Chapter 3
Digital Literacy in Theory and Practice

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ABSTRACT

The concept of digital literacy must be understood in the context of "literacies" writ broadly. Contemporary understandings of literacy have expanded the traditional definition that includes reading and writing (possibly also including numeracy and oralcy) to include interpretive and creative abilities or competencies across a range of texts in written and other forms. Digital literacy, from a pragmatic point of view, is the set of skills, knowledge, and attitudes required to access digital information effectively, efficiently, and ethically. It includes knowing how to evaluate digital information and how to use it in decision making. Digital literacy certainly has the potential to contribute to far-reaching and important personal and societal consequences. Thus, increasing focus on development of digital literacy, however defined, should be a policy priority for all sectors.

INTRODUCTION

The concept of digital literacy must be understood in the context of "literacies" writ broadly. Contemporary understandings of literacy have expanded the traditional definition that includes reading and writing (possibly also including numeracy and oralcy), to include interpretive and creative abilities or competencies across a range of texts, in written and other forms. Text, in its contemporary sense, would include the written word, whether rendered on paper or digitally, as well as film and multi-medias. Competencies with texts of any kind are culturally situated, and therefore to be literate is to have the ability to make meaning within particular social conditions (Hoechsmann & Poyntz, 2012). Thus, meaning-making competency for economically privileged youth in a Western urban setting will differ markedly from the meaning-making by adults in a traditional agricultural milieu half-way around the globe with little access to networked communications. In Western industrialized societies, social communication practices via digital means, including interpretation, production, and dissemination, are now commonplace; the degree to which people have the abilities required to participate in these practices can be considered "digital literacy."

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BACKGROUND

Digital literacy, from a pragmatic point of view, is the set of skills, knowledge and attitudes required to access digital information effectively, efficiently, and ethically. It includes knowing how to evaluate digital information, and how to use it in decision-making. This definition is a useful one, but it is one among many. Jaeger, Bertot, Thompson, Katz, and DeCoster (2012), for example, suggest that "digital literacy encompasses the skills and abilities necessary for access once the technology is available, including a necessary understanding of the language and component hardware and software required to successfully navigate the technology" (p. 3). For Jaeger and colleagues, digital literacy expands notions of the digital divide (a continuing challenge, even in wealthy nations), to add the ability to use technology, in addition to having access to it. They note that "digital literacy" came into its own in the 1990s, and they give credit to Gilster (1997) for moving the concept beyond the lists of information-handling skills articulated by national library associations in various countries, and for emphasizing information understanding and use. For Jaeger et al. (2012), "information literacy" is a subset of digital literacy.

Another perspective is that information literacy is the broader concept, since "information" need not be digital in format. The concept of information literacy has usually emphasized the contextual nature of information seeking, as well as the importance of information quality (Koltay, 2011). For some (e.g., Hobbs, 2010), information creation is an important aspect of digital literacy; that additional aspect relates digital literacy to the term "media literacy" which is also a commonly used term. There is no doubt that conceptual confusion is evident in this area, in which ICT (Information and Communication Technologies) literacy, computer literacy, computational literacy, technological literacy, information literacy, information fluency, digital literacy, transliteracy, and media literacy overlap in their meanings, and are employed differently by different authors and agencies. As noted above, related concepts include literacy (basic reading and writing) and visual literacy, in addition to metaliteracy (a reframing of information literacy that emphasizes participatory online environments (Mackey & Jacobson, 2011)). Bawden (2008) focuses on competencies, suggesting that digital literacy consists of competency in internet searching, hypertext navigation, knowledge assembly, and content evaluation. Koltay (2011) believes that these competencies include notions of critical thinking (a traditional conceptual foundation of information literacy), knowledge assembly (collecting quality information), as well as publishing and communicating information. A broad definition of digital literacy is offered by Martin (2006, p. 19):

Digital Literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process.

Bawden (2008) notes that,

Digital literacy touches on and includes many things that it does not claim to own. It encompasses the presentation of information, without subsuming creative writing and visualization. It encompasses the evaluation of information, without claiming systematic reviewing and meta-analysis as its own. It includes organization of information but lays no claim to the construction and operation of terminologies, taxonomies and thesauri. (p. 26)