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PROJECT SYNTOPIA: SOCIAL CONSEQUENCES OF INTERNET USE

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ABSTRACT

This article provides an overview of the Syntopia Project and results from nationally representative telephone surveys of Internet use/nonuse and social impacts from 1995, 1996, 1997 and 2000. The main themes covered in the surveys are access, community/political involvement, and social interaction. After a brief overview of associations between Internet use and involvement, the article summarizes the relationships between Internet use and nonuse, and offline and online social interaction.

Essentially, across the samples, Internet users are quite sociable—they are more involved and socially active than nonusers. These and related results imply that neither dystopian nor utopian views of the social consequences of the Internet are supported by representative survey data. Rather, the results support a more syntopian perspective: the Internet has allowed individuals and groups to find common interests, engage in various types of exchange and create bonds of concern, support and affection that can unite them—for both good and ill.

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The diminutive computer mouse has roared, affecting the communication and social behaviors of millions of people. However, as this inaugural issue of *IT&Society* attests, social scientists and their plethora of sponsors (including the National Science Foundation, the Pew Charitable Trusts, the Department of Commerce and market survey firms among many others) are only now beginning to be able to identify what have been the consequences for American society in this sea change in public communication patterns.

Part of the reason for undertaking research are the many arguments from this wealth of research that either the Internet is harmful or that it has unleashed a revolutionary liberating force. There is concern first about the accuracy of both of these dystopian and utopian views, and second about the consequences of accepting an overly negative or positive view of the Internet—if indeed those views are wrong.

The view here is that neither perspective is correct. The little computer mouse—hooked to a keyboard and CPU and linked with vast networks, servers and other infrastructure—has acted to weave a rich tapestry of friendship, personal information, and community among people of all nations, orientations, ethnic groups and classes. In a manner not unlike that of Adam Smith's invisible hand of the marketplace, the sum of the mouse movements and keyboard clicks (and increasingly voice and video streams) has allowed individuals and groups to find common interests, engage in various types of exchange and create bonds of concern, support and affection that can unite them.

The "invisible mouse tracks" have led around the world, creating electronic and emotional strands among people and their software representations. The result is an intricate tapestry of individuals engaging in what they already do in other arenas, for good or bad, while expanding possibilities for new kinds of thought, interaction and action. Wishing to propose a perspective on these emerging consequences, this view is referred to as "syntopia."

PROJECT SYNTOPIA

Searching for support to do a systematic study of the social and psychological differences of those who found themselves on the Internet versus those who were not began in the early 1990s. Unlike the situation today, however, no funding agencies seemed to think this was a worthwhile endeavor. Fortunately, in 1994 the Markle Foundation agreed to expand some of its interests in universal email to look at the factors that kept people off the Internet, as well as those that keep them on. From that springboard came the earliest rigorous national surveys of Internet usage and consequences, whose joint aim has been to create a multi-year program charting social aspects of Americans' behavior on and off line that has fielded surveys in 1995, 1996, 1997 and 2000.

These surveys appear to have been the first to

- use national random telephone survey methods to track social and community aspects of Internet use,
- compare users and nonusers,
- identify and analyze Internet dropouts, and
- identify and analyze those still unaware of the Internet as opposed to aware nonusers.

The name "syntopia" was chosen for the project, first, because of a wide array of emerging communication technologies—including not only the Internet but also the mobile phone and related technologies of the many media people use for social interaction (Katz, forthcoming). Second, an exclusive focus on the online world can be misleading. People do have a physical embodiment, and their physical and social situation and their history influence their actions online. Likewise, what they learn and do online spills over to their real world experiences, and the term deliberately underscores this synergy across media and between mediated and unmediated activities. Third, the term *syntopia* draws together the words "syn" and "utopia." Derived from ancient Greek, the word means literally "together place," which is a way to see the Internet and associated mobile communication—and their interaction with unmediated interpersonal and community relations.

The term *syntopia* invokes both utopian and dystopian visions of what the Internet does and could mean. At the same time, it brings these two visions together symbolically and, perhaps not so subtly, also alludes to the Internet's dark side in the homophone "sin." Other nominal connections are "synthetic" and "syntheses," all of which are appropriately evocative, and also fit with the project results to date. The Internet and other new media are places for people to interact, express themselves, emote and find new friends. It is also a place in which people seek to hurt, cheat and exploit others. Project Syntopia aims to identify what these activities mean for issues ranging from access to information resources and human capital, to social and community involvement, to friendship formation and online forms of expression.

