

**Internet Indispensability, Online Social Capital, and Consumer Well-Being**

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*“People would no sooner give up their ... PCs than they would give up their toilets.”*

Roger McNamee, quoted in Lashinsky (2003)

### **1. Introduction**

In the last several years, researchers interested in the factors influencing longevity have discovered a strong positive connection between being socially active and physical and mental well-being in later life. For example, the more socially active seniors are, the more likely they are to enjoy improved cognitive and motor functioning, well into their old age (Yaffe, et. al. 2009). Another recent study found that the more time seniors spent socializing, the less motor functions declined (Buchman, et. al. 2009). Intriguingly, one study has documented a relationship between the *size* of a person’s social network and their perception of pain: patients with smaller networks report more pain and patients with larger networks report less pain (Mitchinson, et. al 2008). This finding is interesting because it suggests that larger social networks, regardless of the quality of connections, can have positive influences on consumer welfare. Jetten, et. al. (2009) reviewed a number of studies in this domain and concluded that individuals who are members of many diverse social networks are more resilient and experience more mental and physical well being compared to individuals who are not as socially connected.

Perhaps not surprisingly, researchers have recently discovered that similar benefits may also accrue from online social connections. Collins and Wellman (2010) observed that the more people use the Internet, the more connected they are both online *and* offline. Bessièrè, et.al. (2008) found that Internet users motivated by the need to communicate with friends and family

had lower depression scores than individuals motivated to use the Internet to meet new people and chat online.

Although research in this area has barely begun, it is reasonable to wonder whether these beneficial effects of Internet use will accrue to all consumers equally. It is therefore worthwhile to examine several key factors that may contribute to whether Internet use will lead to increased consumer well-being. The general hypothesis we explore in this chapter is that consumers who find the Internet indispensable to their daily lives are motivated to build and maintain online social capital and with that store of online social capital, experience positive outcomes related to mental health and physical well-being. In much the same way that a Harvard undergraduate degree is “immensely valuable, conferring a lifetime of social capital and prestige” (Carey 2009), Internet use offers important opportunities for consumers to build and sustain social capital. We explore this general hypothesis in this chapter and raise what we hope will be interesting questions for an exciting upcoming research area.

We organize our chapter as follows. We start a theory of how Internet indispensability arises, as it provides our starting point for discussing issues of access and usage. From there, we evaluate the digital divide and suggest that a behavior-based digital divide may be of greater cause for concern than on based on access. This leads us to consider the importance of building online social capital because of the accompanying benefits to health and consumer welfare that may accrue from building and maintaining meaningful social connections in the online sphere.

## **2. The Ritualization of Daily Routine Gives Rise to Internet Indispensability**

Hoffman, Novak and Venkatesh (2004) argue that Internet indispensability arises from the “micro-level practices” of daily routine that become ritualized. For example, checking one’s

Facebook page each day during breakfast represents a ritualization of the daily routine of reading Facebook. Consumers who have made the Internet a daily ritual are likely to feel varying degrees of disruption if they are disconnected from the Internet. Consider the results from a recent Intel and Harris Interactive survey (Aakre, 2008): 46% of women said they would give up sex for two weeks rather than give up the Internet for two weeks, and overall, the Internet rated highest among discretionary items consumers could not live without. In a stark example, several years ago Yahoo and OMD conducted an “Internet Deprivation Study” (Yahoo, 2004) in which 28 participants were asked to give up Internet access for 14 days. Participants reported intense feelings of withdrawal, frustration and loss. Nearly 50% were not able to go the entire 14 days without Internet access. Further, the median number of days participants made it without access was only five days. The notion of daily ritual that the Internet affords is evident from reading participants’ diaries and watching videos of their experiences during the study.

The more consumers use the Internet as a news and information source, for communication and correspondence, to conduct the myriad of life’s transactions, for entertainment, for social interaction (for example, see Turkle, 1998), the more useful they find it. These types of micro-level behaviors are what make the Internet so integral to people’s lives (Turow & Kavanaugh 2003) and lead to its indispensability. It should be clear to the reader that consumers who do not have opportunities to incorporate the Internet into their daily lives will not have the opportunity to experience ritualization which leads to indispensability.

