Digital Divide

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Patrick Flanagan
St. John's University, USA

INTRODUCTION

Since 1991 when the World Wide Web (WWW) was first made available to the public, the WWW has revolutionized the ways the global community engages each other economically, politically, and socially. Its impact has been historically unprecedented. While the availability of and access to the WWW appears to be ubiquitous, it is not. The expansion of this marvelous Information Communication Technology (ICT) has not penetrated certain areas of the world resulting in a "digital divide." This chapter discusses this digital divide. It first defines the term and how scholars have understood the digital divide. It then moves to discuss the origins of the term in popular literature and official government documents. From there, the chapter moves to present concrete evidence of how the digital divide has negatively impacted the global community. Finally, it names and evaluates the efforts of different organizations and agencies to resolve the digital divide. It concludes with a prospectus on the future challenges of information communication technology vis-à-vis the digital divide.

BACKGROUND

The digital divide is a term that describes the gap between those who have access to information communication technology (ICT) and those who have limited or no access. This distinction, however, between the "haves" and the "have nots" can be too basic a delineation (Compaine, 2001; Hawkins, 2006; Selwyn, 2004; Warschauer, 2002). What is "had" and "not had" is much more compre-hensive involving available physical equipment, utility resources (for instance, electricity), and technological skills. While the "have nots" can be those who do not have effective access to information communication technology, the "haves" can include those who have a computer, but with no or limited connection to the Internet, with a rather dated dialup and not a broadband connection, or those who connect through a mobile phone. ICT has transformed significantly political, social, and economic engagement in connected parts of the global village. Without effective widespread access to ICT, the digital divide further alienates citizens within and among countries of the world and amplifies divides already established ethnic, gender, income, and geographic inequalities. Both government agencies and scholars have studied carefully the digital divide and have suggested creative ways to ensure access to equipment, education, and viable signal connections in order to maximize fuller participation in this dynamic global ICT phenomenon.

A review of literature early on in the rollout of the WWW reveals attentiveness to more than just lack of access to the rich technological resources some enjoyed. In their assessment of the digital divide, scholars highlight that the chasm is much more complex than its original sense involving widespread inequalities on various political, economic, educational, demographic, ability, and gender levels (Alampay, 2006; Barzilai-Nahon, 2006; Colle and Roman, 2001; Dagron, 2001; DiMaggio, Hargittai, and C & S, 2004; Fink and Kenny, 2003; Norris, 2001; Parkinson, 2005; Potter, 2006; Simpson et al, 2004; and Warschauer, 2003). While admitting, for example, the excitement of the Internet's impact for optimizing

networking in the global village, Norris (2001) raised some critical questions as to whether or not the Internet would evolve into a democratic participatory medium offering equal advantages for engagement or would it only reinforce dominance and inequality. Beyond a binary construction of the digital divide rendering it more complex, Norris describes three divides that called for a response: the global divide that focused on access; the social divide that alienated people; and, the democratic divide that illustrated the use or lack of use of the Internet for political purposes. Van Dijk and Hacker (2003) identify psychological, material, skill, and usage factors that influence this access. Hilbert (2004) focuses on the gender divide while Preiger and Hu (2006) study the racial divide, both further specifications of the digital divide. Kularski and Moller (2012) further specify the digital divide focusing on technological skill gap. The challenge, Kularski and Moller note, involves more than supplying ICT equipment and ensuring access points to digitally excluded people. Users need to be trained how to use technology optimally for their needs.

Castells (2001) highlights the strong relationships between the different geographies of the Internet: technological geography, geography of users and economic geography. Castells affirms that Internet is the technological tool able to distribute the informational power, knowledge and capability to connect people into different networks. To be disconnected means to be marginalized in the global system. For this reason the sentence about the need for the underdeveloped countries to start from the real needs of the third world (health, culture, water and electricity), before thinking to Internet, reveals a deep misunderstanding. Without Internet no Country has the possibility to generate the resources able to satisfy the needs linked to the development. Following Castells (1996) Internet has the control and accessibility to informative flows, although not homogeneously dislocated in the world, configuring new geo-political balances on the basis of new geo-informational maps of the

"Internet Galaxy". It is a fact, that the relationship between science and both society and media, is profoundly changed. In the last two decades, we have been observing a structural transformation of traditional communicational channels, where tele-communication was used to connect people physically separated from each other, toward a new pattern of "connected presence" (Castells, Fernandez-Ardevol, Qiu & Sey, 2007). In this new model, small gestures or signs of attention may be at least as important as the message content itself.

MAPPING THE DIGITAL DIVIDE

46% of the world population is connected to the Internet, a far cry from 1% in 1995 (Internet Live Stats, 2016). Statistics report considerable growth in digital usage for the past sixteen years (Internet World Stats, 2016). However, evidence also amplifies that the African, Asian, and Middle Eastern regions still lag in Internet connections significantly impacting the larger global digital divide. 2.1 billion of the 3.3 billion Internet users lived in 10 countries (Internet Live Stats). The rest comprised the bottom quarter and among 191 other countries of the world. Heading the list of countries were China, the United States, India, Japan, and Brazil. The most connected countries are Iceland, Faeroe Islands, Norway, Bermuda, Andorra, Denmark, and Liechenstein all averaging approximately 96% Internet penetration per population rates. The least connected countries of the world are, in ascending order, Eritrea, Timor-Leste, Burundi, Somalia, Guinea, and Niger, all with no more than 2% Internet penetration rates.

A number of different efforts have been made by scholars and journalists to illustrate visually the digital divide. Chris Harrison from the Human Interactions Institute at Carnegie Mellon University tracked Internet access over a four year period. In a 2011 map, Harrison showed the increased user connections throughout the world and, at the same time, demonstrated Internet ac-

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