

1 Introduction

1.1 Overview

Information literacy, or the way we seek, find, and use information, has come to the fore-front in the 21st century. There are many reasons for its newfound prominence. First, the Net Generation, those individuals born between 1977 and 1997 (Tapscott, 1998), has grown up with digital technology and is now technologically literate, yet there are many concerns about Net Generation's lack of information skills (Rockman, 2002). Second, one of the key characteristics of the 21st century is information abundance. The increase in diversity and number of information sources has led to information overload and anxiety (Bawden & Robinson, 2009). As the number of information sources increases, students' need to develop skills to seek, access, evaluate, manage, and use information effectively and efficiently increases as well. Third, information literacy is not limited to what happens to students' lives at school; rather, it is a vital element of their life outside of school. Information literacy has been widely recognized as one of the essential life, learning and workplace skills (Eisenberg, 2008), and according to UNESCO, as a "basic human right in a digital world" (Alexandria Proclamation, 2005). Accordingly, the study of information literacy has become a very active research domain in the last two decades.

Despite the growth of literature, the concept of information literacy remains elusive. The current study intends to explore the key components of information literacy with the intent of developing a framework for an understanding of information literacy in the 21st century. Such a framework is needed because of confusing definition, technological limitations, and conflicting ideas about what is important in information literacy.

One problem arises with confusing definitions of information literacy. Saranto and Hovenga (2004), in a review of the literature, concluded that information literacy was an ambiguous term. In addition to the lack of clarity in the term's definition, information literacy has been viewed as a set of generic skills. According to Sundin (2008), the skills-based approach to information literacy has been the target of critics who think we can not conclude that a person is information literate simply by evaluating a set of defined skills. Moreover, information literacy has been often defined within an academic context. Many authors have noted that current definitions of information literacy do not reflect the reality of what is happening in workplaces with regard to information literacy (Bawden, 2001; Lloyd, 2007; O'Farrill, 2010). In fact, information literacy was first developed in academic institutions focused mostly on cognitive skills and goals (Schroeder & Cahoy, 2010), which are individual in nature. However, in workplaces, information literacy happens through a social sense-making process that is based on dialog (O'Farrill, 2010).

Information literacy is also limited with regards to its compatibility with Web 2.0 technology. Current understanding of information literacy is largely based on a perspective in which individuals were viewed as passive information consumers than information producers (Dunaway, 2011). Social networks, blogs, podcasts, wikis, and file-sharing technologies, however, decentralized the traditional library science environment, and people are now not only information consumers, but information producers as well (Eshet, 2012). Information production in the new information environment requires collaboration, communication, and sharing. This trend adds to the complexity of information environments as students now have many more sources of information to

explore than they used to (Dunaway, 2011). Current conceptions of information literacy are not sufficient to describe such emerging views (Mackey & Jacobson, 2011).

Finally, the conflicting perspectives on what is important in literacy have even further muddled the concept of information literacy (Elmborg, 2006). Traditionally, literacy focused mainly on the relationship between text and individual; however, this conventional notion of literacy has been questioned by several major literacy movements. Paulo Freire's critical literacy movement (Freire, 1993), for example, shifted the attention of literacy from text to the real world and its socio-political power. Within this context, information literacy is viewed as a tool for empowerment, liberation, and solving problems in the real world, rather than as something to be accessed (Doherty & Ketchner, 2005; Elmborg, 2006). Similarly, the socio-cultural literacy movement of Street (1985), alongside new learning theories such as social constructivism, led to a view of information literacy that shifted the focus of research from sources of information to the contextual nature of the information (Lloyd, 2005, 2007, 2012, 2013). More recently, the emergence of digital literacy and multiplicity of communication channels has led to the emergence of "New Literacies" (Lankshear & Knobel, 2003), which emphasizes not only the need for multiple literacies but also a new set of competencies such as navigating digital sources and interpreting images, colours, sounds, movies, etc. (Ng, 2012; Rebmann, 2013). Consequently, there is no single literacy that can be sufficient for the dynamic context of the information environment (Bawden et al., 2007).

1.2 Research Goal

The purpose of the current study was to conduct a comprehensive review of the literature with the intent of developing a framework for an understanding of information literacy in the 21st century.