## **2. The Digital Divide**

### **2.1 Is The Digital Divide a Matter of Motivation?**

What is the digital divide? At its most basic, the digital divide refers to a gap in Internet access between people who have access and people who do not. The origin of the term has been attributed to Lloyd Morrisett, the former president of the Markle Foundation (Hoffman & Novak, 1998), and appears to have gained popularity in the late 1990s when the United States Department of Commerce first began using the term in official reports (van Dijk, 2006). While the concept of a digital divide seems straightforward, the reasons behind gaps in access are complex.

Much of the initial research on the digital divide rightly focused on access to the Internet with the rationale that if a consumer simply has no way to gain access to the Internet, it hardly matters how motivated they may or may not be to do so. Many of the early programs that arose from calls to reduce the digital divide therefore focused on attempts to close it by providing computers and Internet service to those who lacked the means to purchase equipment or pay for service (e.g. Youtie, Shapira, & Laudeman, 2004; Jackson, Barbatsis, Biocca, von Eye, Zhao, & Fitzgerald, 2004).

Unfortunately, many of these programs met with limited success. For example, in LaGrange, Georgia, it was discovered that residents who were convinced of the utility of the Internet already had access, while those who remained offline despite the offer of free access did so because they were not convinced that access was either useful or truly free (Youtie, Shapira, and Laudeman 2004). In a similar program (Jackson, Barbatsis, Biocca, von Eye, Zhao, & Fitzgerald, 2004), HomeNetToo participants in a low income community were given computers and Internet access in exchange for allowing their behavior to be tracked. Jackson, et al. (2004) found that despite having Internet access, use of the Internet by this sample never reached the same levels as “average” Internet users. It turned out that much of the time HomeNetToo users

spent online was spent searching for information, with very little time devoted to using the Internet for communication and social purposes such as email or other forms of online interaction. The authors concluded that the participants' motivation and attitudes towards the Internet were the main influence over usage patterns.

## **2.2 The Cost of Access**

These early attempts to close the digital divide focused on providing equipment and access to those who could not afford it on their own (Youtie, Shapira, & Laudeman, 2004; Jackson, Barbatsis, Biocca, von Eye, Zhao, & Fitzgerald, 2004). In the mid-1990s the cost of a reasonably simple personal computer capable of accessing the Internet could easily top \$2000 (Warschauer, 2003). Currently, Internet capable computers can be purchased for as little as a few hundred dollars.

Although the basic equipment has come down in price, the cost of Internet service remains a barrier to access (Chaudhuri, Flamm, & Horrigan, 2005; Savage & Waldman, 2005). Potential Internet users may be put off by the recurring costs, and the often confusing array of Internet service options. In a recent study of the barriers to access, Chaudhuri, Flamm, and Horrigan (2005) found that the price of Internet access had a small but significant effect of the decision to purchase Internet access, and conclude that providing subsidized access for basic access are unlikely to have an effect on the digital divide.

## **2.3 The Demographics of the Digital Divide**

As researchers and policy makers began to realize that simply providing computers and Internet service was not enough to close the digital divide, their work began to focus on the

demographic factors influencing the digital divide, including race and ethnicity (e.g. Hoffman & Novak 1998; Hoffman, Novak & Schlosser, 2000), psychological makeup (e.g. Chua, Chen & Wong, 1999), and educational factors (e.g. Robinson, DiMaggio, & Hargittai, 2003). The major thrust of this research emphasizes either getting more people online or describing the differences between those who are online and those who are not without addressing the cost of remaining offline.

Hoffman and Novak (1998) found that the relationship for race and ethnicity was more complex had been previously believed, as their results showed that household income explained home computer ownership above and beyond race. People with greater household incomes were more likely to own home computers. Additionally, education explained access to a computer in the workplace; people with higher levels of education were more likely to have access to a computer at work regardless of race. However, when looking at students, the picture was not quite so egalitarian. With students, race mattered; overall, white students had greater access to computers, and greater rates of Internet usage.

