



THE ROLE OF LIBRARIES RESPONDING TO DIGITAL LITERACY: LITERATURE REVIEW OF DIGITAL CITIZENS

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Abstract

This research discusses about literature review of digital citizens. Digital citizens are mostly covered in this topic related to the importance of library services and information that play a role in motivating and facilitating user information. As a proven place in information literacy, libraries have a good position to lead library users through a digitally educated environment and are able to adapt to the development of digital citizens. The purpose of this study is to identify the digital capabilities of citizens in dealing with the development of technology and the role that libraries play in the growth of digital literacy in society. This study used qualitative research methods with a literature study approach. The research steps are carried out starting from article collection, article reduction, article display, discussion, and conclusion. Research data sources include 11 national journal and international journals from 2019 to 2023. Research results show that the development of the internet, resulting in digital transformation, is changing the pattern of information retrieval in libraries. People's lives have also been socially transformed by digital transformation. The digital transformation process transforms the entire process of communication, competence, and capabilities integrated with technology and accelerates its impact on library use.

Keywords: Digital citizens, digital transformation, libraries, digital literacy.

Abstrak

Penelitian ini membahas tentang kajian literatur mengenai *digital citizens*. *Digital citizens* sebagian besar dibahas dalam topik ini yang berkaitan dengan pentingnya layanan perpustakaan dan informasi yang berperan dalam memotivasi dan memfasilitasi informasi penggunaannya. Sebagai tempat yang mempunyai otoritas yang terbukti dalam literasi informasi, perpustakaan memiliki posisi yang baik untuk memimpin pengguna perpustakaan melalui lingkungan yang teredukasi secara digital dan mampu beradaptasi dengan pengembangan *Digital citizens*.

Tujuan dari penelitian ini adalah untuk mengetahui kemampuan *digital citizens* dalam menghadapi perkembangan teknologi dan peran perpustakaan terhadap pertumbuhan literasi digital di masyarakat. Penelitian ini menggunakan metode penelitian kualitatif dengan pendekatan kajian literatur. Tahapan penelitian dilakukan mulai dari pengumpulan artikel, reduksi artikel, display artikel, pembahasan, dan kesimpulan. Sumber data penelitian berupa 11 artikel jurnal nasional dan jurnal internasional dari tahun 2019 sampai tahun 2023. Hasil penelitian menunjukkan bahwa perkembangan internet yang mengakibatkan terjadinya transformasi digital, hal ini mengubah pola pencarian informasi di perpustakaan. Kehidupan masyarakat secara sosial budaya juga mengalami perubahan akibat transformasi digital. Proses transformasi digital mentransformasi seluruh proses komunikasi, kompetensi, dan kapabilitas yang terintegrasi dengan teknologi dan mempercepat dampaknya terhadap penggunaan perpustakaan.

Kata Kunci: *Digital Citizens*, transformasi digital, perpustakaan, literasi digital.

A. INTRODUCTION

The discussion of information and communication technology that continues to develop will never be completed. People's daily life activities have been affected by the development of information and communication technology. Digital technology has always been a topic that is always discussed. However, there are still many people today who do not have knowledge about digital literacy so they do not have access to technology. Based on data obtained from the survey results of the Indonesian Internet Service Providers Association (APJII, 2023), internet users in Indonesia have increased every year. The high access and use of the internet in Indonesia must be balanced with the ability of people to use technology in order to use technology wisely and understand the consequences of its use.

B. LITERATURE REVIEW

1. Digital Literacy

Digital literacy is the ability to read and interpret media, reproduce data and images through digital manipulation, and evaluate and implement new knowledge gained from digital information. Digital capabilities make it easy to find, organize, understand, evaluate, and analyze information using digital technology. Digital literacy will become very important when the digital

information era has become an important component in society. Advances in technology have their own benefits in the form of newer and more economic opportunities for oppressed and underprivileged communities. Underserved and underprivileged communities will certainly benefit from improved provision of basic services. Overall governance and management in every sector of the economy will get a new impetus leading to transformational changes in society (Suryanarayana & Lingaiah, 2022).

The public needs to understand how the technology can be used so as not to fall into the negative impact of the development of information technology. Digital information with all its consequences forces people to improve their digital literacy. Diverse sources of information make the citizens must be critical in order to avoid the negative impacts caused by the available information. Moreover, there is a lot of fake news circulating which is very disturbing to the public. Because the information available is freely accessible to the citizens and anyone can easily disseminate the information (Prasetyo et al., 2021).

