Impact of the Internet on our lives: Male and female personal perspectives

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Abstract

Gender differences in Internet access and usage have been found in a number of previous investigations. The study reported here extends this work by providing an analysis of the impact of the Internet on men’s and women’s lives. A content analysis of 200 postings from men and 200 from women, on the topic of “Has the Internet changed your life” invited by a news website, was undertaken then examined for gender differences. Results showed more women’s postings mentioned having made new friends or having met their partner, renewing old friendships, accessing information and advice, studying online, and shopping and booking travel online, while more men’s postings mentioned that the Internet had helped or given them a career, positive socio-political effects, and negative aspects of the technology. The results are interpreted as supporting the view that the Internet represents an extension of broader social roles and interests in the “offline” world.

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1. Introduction

“The Internet is my job, my high street, my supermarket and my international social playground” (Female participant 63).

Usage of the Internet continues to increase worldwide. In the UK 57% of households now have access, in comparison to 46% four years ago (National Statistics, 2006). The
Digital Future Project in the US has found that 78.6% of Americans went online in 2005, with an accompanying increase in the amount of time spent per week on the Internet (Centre for the Digital Future, 2005). A number of factors have been found to relate to access and use, including socioeconomic variables, demographic variables, and education (e.g. Bimber, 2000; Wasserman & Richmond-Abbott, 2005). One significant area of research over the last decade has investigated the impact of the Internet upon different social groups and inevitably work on gender differences has been at the forefront, with concerns about the presence and impact of a “gender gap” in Internet access and usage.

A number of investigators (e.g. Sherman et al., 2000) have investigated this gender gap in Internet use. Bimber (2000) found gaps in both access and use among US adults, and concluded that, while access differences can be accounted for by socioeconomic and other factors that affect women and men differentially, the gap in use was due at least in part to gender-specific factors such as the male stereotype of computers, cultural associations between gender and technology and gendered cognitive and communication preferences. However, there is growing evidence that the gender gap in access is closing or has closed with more women coming online, and that the gap in use of the Internet is still present but may also be closing (e.g. Cummings & Kraut, 2002; Ono & Zavodny, 2003; Wasserman & Richmond-Abbott, 2005). There continues to be a gender gap in usage in the UK: the latest figures from adults in a nationally representative sample of UK households show that 40% of women had never used the Internet in comparison with 30% of men, and 55% of women had used the Internet within the 3 months prior to the survey in comparison with 65% of men (National Statistics, 2006). In addition, there are further gaps in the frequency and nature of use that appear to remain (Odell, Korgen, Schumacher, & Delucchi, 2000; Ono & Zavodny, 2003; Wasserman & Richmond-Abbott, 2005).

One of the issues that was highlighted early on in investigations of the gender gap, concerns the negative effect of the link between the Internet and computer technology. This area grew from work on gender differences in computer attitudes and use more generally, which showed more negative computer attitudes (Durndell & Thomson, 1997; Whitley, 1997), lower female self-confidence and higher computer anxiety among females (McIlroy, Bunting, Tierney, & Gordon, 2001; Todman, 2000). The possibility raised in the literature was that girls and women were being discouraged from using the Internet because of its delivery via a computer interface, and because of the association of the kinds of operations required to interact with it with traditional masculine technology. Indeed, computer attitudes and Internet attitudes have been found to be linked (Liaw, 2002; Schumacher & Morahan-Martin, 2001), and experience using the Internet has been found to predict both (Liaw, 2002). Durndell and Haag (2002) found higher computer self-efficacy, more positive Internet attitudes, longer Internet use and lower computer anxiety among male than female students, and gender was independently linked to Internet experience. Similarly, Joiner et al. (2005) found that a significant relationship between gender and use of the Internet remained, after controlling for Internet identification and Internet anxiety. This may be due to a number of other factors, and Joiner et al. suggest that self-efficacy and expectancy of success may be fruitful areas to pursue. In addition, it seems that there are differential effects of experience upon anxiety in using the technology among men and women: Broos (2005) found that experience decreased anxiety among men but had little effect for women.