In a follow-up study, Hoffman, Novak, and Schlosser (2000) found that the digital divide for students was closing, but still significant. Additionally, there were still differences in access for African Americans compared to whites. Hoffman, Novak, and Schlosser surmised that the digital divide between African American and whites at that time could be explained by apparent cultural differences. African Americans media consumption habits tended away from mass media and technology reporting. In addition, schools and churches that African Americans attended were less likely to have websites or use the Internet for communication.

Payton (2003) conducted a small scale study of 41 African American high school students. Remarkably, only 4 out of 41 students had ever heard the term “digital divide;” only

one student reported having no access to the Internet. The majority of the students (83%) had Internet access at home. In addition to the sample of 41 students, Payton conducted a focus group with 10 African American students. In the course of the focus group, all ten students agreed that “they could not imagine life or school without the computers and the Internet” (p.91).

The effects of the digital divide go beyond those seen in African American High School students. Robinson, DiMaggio, and Hargittai (2003) used the results from a nationally representative survey to explore the differences in the advantages afforded by Internet access, once people have access. They found that those who had college educations reaped much greater advantages out of their Internet usage than those who had only a High School education. Specifically, those with college educations made better use of their Internet use in regards to their work, education, and political engagement.

Clearly, the demographics associated with race and education have played a part in who does and does not have access to the Internet. But, what about aspects of ourselves, our own psychological makeup that may be keeping us off the Internet. Studies exploring the psychological aspects of computer use and Internet access are somewhat limited. Chua, Chen, and Wong (1999) conducted a meta-analysis on the correlates of computer anxiety. They believed that computer anxiety is in fact one of the psychological barriers to computer use. Chua, Chen and Wong, found that computer anxiety is a transient emotional state, rather than a durable emotional trait, and that it can be modified. Based on their study, it can be concluded that the reduction of computer anxiety can lead to greater use of both computers and the Internet.

So while research in the late 1990s established that the Internet had not touched all segments of our society equally: those in the lower socio-economic levels are among those least likely to enjoy access (Hoffman and Novak 1998; Hoffman, Novak and Schlosser 2000), in the

ensuing years, policymakers, educators and philanthropists have done much to erase this digital divide, with the result that many experts believe the divide has all but closed (Marriott, 2006). Indeed, recent research supports the conventional wisdom that falling prices of computers and connectivity, along with the ubiquity of school, library and other public access wired and wireless “hotspots,” are rapidly erasing the demographic digital divide (Compaine, 2001).

In terms of United States access (defined as individuals who use the Internet at least once a month), 66% of whites are Internet users, 70% of Asians, and 49.1% and 46.4% of Hispanics and African Americans, respectively (Phillips 2009). In 2007, 54.9% of white Internet households and 69.1% of Asian Internet households had broadband access, compared to 36.4% of black Internet households, 35.2% of Hispanic Internet households, and 29.8% of American Indian/Alaska Native Internet households (Phillips, 2009). In the next few years, African Americans, Hispanics, American Indian and other underrepresented households are also expected to reap connectivity gains, as the American Recovery and Reinvestment Act Broadband Technology Opportunities Program (United States Department of Commerce, 2009) takes effect beginning in 2010.

#### **2.4 A Behavior-Based Digital Divide**

Although the geo-demographic digital divide may be shrinking, another divide is looming. As the Internet mutates from a vast database into a web of social networks, along with a wave of excitement from marketers about “social media” and Web 2.0, it has gone mostly unnoticed that while the digital divide in *access* may be shrinking, a far more serious *usage* divide is occurring as the Internet becomes increasingly indispensable to some, but not, all people in their daily lives.

Though it is hard to argue that whole classes of individuals in our society are shut off from basic access to the Internet, there is increasing evidence that some individuals who have or could have access are *choosing* not to participate fully in the Internet communications revolution. For example, while African Americans and Hispanics are catching up to whites and Asians in terms of basic access, according to eMarketer (2009), they still lag in significant consumer behavior usage categories. For example, African American and Hispanic Internet users represent the smallest percentage of online buyers (40.6% and 41.8% respectively), compared to Asian (70%) and all adult (55.8%) Internet users, and make fewer online purchases. Only 10.9% of African American and 12.3% of Hispanic Internet users made five or more online purchases in 2007, compared with 46% of Asians and all adults (35.7%).

