Chapter 7.5
Bridging the Digital Divide:
A Feminist Perspective on the Project

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ABSTRACT

Dale Spender compares the contemporary growth of digital information (due to computer technology) with the centuries-old growth of written information (due to the printing press), which inspired a tremendous social revolution. Today, digital information has the potential to inspire a similar social revolution, if we all have access as users and creators of information technology. Some have described the gap between those with power to use and create digital information and those who do not as a "digital divide." How can we use the potential of information technology to birth a new social revolution on a global scale? How can we bridge the digital divide? The answers lie in a reevaluation of science and technology to include us all. This chapter explores the problem from a feminist perspective and proposes a variety of solutions.

INTRODUCTION

The exponential growth of technology today is fostering a concurrent growth in information, but it is digital information—primarily accessible only to those with certain privileges. Dale Spender (1995) describes how the contemporary growth of digital information as a result of computer technology parallels the growth of written information as a result of the printing press hundreds of years ago. Both events inspired tremendous social revolutions, and Spender (1995) underlines that it is not the technology itself that is the substance of today's revolution, "it is the change in society—the shifts in power, wealth, influence, organization, and the environmental consequences—that matters to us all as individuals, and as communities" (p. xiv). Without question, this issue of power, and of who holds the power, and of how they exercise that power,

is one of the most significant issues we face as a global technology community. Unfortunately, the power is not equally shared. In fact, we are suffering from a growing digital divide both within the US and between the technologically-advanced nations and others world-wide. I use the term "digital divide" broadly in this chapter to refer to power and access gaps in relation to both users and developers of technology.

The digital divide is a well-documented phenomenon and the divide has grown wider in recent years. Several recent studies (one by the National Science Foundation and another by Federal Reserve Bank economists) continue to show how race, family income and educational attainment influence computer usage in the US. For example, one study showed that while 46.6% of White families own home computers, only 23.2% of African-American families do (Cooper & Weaver, 2003, p. 4). Another study showed that "while 61.2% of whites and 62.7% of Asians use computers at home, only 35.7% of Blacks and 31.6% of Hispanics do" (Valletta & MacDonald, 2003, p. 2). Family income is another powerful determinant of computer ownership and usage. One study showed that "2.7% of families with incomes under $15,000 own computers compared to 77.7% of families with incomes over $75,000; and among all families with incomes under $35,000 computer ownership of white families was three times that of African-American families and four times that of Hispanic families" (Kirk & Zander, 2004, p. 171). Another study showed that the "usage rate is 21.1% for individuals with family income under $15,000 per year and 79.6% for individuals with family income of at least $75,000 per year" (Valletta & MacDonald, 2003, p. 1). Educational attainment even more dramatically influences home computer use. One study showed that "home computer use ranges from 18.9% for those with no high school degree to 81.9% for those holding graduate degrees" (Valletta & MacDonald, 2003, p. 1). Clearly, better access to education narrows the digital divide in relation to

computer usage, but who belongs to the exclusive club that develops technology?

Since this is a professional field that increasingly requires formal academic training, one way to understand the demographics of those who develop technology is to look at the data on higher education. One of the best sources for this data in relation to information technology is the Taulbee Survey that is annually reported in *Computing Research News*. The most recent report showed:

that while the numbers of computer science majors at all levels of higher education has increased overall, there has also been a decline in the percentage of women and students of color at all levels. Of all computer science majors in the U.S., only 18.8% are women, 3.4% are African American, 3.6% are Hispanic, 21.7% are Asian/Pacific Islander (although this population is overrepresented, their percentage has still declined), and 0.4% are Native American. (Kirk & Zander, 2004, p. 169)

If there is this much inequity in the US, then how large is the digital divide on a global scale? The results are about what one might expect. Geographer Joni Seagar (2003) reports that more "than 80 percent of Internet users are in the industrialized countries; Africa is the least wired" (p. 82). Given the deep-rooted causes of the digital divide, how can we begin to bridge the gap?

The following sections of this chapter explore the problem and propose solutions from a feminist perspective. "Reclaiming the 'F' Word: Demystifying Feminism" provides a brief primer on "feminism" and defines the manifestations of a patriarchal social system. "Stereotypes 'R Us: Mass Media as Social Institution" describes how mass media use stereotypes as a marketing tool to teach limited and limiting beliefs that influence our perception of science and technology. "Science is Male, Nature is Female: Understanding Dualisms" explores the historical influence of the philosophy of science on science and technology today. "No

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