Alongside investigations of the gender gap in use of the Internet, there is a growing body of research on differences in the use of the Internet for different functions by males
and females. This is a crucial area to pursue in order to understand the gender gap, since amount of use is inextricably linked to the functions performed and the benefits of them for an individual. The number of potential functions of the Internet is very substantial and the activities are diverse. The current top Internet activities in the US are e-mail (top), general surfing, access to news, shopping, reading entertainment news, finding information about hobbies, online banking, accessing medical information, instant messaging and accessing information about and booking travel (Center for the Digital Future, 2005).

The available evidence points to variations in exploiting these functions of the Internet by its male and female users: women are more likely to regard it as a tool or means to an end, while men regard it as technology to play with and master (Singh, 2001; Turkle, 1984). For example, Tsai and Lin (2004) found gender differences in perceptions of the Internet among adolescents: males perceived its use as a source of enjoyment or “toy”, while females took a more practical approach and perceived it as a “tool”, “technology” or “tour” (providing the ability to navigate around different sites and people).

One area of Internet use that has attracted attention among investigators is interpersonal communication. This is due to the association of functions facilitated by electronic communication with the expressive and communal aspects of femininity, such as the potential for use in self-expression and the facility to communicate readily with family and friends. Thus, it was expected that women might engage with the Internet for such purposes, despite having lower self-efficacy in relation to computer use. Jackson, Ervin, Gardner and Schmidt (2001) predicted that women would use e-mail more and men use the Web for information more, based on the greater interpersonal orientation of women and greater task orientation of men. This prediction was supported in a large sample of Anglo-American undergraduates, even after computer self-efficacy, loneliness and depression were controlled for. Wasserman and Richmond-Abbott (2005) found that women use e-mail slightly but not significantly more than men but that men use chat rooms more. A similar finding was obtained by Sherman et al. (2000) who found higher participation in chat groups among men, but higher e-mail use among women, and these differences remained among successive cohorts of students in the late 1990s, despite generally higher use of the Internet. Women’s preference for e-mail and men’s for chat rooms reflects the different purposes of the two types of communication: e-mail facilitates personal contact with friends and family, while chat rooms can be anonymous and provide an arena for the display of power differentials present in society more generally (Wasserman & Richmond-Abbott, 2005). There are some null findings with respect to gender differences in e-mail use (e.g. Joiner et al., 2005; Schumacher & Morahan-Martin, 2001), but methodological differences between studies may account for such disparities.

With respect to other uses of the Internet, there is evidence that some of these too are gendered. Men are more likely to use game web sites (Joiner et al., 2005; Sherman et al., 2000; Weiser, 2000), download material (Joiner et al., 2005; Teo & Lim, 2000), browsing or seek specialist information (Jackson et al., 2001; Joiner et al., 2005; Teo & Lim, 2000; Weiser, 2000). These findings provide additional support for the notion that men’s use of the Internet is more task-oriented than women’s, and the tendency for women to use e-mail more accords with their greater interpersonal orientation (Jackson et al., 2001). They also support the male “toy” versus female “tool” distinction (Tsai & Lin, 2004).

The research literature on gender and the Internet suggests that gender stereotypes play a powerful role in this as in other areas of human activity. Sherman et al. (2000) concluded
that we need to appreciate that “online behaviors and attitudes are extensions of offline social processes and relationships” (p. 893). If that is the case, what impact has the Internet had on the everyday lives of the men and women who use it? With respect to women, Morahan-Martin (2000) concluded that it has brought both promise and peril. The perils are an inevitable consequence of the features that empower – freedom of expression and free access to information, since these also permit the amplification of behaviors and perspectives that support the gendered power differential. What has been its impact upon men? Is the Internet just another arena in which gender is performed? The empirical research reviewed here has focused upon usage and patterns of usage, rather than impact from the point of view of the user. The purpose of the data analysis reported here is to provide a picture of the impact of the Internet on the everyday lives of men and women.

