

Chapter 34

New Faces of Digital Divide and How to Bridge It

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ABSTRACT

The chapter aims to explore, through the lens of digital divide, the challenges to alleviating socio-economic and intellectual limitations for prosperity of each individual. Cutting-edge research is reviewed to discuss in what way new technologies and access to them really help to develop citizens who are able to contribute in creative and democratic ways to society. While much effort has been done in the past decade to bridge the digital divide by resolving access issues and usage issues, the recent studies seem to indicate that the gap at all levels, nation-wide, community-wide, special groups-wide still exists and even deepens, especially regarding digital inclusion and meeting needs of at-risk population. More systematic research and innovative practical solutions are needed to address all the aspects of digital divide: physical, financial cognitive, content, and political access; also, we have to consider the technological and social resonances of digital technologies in terms of digital literacy and development of critical thinking.

INTRODUCTION

The objective of our chapter is to explore, through the lenses of digital divide, what are challenges to alleviating socio-economic and intellectual limitations for prosperity of each individual. Will new technologies and access to them really help to develop citizens who are able to contribute in creative and democratic ways to society? In order to answer this question, we extend our work presented in Martinovic and Freiman (2013) to:

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- Identify factors to consider in designing flexible, innovative, and inclusive programs for all citizens to enable them to successfully function in the era of the Internet, new media, and computer technologies.
- Analyze how digital divide problematizes one's chances to be involved in the knowledge economy.
- Investigate ways in which digital divide may be circumvented.

In the past 15 years or so, Information and Communication Technologies (ICT; e.g., personal computers, cell phones, Internet) have become pervasive in developed countries, such as Canada and the USA. These tools can be used for both in-school and out-of-school activities, and are particularly suitable for connecting individuals and communities globally (Beetham, McGill, & Littlejohn, 2009). However, many countries could not provide to their citizens the same level of access to digital technology, which, in its turns risks to deprive them of opportunities to develop abilities necessary for a meaningful use of digital technology and computer networks, including the Internet to gather, manage, and evaluate information, to create documents in multiple media forms, and to communicate at distance, are all aspects of digital literacy, as delineated in various policy documents (e.g., California Emerging Technology Fund, 2008). In fact, digital literacy has become almost a prerequisite for creativity, innovation, and entrepreneurship, all the irreplaceable attributes of the 21st century citizen (Beetham, McGill, & Littlejohn, 2009). However, although it is recognized that technology may positively affect both social and cognitive development of every citizen, it may also create or maintain economic divide across students, teachers, and schools (AERA, 2013), as well as between social groups or societies, even in the most developed countries..

Our effort to examine these tensions that in our opinion go beyond the usual issues of “have’s” and “have not’s” arises from the literature review study (Freiman, Martinovic, & Karadag 2011) we conducted upon request of the Ontario Ministry of Children and Youth Services (MCYS, 2012). Authors of numerous sources we reviewed, including position papers, government-ordered reports, as well as research data, relate digital divide to several aspects of ICT, such as machine vintage, connectivity, online skills, autonomy and freedom of access, technical support, and interest in using the technology (Hawkins & Oblinger, 2006; Oblinger, 2008).

BACKGROUND

By introducing the concept in early 2000s, an OECD report (OECD, 2001) identifies two types of digital divide, the first one, based on the opportunity to access digital tools, including the Internet, and the second one, related to the ability to use those tools. For example, Norris (2001) argues that digital divide appears as result of uneven growth of the Internet resources, their multi-dimensional character, as well as transitory nature of the process associated to this growth. Also, in early 2000s, Attewell (2001) and Swain and Pearson (2001) identify the discrepancies in access to technology as the first digital divide, while differences in the effective use of ICT belong to the second digital divide; thus users with only basic access to technology can be disadvantaged, being technologically illiterate because of their limited opportunity to use digital resources. This view is shared by Dance (2003), who compares the cyberspace netizenry to citizenship in the ancient Athenian democracy that excluded women, slaves, and those with foreign origins. In like fashion, today's cyber netizenry ends up forming cyber-elite (i.e., an information-rich, digerati, and virtual class). Dance (2003) further points to some older reports that demonstrated that the digital divide in the USA was growing and had a deeper and more far-reaching impact than before.

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