Consider, for example, the syntopian uses of communication technologies in response to the tragedy surrounding the September 11, 2001, terror attacks on the United States. The mobile phone and the Internet were understandably central to people's communication activities as the grotesque plot unfolded. Mobile phones were used to relay what was happening aboard the hijacked airliners, alerting passengers on one flight (United Airlines Flight 93) of the hijackers' intended suicide mission. Mobile phones were also used to call for help and to let friends and relatives know what was happening—and say their final words of love—as the disaster cascaded. Emergency workers, victims and families coordinated and informed themselves (Katz and Rice forthcoming). Of course, the voice networks were heavily overloaded, but two-way pagers and data networks were able to keep

up with the demand. Mobile phones clearly saved lives as they were used to tell people in the stricken buildings to evacuate immediately.

In a sick hoax, though, some people used their mobile phones to call emergency services pretending to be trapped. Phones, both mobile and stationary, were also used to make false bomb threats to federal buildings, synagogues and mosques. In several of these cases, caller-ID technology was used to catch perpetrators, allowing authorities to relieve fears (Case 2000; Harden 2001; Katz 1999). Thus, syntopian technologies are plastic, in that they can be employed for help or harm, information or disinformation, as the persons participating in the communication see fit.

PROJECT THEMES

The rise of the Internet has brought with it some important questions about how this new form of communication might be affecting society. Project Syntopia has considered fundamental tensions or opposed positions about the consequences of the Internet in three areas: the digital divide, community and political involvement, and social interaction.

The first fundamental concern of *access*, including who has/does not have access to the Internet, what motivates people to use the Internet, what barriers there are to usage, and what characterizes those who stop using the Internet has been covered in Katz and Aspden (1997a, b, c); Rice, McCreadie and Chang (2001). These "digital divide" issues will be covered in an upcoming issue of *IT&Society*.

The second fundamental tension is whether the Internet will decrease *community involvement and political participation and integration* (Kraut et al. 1998; Selnow 1994), or whether it will foster diverse mediated communities with greater social capital. Concerns about the decline of community expressed two hundred years ago (by Benjamin Franklin, Thomas Jefferson, John Quincy Adams) often seem little different than those expressed continually since World War II (Merton 1957; Putnam 1996).

A major component of this lively debate has been the question of the impact of communication technology on these community, political and social processes (Carpini 1996; Pool 1983; Putnam 1996; Rash 1997; Starobin 1996; Symposium 1995; Van Alstyne 1995; White 1997). For example, the Internet may very well foster political involvement: "Life in cyberspace seems to be shaping up exactly like Thomas Jefferson would have wanted: founded on the primacy of individual liberty and a commitment to pluralism, diversity, and community" (Kapor 1993, p. 53).

The third concern is whether and how the Internet will affect *expression, new forms of identity and social interaction* (Baron 1984; Gergen 1991; Hiltz and Turoff 1995; Kiesler, Siegel and McGuire 1984; Parks and Floyd 1996; Wynn and Katz 1997). Can online social activity and creativity translate into meaningful friendships and relationships? The first school of thought holds that computer-mediated communication technology is too inherently antithetical to the nature of human life for meaningful relationships to form (Stoll 1995). To type is not to be

human, to be in cyberspace is not to be real; all is pretense and alienation, a poor substitute for the real thing (Baudrillard 1983; Beniger 1987; Numes 1995). So much posturing, "gender-switching" and faking of identities can take place that it is extremely difficult for any real relationships to be created and maintained (Turkle 1996).

However, a second school of thought increasingly sees the Internet as a medium that facilitates social interaction (Rheingold 1993; Rice 1987a, 1987b). This work has been complemented by research on the functioning of medical discussion lists and newsgroups, health and psychological support groups, Internet Relay Chats, instant messaging, Multi-User Dungeons, Object-Oriented MUDs, and even online dating services. All of these are essentially social and oriented toward *affect* instead of *task* (Aspden and Katz 2001; Rice 2001). Baym (1995, p. 160) summarizes a decade of research as revealing that "the ways in which people have appropriated the commercial and noncommercial networks demonstrate that CMC not only lends itself to social uses but is, in fact, a site for an unusual amount of social creativity."