2. Digital Citizens

The concept of "citizenship" began to appear in the late 19th and early 20th centuries. The concept refers to awareness, the development of critical attitudes, thoughts, and opinions, as well as the responsibilities derived from various social roles. Digital citizenship is relevant to online information, knowledge of digital technologies, content creation in digital environments, and respect to ethical rules and expectations of online behavior. Being a digital citizen is more important in the digital age (Milenkova & Lendzhova, 2021).

The development of technology is of course comparable to the increasing activity of internet use. Although many positive impacts can be obtained with easy access to information, negative impacts are also inevitable. Skills and abilities related to the use of technological tools and knowledge of internet use are important. The characteristics of the younger generation in the digital era show that the value of care and responsibility is something that must be considered because they tend to be quick in getting information through various digital

platforms without knowing the truth. Basic skills of community literacy, information knowledge, and the attitude of the perspective of the user community towards the advancement of information technology are very influential on the daily activities of citizens. Digital literacy has a significant relationship with the quality of use of electronic resources (Milenkova & Lendzhova, 2021). The problem that is often encountered due to the acceleration of digital transformation is an unlimited source of information. This raises the possibility of misinformation.

The increasing activity of using digital information as a support for aspects of life has become a major need. Many aspects of education, work, and everyday life require digital skills. Similarly, individual skills in utilizing digital information are indispensable. Digital skills and digital literacy that are formed aim to enable information users to find, understand, evaluate, and apply information in various forms to solve personal, professional, community, regional, social, or even global problems (Prasetiyo et al., 2021). In this aspect, digital literacy is a process of adaptation to digital skills that individuals need to acquire through digital technology. In addition, digital literacy can be interpreted as a type of social practice that requires the ability to read and write through the use of digital technology.

3. Library & Information Professionals (L&IPs)

Digitalization, and the digital revolution are characterized by globalization, the explosion of information, and the ever-increasing use of digital technology. In economics, knowledge, the acquisition of information resources, their retrieval, and dissemination to different types of users is a challenge for Library & Information Professionals (L&IPs). In addition, providing information and assisting users in accessing and utilizing it is a big challenge for any librarian in the world (Suryanarayana & Lingaiah, 2022). The responsibility of libraries to lead literacy efforts in digital transformation is required to engage critically with information in an open knowledge society. Having a significant and innovative role in collecting and providing knowledge, libraries provide free and fair access

to information in all its formats. Libraries provide information in various forms such as electronic, written and audio-visual media (Sharma, 2020). Opportunities for libraries and librarians to champion digital literacy initiatives focused on facts, news, and information. experience and programming within libraries and contribute to discussions about media literacy programming in libraries that provide additional insights and feature digital literacy initiatives designed to position libraries as pioneers of digital citizens (Altaf et al., 2021).

The goals to be achieved in this research are closely related to the rapid digital transformation. This digital transformation greatly affects every aspect of people's lives. Libraries as information centers have an important role in digital literacy efforts of the community which are very easily affected by the existence of unlimited unlimited information from various sources of information. The acceleration of digital transformation coupled with digital literacy by the community can certainly improve the character of the community in line with digital acceleration. Therefore, the role of libraries is very important in digital transformation that will continue to grow.

