The Digital Divide Revisited

"Opportunity for all requires something else today -- having access to a computer and knowing how to use it. That means we must close the digital divide between those who've got the tools and those who don't" (**Clinton, 2000**)

Even before President Clinton began a series of initiatives targeting the digital divide, the National Telecommunications and Information Administration (NTIA) began surveying internet usage in the U.S., focusing on the "haves" versus the "have nots" as those terms referred to households or groups with access to computers and the internet. Although there is ongoing discussion about the ways and means of measuring the size of the gap, both in the U.S. and worldwide, generally the indicators of availability, access and utilization of Communications Technologies (ICTs) and the ICT Development Index (IDI)[1] are used in research to determine the "gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies and to their use of the Internet for a wide variety of activities" **(Understanding the Digital Divide, 2001**).

The 2014 IDI report lists the United States as ranking 14th among 166 countries surveyed (up from 17th in 2012) (**International Telecommunication Union, 2015**). What are some of the indicators that are used to assess availability, access, and utilization of the internet? In a research study completed at the School of Business, University of Redlands (**Pick, Sarkar, & Johnson, 2015**), three areas of concentration are identified. First are the demographic factors. As might be expected, urban locations have the heaviest concentration of broadband access (high speed internet access) and mobile phone availability. Individual internet use in metropolitan areas varies along racial and ethnic lines. Rural residents are significantly less likely to access the Internet than urban and suburban residents. Housing density and people's socializing interactions also impact internet usage. We will discuss the impact of socializing factors later.

Second, economic factors, that is, income has been a significant factor in providing access to computers and in internet usage. Employment in professional jobs and in service industries is strongly associated with technology availability and use.

Third, the level of educational attainment certainly seems to impact both access to and use of the internet. It seems somewhat intuitive to say that the more educated a person, the better understanding that person has of technology and how to use it. In summary,

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[1] The **ICT Development Index** (**IDI**) is an index published by the United Nations International Telecommunication Union based on internationally agreed information and communication technologies (ICT) indicators.

> *younger, white, better educated, more affluent, employed, urban and suburban Americans remain more likely to access the Internet and use it more intensively than older, black, less educated, less affluent, unemployed, and rural Americans. In particular, three aspects of digital divides—education, geographic location, and generation—are consistently evident in access, general use, and online communication. More importantly, rural residents access and use the Internet the least in general and for online communication specifically, compared to urbanites and suburbanites. This visible, persistent urban–rural divide underscores that community resources are required to overcome the digital divides* (**Chen, 2013**)

There are other factors that play into differences in access and usage of computers and the internet (and thus must be considered in evaluating the digital divide). These factors include the sex and age differences among the users. Various studies have shown that older adults (more than 50 years of age) are less comfortable using various forms of technology than the younger age groups. When age was the only differentiating factor considered, some very clear differences were found among different age groups in the "ease of adaptation to new technology, comfort with current technology, feeling addicted to technology, using technology to avoid work and to forget about personal problems, and to avoid talking with someone face-to-face"

Are there implications for this type of finding? The American population is increasingly older. Although older adults may find that being hired is sometimes problematic, firms that want to either attract older workers or keep those currently employed, may need to be sensitive to technology training that might be needed to acquaint the older worker with new technologies. Many support groups, community groups, even church groups, have transitioned to using electronic communications. Medical records are being transitioned to electronic medical records, with patient access only via a computer and the internet. Thus it is important to understand that the oldest adults in the group may be less likely to be included in this type of exchange or to understand how to access information.

Attitudes toward and use of technology also differ between men and women. Men look first for how the technology will benefit them; important motivating factors for older women to become computer literate included trying something new, keeping in touch with family and friends, needing to use word processing, and obtaining health-related information. Males believe that they possessed more technical aptitude than females, whereas females consider themselves better at using technology for social communications (e.g., text messaging and Facebook) (**Van Volkom, Stapley, & Amaturo, 2014**).