2. Method

2.1. Participants and data collection

On 24th July 2006, the BBC News website posted a topic for discussion on its “Have Your Say” discussion section (http://news.bbc.co.uk/1/hi/talking_point/default.stm), with the title “Has the Internet changed your life?”. The invitation issued to prospective contributors was to post personal stories about life in the digital age and how the Internet has changed their lives. The majority of contributors to this site used names rather than pseudonyms. There were substantially more postings from men, but the site was monitored until there were 200 postings from female contributors, then these together, with 200 postings randomly selected from among the male contributors were downloaded for analysis. The sample came from approximately 1200 postings during the period 24th July and 4th August. Selection for analysis was only undertaken if the name of the contributor was unambiguously male or female. The majority of the postings (92%) gave the town or country of origin, with 48% of the total postings being from the UK, 25% from the US and Canada, 7% from mainland Europe, and the remainder from the rest of the World.

2.2. Data coding

A content analysis was undertaken to derive category frequencies for analysis. Coding was undertaken based upon content categories derived both from the existing literature and from a sample of the postings. These categories were:

1. Easy and cheap contact with family and friends (through e-mail, instant messaging etc.)
2. Made new friends (through chat room, discussion forum, etc.)
3. Renewed contact with old friends/family
4. Met partner/spouse (through chat rooms, dating sites etc.)
5. International news sites
6. General information acquisition/research
7. Therapeutic/medical advice
8. Support for those with access/mobility problems
9. Entertainment (music, radio, movies, games, hobbies)
10. Travel booking
Reliability of coding was established in a 20% sample from the postings. Across all categories, this yielded substantial agreement (Cohen’s Kappa = 0.78), with no individual categories yielding figures below the substantial range (Landis & Koch, 1977). Gender differences were then examined using $\chi^2$ tests.

### 3. Results

Gender differences were found in the frequency with which a number of the categories were present in the postings (see Table 1). Chi square tests revealed that a higher proportion

<table>
<thead>
<tr>
<th>Category</th>
<th>% Men</th>
<th>% Women</th>
<th>$\chi^2$ (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with family and friends</td>
<td>25.0</td>
<td>30.5</td>
<td>n.s.</td>
</tr>
<tr>
<td>Made new friends</td>
<td>10.0</td>
<td>20.5</td>
<td>8.53**</td>
</tr>
<tr>
<td>Renewed contact with old friends/family</td>
<td>4.0</td>
<td>20.0</td>
<td>5.50*</td>
</tr>
<tr>
<td>Met partner/spouse</td>
<td>8.5</td>
<td>22.5</td>
<td>14.97**</td>
</tr>
<tr>
<td>International news sites</td>
<td>9.5</td>
<td>19.5</td>
<td>8.07*</td>
</tr>
<tr>
<td>General information acquisition/research</td>
<td>25.5</td>
<td>36.0</td>
<td>5.18*</td>
</tr>
<tr>
<td>Therapeutic/medical advice</td>
<td>2.5</td>
<td>7.0</td>
<td>4.48*</td>
</tr>
<tr>
<td>Support for access/mobility problems</td>
<td>4.0</td>
<td>5.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Entertainment</td>
<td>12.5</td>
<td>10.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Travel booking</td>
<td>1.5</td>
<td>6.0</td>
<td>5.60*</td>
</tr>
<tr>
<td>Online education</td>
<td>2.0</td>
<td>6.5</td>
<td>4.98*</td>
</tr>
<tr>
<td>Trading</td>
<td>3.0</td>
<td>7.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Banking</td>
<td>6.0</td>
<td>7.0</td>
<td>n.s.</td>
</tr>
<tr>
<td>Shopping</td>
<td>12.5</td>
<td>20.5</td>
<td>4.63*</td>
</tr>
<tr>
<td>Job enhancement</td>
<td>6.0</td>
<td>7.5</td>
<td>n.s.</td>
</tr>
<tr>
<td>Job hunting</td>
<td>1.5</td>
<td>3.5</td>
<td>n.s.</td>
</tr>
<tr>
<td>Assisted career path</td>
<td>12.0</td>
<td>4.0</td>
<td>8.70**</td>
</tr>
<tr>
<td>Job in industry</td>
<td>12.0</td>
<td>6.0</td>
<td>4.40*</td>
</tr>
<tr>
<td>Socio-political effects</td>
<td>12.5</td>
<td>5.0</td>
<td>7.05**</td>
</tr>
<tr>
<td>Negative effects</td>
<td>31.0</td>
<td>21.0</td>
<td>5.20*</td>
</tr>
</tbody>
</table>

