

# Digital Literacy

D

Anirban Ray

UNC Wilmington, USA

## INTRODUCTION

Decoding digital literacy is a descriptive act of interpreting, reinterpreting, and understanding the relationship between the terms digital and literacy in the expanding space of information and communication technologies (ICTs). While the idea of literacy reveals a long evolutionary past associated with the term literate, the construct of digital, as we use it today, is shaped by the use of the digits, 0 and 1, in the 1930s and 1940s to represent computer data—a practice that eventually came to be known as digital. With the emergence of the Internet and the Web as the dominant systems of information organization and knowledge creation, the concept of literacy was broadened from its original notion of skills in reading and writing to developing cultural, historical, social, and technical awareness—a shared assumption critical to and closely associated with the understanding of ICTs and their use as well. The shift has influenced the definition of literacy as “primarily a technology of which records are the end products” (Clancy, 1993, p. 20). Although contemporary discourse in digital literacy assumes a much expanded scope of understanding than a product view of technology, the deterministic tendencies are evident in instances in which digital literacy is viewed as a set of benchmark skills. Broadly speaking, digital literacy is couched in both “conceptual” as well as “standardized operational” definitions (Lank-shear & Knobel, 2008, p. 2), the key distinction being the former places digital literacy within the multiplicity of frameworks and models, while the latter measures and observes skills and performances that advance the “standards” of being digitally literate.

## BACKGROUND

In 1981 *The Washington Post* first pioneered the concept that demanded “special skills” to use and manage computers (Warschauer 111) and invented the term “computer literacy.” Later, extension of the term “literacy” included “information literacy,” “digital literacy,” and “media literacy” to broaden the idea of skills. Paul Gilster (1997) in his pioneering book, *Digital Literacy*, popularized digital literacy as a shorthand for understanding and using information in multiple formats “from a wide range of sources presented via computers” (p.33). He operationalized and extended the term throughout the book, postulating that “digital literacy is about mastering ideas, not keystrokes” (p.1)—a call to attention between a “special kind of mindset or thinking” and “limited technical skills” (Bawden, 2008, p.19) premised on tasks and performances on the other. According to Gilster, digital literacy is about developing a critical approach toward using digital sources and forming awareness about our “expanded ability” (p.31) to connect with people and information using these sources. Over the years, digital literacy has addressed the split through skill and knowledge perspectives. Evidently, the skill construct affirms the neutrality thesis of technologies in which technologies are understood as means or instruments that need to be learned; conversely, the knowledge model ascertains technologies as more complex systems, not free of social, cultural, and political biases.

Despite these prevalent articulations, the challenges of defining digital literacy stem from a lack of consensus building among stakeholder disciplines, including education, communication studies, English, media studies, library infor-

mation studies and computing. The problem is further compounded by competing interpretive frameworks and theoretical models (Boechler et al., 2014) that stake claims on the scope and application of digital literacy. Considering the value of addressing the diverse views, the scholars have framed a discourse around digital literacy to accommodate dominant perspectives. These perspectives coalesce the domain-specific views into two broad categories that are identified as conservative, sometimes called traditional, and skeptical (Aviram & Eshet-Alkalai, 2006; Boechler et al., 2014). The former is uncritical of existing literature and accepts it in face value, privileging an instrumental view of digital literacy implicated in the notion of acquiring threshold or generic set of technical skills. This perpetuates the standardized paradigm of skill acquisition, a method common in educational institutions that aligns pedagogy through traditional conceptualizations of computer literacy (Ferrari, Punie & Redecker, 2012), information literacy (Mackey and Jacobson, 2011), and network literacy (McClure, 1994). Notwithstanding the widespread adoption of the view in curricular mapping and technology developments, the assumption is challenged as a didactic model that stabilizes teaching and learning as a set of prescriptive and durable practices that have fixed unities of time and place in which the role of technology is regarded as neutral.

