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**| RESEARCH ARTICLE**

## Digital Literacy in the Information Society

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**| ABSTRACT**

Digital literacy has emerged as a foundational competency in the contemporary information society, where digital technologies increasingly shape communication, education, work, and civic participation. The rapid expansion of the internet, mobile technologies, and digital platforms has transformed how information is accessed, produced, and shared, creating both opportunities and challenges for individuals and communities. Digital literacy extends beyond basic technical skills to encompass critical thinking, information evaluation, ethical awareness, and the ability to engage effectively and responsibly in digital environments. As societies become more dependent on digital systems, disparities in digital literacy contribute significantly to social, educational, and economic inequalities. This review examines the evolving concept of digital literacy within the context of the information society, synthesizing key theoretical perspectives, frameworks, and empirical studies. It explores core components of digital literacy, including information literacy, media literacy, communication skills, and digital citizenship. The review also analyzes the role of digital literacy in education, workforce development, and democratic participation, highlighting its importance for lifelong learning and social inclusion. Particular attention is given to the impact of emerging technologies such as social media, artificial intelligence, and big data on digital literacy demands. Furthermore, the review identifies major challenges in promoting digital literacy, including unequal access to digital resources, generational gaps, misinformation, and limited institutional support. It also discusses policy initiatives and educational strategies aimed at enhancing digital literacy at individual and societal levels. By integrating insights from diverse disciplines, this study provides a comprehensive overview of digital literacy as a critical skill for navigating the complexities of the modern information landscape. Overall, the review emphasizes that strengthening digital literacy is essential for empowering individuals, fostering informed participation, and ensuring equitable development in the digital age. The findings underscore the need for coordinated efforts among educators, policymakers, and technology stakeholders to support inclusive and sustainable digital literacy initiatives in the information society.

**| KEYWORDS**

Digital Literacy, Information Society, Information and Communication Technology (ICT), Media Literacy, Digital Divide, Critical Information Skills, Digital Citizenship

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### 1. Introduction

The rapid advancement of digital technologies has fundamentally transformed modern societies, giving rise to what is commonly described as the information society (Alexandersson & Limberg, 2005; Doyle, 1994). In this context, information is produced, disseminated, and consumed primarily through digital platforms, influencing nearly every aspect of daily life, including education, employment, healthcare, governance, and social interaction (Martin, 2008; Rivoltella, 2008). The widespread use of the internet, mobile devices, and digital media has expanded access to information and communication opportunities; however, it has also introduced new challenges related to information overload, misinformation, privacy, and unequal access to digital resources. As a result, digital literacy has emerged as a critical competence for individuals seeking to navigate and participate effectively in the contemporary digital environment (Koltay, 2011; Nawaz & Kundi, 2010).

Digital literacy extends beyond basic computer skills or the ability to use digital devices. It encompasses a broad range of cognitive, technical, and social competencies that enable individuals to access, evaluate, create, and communicate information

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using digital technologies (Leaning, 2019; Polizzi, 2020). These competencies include information and media literacy, critical thinking, ethical awareness, and responsible online behavior (Doyle & Passandiedeh, 2006; Sharma et al., 2016). In the information society, where digital content is abundant and often unregulated, the ability to assess the credibility, accuracy, and relevance of information is particularly important. Without adequate digital literacy, individuals are more vulnerable to misinformation, digital manipulation, and exclusion from social and economic opportunities (Noh, 2017; Sá et al., 2021).

The importance of digital literacy is increasingly recognized across educational, professional, and policy domains. In education, digital literacy supports effective learning, research, and collaboration, enabling students to engage with digital resources and develop lifelong learning skills (Meneses & Mominó, 2010; Koltay, 2011). In the workplace, digital literacy is essential for productivity, innovation, and adaptability, as many jobs now require the use of digital tools, data-driven decision-making, and online communication (Park et al., 2020; Rivoltella, 2008). Furthermore, digital literacy plays a vital role in civic engagement and democratic participation by enabling individuals to access public information, participate in online discourse, and engage with digital government services (Sharma et al., 2016; Sá et al., 2021).

Despite its significance, digital literacy remains unevenly distributed across populations. The digital divide, characterized by disparities in access to technology, internet connectivity, and digital skills, continues to affect marginalized communities, older adults, and individuals in low-resource settings (Alexandersson & Limberg, 2005; Nawaz & Kundi, 2010). These inequalities reinforce existing social and economic gaps, limiting opportunities for full participation in the information society. Addressing digital literacy, therefore, is not only a technical or educational challenge but also a social and policy concern (Martin, 2008; Polizzi, 2020).

