Digital Divide

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INTRODUCTION

Distance education (DE) is a reality. Pop-up advertisements of online master's degree programs appear with regularity on the Internet, and distance education courses are marketed via television, radio, and the printed media. It seems as though the options of receiving an education are expanding all around us. While DE indeed appears to reform education at a rapid speed, it is important to slow down and take a careful look at the issues DE presents to learners, to the market of education, and to society at large. Looking at DE from an educator's perspective alone is not sufficient, as the effects of technology are interwoven with our economic, political, and sociological dimensions. While in today's world the trend is toward specialization, it is a generalist's view or multiple perspectives that are necessary in order to evaluate the effects of the digital divide. So from a sociological perspective, the question looms: Does distance education promise to widen or narrow the digital divide?

In order to understand the magnitude of the development of distance education, it is important to understand the explosive growth and expansion the Internet has enjoyed over the past decade. Robert Hobbes's (2003) timeline of the history and development of technology records the growth of worldwide Internet users from less than 100,000 in 1993 to nearly 50 million users in 2003. Mathematically this is a trend of exponential growth. If this trend were to continue, one could argue that Internet access could potentially reach the majority of households in another decade. This assumption would lead one to conclude that distance education via the Internet could nationally, if not globally, improve the way education is delivered, and could reach those who up until now have either been failing or falling through the net of education.

The promise that distance education offers is real but has to be examined in light of other data. The National Telecommunications & Information Administration of the U.S. Department of Commerce (NTIA) has gathered data over the past five years to evaluate how the United States, the richest and most powerful nation on earth, fares in providing connectivity or access to the media systems that deliver distance education. The data is sobering:

- Those with a college degree are more than *eight times* as likely to have a computer at home, and nearly *sixteen times* as likely to have home Internet access, as those with an elementary school education.
- A high-income household in an urban area is more than *twenty times* as likely as a rural, low-income household to have Internet access.
- A child in a low-income White family is *three times* as likely to have Internet access as a child in a comparable Black family, and *four times* as likely to have Internet access as a child in a comparable Hispanic household.
- A wealthy household of Asian/Pacific Islander descent is nearly *thirteen times* as likely to own a computer as a poor Black household, and nearly *thirty-four times* as likely to have Internet access.
- Finally, a child in a dual-parent White household is nearly *twice* as likely to have Internet access as a child in a single-parent household, while a child in a dual-parent Black family is almost *four times* as likely to have access as a child in a single-parent Black household (NTIAa, n.d.)

For further information on technology penetration in American households, visit http://www.ntia.doc.gov/ntiahome/fftn99/part1.html.

From this data one can easily gather that the population that most benefits from distance education at this time is the White, two-parent household with middle to upper middle class income levels. In time, one can argue this gap is going to narrow as it has with the penetration of telephones into 94% of

American households today. There indeed has been a narrowing of gaps between White and Black households in telephone ownership. This gap decreased by 25.5% in the four years from 1994 to 1998, leaving a disparity of 7.9% between Black and White households.

Knowing that telephone lines are only a prerequisite to Internet access and DE, expanding access to other electronic services is the next step in fighting the digital divide. Here too are trends to review. Data gathered by the NTIA report that "Americans of every demographic group and geographic area have experienced a significant increase in computer ownership and Internet access. Nationwide, PC ownership is now at 42% and Internet access is now a 26.2% in U.S. households" (NTIAb, n.d.; NTIAc, n.d.). Yet, despite these gains across American households, distinct disparities remain. The groups to least benefit from the advances made in technology today are those lowest on the economic scale and from Black or Hispanic households. The main concern here is that the digital divide, which despite growth in many areas is actually widening between the races and turning into a racial gap.

This presents a concern for a future in which both information and education are becoming increasingly crucial components of success. The Internet today has become the venue people use to improve or advance their current status. From job searches to online courses, information and education online are becoming the tools to advance ourselves. Those who are disadvantaged today in access to information will fall dramatically behind the growth and invention the market offers in the future. Richard Florida, author of the book *The Rise of the Creative Class* (2002), states that our economy and future is increasingly built on ideas, networking, and invention. His research shows that today up to 30% of all jobs (and growing) fall into this category. Of course these are also the jobs that demand the highest salaries in the market. Those who are left out of the network of ideas and information will truly be left behind. Knowing this, policy makers have to consider how to promote equal access to the technology that is changing the way we receive information, and the way we educate and advance ourselves.

Suggestions of how to narrow the gap of the digital divide are rooted in part in our free market society, where by promoting competition, products and services will become more competitively prized and affordable. The number one reason for lack of technology and access in low-socioeconomic households is that computers as well as monthly service fees remain cost prohibitive. If PC ownership is not yet a reality for two-thirds of American households, providing access via community access centers such as libraries, local schools, and other public sites is crucial. With technology advancing at a speed where entire buildings are becoming wireless, how long will it be before entire neighborhoods have wireless access and thus be able to participate in distance education?

Digital Divide Network (DDN), a non-profit agency that addresses the digital divide facing the global community, advocates a project supported by the United Nations Development Program called Tiger Leap, in which the parliament of a country committed itself to provide nationwide Internet access in an effort to create an environment that enables communication and education of its citizens. The tiny nation of Estonia, home to 1.5 million people on the Baltic Sea, is the first of its kind in which a government declares Net access a right just like any other. For more on this venture, visit http://www.sdnp.undp.org/it4dev/stories/estonia.html. Further projects such as these are to follow in Bolivia, Romania, and Tanzania.

Our potential for using technology for education and for the betterment of society is real. It is, however, dependent at least in part on a government that supports that vision for everyone. Policy makers need to support initiatives that research and bridge the digital divide. Community-based organizations such as schools, community centers, credit unions, housing projects, shelters, senior centers, museums, and fire and police stations can all play a part in providing access to its residents. Furthermore, initiatives that promote access for the underprivileged can be supported by federal and state grants. What would happen to a neighborhood such as the Bronx, New York, for example, if Internet access and online education were made available in addition to other social services? Paulo Freire held the belief that in order to affect the education of a young person, one has to also affect the environment in which he/she lives (Freire, 1994). With that, he proceeded to educate the families of his students as well; parents and children were both getting their