Differences in Actual and Perceived Online Skills: The Role of Gender*

Eszter Hargittai, *Northwestern University*

Steven Shafer, *Princeton University*

Objective. The literature on gender and technology use finds that women and men differ significantly in their attitudes toward their technological abilities. Concurrently, existing work on science and math abilities of students suggests that such perceived differences do not always translate into actual disparities. We examine the yet-neglected area concerning gender differences with respect to Internet-use ability. In particular, we test how self-perceived abilities are related to actual abilities and how these may differ by gender. *Methods.* We use new data on web-use skill to test empirically whether there are differences in men's and women's abilities to navigate online content. We draw on a diverse sample of adult Internet users to investigate the questions raised. *Results.* Findings suggest that men and women do not differ greatly in their online abilities. However, we find that women's self-assessed skill is significantly lower than that of men. *Conclusions.* Women's lower self-assessment regarding their web-use skills may affect significantly the extent of their online behavior and the types of uses to which they put the medium. We discuss the implications of these findings for social inequality.

There is an increasing body of literature on the social implications of the Internet (DiMaggio et al., 2001). Millions of people access the web daily for financial, health, and government information, for job searches, entertainment, and numerous other activities (Fallows, 2004; Howard, Rainie, and Jones, 2002). An increasingly popular topic of inquiry in the literature on Internet use addresses the "digital divide" or the differences between haves and have nots with respect to new digital technologies (Hargittai, 2004b). Work among academic researchers (Bucy, 2000; DiMaggio et al., 2004) and

*Direct correspondence to Eszter Hargittai, Department of Communication Studies, 2240 Campus Dr., Northwestern University, Evanston, IL 60208 ⟨gender06@webuse.org⟩. The data used in this study are available to scholars for the purpose of replication We are grateful to Susan Lutz and Inna Barmash for their assistance with data collection and we appreciate the logistical help from Hank Farber and Betty Leydon. We also express our gratitude to the many people who took time from their busy schedules to participate in this study. Generous support from the Markle Foundation and NSF Grant IIS0086143 is kindly acknowledged. The project has also been supported in part by a grant from the Russell Sage Foundation, and through a grant from the Pew Charitable Trusts to the Center for Arts and Cultural Policy Studies, Princeton University. The first author is also grateful to the Dan David Foundation and the Northwestern University Department of Communication Studies Research Fund for their support.

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in policy circles (Benton Foundation and Leadership Conference on Civil Rights Education Fund, 2002; National Telecommunications and Information Administration, 2002) indicates that Internet use has spread across the population unevenly, leading to a potential digital divide that could exacerbate the differences between those already in advantageous positions and the disadvantaged.

One focus for scholars researching Internet inequality has been on potential differences between men's and women's access to and uses of the medium (Bimber, 2000; Denis and Ollivier, 2002; Ono and Zavodny, 2003). Although gender inequalities in *access to the Internet* are no longer a concern in the United States (Ono and Zavodny, 2003), this shrinking gap does not necessarily imply, as some have argued, that "there is little reason for concern about sex inequalities in Internet access and usage now" (Ono and Zavodny, 2003:111). A simple dichotomization between those who use the medium and those who do not disregards important factors beyond mere connectivity that need to be considered when discussing the potential implications of the Internet for inequality. We may find important differences in how attitudes to the Internet, the intensity and frequency of use, and user skill differ by gender, all factors relevant to how much different groups may benefit from Internet use (Hargittai, 2003). In short, our definition of technology use must be refined. Internet use by itself does not necessarily suggest gender equality vis-à-vis the web and resulting outcomes. Rather, we must also consider data on one's ability to use the medium efficiently.

By "skill" we refer to users' ability to locate content online effectively and efficiently. There are a myriad of ways one may use the Internet (e.g., computer-mediated communication manifested by e-mail use or instant messaging; information retrieval that takes advantage of existing material online; content creation that allows the user to contribute to material available on the web). Many of these activities are contingent on the ability to find different types of resources (e.g., necessary software, access to relevant communities). That is, even if a user's primary interest is in communicating with people who share similar interests, the user must have the know-how to find such communities.

