Gender Differences in IT Use in the U.S. and Japan

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INTRODUCTION

As information technology (IT) has become more common in everyday use, so too have concerns about the digital divide—unequal access to and use of IT across demographic groups and countries. Understanding the extent and causes of the digital divide is important because IT skills have become increasingly vital to individuals' economic success.

Although IT is widely available in both the United States and Japan, there are notable gender differences in its actual usage between the two countries. In the United States, the gender gap in IT use has narrowed over time, and according to some measures, women are at least as likely as men to use computers. In Japan, however, sizable gender gaps in IT use persist.

The contrasting patterns of IT use in the United States and Japan reflect differences in the structure of social organizations and institutions in the two countries. Studying gender differences in IT use across countries thus requires a nuanced understanding of the institutional context under which gender inequality is generated. Using the United States and Japan as contrasting examples, this article examines how gender differences in IT use evolve from gender inequality in broader cultural settings, particularly labor market institutions.

BACKGROUND

Gender inequality in the labor market is considerably greater in Japan than in the United States. Less than 50% of women in Japan are in the labor force vs. 60% in the United States. Japanese women are less likely to be employed in professional and technical positions than their U.S. counterparts; only 45% are professional or technical workers in Japan vs. 54% in the United States. The gender earnings gap is also more pronounced in Japan than in the United States; the female-to-male earnings ratio is 44% in Japan compared with 62% in the U.S. (International Labour Office, 2001). In addition, the proportion of women employed in nonstandard jobs—temporary, contingent, or part-time jobs that typically pay less and offer fewer fringe benefits than standard jobs (Kalleberg, Reskin, & Hudson, 2000)—is almost twice as high in Japan as in the U.S. (Houseman & Osawa, 2003; Nagase, 2003).

There are several reasons why the greater gender inequality in the Japanese labor market may lead to larger gender differences in IT use in Japan than in the United States. People who do not work do not have the opportunity to use a computer at work, which may result in lower overall computer usage. Because the gender gap in labor force participation is larger in Japan than in the United States, the gender gap in overall IT use may be bigger there as well. Further, differences in employment status may lead to differences in computer usage at other locations, such as at home, particularly if computer skills acquired at work carry over to other locations. Consistent with this, almost 70% of American adults who use a computer at work also use a computer at home, but only 31% of employed adults who do not use a computer at work do use one at home (NTIA, 2002). The cross-country differences in employment rates by sex suggest that gender differences in computer use overall and at home will be greater in Japan than in the United States. In addition, differences in the types of jobs held may lead to differences in computer use. Given their overrepresentation in nonstandard jobs, Japanese women may be more

Table 1. Computer ownership and internet use in the U.S. and Japan (Source: U.S.: National Telecommunications and Information Administration (http://www.ntia.doc.gov/) and Bureau of the Census (http://www.census.gov/); Japan: Economic and Social Research Institute (http://www.esri.cao.go.jp/))

Year	United States		Japan	
	Computer ownership	Internet use	Computer ownership	Internet use
1989	15.0	-	11.6	-
1993	22.8	-	11.9	-
1994	24.1	-	13.9	-
1996	-	-	17.3	-
1997	36.6	22.2	22.1	9.2
1998	42.1	32.7	25.2	13.4
1999	-	-	29.5	21.4
2000	51.0	44.4	38.6	37.1
2001	56.5	53.9	50.1	44.0
2002	56.5	59.1	57.2	54.5

Note: Computer ownership is the percentage of households that own a computer. Internet use is the percentage of individuals that use the Internet (from any location).

segregated into jobs that do not involve IT use than their U.S. counterparts.

OVERALL TRENDS IN IT USE

The proportion of households with computers was higher in the United States than in Japan as recently as the late 1990s. As shown in Table 1, the proportion of households with a computer was about 17% points higher in the United States than in Japan in 1998, for example. In fact, diffusion of computers in households in Japan remained lower than in most OECD countries throughout much of the 1990s (OECD, 2000). Only after the year 2000 did computer penetration rates in Japan reach a level comparable to the United States. Internet use in Japan also lagged behind the United States during the 1990s.

Several factors caused IT usage rates in Japan to lag behind the United States for many years. Higher costs of hardware and software and higher telecommunications fees contributed to the lower initial computer and Internet penetration rates in Japan (Economic Planning Agency, 2000). Over 90% of online content is in English (OECD, 2001) and computers predominately rely on the English language, but few Japanese speak English. Furthermore, although the typewriter was a common fixture in offices and homes in the pre-computer era in the U.S., no comparable counterpart to the typewriter existed in Japan. And because Japanese is still the dominant language used on computers in Japan, all users must first master the craft of transforming the English alphabet into Japanese characters (or *kanji*) using the conventional qwerty keyboard.

GENDER GAPS IN IT USE

In the United States, women are more likely to use computers at work than men. In 2001, as Table 2 indicates, almost 61% of employed women used a computer at work compared with less than one-half of employed men. This gap in favor of female workers has persisted since at least 1984, when the U.S. Bureau of Labor Statistics first began surveying individuals about computer use.

However, women's higher overall rate of usage of computers at work in the United States does not carry over to all aspects of IT access and use. Women are slightly less likely to live in a household with a computer (Losh, 2003), and men dominate household decisions about computer purchases (Papadakis, 2001). Some studies conclude that women are less likely to use the Internet at all (e.g., Bimber, 2000) and, conditional on Internet use, use the Internet less frequently (Ono & Zavodny, 2003).

Table 2. Computer use at work and anywhere in the United States by gender (Source: Bureau of the Census (http://www.census.gov/))

Year	Work		Anywhere	
	Men	Women	Men	Women
1984	21.2	29.0	17.3	19.4
1989	31.6	43.0	28.4	27.9
1993	52.4	40.3	36.2	35.8
1997	44.1	56.5	47.0	47.3
2001	48.2	60.7	59.3	60.2

Note: Percentage using a computer at work is among workers aged 18 and older only.