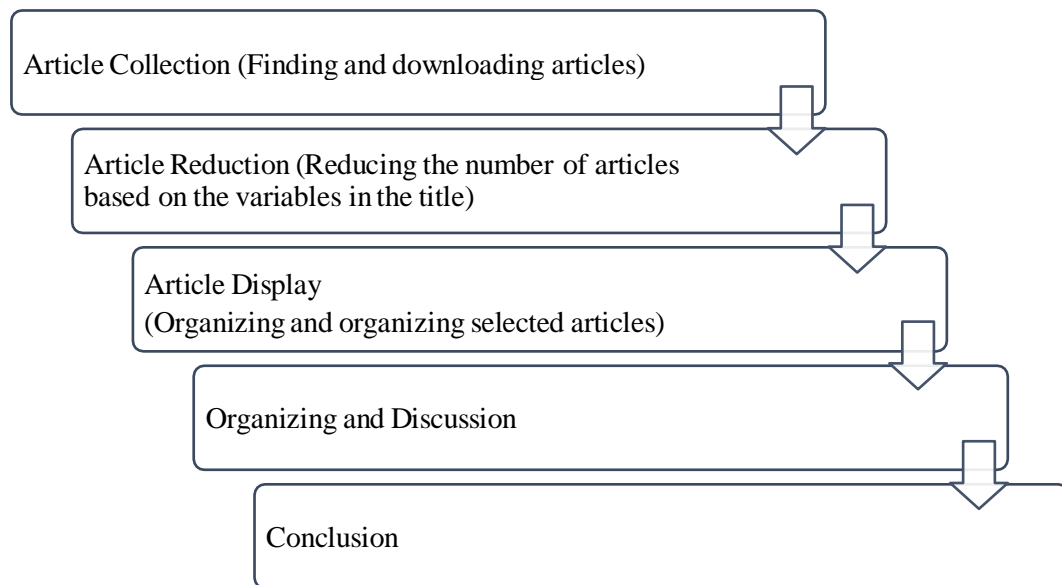
C. RESEARCH METHODS

The method used in this study is a literature review. Literature review is the first and important step in the preparation of a research plan. Literature review is a literature search and research by reading various books, journals, and other publications related to the research topic, to produce a paper related to a particular topic or issue (Marzali, 2016). Literature as research data on digital citizens is closely related to the acceleration of digital transformation where the role of libraries greatly affects the pattern of information search for information users in general. The amount of research on digital citizens can be found in several journals and articles. This research will discuss digital citizenship and digital transformation where the library is a place for information users to learn about digital literacy. The acceleration of digital transformation and the character of society in the digital world is very important. The role of libraries that are closely related to the world of information must certainly be able to offer ease of access to

information and introduce a new era of digital transformation. Researchers used a literature review by analyzing 11 scientific articles from national journals and international journals published from 2019 to 2023 as research methods.

The stages used in the literature review can be seen in Figure 1 below:

Figure 1: The stages used in the literature review (Marzali, 2016)



D. FINDINGS AND DISCUSSION

This study analyzes various studies that discuss the role of libraries in digital transformation literacy efforts using a review of digital citizens literature. The journals analyzed consist of 11 national journals and international journals obtained from various sources. The articles analyzed are an effort to improve people's digital literacy in various ways. The results of the literature review are very diverse, such as the way they respond to technological developments and how they strive to improve digital literacy. Libraries as information centers also have a role in increasing digital literacy which is currently a need for everyone. Libraries can also make various efforts as a form of seriousness in responding to the information needs of library users. Intensive training in libraries can be carried out in various forms, such as socialization, webinars, direct mentoring, and digital storytelling. Journal analysis conducted by researchers will be shown in the following table:

Tabel 1: Display Artikel

No.	Title of Article	Author Name	Journal Name	Publication Years	Volume, Number
1.	Digital citizenship and digital literacy in the conditions of social crisis	Valentina Milenkova and Vladislava Lendzhova	Computers	2021	10, 40
2.	Digital Rights, Digital Citizenship and Digital Literacy: What's the Difference?	Luci Pangrazio and Julian Sefton-Green	Journal of New Approaches in Educational Research	2021	10,1
3.	Libraries and digital citizenship: Advancing an ethical, responsible and knowledgeable online	Ina Smith dan Annamarie Goosen			
4.	Transitioning from digital literacy to digital citizenship: Issues and challenges of information and library professionals	A.Suryanarayana dan Vuppala Lingaiah	Journal of Positive School Psychology	2022	6,5
5.	Fake news and digital literacy: The academic library's role in shaping digital citizenship	Kimberly Copenhaver	The Reference Librarian	2018	59, 3
6.	Role of Public Library to	Jogen Sharma	International Research	2019	1, 6

	growing Digital Literacy in our Society		Journal of Multidisciplinary Science & Technology		
7.	Digital Citizens: Efforts to accelerate digital transformation	Fatimatuz Zahrah dan Rahyudi Dwiputra	JSKP: Jurnal Studi Kebijakan Publik	2023	2,1
8.	Digital citizenship trend in educational sphere: A systematic review	Wibowo Heru Prasetyo, Noor Banu Mahadir Naidu, Bee Piang Tan, Bambang Sumardjoko	International Journal of Evaluation and Research in Education (IJERE)	2021	10,4
9.	Examination of the relationship between pre-service teacher digital literacy and digital citizenship levels	Serpil Demirezen	International Journal of Curriculum and Instruction	2023	15, 3
10.	Investigating university students' digital citizenship development through the lens of digital literacy practice: A Translingual and transemiotizing perspective	Mingyue Michelle Gu, Corey Fanglei Huang dan Chi-Kin John Lee	Linguistics and Education	2023	7, 7
11.	Investigating students' digital citizenship	Ali Abdalrhman AlZebidi dan	Elementary Education Online	2021	20, 5

	practices for undergraduate students at Al-Qunfudhah University college	Dhaifallah Saleh Alsuhaymi		
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Based on the display table above regarding the literature discussed in the study, the following researchers will present based on the results of the analysis that has been done.