Finding information on the web—whether mailing lists, online stores, or the latest news—can involve a myriad of actions from the use of search engines to typing web addresses in the location bar of the browser or clicking on directory listings on a portal site (Hargittai, 2004a). A user may possess very different levels of know-how with respect to these various online actions. We choose to focus on people's ability to draw on these various types of online actions for efficient information retrieval on the web. Are there differences in online skill based on gender? Are men and women similarly able to make the most of the myriad of services and information made available thanks to the Internet?

As an increasing number of daily activities move online, people's aptitude in using the medium may be linked to stratification. Those who are unable

to look for better deals on the web, to conduct financial transactions, to access government services, to learn about health information, to seek out political information, and voice their own viewpoints may lose out in various realms of life. Not being able to use the medium may result in less effective political participation, less knowledge about government services, and less useful information seeking with respect to human-capital-enhancing activities (e.g., job searches, educational opportunities, health concerns). The web makes a myriad of information available to users, but if some people are more apt at accessing online materials than others, those with higher-level abilities are better positioned to benefit from the medium.

We use data from a project in which we collected information about people's web-use skills to assess whether people's ability to navigate online content differs based on gender. First, we review the literature on gender and technology use focusing on work that explores differences between male and female attitudes toward technology, and differences in computer and Internet uses. Then, we outline the methods used in the project for studying people's online information-seeking behavior. Next, we report the findings about people's online abilities, drawing on data from 100 in-person observations conducted with a diverse sample of Internet users. In particular, we focus on gender differences. Finally, we discuss the implications of our findings for social inequality and outline questions for future research.

Gender and Technology Use

The extent to which human capital is fostered, employed, and recognized is profoundly social and has often been examined along gender lines. A broad literature exists that looks at how the development and recognition of quantitative skills translates into educational and occupational inequalities for men and women (Cole, 1986; Correll, 2001; Eccles, 1994; Etzkowitz, Kemelgor, and Uzzi, 2000; Florentine and Cole, 1992; Fox and Stephan, 2001; Margolis and Fisher, 2002). This research has focused on mathematical competence and performance in general (Benbow and Stanley, 1980; Correll, 2001; Hyde, Fennema, and Lamon, 1990; Spencer, Steele, and Quinn, 1999; Steele, 1997), in addition to how supply and demand-side decisions across the lifecourse structure the gender gap in medical school (Cole, 1986; Florentine and Cole, 1992), the physical sciences, engineering, and mathematics (Eccles, 1994; Etzkowitz, Kemelgor, and Uzzi, 2000), and computer science (Margolis and Fisher, 2002). This literature has sought to understand how and when gendered processes influence social institutions and social and cultural perceptions of male and female abilities and preferences; and what this may imply for social inequality (Tang, 2003).

On the demand side, gender differences in educational and occupational attainment have been linked to organizational and cultural factors that discriminate against women in both overt and covert ways (Eccles, 1994;

Etzkowitz, Kemelgor, and Uzzi, 2000; Margolis and Fisher, 2002). Supply-side arguments have focused on the ways cultural beliefs and socialization affect choices and valuations, both individual and collective, regarding women's competencies vis-à-vis men (Bandura et al., 2001; Cole, 1986; Correll, 2001; Eccles, 1994). This line of research suggests that the extent to which men and women make career-related decisions based on cultural beliefs about gender may guide them into different career paths (Correll, 2001).

One of the paradoxes that this research has highlighted involves whether or not actual differences in skill evolve out of this entanglement of gendered behaviors and decisions. As Correll notes, "cultural beliefs about gender are argued to bias individuals' perceptions of their competence at various career-relevant tasks, *controlling for actual ability*" (2001:1691, emphasis added). In other words, gendered perceptions of competency may diverge from actual skill levels.

A burgeoning literature has investigated self-assessment of computer skill (Brosnan, 1998a; Corston and Colman, 1996; Denis and Ollivier, 2002; Dinev and Koufteros, 2002; Durndell et al., 2000; Miura, 1987; Torkzadeh and Van Dyke, 2002; Whitley, 1997), but no research to date has looked at people's assessments of their Internet abilities *and* their relationship to users' actual online skill. Although any detailed analysis of inequality must investigate both the supply and demand side of this gendered equation, here we focus on the determinants of web-use skill. Do men and women diverge in online skill? Do their perceptions of online competencies differ? How are the two related? Answers to these questions will help us understand better the implications of Internet use for social inequality.

