

# Importance of Digital Literacy and Hindrance Brought About by Digital Divide

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## INTRODUCTION

In this century we have seen rapid advancements in technology, and more innovative devices spawn every year. For better or for worse, technology have changed the way people go about their everyday lives. Humanity have achieved technological feats that were previously thought impossible such as computer processing and online communication. Along the way, a technological paradigm has emerged that has further altered the way people live; digital technology. Digital technology includes all types of devices and electronic applications that use and store information in the form of binary code, and these information can usually be altered by capable devices such as desktops, laptops, tablets and smartphones. Presently, information is available in vast amounts on a global computer network called the Internet. One cannot simply utilise technology, it requires a certain degree of skills and competencies. These skills and competences are commonly known as *digital literacy*. Digital literacy showcases an individual's grammar, vocabulary, writing, and typing skills on various platforms, and the appearance of the Internet means that digital literacy also extends to the capability of individuals in extracting and critically analysing information on the Internet and social media. With these advancements in the field of technology, it is vital to understand the importance of digital literacy.

People who possess sufficient amount of digital literacy will be able to reap the benefits of digital technology and will have their lives continuously improved. However, not everyone experiences the same benefits. A global phenomenon called digital divide has recently appeared, whereby there exists a gap between those who have access to technology and those without. Across the globe, Internet technology has developed unevenly throughout. Countries who have access to the Internet are able to develop, while countries who have no means of access or limited access to technology and the Internet are left behind socially and economically, and remains poor.

Thus, it is the objective of this article to provide a clear and concise definition of digital literacy. While many studies have explained in detail the definition of digital literacy, this chapter would like to complement that definition by applying it in the context of an Input-Process-Output (IPO) model, in order to provide more clarification and to help the general public better understand the concept of digital literacy. The article would then prioritise its objective to justify why having a certain degree of literacy is important from different industries. The importance of digital literacy is even more pronounced with the rapid rise in the usage of Internet (Internet World Stats, 2018, Dec 31). However, digital divide has plagued the world since the Internet first came into existence. Due to the negative social and economic

DOI: 10.4018/978-1-7998-3479-3.ch116

implications of digital divide, the article would then suggest solutions and recommendations on ways to tackle digital divide.

## BACKGROUND

The word *digital literacy* and the topic surrounding it is relatively new, going back only as far as the late 1990s (Lanham, 1997; Pool, 1997). Interestingly, digital literacy existed years after the Internet first made its appearance in 1991 (Berners-Lee, Cailliau, Groff & Pollermann, 1992). Since then, one of the earliest literature introducing digital literacy is done by Gilster (1997), in which he provided the explanation for the definition of digital literacy as possessing the ability to process information via technological means. However, the broad nature of this definition may have caused more questions than answers. The preceding literature that follows have attempted to interpret, analyse and evaluate this definition (Bawden, 2001; Robinson & Bawden, 2001, June; Williams, 2006). Bawden (2008) explained Gilster's definition further by applying it in the context of the present time; the digital age. The Input-Process-Output (IPO) model was first used to evaluate training (Bushnell, 1990), and has since been used in literature to describe a particular programming process (Curry, Flett & Hollingsworth, 2006; Grady, 1995; Goel, 2010; Zelle, 2004), but none have covered in the context of digital literacy.

Digital literacy is not to be confused with other similar literacies (Koltay, 2011) such as computer literacy (Hoffman & Blake, 2003), media literacy (Livingstone, 2004), and information literacy (Bruce, 1999), whose words have existed long before the emergence of digital literacy (Bawden, 2001). The existence of these words is in line with technological advancement; the more technology advances, more literacies begun to appear. Albeit the literacies are used interchangeably, ultimately they possess slightly different meaning from one another.

With technology progressing at a rapid pace, more studies have begun to appear in order to examine the underlying meaning behind digital literacy (Buckingham, 2008; Martin, 2008). Digital literacy requires skills and training to be able to competently process and produce information on digital media, which is far more easier for younger generations to master as compared to senior generations. In today's digital age, technology have made lives more convenient and as a result, people have started to rely on technology and are dependent on it to get things done. These studies culminated in the realisation on the importance of having a certain degree of digital literacy in order to survive today's digital age (Eshet, 2004; Martin, 2005).

Apart from digital literacy, digital divide is also an area that only been recently explored (Hoffman & Novak, 1998; Sidney Howland, 1998). Recent researches on digital divide include the study of the causes of digital divide in different context such as in tourism industry (Minghetti & Buhalis, 2010), as well as the context of a group of countries such as European (Union Cruz-Jesus, Oliveira & Bacao, 2012). In fact, the usage of the word digital divide coincides not long after literatures in digital literacy have begun to appear (Jaeger, Bertot, Thompson, Katz & DeCoster, 2012; Warschauer, 2002). As a result, there are currently only a few studies that determines how to solve digital divide (Ali, 2011; Lopez, Gonzalez-Barrera, & Patten, 2013).

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