1. Digital citizenship and digital literacy in the conditions of social crisis.

By Valentina Milenkova and Vladislava Lendzhova.

Research using quantitative methods on social reactions to digital media as a source of information in the context of the COVID-19 pandemic crisis. This research is the essence of digital citizenship as one of the theoretical and practical structures underlying global society. This research has a research contribution related to proving digital citizenship as a theoretical and applied side of global society. Some practical achievements are related to the display of the applied nature of digital skills and citizenship. A key prerequisite for digital citizenship is the digital skills of the individual (Milenkova & Lendzhova, 2021).

2. Digital Rights, Digital Citizenship and Digital Literacy: What's the Difference? By Luci Pangrazio and Julian Sefton-Green.

This article identifies three contemporary normative responses to the complex issues of digital citizenship, digital rights, and digital literacy. This article explores the effectiveness of each data in addressing philosophical, and ethical issues. Analyze how digital citizens respond to and address challenges in policy, daily social life, and political rhetoric, tracing fluctuations in the use of these terms and the way they are conveyed to different stakeholders (Pangrazio & Sefton-Green, 2021).

3. Libraries and digital citizenship: Advancing an ethical, responsible and knowledgeable online. By Ina Smith and Annamarie Goosen.

The discussion in this article concludes that libraries have a role in offering digital skills training and support to users in order to advance people's digital literacy/competence in general and digital competence. A curriculum framework for African librarians to become digital citizens and a draft framework are proposed to be implemented as part of ongoing professional development in the field of digital citizenship (Smith & Goosen, 2021).

4. Transitioning from digital literacy to digital citizenship: Issues and challenges of information and library professionals.

By A. Suryanarayana and Vuppala Lingaiah.

This article examines the problems and challenges of Library & Information Professionals (L&IPs) in the journey of Digital Literacy (DL) transformation to Digital Citizenship. The findings illustrate that in some universities in India, computerization of library operations has progressed very slowly. Three aspects are providing, maintaining, and managing information resources in many academic libraries. Digital Literacy (DL) skills are limited to the practical ability to navigate, evaluate, and create information effectively and critically using a variety of digital devices and technologies (Suryanarayana & Lingaiah, 2022).

5. Fake news and digital literacy: The academic library's role in shaping digital citizenship. By Kimberly Copenhaver.

This article explores digital literacy in higher education and investigates the responsibility of libraries to lead efforts to create learners with the skills necessary to engage critically and ethically with information in an open knowledge society. The Florida Chapter of the Association of College and Research Librarians (FACRL) conference featured 9 innovative and engaging presentations and posters that challenged popular references to fake news and provided opportunities for libraries and

librarians to champion digital literacy initiatives in their respective institutions of higher education (Copenhaver, 2019).

6. Role of Public Library to growing Digital Literacy in our Society.

By Jogen Sharma.

This article focuses on the discussion of the role of public libraries on the growth of digital literacy in Indian society. Digital literacy relates to the role of public libraries in improving digital literacy in society. Digital literacy explores diverse topics including how people discover, use, summarize, evaluate, create and communicate information when using digital technologies. However, there are still many Indians today who do not have knowledge about digital literacy so they do not have access to technology (Sharma, 2020).

7. Digital Citizens: Efforts to accelerate digital transformation.

By Fatimatuz Zahra and Rahyudi Dwiputra.

This study presents a summary of empirical findings from the high literature on the field of accelerating digital transformation. The critical review was conducted on 35 articles from 2017 to 2023, and focused on the progress of research on accelerating digital transformation. The literature review critically looks at and evaluates citizens' digital literacy, digital transformation in Indonesia, and efforts to improve citizen character to be in line with digital acceleration. The implications of these findings show that the acceleration of digital transformation must be balanced with the civility of Indonesian citizens. This study can provide the right reference for further research by looking at the implementation of digital citizenship towards a smart and characterful society (Zahrah & Dwiputra, 2023).

8. Digital citizenship trend in educational sphere: A systematic review.

By Wibowo Heru Prasetyo, Noor Banu Mahadir Naidu, Bee Piang Tan, Bambang Sumardjoko.