There is a large body of literature on gender and technology use spanning several disciplines and a multitude of methodologies. Here, we review the existing literature on user attitudes regarding computer use and what we now know about actual computer uses and Internet uses in particular, focusing on user skill. Our goal is to extend the literature on *computer use* to examine how perceptions about *Internet use* relate to actual online abilities.

Attitudes Toward Technologies and Technical Competencies

The gender dynamics relating attitudes about the Internet and actual utilization of the medium have not been adequately studied to date (for an exception, see Busselle et al., 1999). Nevertheless, research regarding computer use more generally has highlighted the significance of interest and stereotyping about computers, as well as self-perception of ability (self-efficacy) in explaining gendered patterns of behavior vis-á-vis this technology (Campbell, 1990; Levin and Gordon, 1989; Reinen and Plomp, 1997; Shashaani, 1993). Investigations with elementary and high school students as well as adults reveal a significant gulf between male and female interest in

computers (Campbell, 1990; Levin and Gordon, 1989; Reinen and Plomp, 1997; Shashaani, 1993).

For example, drawing on representative national samples of elementary, lower, and upper secondary school students from 20 countries in 1989 and 10 countries in 1992, Reinen and Plomp (1997) find that females enjoy using the computer less than do male students. In addition, research has found that men and boys have significantly more positive attitudes toward computers and more stereotyped attitudes regarding who is capable of using them (Levin and Gordon, 1989; Whitley, 1997), while female students' attitudes and attributions toward computers discourage them from using the technology (Campbell, 1990). The inference drawn is that gendered attitudes are central to discrepancies in use.

Beyond attitudes, the literature points to another important factor that influences technology use: self-efficacy. Coined and initially elaborated by Bandura (1977), self-efficacy beliefs revolve around "one's capability to organize and execute the courses of action required to manage prospective situations" (1977:2) and includes both anxiety and enactive and vicarious experience regarding task-specific competencies (for a review of the current state and prospects of the concept, see Pajares, 1997). Computer-related self-efficacy has been an important extension of this concept. In a wide variety of research settings, men have been found to exhibit higher self-efficacy scores (Corston and Colman, 1996; Durndell et al., 2000; Miura, 1987; Torkzadeh and Van Dyke, 2002; Whitley, 1997). Women, on the other hand, generally display less confidence and more discomfort (Brosnan, 1998b; Dickhäuser and Stiensmeier-Pelster, 2002; Schumacher and Morahan-Martin, 2000; Shashaani, 1993).

Experience Using Computers and the Web

Although initial research on Internet use found differences in the rates of men and women online, with the former more connected (Bimber, 2000; Denis and Ollivier, 2002), more recent data indicate that this gender gap in basic connectivity has disappeared (Ono and Zavodny, 2003). Previous research on differences in Internet use by gender has tended to focus on how men and women differ in their use of the medium for interpersonal communication (Boneva, Kraut, and Frohlich, 2001; Kennedy, Wellman, and Klement, 2003). This body of work has found that women spend more time corresponding with personal ties than do their male counterparts. Although some of this research has also looked at differences in information retrieval by gender, that discussion has not been linked to a consideration of online abilities (Kennedy, Wellman, and Klement, 2003).

Regardless of the amount of time spent on e-mail, broad consensus suggests that men of all ages and across contexts spend more time online than women (Busselle et al., 1999; Durndell and Thomson, 1997; Kelsey, 2002;

Kennedy, Wellman, and Klement, 2003; Schumacher and Morahan-Martin, 2000) and are more intense users of the medium (Ono and Zavodny, 2003). Some have argued that the reason for these differences reflects a gender gap in leisure time (Green, 2000; Kelsey, 2002; Kennedy, Wellman, and Klement, 2003; Lally, 2002). Moreover, users' perceived self-efficacy in using computer technologies, relative anxiety toward computers, and lesser familiarity with the underlying technology have all been causally implicated in use (Jackson et al., 2001).