This review aims to examine the concept of digital literacy within the broader framework of the information society. It synthesizes existing literature on definitions, dimensions, and theoretical models of digital literacy, while also exploring its applications and implications in education, the workplace, and civic life. By highlighting key challenges and emerging trends, this study seeks to provide a comprehensive understanding of digital literacy as an essential skill for individual empowerment and inclusive development in the digital age (Leaning, 2019; Sá et al., 2021).

## **2. Literature Review**

### **2.1 Conceptual Foundations of Digital Literacy**

The concept of digital literacy has evolved alongside advancements in information and communication technologies. Early interpretations focused primarily on technical skills, such as the ability to operate computers and use basic software (Doyle, 1994; Doyle & Passandiedeh, 2006). However, contemporary scholars emphasize a broader, multidimensional understanding of digital literacy that includes cognitive, social, and ethical competencies (Koltay, 2011; Polizzi, 2020). Digital literacy is now commonly defined as the ability to access, evaluate, create, and communicate information effectively using digital technologies (Martin, 2008; Rivoltella, 2008). This expanded perspective reflects the complexity of digital environments in the information society, where individuals must navigate diverse platforms, formats, and information sources (Leaning, 2019; Sá et al., 2021).

### **2.2 Digital Literacy and Information Literacy**

Digital literacy is closely related to information literacy, which involves the ability to locate, evaluate, and use information effectively (Alexandersson & Limberg, 2005; Doyle, 1994). In the information society, where vast amounts of digital content are produced daily, information literacy has become a core component of digital literacy (Koltay, 2011; Nawaz & Kundi, 2010). Scholars argue that digital literacy builds upon traditional information literacy by incorporating digital tools and online contexts (Doyle & Passandiedeh, 2006; Polizzi, 2020). The integration of these literacies enables individuals to critically assess the credibility and relevance of digital information, reducing susceptibility to misinformation and enhancing informed decision-making (Sharma et al., 2016; Noh, 2017).

### **2.3 Media Literacy in the Digital Environment**

Media literacy plays a crucial role in digital literacy, particularly in understanding and interpreting digital media content (Koltay, 2011; Leaning, 2019). With the rise of social media, online news platforms, and user-generated content, individuals are increasingly exposed to persuasive, biased, or misleading information. Media literacy equips users with the skills to analyze media messages, recognize underlying agendas, and understand the social and cultural impacts of digital media (Martin, 2008; Park et al., 2020). Research highlights that media literacy enhances critical thinking and empowers individuals to engage responsibly with digital content in the information society (Sá et al., 2021; Sharma et al., 2016).

## **2.4 Digital Literacy in Education**

The role of digital literacy in education has received significant attention in the literature. Digital literacy supports effective teaching and learning by enabling students and educators to access digital resources, collaborate online, and use educational technologies (Meneses & Mominó, 2010; Leaning, 2019). Studies indicate that integrating digital literacy into curricula enhances students' academic performance, problem-solving abilities, and lifelong learning skills (Nawaz & Kundi, 2010; Polizzi, 2020). However, research also identifies challenges such as inadequate teacher training, unequal access to digital tools, and varying levels of student preparedness, which affect the successful implementation of digital literacy initiatives (Noh, 2017; Rivoltella, 2008).

## **2.5 Digital Literacy, Work, and Economic Participation**

In the modern workforce, digital literacy is essential for employability and career development (Sharma et al., 2016; Sá et al., 2021). The literature emphasizes that digital skills are increasingly required across industries, from basic office tasks to advanced data analysis and digital communication (Alexandersson & Limberg, 2005; Koltay, 2011). Digital literacy enables workers to adapt to technological changes, participate in remote work, and engage in continuous professional development (Martin, 2008; Park et al., 2020). Studies also highlight that limited digital literacy can restrict access to employment opportunities and contribute to economic inequality in the information society (Meneses & Mominó, 2010; Nawaz & Kundi, 2010).

## **2.6 Digital Divide and Social Inclusion**

A recurring theme in the literature is the digital divide, which refers to inequalities in access to digital technologies and digital literacy skills (Doyle, 1994; Alexandersson & Limberg, 2005). Research shows that disparities are influenced by factors such as socioeconomic status, education level, age, and geographic location (Nawaz & Kundi, 2010; Noh, 2017). These inequalities limit participation in digital education, employment, and civic activities. Scholars argue that promoting digital literacy is a key strategy for enhancing social inclusion and reducing digital inequality in the information society (Polizzi, 2020; Sá et al., 2021).