The research used three databases, namely Scopus, Google Scholars, and ProQuest, relating to digital citizenship, digital competence, digital literacy, and Information and Communications Technology (ICT) skills. This study obtained 20 articles that fit the predetermined inclusion criteria. This research uses content analysis to code, organize categories, and develop themes. Based on the results of this study, this study identified that digital citizenship consists of several features, including digital literacy, digital ethics, digital access, and digital participation. Most scholars state that misuse of technology and digital abuse is caused by the digital divide (Prasetyo et al., 2021).

9. Examination of the relationship between pre-service teacher digital literacy and digital citizenship levels. By Serpil Demirezen.

The study examined the relationship between teachers' digital literacy and digital citizenship levels. This study used a correlational survey model, quantitative research methods, and a study group consisting of 260 prospective teachers. The research data was collected using the Digital Citizenship Scale and Digital Literacy Scale. SPSS 22 software is used for data analysis. In the study, teachers' digital citizenship and digital literacy levels were analyzed using descriptive analysis techniques. The study concluded that teachers have a moderate level of digital citizenship and a high level of digital literacy. In addition, it was determined that there were no significant differences in teachers' levels of digital citizenship and digital literacy based on variables such as gender, grade level, and frequency of daily internet use (Demirezen, 2023).

10. Investigating university students' digital citizenship development through the lens of digital literacy practice: A Translingual and transemiotizing perspective. By Mingyue Michelle Gu, Corey Fanglei Huang and Chi-Kin John Lee.

This qualitative study investigated how a group of bilingual college students in Hong Kong understood digital citizenship and constructed it

through digital literacy practices on social media. Based on interview data and examples of digital activities shared by students, adopting digital literacy theory as well as translanguaging and transsemiotization understand the concept / idea of digital citizenship, especially in terms of participation (in digital communities / activities), contribution of knowledge or morality and responsibility, most of which are realized / realized through certain digital literacy practices sharing personal life on social media (Gu et al., 2023).

11. Investigating students' digital citizenship practices for undergraduate students at Al-Qunfudhah University college. By Ali Abdalrhman AlZebidi and Dhaifallah Saleh Alsuhaymi.

The research method used in the research is a quantitative study by exploring the extent to which students at Al-Qunfudhah University College, practice digital citizenship skills. The 264 students were involved in this investigation and completed an online questionnaire. The 9 factors extracted explained 69.49% of the total variance. The results show that most students at Al-Qunfudhah University College practice all 9 digital citizenship skills. The results also showed that there were no statistical differences between students' digital citizenship practices regarding gender, age, or academic level, but there were statistical differences between students' digital citizenship practices associated with daily use of electronic devices (AlZebidi & Alsuhaymi, 2021).

Based on the study and 11 literatures selected by researchers in the discussion, this research resulted in findings on the development of digital citizenship, challenges in the use of inappropriate technology. Digital literacy, digital access, and is the main point of digital citizenship and libraries take up a large part of the digital citizenship discourse by maximizing the ability of libraries to offer information as a form of digital literacy efforts. The number of digital information sources available the number of users of digital information is increasing exponentially, the use of the internet has an impact on various social

problems. In this case, this study illustrates that the development of digital citizenship research can be explored to apply this concept to educational and socio-cultural practices. The above findings provide brief directions to begin reducing barriers to utilizing digital information sources and responsible use of digital devices, such as equitable internet access.

E. CONCLUSION

The development of technology and information offers various conveniences to access information in various ways and various forms. The era of digitalization has changed people's mindsets and habits starting from daily life activities and problem solving. Efforts to improve people's digital literacy skills are important to continue. Based on the analysis, it was found that 11 literature sources selected by researchers found that several important parts of the positive impact of digital literacy, namely digital literacy competence, social media skills, use of digital devices and technology, confidence in the digital environment, utilization of digital information, ability to filter information, management of digital information security, communication development and collaboration, increased interest in use technology.

The literature review in this study highlights the challenges of developing digital citizenship. Based on the results of this study, this study identifies that digital citizenship consists of several features, including digital literacy, digital ethics, digital access, and digital participation. The influence of technological development is how the community responds and the ability to utilize available technology. The positive impact obtained due to technological developments is also balanced with the negative impact caused. Many people are affected by the adverse effects of technological developments with unlimited sources of information because they do not understand digital information literacy.

Libraries are access to knowledge, providing information for lifelong learning, independent decision-making and cultural development of individuals and social groups. The library provides all kinds of knowledge and information to its users regardless of age, race, gender, religion, nationality, language or social

status. Libraries must remain relevant in this information age by constantly updating their knowledge and improving library digital skills. Training can be done to obtain and apply the most needed digital library competencies.

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