* $p < .05$.

** $p < .01$. 
of women’s postings mentioned having made new friends, having renewed contact with old friends or family members, having met their partner or spouse online, access to international news sites, being able to find information easily, accessing medical or therapeutic advice, studying online, booking travel online and shopping online. A higher proportion of men’s posting mentioned that the Internet had played a role in their career path, that they had found employment in the industry, positive socio-political effects and negative aspects of the Internet.

4. Discussion

The findings from this study extend those of existing research on Internet usage by providing information on what men and women perceive as important to them. In some cases the findings accord with the usage data, while in others they do not. With respect to interpersonal communication, our findings show no difference in the frequency with which Internet-assisted contact with friends and family was cited as being an aspect of the Internet which had changed the lives of men and women. It is worth noting however, this was the second most frequent category occurring in postings from both sexes. Studies of usage have produced a range of results on gender differences in the use of e-mail, although on balance the findings have suggested slightly more or significantly more use by women (e.g. Sherman et al., 2000; Wasserman & Richmond-Abbott, 2005). Our findings suggest that the impact upon men’s and women’s lives may be similar, although of course there may be differences in the way in which men and women enact relationships electronically (Boneva, Kraut, & Frohlich, 2001). Differential impact is evident in women’s higher frequency of mention of using Internet sites to make new friends, meet partners and renew old acquaintances, supporting the notion that women’s interpersonal orientation will influence their Internet behavior (Jackson et al., 2001). This finding is of interest in the context of men’s greater usage of chat room sites found by Sherman et al. (2000) and Wasserman and Richmond-Abbott (2005), although our content category was not specific to chat rooms alone. It is nevertheless possible that men and women use such sites for different purposes and gain different kinds or rewards from them: our data suggest that women place greater value on the facility to expand their social networks, whereas it is possible that men’s motives may be more mixed. Wasserman and Richmond-Abbott’s suggestion that men may be more likely to use them to play interpersonal games and display power may be relevant here, and accords with findings that men are more likely to be dishonest in chat room interactions (Whitty & Gavin, 2001) and lie about their sex, education, income and occupation (Whitty, 2002). There is a growing literature on the nature of online relationships and the characteristics of those who participate in them (e.g. Cheng, Chan, & Tong, 2006; McCown, Fischer, Page, & Homant, 2001) and it would be profitable to examine gender differences in motivation to engage in interpersonal behaviors on the Internet in more detail.