The skeptical or functional approach, on the other hand, gained prevalence as a reaction to the conservative approach. The underlying thesis favors contextualization of digital literacy and by extension digital technologies, reframing digital literacy as a plural concept. As an alternative strategy, it recognizes that digital literacy cannot replace traditional learning but can enhance the learning environment. The thinking here is that the functional approach potentially erases the dichotomies between digital and print literacies by emphasizing the hidden aspects of “learning styles, multiple intelligences, personality types,” and capacities (Aviram & Eshet-Alkalai, 2006). The perspective coincides with the idea of meta-

literacy and value adds a plural approach to digital literacy discourse, facilitating a strategic inclusion of multiple critical conditions such as cross-cultural contexts (Thatcher, 2010), privacy and surveillance (Reilly, 2016), and situated learning within the wider conceptual framework.

The skeptical formulation questions the skill paradigm but also situates literacy beyond cognitive processes of reading, writing, and information seeking. In that it underlines the social dimension of literacy, emphasizing critical exchange and application of thoughts and ideas between individuals. Reframing literacy along these lines was done by a group of scholars in the 1980s and 1990s who called it “the New Literacy Studies” (NLS); there are still others who focus “on more recently developed literacy practices which are often (but not always) associated with ‘new technologies’ like computer and the Internet” (Jones & Hafner, 2012, p.13) and define it as “new literacies.” Digital literacy functions as a type of new literacies among several others, like computer literacy, Internet literacy, network literacy or hyper-literacy, and media literacy; other analogs include, Web literacy and game literacy (Buckingham, 2008); library literacy and reproduction literacy (Koltay, 2011); ICT skills, e-Skills, and ICT literacy (Lee, 2014), which all share common conceptual assumptions.

Digital literacy incorporates a strong social component reimagined through concepts like user, access, practice, consumption, interpretation, and production that gain emphasis within the contemporary literacy discourse. Importantly, there are four basic assumptions of new literacies that help to conceptualize digital literacy within a larger framework of literacy: (a) innovations in ICTs require new skills, competencies, awareness, and strategies of use; (b) new literacies develop continually as their defining technologies change (c) literacy components empower individuals as global citizens; (d) new literacies are multi-dimensional and multi-modal and their understanding positively impact our social participation (Leu et al., 2007). These assumptions underscore the critical perspective articulated by Paul Gilster (1997)

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/digital-literacy/183935](http://www.igi-global.com/chapter/digital-literacy/183935)

## Related Content

---

### Detection of Shotgun Surgery and Message Chain Code Smells using Machine Learning Techniques

Thirupathi Guggulothuand Salman Abdul Moiz (2019). *International Journal of Rough Sets and Data Analysis* (pp. 34-50).

[www.irma-international.org/article/detection-of-shotgun-surgery-and-message-chain-code-smells-using-machine-learning-techniques/233596](http://www.irma-international.org/article/detection-of-shotgun-surgery-and-message-chain-code-smells-using-machine-learning-techniques/233596)

### Information Systems and Technology Projects in Healthcare Organisations

Jorge Gomesand Mário José Batista Romão (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 3756-3766).

[www.irma-international.org/chapter/information-systems-and-technology-projects-in-healthcare-organisations/184085](http://www.irma-international.org/chapter/information-systems-and-technology-projects-in-healthcare-organisations/184085)

### Computer Assisted Problem Solving Environment (PSE)

Shigeo Kawata (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 1251-1260).

[www.irma-international.org/chapter/computer-assisted-problem-solving-environment-pse/112522](http://www.irma-international.org/chapter/computer-assisted-problem-solving-environment-pse/112522)

### Promoting Strategic Human Resource Management, Organizational Learning, and Knowledge Management in Modern Organizations

Kijpokin Kasemsap (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 4347-4357).

[www.irma-international.org/chapter/promoting-strategic-human-resource-management-organizational-learning-and-knowledge-management-in-modern-organizations/184141](http://www.irma-international.org/chapter/promoting-strategic-human-resource-management-organizational-learning-and-knowledge-management-in-modern-organizations/184141)

### Stories and Histories: Case Study Research (and Beyond) in Information Systems Failures

Darren Dalcher (2004). *The Handbook of Information Systems Research* (pp. 305-322).

[www.irma-international.org/chapter/stories-histories-case-study-research/30355](http://www.irma-international.org/chapter/stories-histories-case-study-research/30355)