These factors may in turn affect women's computer and Internet skills. Because women have less time at home to devote to leisurely web use, they have less opportunity to familiarize themselves with the medium (Kelsey, 2002; Lally, 2002). Insofar as home use allows for the most freedom in exploring sites of interest to the user, having less free time in the home to browse the web may affect women's web-use skills negatively. Given the persistence of popular stereotypes of male superiority (and the concomitant image of female inferiority) in mathematics, science, and with computer technologies (Anderson, 1987), the question arises whether these images reflect actual skill discrepancies.

Contrary to common perception, the empirical literature regarding math and science abilities shows minimal differences between men and women (Anderson, 1987; Hyde, Fennema, and Lamon, 1990), findings that are supported in the domain of computer skills in the United States (Reinen and Plomp, 1997; Shashaani, 1993). Little substantive work, however, has investigated *Internet*-related skills by gender. Extant research in this area is scarce and exploratory in nature (McDonald and Spencer, 2000). For example, McDonald and Spencer (2000) find that while male participants expressed a significantly higher degree of confidence in web navigation, overall differences between males and females in efficiency were absent. However, utilizing a nonrandom sample of 20 student volunteers severely limits the internal and external validity of their findings.

Not only is there a gap in the research on gender and online skill, but also there has been a conspicuous absence of empirical work relating self-perception of skill to actual skill, a commonly speculated mechanism highlighted in the literature reviewed above (Durndell et al., 2000). We now turn to the data and methodology we used to collect information on web-use skill and self-perceived ability among men and women.

Data and Methodology

Sampling

We collected data on web-use experiences and online skill using survey instruments and in-person observations with a randomly sampled diverse group of 100 Internet users from Mercer County, New Jersey between the

summers of 2001 and 2002.[1] Respondents were asked to come to a university location for participation and were offered $40 for their time and effort (with additional compensation offered for babysitting or transportation costs).

Because there exists no comprehensive listing of Internet users, we used a random sample of all county addresses for contacting potential respondents. We obtained a random sample of residential addresses for the county from Survey Sampling, Inc. that was checked against the National Change of Address Database maintained by the U.S. Postal Service. We sent letters requesting participation in the study followed up by telephone calls to 383 households where we used the next-birthday method to sample randomly from within the household.

Using the standards of the American Association for Public Opinion Research, our final response rate was 58.5 percent, considerably high given the type of active participation required on the part of respondents, including up to 30 minutes of travel to and from the study location and one and one-half hours on average spent with the researcher. In fact, such rigorous sampling methodology is unprecedented in the literature for studies of this kind, which usually rely on convenience samples most often restricted to university members. Moreover, unlike most related studies, which either limit their sample size to a few dozen respondents (e.g., McDonald and Spencer, 2000) or collect survey data only (e.g., Corston and Colman, 1996; Shashaani, 1994), this project has in-depth data on 100 respondents.

Study Session

At the study sessions, first, the researcher orally administered a questionnaire to collect background information about subjects' usual web-use experiences and to establish a rapport with respondents.[2] Next, participants were asked to sit at a computer and perform a variety of tasks online by looking for various types of content. Here, we report people's ability to find (1) information about job or career opportunities, (2) a site that compares different presidential candidates' views on abortion, (3) tax forms, (4) a used car for purchasing, (5) information about local cultural events (movie time listings, theatre shows), (6) music to listen to online, (7) children's art, and (8) a museum's or gallery's website.

Subjects were given the choice of using a PC or a Mac, both of which were loaded with the three most popular browsing software applications at the time (Internet Explorer, America Online, and Netscape Communicator) to

[1]Mercer County had a population of just over 350,000 in 2001 and includes rural, suburban, and urban areas (the state capital Trenton is located in this county).

[2]The first author conducted 80 of the interviews; two female research assistants administered the remaining 20.

allow respondents to replicate their usual online experience.[3] The computers connected to the Internet on a high-speed university network line. The sessions were recorded with a screen-capture program that generated audio-visual files of the entire search session.