DATA SOURCES

The data summarized here, as well as detailed in various reports from the overall programmatic research (see Katz and Rice 2001, 2002), came from a series of national probability telephone surveys, all designed by the authors but administered by commercial survey firms. Table 1 summarizes the sample sizes and adoption/usage percentages for each of the four years.[1]

The following sections summarize results for the primary issues of community involvement, and social interaction/expression. Results from the 1996 survey are used to summarize the relation between Internet use and political involvement; and results from the 1995 and 2000 surveys to summarize relationships between Internet use and community involvement, social interaction, and new forms of expression. Appendix A provides the wording of the survey questions that are analyzed in this article (a subset of all the items on these surveys).

All network probability samples were conducted by telephone. Note that, while the 1996 and 1997 samples were augmented with a sample of additional Internet users, population estimates of usage are only from the initial, unaugmented samples. In comparing relative distributions, however, the combined samples give more accurate statistical estimates. Internet dropouts—people who have used the Internet, but no longer do so—are usually overlooked in discussions about cyberspace (Katz and Aspden 1998). Approximately 8 percent of respondents were dropouts in 1995, 11 percent in 1996, 10 percent in 1997 and 11.5 percent in 2000. In 1995, 1996, 1997 and 2000, dropouts were significantly younger, less affluent, and less well educated than users—but not more likely to be female or African-American.

TABLE 1: SUMMARY SAMPLE SIZE AND USAGE STATISTICS

Variable	Oct. 1995	Nov. 1996	Nov. 1997	Mar. 2000
Sample *N*	2500	557	2148	1305
Users	8.1%	18.8%	30.1%	59.7%
Former Users	7.8%	11.5%	9.8%	10.5%
(percent of ever used)	(49%)	(38%)	(25%)	(15%)
Not Users	84.3%	69.9%	60.1%	29.7%
Supplemental Users Sample	----	450	153	----

RESULTS

A. COMMUNITY AND POLITICAL INVOLVEMENT

Initial Project Syntopia reports (Katz and Aspden 1997b; 1997c) found that the Internet did not increase social isolation. Rather, it was a source of civic organizational involvement and new personal friendships. A subsequent study of users in Pittsburgh, which suggested that heavy Internet use might lead to depression and isolation, received prominent national media attention (Kraut *et al.* 1998). That article expressed numerous reservations about the findings, and the situation became even cloudier when Nie and Erbring (2000) also concluded that the Internet harms social cohesion and interaction. However, the UCLA (Cole 2000) and the Pew Internet and American Life Project (Rainie and Kohut 2000) seemed to confirm the Project Syntopia 1995 findings. When, in 2002, the Carnegie-Mellon team in Pittsburgh was not able to find further evidence of their Internet paradox (that is, a social technology that made people lonely), the original conclusions from Project Syntopia were sustained. As summarized next, later surveys supported these earlier results.

Involvement in Organizations: There was no difference between Internet users and nonusers in rate of membership in religious organizations, in either 1995 (about 63%) or 2000 (about 56%). However, in 2000, users who spent more hours online per week were slightly more likely to belong to more religious organizations (r=.07, p<.01). Current users were significantly more likely to belong to leisure organizations than were nonusers (60% compared to 49%) in 1995, but not differently in 2000 (93% for both). Users were significantly more likely to belong to at least one community organization than nonusers in both 1995 (41% vs. 37%) and 2000 (28% vs. 15%). In 2000, for users, spending more hours online was not significantly correlated with membership in more leisure or community organizations.

Involvement in Politics: The 1996 survey data identified four dimensions of offline political activity:

1. political activities such as attending rallies, making phone calls on behalf of candidates, and giving money to political causes;
2. reading and the importance of magazines and newspapers;
3. importance of national and local TV shows and interviews in the 1996 campaign; and
4. voting in the 1996 election.

All were greater for Internet users than for nonusers. There was no difference in real-world political activity (including voting) between heavy and light users, and between long-term and short-term users (Katz, Aspden and Reich 1997).