These disparities in usage are important because as we suggested at the outset, the Internet conveys significant immediate and longer-term consumer welfare benefits to its users. In the short run, consumers can easily gather detailed information from multiple sources about products and services, compare products and search for the lowest prices. Taking the long view, a recent survey found that consumers believe the Internet makes them more productive (eMarketer, 2009) and it has been recently argued that the Internet augments cognition and has the potential to make consumers smarter and more creative (Hoffman, 2008).

As the Internet becomes increasingly indispensable to many consumers, it is also being increasingly woven into the larger fabric of global society. This means that consumers who cannot or do not participate in the online revolution are not only missing out on key benefits that could enrich their lives but are in danger of becoming socially, commercially and politically irrelevant in a globally networked consumer society.

## 2.5 What is the True Cost To Society of the Digital Divide?

According to a recent PEW Internet Life survey (Jones & Fox, 2009) the digital divide in access is closing. As more and more minorities and older Americans gain online access, the monetary, educational, and social costs of online exclusion will become greater and greater for those without access (Tongia and Wilson 2007). The straightforward case of accessing government documents brings the point home. As the early United States expanded west, it was difficult and expensive to obtain government documents. People had to travel long distances over rough terrain to obtain and file even simple government documents. As more people moved west, the government opened more offices to provide easier access to its citizens. Similarly, as the Internet expands, more government documents are available online for citizens to view, print, and even submit electronically. This means that offline citizens must physically travel to a government office to retrieve and file documents. As more documents become available online, government offices print fewer hard copies, sometimes making documents and/or certain information available *only* online. Thus, the costs of not being online grow as more documents and services are available online, and the government closes more local offices.

Researchers assume that Internet access is a net positive for consumers (e.g. Warschauer, 2003; Youtie, Shapira, & Laudeman, 2004; Katz & Rice, 2002) with the consumer welfare benefits of online access well researched. (e.g. Keeney, 1999; Brynjolfsson, Hu, & Smith, 2003; Zettelmeyer, Morton, & Silva-Risso, 2006; Dutz, Orszag & Willig, 2009). Research that has examined costs of exclusion focus on the monetary (e.g. Cooper & Shah, 2000) or broad social costs (e.g. van Dijk, 2004; Cooper, 2002) that may arise from lack of online participation. Hoffman, Novak and Schlosser (2000) suggested that, looking forward, any gaps in access might be better explained by the social conditions surrounding those who are not online, than by any

economic considerations. As the digital divide in access now closes (Jones & Fox, 2009), and the Internet becomes increasingly indispensable to consumers in their daily lives, a fuller understanding of the implications of Internet use for consumer well-being can be evaluated by considering how the Internet builds social capital.

### **3. Internet Use Can Build Social Capital and Improve Consumer Well-Being**

Social capital refers to the resources that flow to an individual from the network of her relationships (Adler & Kwon 2002). Putnam (1995) observed in the mid-1990s that offline social capital had been in decline in the U.S. for several decades, owing to more women entering the workforce, more mobility and the “technological transformation of leisure” (p. 75). This led to the consequence of fewer consumers participating in civic causes such as political campaigns, town halls, church-going, but more consumers joining larger, impersonal organizations like the AARP. Putnam argued that technology harmed the accumulation of social capital because while larger organizations may satisfy belonging needs, they do little to help consumers build a network of relationships from which resources may be acquired.

