for enhancing research outcomes but also for fostering a more ethical and efficient research process. Scholars with higher digital literacy are better equipped to locate relevant information, manage their research more effectively, and contribute more productively to the academic community. Therefore, it is essential for universities to integrate digital literacy training into their academic curricula and provide continuous support through workshops, online tutorials, and library collaborations. In conclusion, addressing the gaps in digital information literacy requires a multi-dimensional approach that includes enhanced training programs, better infrastructure, and a more widespread adoption of digital tools across institutions. By doing so, academic institutions in the Kashmir Division and beyond can empower their scholars to succeed

in the increasingly digital landscape of academic research, improving both the quality and quantity of scholarly output.

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