The researcher sat behind the respondent and refrained from influencing the respondent's actions. Participants were encouraged to look for the information until they found it. No one was cut off from pursuing a search. In some cases when respondents looked frustrated or agitated, they were given the option of moving on to another task. However, when a subject simply stated that he or she was unable to perform a certain task, that person was encouraged to try several times before moving on to the next task. After the observation session, data on demographic background were collected through an online survey.

We measure skill by seeing whether people are able to complete a task successfully given an unlimited amount of time to look for the material. The first author watched all audio-visual tapings of the sessions to examine whether participants were able to complete the various tasks. There is a binary outcome of success versus failure for each of the eight tasks.

Sample Descriptives

Unlike other studies that look at people's computer and Internet uses in depth (McDonald and Spencer, 2000; Wang, Hawk, and Tenopir, 2000), the participants in this project represent a diverse sample of Internet users. Fifty-one percent of respondents are women; 49 percent are men, resulting in a nearly even representation of the two genders. Participants include Internet users from varying points of the lifecourse ranging in age from 18–81 (see Table 1 for details).[4] Participants' occupations vary widely from real-estate agents, environmental policy analysts, and blue-collar workers to office assistants, teachers, service employees, and medical professionals, and also include students and unemployed and retired persons. The group is also diverse regarding web-use frequency, with some people spending just a few minutes a week online compared to others who are online for several hours daily.

This county's population is more highly educated and has higher family income than the national average. It is important to keep this in mind when attempting to make generalizations from the study at the national level.

[3]No default page was set on browsers in order not to influence respondents' initial actions once online. The sessions were started off by the researcher asking the respondent to recall—if possible—the default homepage on the computer he or she uses the most. Additionally, a program was used to erase the browser and URL history on each browser program so that respondents started out with a clean slate and were not influenced by previous users' actions.

[4]Fourteen percent of respondents were minorities; seven African-American, four Asian-American, and three Hispanic people took part in the study. These numbers are too small to draw inferences about the relationship of race and ethnicity to skill.

TABLE 1

Descriptive Statistics of Variables Used in the Analyses

	Mean	*SD*	Median	Minimum	Maximum
Age	42.96	15.86	42	18	81
Education (in years)	16.21	2.72	16	8	22
Family income[a]	$98K	$57K	$85K	$18K	>$250K
Number of years since first use of the Internet	6.28	3.38	6	0	16
Web use hours/week	8.62	9.39	7	0.13	70
Success rate	84.2	20.6	87.5	18.75	100
Self-assessed net skill	1.9	0.7	2	0	4
Self-assessed net skill—men	2.1	0.8	2	1	4
Self-assessed net skill—women	1.7	0.6	2	0	3

[a]The average median household income in this county in 2000 was $56,613 (based on Census data) and the mode for household income was $75,000–99,999 so this sample is what we may expect for local Internet-user demographics.

The implications of these demographics for this study are that findings regarding the effects of education and income are likely to be conservative given that at the national level we will find more users with lower levels of education and income. However, the focus of this article is on gender and so these are not severe limitations in the case of this exploration. Regarding gender and web use, we have no reason to believe that men and women in this county are different from men and women in other parts of the United States with respect to their use of the Internet when controlling for all the additional demographic characteristics we include in the analyses.

Findings

Differences in Web-Use Skill

Table 2 shows the percentage of respondents who completed the different tasks successfully. Given unlimited amounts of time, the majority of people can find most types of content online. However, given that people were allowed to pursue a task as long as they wanted, it is noteworthy that as much as 15 percent or more failed on three of the tasks and there is not one type of content that everyone can find (i.e., at least 5 percent of people failed on each task).

This is noteworthy given that people could look as long as they wanted, were in a situation where they had no time constraints, and were not being distracted by other obligations and activities. The tasks were not trick questions and there were numerous sites online that had the requested material. However, the fact that people cannot find various types of content suggests that simply having *technical access* to the Internet does not guarantee

TABLE 2

Descriptive Statistics about Task-Success Rate (Overall and by Task) in Increasing Order of Difficulty

	Success Rate (Percent)
Overall (sum of 8 tasks)	84.2
Museum	94.3
Tax forms	92.7
Music online	91.2
Job search	88.5
Kids' art	88.4
Local cultural events	84.8
Car buying	82.1
Presidential comparison	56.7

efficient access (Wilson, 2000), that is, access that allows people to locate diverse types of material from which they may benefit.