Running through the many different definitions of social capital is the idea of a sense of trust and cooperation fostered between two or more people (e.g. Putnam, 1995; Adler & Kwon, 2002). In addition to fostering trust and cooperation, an important aspect of any definition of social capital is that it is relational. Social capital requires some form of interaction to be built, lost or modified. Early definitions of the construct emphasized community involvement (Putnam, 1995; Alder & Kwon, 2002; Drentea, & Moren-Cross, 2005), and the benefits that arose from relationships built from that involvement. More recently, researchers have expanded this definition to include explicit recognition of electronic networks such as the Internet in the

formation of social capital (Kavanaugh & Patterson, 2001; Wellman, Haase, Witte, & Hampton, 2001). This expands the idea of weak and strong ties to include connecting with people (across the network) who are not geographically close. Thus, the Internet can be seen as a tool for building and maintaining social capital, both on and offline.

Research shows that accumulating online social capital has positive effects on well being (Bargh & McKenna 2004; Ellison, Steinfield & Lampe 2007). As the Internet has diffused through modern society, consumers in general are better able to keep in touch with “weak ties” (Granovetter 1973) and use the Internet to strengthen the bonds underlying strong ties. The Internet also offers consumers opportunities to express themselves and build social capital even if they are not able to capitalize on such opportunities offline.

### **3.1 Early Studies Suggested the Internet Harms Social Capital**

In order to study the effect of the Internet on social capital, Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay and Scherlis (1998) gave a sample of families a free computer, software, phone line, email account, and internet access in exchange for allowing their access patterns to be tracked. In addition to tracking online behavior, participants completed periodic surveys regarding their social involvement and psychological well being. During the two year study period, greater Internet usage was associated with less social involvement, greater loneliness, and the incidence of depression. Kraut, et al. (1998) speculated the negative social and psychological outcomes were due to online usage displacing offline social activities and strong ties. A similar study by Nie and Erbring (2000) found that more time spent online was associated with participants losing contact with their social environment. This was especially true for those participants spending more than 10 hours per week online.

### **3.2 Long-Run, Online Use Positively Contributes to Social Capital**

Kavanaugh and Patterson (2001) found limited support for Putnam's (1995) assertion that technology may transform leisure activities and thus reduce the social capital of individuals. In a study of a community computer access program, Kavanaugh and Patterson found that participants who had been online for longer periods of time were more likely to be using the Internet for social capital building activities than those who had been online for only a relatively short period of time. Kavanaugh and Patterson argued that this was because those individuals were already building social capital offline and simply using the Internet as a tool to continue those activities.

Contrary to Putnam (1995), Shah, Schmierbach, Hawkins, Espino, and Donovan (2002) found that time spent online was positively related to civic participation and attendance, but not to informal socializing. The Shah, et al., study departed from the Kraut, et al. (1998) and Nie and Erbring (2000) studies by surveying current Web users about their online social capital building activities. This approach is more representative of the online population as a whole, compared to non users who were given free access as part of a social program.

Wellman, Haase, Witte and Hampton (2001) analyzed data from one of the first large scale Internet-based usage surveys to address the effect of Internet participation on social capital. They found that online participation actually supplemented face-to-face and telephone interactions by extending another avenue for communication, although the heaviest users did not reap the benefits to the same degree. Wellman, et al. (2001) concluded that online participation increases social capital by providing users with yet another method to get in touch with the

people they want to communicate with. Thus, the internet is seen as a beneficial tool that compliments the tools users already use to maintain their interconnectedness.

Kraut and his colleagues later revisited their findings on the connection between Internet use and loneliness. In a follow-up study, Kraut, Kiesler, Boneva, Cummings, Helgeson, & Crawford (2002) returned to the same participants as in the Kraut, et al. (1998) study and added a sample of new participants. Among the original participants, the negative effects they initially reported in 1998 had dissipated, although heavier online usage was associated with more stress. In the new sample, the researchers found positive effects of Internet usage for a wide range of social capital variables including social involvement and community involvement. Additionally, Kraut et al. (2002) found that extraverts took the greatest advantage from online access, while introverts experienced worse outcomes from their time online.

### **3.3 Online vs. Offline Social Capital**

Conflicting research results may be due in part to what form of social capital is being studied. Early studies emphasized the effects of online usage on offline social capital. More recently, researchers have turned their attention to studying the formation of online social capital (Kobayashi, Ikeda, & Miyata 2006; Williams, 2006).