Are these factors still as relevant now? The more pertinent question is whether broadband/high speed access to the internet should be the basis for evaluating the digital divide. Does it still make sense to talk of the digital divide based on access to a platform, that is, a computer? There are other players in the field – the smartphone or mobile phone, the tablet,

the iPad, etc. At least a subset of the digital divide might be labeled smartphone or mobile device divide. (**Park & Lee, 2015**) in a survey of college students, found that

> *smartphone users were more active online as expected. Although no significant difference was detected in the amount of time spent on social networking sites (SNSs) between smartphone users and non-users, smartphone users had more friends online and more "online-only" friends than non-users. Second, smartphone users seem to participate more actively in social and political issues than non-users do. Third, active users were adopting digital technologies faster than less active users, and active users were inclined to spend longer time on SNSs than less active users. Also, active users used more free and paid applications on their smartphones compared to less active users.*

Social capital and the Digital Divide

One of the elements impacted by the digital divide is social capital. Just what is social capital and what is its role in the creating or bridging the digital divide? The Oxford Dictionary defined social capital as "The networks of relationships among people who live and work in a particular society, enabling that society to function effectively" (**Oxford Dictonaries, n.d.**)

> *The central premise of social capital is that social networks have value. Social capital refers to the collective value of all "social networks" [who people know] and the inclinations that arise from these networks to do things for each other ["norms of reciprocity"]* (**Putnam, n.d.**)

It appears a given at this stage that computers and the internet have greatly altered how individuals and groups interact. Younger adults do engage in more technology-based socialization. Actually, social capital, the network of relationships, can be supportive of greater use of the internet and, at the same time, use of the internet can enhance one's social capital. In what ways does this flow between one's networks and internet usage go both ways? On the one hand, internet usage by other members in one's own network of social interactions may provide greater exposure to new technologies as well as assistance from family and friends in solving technical problems. On the other hand, those with social ties to others who do not use the internet as much may be missing access to job information and other means of enhancement, for example. Individuals who have access to more resources via social networks are more likely to access the internet and use it because their network of contacts use the internet and communicate often online. Simply put, if your social network includes those who have access, who are comfortable with and use the internet frequently for both personal and professional enhancement, and who are able to provide informal training and technical support, and put peer pressure on you to engage in the same way, you are more likely to access and use the internet yourself (**Chen, 2013**).

Where are we headed in the U.S?

First, you would not be reading this in your IFSM 201 classroom is you were a member of the "have nots." But still, about 1/3 of Americans do not have ready access to the internet. In February, 2009, Congress passed and the President signed into law the American Recovery and Reinvestment Act (ARRA) (**The Recovery Act, n.d.**). Part of this new law focused on the expansion of broadband and wireless service. In response, the Federal Communications Commission (FCC) prepared a National Broadband Plan and set six goals for 2020:

- ***Goal No. 1:*** *At least 100 million U.S. homes should have affordable access to actual download speeds of at least 100 megabits per second and actual upload speeds of at least 50 megabits per second.*
- ***Goal No. 2:*** *The United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.*
- ***Goal No. 3:*** *Every American should have affordable access to robust broadband service, and the means and skills to subscribe if they so choose.*
- ***Goal No. 4:*** *Every American community should have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals, and government buildings.*
- ***Goal No. 5:*** *To ensure the safety of the American people, every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.*
- ***Goal No. 6:*** *To ensure that America leads in the clean energy economy, every American should be able to use broadband to track and manage their real-time energy consumption* (**Access to Telecommunications Technology: Bridging the Digital Divide in the United States, 2013**).

Potential discussion questions:

- Are the above FCC goals realistic?
- How would you cope with your education, employment, social networks if you lived in an area that was not served by broadband internet access or even cell phone service?
- What do you consider the primary reason why every country, not just the U.S. should strive to close the digital divide?
- Who suffers the most when internet access and mobile phone access is missing?

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