Differences in Online Abilities Between Men and Women

To test whether there are gender differences in web-use abilities, we use OLS regression to explain differences in overall success rate (see the sixth row of Table 1 for descriptive statistics about this variable). We control for age, education, and family income. The model also includes information on the amount of time respondents spend on the web on a weekly basis, whether they use a computer at work, and a control variable for number of days into the study (to account for any possible system-wide changes in the web over time).

The results presented in Table 3 suggest that there is no statistically significant difference between men's and women's ability to find content on the web once we control for their socioeconomic background and computer and Internet-use experiences. Rather, age, level of education, and experience with the medium are important predictors. Younger users, those with more years of schooling, those with more web-use experience, and users with a computer at work are better at finding content online.

We also collected data on people's self-assessed skill level by asking respondents how they rated their own Internet skills on a five-point scale (not at all skilled, not very skilled, fairly skilled, very skilled, and expert).[5] The majority of respondents (58 percent) rated themselves in the middle of

[5]We recognize the limitations of this measure but want to note that it is in line with the types of measures used in the literature summarized in this article that assess people's self-perceptions of their abilities.

TABLE 3

OLS Regression Predicting Web-Use Skill Measured as Percentage of Tasks Completed Successfully

	Percentage of Tasks Completed Successfully
Gender (female = 1)	−3.89
	(3.33)
Age	−0.51***
	(0.13)
Family income (logged)	−0.27
	(2.73)
Education (in years)	1.58*
	(0.68)
Time on web/week (logged)	6.41*
	(2.53)
Computer use at work (= 1)	8.66*
	(4.34)
Days into study	0.03
	(0.01)
Constant	58.48
	(33.83)
N	100
Adjusted R^2	0.411

***$p \leq 0.005$; **$p \leq 0.01$; *$p \leq 0.05$; two tailed.

NOTE: Standard errors are reported in parentheses.

the road as fairly skilled. The gender breakdown of self-assessed skill reported in the last two rows of Table 1 suggests that men are more likely to think of themselves as better skilled than women. In fact, not one woman thought of herself as an "expert" user, and not one man thought of himself as a complete novice, or "not at all skilled."

We tested the relationship of gender to self-perceived skill by running an OLS regression model on self-assessed online abilities. Column A in Table 4 presents the results of this model and suggests that gender is a very strong predictor of how one rates one's Internet-user skills; being female leads to a significantly lower self-assessment of skill.[6] Of course, it is possible that this discrepancy in self-assessment is simply a reflection of actual differences in skill. However, we know from the analysis presented earlier that gender is not a significant predictor of actual skill.

To double check, we also ran an OLS regression on self-assessment including information on actual skill measured as percentage of tasks completed successfully. Column B in Table 4 reports the results of this model. Here, we find that net of actual ability—a factor significantly related to

[6]We also ran an ordered logit on self-assessed skill and the results are robust.

TABLE 4

OLS Regression Predicting Level of Self-Assessed Internet Skill

	A Self-Assessed Net Skill	B Self-Assessed Net Skill Net of Actual Skill
Gender (female = 1)	−0.36***	−0.33***
	(0.12)	(0.12)
Age	−001***	−0.01
	(0.00)	(0.00)
Family income (logged)	−0.11	−0.11
	(0.11)	(0.10)
Education	0.00	−0.02
	(0.02)	(0.03)
Time on web/week (logged)	0.32***	0.27***
	(0.07)	(0.07)
Computer use at work (= 1)	0.23	0.16
	(0.15)	(0.16)
Actual skill (completion rate)		0.01**
		(0.00)
Days into study	0.00	0.00
	(0.00)	(0.00)
Constant	3.03	2.52
	(1.30)	(1.25)
N	100	100
Adjusted R^2	0.398	0.434

***$p \leq 0.005$; **$p \leq 0.01$; *$p \leq 0.05$; two tailed.

NOTE: Standard errors are reported in parentheses.

self-perception of skill—women tend to rate themselves as lower skilled than men. Moreover, while gender strongly influences self-perceived skill, age, education, and family income do not.