## **2.7 Digital Citizenship and Ethical Considerations**

Digital literacy also encompasses digital citizenship, which involves ethical, responsible, and safe participation in digital environments (Koltay, 2011; Leaning, 2019). The literature highlights issues such as online privacy, cybersecurity, intellectual property, and responsible online behavior (Sharma et al., 2016; Park et al., 2020). Developing digital citizenship skills enables individuals to navigate digital spaces safely, respect others' rights, and contribute positively to online communities (Sá et al., 2021; Polizzi, 2020). As digital interactions increasingly shape social life, ethical digital literacy is recognized as a vital component of informed and responsible participation in the information society (Martin, 2008; Noh, 2017).

## **3. Methodology**

This study adopts a qualitative research review approach to examine existing literature on digital literacy within the context of the information society. The methodology was designed to systematically identify, analyze, and synthesize scholarly works that address the conceptual foundations, dimensions, applications, and challenges of digital literacy. A review-based methodology is appropriate for this study, as it allows for comprehensive integration of theoretical perspectives and empirical findings across diverse academic disciplines, including education, information science, communication studies, and social sciences.

A comprehensive literature search was conducted using reputable academic databases, including Google Scholar, Scopus, Web of Science, ERIC, and ScienceDirect. Relevant peer-reviewed journal articles, conference papers, books, and policy reports published primarily in English were considered. To ensure relevance and currency, the search focused on literature published within the last two decades, while also including seminal works that have significantly contributed to the development of digital literacy theory. Keywords and search terms included combinations of "digital literacy," "information society," "information literacy," "media literacy," "digital divide," "digital citizenship," and "ICT skills."

The inclusion criteria required that selected studies explicitly addressed digital literacy or closely related concepts within social, educational, or technological contexts. Studies focusing solely on technical ICT training without broader literacy or societal perspectives were excluded. Additional exclusion criteria included non-academic sources, opinion pieces without empirical or theoretical grounding, and publications lacking clear relevance to the objectives of the review. The selection process involved screening titles and abstracts, followed by full-text reviews to determine suitability.

Data extraction focused on key themes such as definitions and frameworks of digital literacy, educational and societal applications, challenges and barriers, and emerging trends. Thematic analysis was employed to organize and interpret findings

across the selected literature. This approach enabled the identification of recurring patterns, similarities, and differences among studies, as well as gaps in existing research.

To enhance the rigor and reliability of the review, sources were critically evaluated based on methodological quality, relevance, and contribution to the field. The synthesized findings were then categorized and discussed in relation to the research objectives. This methodological approach provides a structured and transparent foundation for understanding digital literacy in the information society and supports the development of informed conclusions and recommendations.

#### **4. Results and Discussion**

The review of literature indicates that digital literacy has become a fundamental skill in the information society, enabling individuals to access, evaluate, create, and communicate information effectively using digital technologies (Koltay, 2011; Martin, 2008; Rivoltella, 2008). Digital literacy encompasses not only technical competencies but also critical thinking, social understanding, and ethical awareness (Leaning, 2019; Polizzi, 2020). It has been shown to influence education, employment, civic engagement, and social inclusion, and a lack of digital literacy can exacerbate inequalities in the digital age (Sá et al., 2021; Sharma et al., 2016).

One of the primary findings is the strong relationship between digital literacy and education. Digital literacy improves students' ability to engage with online learning resources, critically assess the credibility of information, and participate in collaborative digital environments (Meneses & Mominó, 2010; Nawaz & Kundi, 2010). In higher education, students with strong digital literacy skills can conduct research more effectively, participate in online discussions, and utilize digital learning tools to enhance their academic performance (Leaning, 2019; Noh, 2017). However, barriers such as limited access to technology, varying levels of prior digital knowledge, and insufficient teacher training can hinder the implementation of effective digital literacy programs (Doyle & Passandiedeh, 2006; Rivoltella, 2008). These challenges highlight the need for institutional support, policy initiatives, and targeted educational interventions to ensure that all learners can benefit from digital literacy (Sharma et al., 2016; Sá et al., 2021).

Digital literacy also plays a critical role in the workforce. Employees with advanced digital skills are better equipped to adapt to technological changes, participate in data-driven decision-making, and use digital tools to increase productivity and innovation (Martin, 2008; Koltay, 2011). Conversely, individuals lacking digital literacy may face barriers to employment and career progression, limiting their participation in the modern economy (Meneses & Mominó, 2010; Nawaz & Kundi, 2010). Digital literacy, therefore, is essential for professional development, employability, and economic participation (Leaning, 2019; Polizzi, 2020). Workplaces that prioritize digital literacy training can foster more efficient, adaptable, and innovative organizations (Sá et al., 2021; Park et al., 2020).