The most frequently cited positive effect overall was the ability to access general information on the Internet, although it was present in a higher proportion of women’s than men’ postings. This result contrasts with the usage findings (Jackson et al., 2001; Joiner et al., 2005; Teo & Lim, 2000; Weiser, 2000), but supports the notion of women’s more practical approach and stronger perception of the Internet as a “tour” (Tsai & Lin, 2004), which may also explain their more frequent mention of news sites. The women’s more practical approach is also evident in their higher frequency of mention of accessing
online education, therapeutic advice, booking travel and shopping. However, gender differences were not present in other practical uses such as trading, banking and accessing sources of entertainment. In order to explain the pattern of findings, it is necessary to take into account the broader context of gender differences in social role demands and accompanying gender-related traits (e.g. Eagly, 1987; Eagly, Wood, & Diekman, 2000), in which the domestic vs. external distinction differentiates the focus and interests of women and men. Our data suggest that this distinction may underpin the impact of the Internet on men and women. The Internet influences women’s lives more than men’s in facilitating new interpersonal interactions, providing access to information from the domestic sphere, and facilitating the purchase of goods, and influences men’s lives more than women’s by providing employment or assisting career development. In addition there was greater evidence in the postings from men of awareness of the global impact of the technology, for example, “Never have so many people been empowered to make a real difference and get their message heard”, (male participant 159). This external awareness is also evident in men’s more frequent mention of the negative impacts, “A disadvantage is the anonymity...idiots can spread their madness, insult others etc. all without fear of being uncovered. A 60-year-old suddenly becomes an 18-year-old and vice-versa”, (male participant 108). The gender difference in relation to negative impacts, however, raises several further possibilities. One may be that women’s greater interpersonal orientation simply results in a tendency to emphasize the good rather than the bad in responding to the discussion issue on the site. Alternatively, women’s more domestic focus may make them less concerned about the broader context and in particular the ‘perils’ of the Internet in relation to power and exploitation (Morahan-Martin, 2000), so ironically, one outcome of the tendency of the Internet to reflect traditional gender divisions may be to reduce women’s awareness that this is the case.

There are some limitations associated with using this kind of methodology which are shared with studies of computer-mediated communication in discussion lists (e.g. Herring, 1993), and which relate to the lack of information on the sample. For example, no data on age is available and this may be a relevant variable in relation to impact, since younger users will have grown up with the Internet, while older users will have adapted to its use. However, there is no reason to assume that their distributions among the males and females in the sample should vary and introduce a systematic bias. There is no information available on experience, which may show a gender difference since women’s widespread use of the Internet has been more recent than that of men. Whether or how length of experience might influence perceptions of the impact of the Internet cannot therefore be answered here but would be a suitable topic for further investigation. Finally, the sample is drawn from those who visit a news website rather than users of the Internet in general so could be regarded as representing a part of the population with a particular profile of interests. However, news websites are visited by a significant proportion of the population: this was the third largest use of the Internet in a US survey for 2005 (Centre for the Digital Future, 2005) and 35% of a recent sample of UK citizens had accessed on-line news in the last three months (National Statistics, 2006). One significant advantage of using this kind of data is that the areas appearing in the sample of postings are those that spontaneously occur to those submitting them, without prompting from an investigator.

Consideration of the advantages and limitations of using the postings as data raises a further gender difference, which relates to the acquisition of the quota sample used. There were very substantially more postings on the site from men than women, even when ambiguous
names were discounted. While this may partly reflect a residual gender gap in access, it also provides a clear illustration of the different uses of the Internet by men and women, which are attributable to socio-cultural factors and therefore likely to remain (Wasserman & Richmond-Abbott, 2005). Interestingly, Fuller (2004) found that use of the Internet by men and women in the US for political activities, such as accessing information was broadly equal but that women were less likely to post to a political discussion group. It seems, therefore, that it is the opportunity to engage in an anonymous form of interpersonal interaction in which knowledge and power may be displayed (Wasserman & Richmond-Abbott, 2005) that attracts more male postings to sites like the one studied here.

The analysis of this sample of postings has produced a picture of what men and women who use the Internet regard as the areas with major impact on their lives. Our content analysis produced a number of gender differences which show that the perceived impact of the Internet broadly reflects the concerns and motivations associated with men’s and women’s gendered social roles. McGert (2000) argued that viewing online behavior as separate from offline behavior produces an unhelpful dichotomy, and in order to understand the impact of Internet technology it is necessary to situate it within the gendered practices that impact on people’s everyday lives. Our data support that view and the conclusion of Sherman et al. (2000) that gender differences in online behavior will continue for as long as they exist more generally.

References