Discussion and Conclusion

As more and more services move online, the ability to navigate the web's content efficiently becomes increasingly crucial for maintaining a competitive edge and guaranteeing equal opportunity. As such, web-use skills have become an important component of people's human capital. Inasmuch as effective and efficient web use can lead to positive outcomes, less-developed skills can have drastic effects on returns to Internet use. Adeptness at navigating the web not only allows people to garner material resources through utilization of the technology at home and in school, but also fits into skill sets that may make individuals more viable in the labor market. The contentions that have guided this article, then, are twofold: on the one hand,

mere access is not coterminous with effective use; and on the other, web-use skills have become an important component of human capital and must be investigated to understand fully the implications of the Internet for inequality.

Our data suggest that overall men and women do not differ significantly in their abilities to find various types of information online. However, we do find that women are much more likely to shortchange themselves when it comes to self-perception of their online skills. The gender effects appear to be significant with respect to self-perceived skill levels. Our findings are consistent with Correll's (2001) work, which found that net of actual skills, young women are less likely to perceive themselves as skilled in these domains, which in turn biases their propensity to pursue math- and science-related careers. Similarly, we find that net of actual skills, women tend to rate their online skills lower than do men. Women's lower self-assessment vis-á-vis web-use ability may affect significantly the extent of their online behavior and the types of uses to which they put the medium.

Research on what types of content people tend to access on the web has found differences among men and women (Howard, Rainie, and Jones, 2001; Kennedy, Wellman, and Klement, 2003). However, such research assumes that online behavior simply mirrors preferences for types of content accessed. An important contribution of this article is to highlight that decisions about what content to view online may also reflect perceived abilities. Since women are more likely to question their online competence, it follows that they may be less likely to take advantage of the myriad of services made available by the medium.

Some users—and our findings suggest these are more likely to be women—may not be looking for certain types of material on the Web *because* they do not think they would be successful. Consequently, women may be less likely to take advantage of online content that may improve their life chances, such as enrollment in online courses, accessing government services, or informing themselves about political candidates. This may explain findings by others (Busselle et al., 1999; Kelsey, 2002; Ono and Zavodny, 2003) according to which men are more intense users of the Internet.

The skill with which users navigate the billions of pages of content on the web is an important concern for stratification. Technical access to the Internet is an important facet of technological inequities, but by no means the only component that should be considered when assessing potential sources of inequality with respect to this new medium (DiMaggio et al., 2004). Merely crossing the digital divide and using the web does not erase the possibilities for disparities in utilization of the Internet (Hargittai, 2002, 2003). As we have argued, binary conceptualization of use is misleading for our understanding of gender and inequities in using communication and information technologies; rather, we must turn to refined measures of use such as web-use skill and self-perception of technology use.

Results from our project suggest that men may be poised to benefit more from the web than women because of their higher self-assessed abilities. This study allows us to expand our knowledge about the gendered aspects of differences between people's perceived and actual abilities from the realm of science and math skills among students to the realm of everyday acts in which a much wider segment of the population engages. It is an important step in understanding the sources of inequalities between men and women with respect to technology use.

In this article, we have focused on the user side of the equation. Some of the literature about the construction of the Internet suggests that the supply side of content is male biased—the way the medium is structured and presented may favor male users—and future research should investigate this side of the puzzle as well. Moreover, we need more work exploring whether the observed differences in self-efficacy exist in other domains of everyday tasks. We also need more research to understand why it is that women rank their skills lower than do men, a finding that seems to be robust across many technology- and science-related activities.

Our project has expanded the existing literature examining discrepancies in men's and women's actual and self-perceived abilities from academic activities to everyday tasks. Because web uses can influence so many aspects of one's life, the finding that women are significantly more likely to exhibit lower self-perception of their actual online skills than do men has widespread implications for the potential benefits—or lack thereof—that female users may reap from this important medium.

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