The literature also emphasizes the role of digital literacy in addressing the digital divide and promoting social inclusion. Disparities in access to digital resources and skills often mirror existing socioeconomic inequalities, with marginalized populations facing challenges in participating fully in digital spaces (Alexandersson & Limberg, 2005; Doyle, 1994). Programs designed to enhance digital literacy among underserved groups have been shown to improve online engagement, information-seeking behavior, and confidence in using digital tools (Noh, 2017; Polizzi, 2020). Promoting digital literacy across all populations is crucial for enabling equitable access to digital opportunities and fostering inclusive participation in society (Sharma et al., 2016; Sá et al., 2021).

Media literacy and digital citizenship are integral aspects of digital literacy. In an environment dominated by social media, online news, and user-generated content, individuals need skills to critically analyze media messages, understand digital ethics, and interact responsibly online (Koltay, 2011; Leaning, 2019). Media literacy enhances critical thinking, reduces susceptibility to misinformation, and encourages ethical behavior (Martin, 2008; Park et al., 2020). Digital citizenship supports safe and responsible engagement in digital spaces, helping individuals respect intellectual property, maintain privacy, and contribute positively to online communities (Sá et al., 2021; Polizzi, 2020). These competencies are essential for navigating the increasingly complex digital landscape (Sharma et al., 2016; Noh, 2017).

Emerging trends in digital literacy highlight the growing importance of lifelong learning. Advances in artificial intelligence, big data, and immersive technologies such as virtual and augmented reality are creating new demands for digital skills (Leaning, 2019; Polizzi, 2020). Individuals must continually update their digital competencies to adapt to evolving technologies and changing societal expectations (Sá et al., 2021; Park et al., 2020). Continuous digital literacy development ensures that individuals can use technology effectively, make informed decisions, and participate meaningfully in the information society (Sharma et al., 2016; Koltay, 2011).

In conclusion, digital literacy is a multifaceted competency that supports education, professional development, social inclusion, media awareness, and ethical engagement in digital environments. While it offers numerous benefits, challenges such as unequal access, insufficient institutional support, and rapidly changing technology remain (Noh, 2017; Doyle & Passandiedeh, 2006). Addressing these challenges requires coordinated efforts among educators, policymakers, and technology providers to create inclusive, sustainable, and adaptable digital literacy initiatives (Alexandersson & Limberg, 2005; Meneses & Mominó, 2010). Enhancing digital literacy across populations empowers individuals, reduces inequalities, and allows societies to harness the opportunities presented by the digital age (Sá et al., 2021; Sharma et al., 2016).

## 5. Conclusion

Digital literacy has emerged as a critical competency in the information society, encompassing not only technical skills but also cognitive, social, and ethical dimensions. It enables individuals to access, evaluate, create, and communicate information effectively, fostering meaningful participation in education, the workforce, civic life, and broader societal activities. The review highlights that digital literacy is essential for navigating complex digital environments, managing information responsibly, and engaging safely and ethically with digital media.

In education, digital literacy enhances students' learning experiences by enabling effective research, critical evaluation of information, and collaborative engagement through digital platforms. In professional settings, it equips individuals with the skills necessary to adapt to technological changes, utilize digital tools for productivity, and participate in data-driven decision-making. Digital literacy also plays a key role in addressing social inequalities by bridging gaps in access to technology and digital skills, thereby promoting greater inclusion and participation in the information society.

Furthermore, digital literacy encompasses media literacy and digital citizenship, which are vital for evaluating information credibility, mitigating misinformation, and engaging responsibly in online spaces. As digital technologies continue to evolve, the importance of lifelong digital literacy development becomes increasingly apparent. Individuals must continuously update their competencies to keep pace with emerging technologies, including artificial intelligence, big data analytics, and immersive digital environments, to remain effective and confident digital participants.

Despite its benefits, challenges such as unequal access to digital resources, limited institutional support, and rapid technological change persist. Addressing these challenges requires coordinated efforts among educators, policymakers, and technology stakeholders to develop inclusive, sustainable, and adaptive digital literacy programs.

In conclusion, digital literacy is a multidimensional and indispensable skill that empowers individuals, enhances social inclusion, supports educational and professional development, and facilitates responsible engagement in the digital age. Strengthening digital literacy across populations is essential for enabling equitable opportunities, fostering innovation, and ensuring that societies can fully leverage the benefits of digital technologies in the information society.

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