Williams (2006) examined both online and offline social capital. He found that despite the fact that using the Internet takes away from the amount of time participants had to work on their offline social capital, the time they spent online helped them to build their online social capital. Qualitatively, online social capital was quite different than offline social capital in that online relationships do not have the same depth and emotional involvement as offline relationships. Though these forms of social capital are quite different Williams did not believe

that the replacement of offline social capital with online social capital was detrimental to the quality of life of the individuals in the study. Williams concluded that looking at offline social capital as being displaced by online behaviors was not an adequate framework for understanding the complete picture of online and offline social capital. Complete understanding of online social capital should include the study of both psychological variables that moderate relationships and the websites that facilitate those relationships.

Kobayashi, Ikeda and Miyata (2006) reach a similar conclusion, that online social capital exists and it has positive effects on offline social capital. In their study of the effect of participation in virtual communities, such as listservs, bulletin boards and chat rooms, on social capital, they found that online communities can be powerful tools in building social capital. In particular, internet users can both experience and participate in reciprocity and reciprocal communications in virtual communities. For those who participate, these interactions help to build trust and bolster their sense of reciprocity. These effects also extend to “lurkers,” online users who choose not to participate. Due to the public nature of these communications, non-participants can witness the ongoing reciprocal communication and trust building happening between others, and learn vicariously through their observations. In addition to the reciprocal relationships that are built exclusively online, Kobayashi et al., also show that virtual communities can be used as a tool to bolster the offline social capital when the group goes offline as with a hobby focused club or after hours workers’ group.

Pruijt (2002) explored the power of the Internet to increase overall social capital by studying the ability of two different brand communities to positively impact firm behavior. In 1994 a single user discovered a flaw in an Intel processor and posted the findings on a newsgroup. This discussion grew into an intense debate to the point where Intel eventually

offered replacements to all users who had purchased computers with the flawed processor. The replacements cost Intel over 400 million dollars and customers received satisfaction. Pruijt also discusses the evolution of the Linux operating system as a way that people have increased their social capital online. The Linux operating system has been almost entirely user created by volunteers. In fact there is still a large community of Internet users that continue to develop the Linux platform. Why do people continue to work on an operating system for free or post messages to newsgroups notifying others of faulty products? Pruijt argues that programmers do this for the social capital they earn, in the form of trust and cooperation. Pruijt observes that the Internet is a network and social capital is networking between individuals and concludes that “the internet *is* social capital” (pg. 112, emphasis added).

### **3.4 Social Capital and Online Social Networking**

As social networks proliferate researchers are turning their attention to the potential for social networking activities to increase social capital. One recent study (Steinfeld, Ellison, & Lampe 2007) found that Facebook increases social capital. It appears to increase bridging social capital by building and maintaining weak ties among large groups of distant friends and acquaintances. In addition to increasing bridging social capital, Facebook provides the structure to help users maintain their close relationships as well as easily broadcast messages to a large group of friends and acquaintances. One side effect of the use of Facebook was an increased sense of self-esteem in college students who had just left home for school. Facebook may be useful to maintain bridging social capital by allowing users the possibility to eventually convert these less personal relationships to close relationships, and allows people with difficulty in

maintaining relationships a simple and easy way to maintain contact with a large group of friends and acquaintances.

As social networking sites become ubiquitous, a growing divide may separate those who do and do not use them. Tufekci (2008) found that although 85% of participants used social networking sites there were significant differences between users and nonusers. There were few differences between the groups with respect to the number of friends and their instrumental use of the Internet, but users also tended to use the Internet for expressive and creative purposes, and nonusers were less interested in the types of social grooming behaviors that users engaged in. Tufekci's (2008) results provide support for the idea we introduced at the beginning of this chapter that the digital divide is behavioral based with its roots in the social differences between the networked and non-networked. As the social Web continues to grow in popularity, we can only wonder if nonusers, missing opportunities to build and maintain important new forms of social capital, will be left on the fringes of an increasingly connected society – peering through the net and wondering what the big deal is.

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