There were also two kinds of *online* political activity: browsing and interaction. *Browsing* was a composite of reading bulletin boards/discussion groups, visiting websites with political information, following part of the election by reading online news, following election day coverage by computer, and viewing information via the computer after the election. In the sample of Internet users, 46 percent participated in at least one of these. *Interaction* consisted of four activities: participating in electronic discussions with people about the election, receiving emails about the campaign/election, sending/receiving emails to/from government officials, and sending emails to others regarding the campaign/election. In the 1996 sample, 28 percent of the Internet users participated in at least one of the four online political interaction activities.

B. SOCIAL INTERACTION AND NEW FORMS OF EXPRESSION

Social Interaction: Most of the project social interaction questions come from the 1995 survey, first exploring the extent to which respondents met with friends. In the week prior to that survey, 38 percent of long-time users met 1–3 times with friends and 54 percent met four or more times. Of recent users, 40 percent met 1–3 times with friends and 48 percent met four or more times. Former users met with friends somewhat less often—48 percent met 1–3 times with friends and 44 percent met four or more times. Of nonusers who had heard of the Internet, 48 percent met 1–3 times with friends and 40 percent met four or more times. Nonusers who had not heard of the Internet reported meeting with friends less—43 percent reported meeting 1–3 times with friends and 39 percent meeting four or more times in the week prior to the survey.

In other words, those who had been using the Internet the longest also were the most likely to have met with four or more friends; and those who were not even aware of the Internet were least likely to have met with four or more friends in the prior week. Clearly long-term Internet usage is associated with more, not less, frequent sociability. These differences between nonusers and users, in getting together with friends, remained after controlling for employment status (full-time, part-time, retired, unemployed).

When asked the extent they agreed with the question, "In your social life are you frequently away from home?", aggregate responses were similar to above,

but the differences were more marked—with users (current and former) more strongly agreeing to the statement than nonusers. Fifty-nine percent of long-time users, 56 percent of recent users and 57 percent of former users agreed or strongly agreed with the statement. By contrast, only 37 percent of nonusers who had heard of the Internet and 34 percent of nonusers who had not heard of the Internet agreed or strongly agreed with the statement. Differences in being frequently away from home remained for nonusers versus users after controlling for significant influences of educational achievement and marital status.

Finally, participants in the survey were asked how many of the ten people living closest to their home they knew. Of nonusers who had not heard of the Internet, 37 percent reported knowing the ten closest people and 31 percent knowing four to nine of the ten closest people. Similarly, of nonusers who had heard of the Internet, 33 percent reported knowing the ten closest people and 36 percent knowing four to nine of the ten closest people. Former users reported knowing slightly fewer neighbors—28 percent reported knowing the ten closest people and 42 percent knowing four to nine of the ten closest people, followed by long-time users—28 percent reported knowing the ten closest people and 37 percent knowing four to nine of the ten closest people. Recent users reported knowing the fewest neighbors—21 percent reported knowing the ten closest people and 43 percent knowing four to nine of the ten closest people.

So there is evidence that long-term and recent Internet users are more likely to meet with friends in the past week—but also more likely to be away from home and to know fewer neighbors. This implies that users' social communities are more physically dispersed than nonusers. However, there was no significant difference between categories of users and nonusers in this knowledge of the ten closest neighbors after controlling for significant influences of employment status and age: this implies that the use of the Internet *per se* is not associated with different levels of awareness of one's neighbors.

Respondents were asked how often in the week prior to the interview they communicated with other people by letter or by phone. In 1995, usage of both increased from nonusers who had not heard of the Internet (37% reported sending at least one letter, 41% reported making 11 or more phone calls) up through current users (letters, 56%; phone, 72%). For letter contact, there was no difference between users and nonusers, after controlling for significant influences of gender and education. For phone contact, Internet usage was still associated with increased phone contact after controlling for significant influences of education and age. In 2000, two-thirds of Internet users had written no letters in the prior week, while 60 percent had made more than ten telephone calls.

Other possible indicators of home and social activity include: having children, employment status, home ownership and number of years living in the same home. In 1995, users were more likely than nonusers to work full-time (70% vs. 54% for nonusers) or be a student (14% vs. 6%), and have lived for fewer years in their current house (6.4 years vs. 10.5). The same differences existed in 1996, except that users were also more likely to own their own home. In 2000, users

were significantly more likely to have children, work full-time (63% vs. 44%) or be a student (9% vs. 2%), and have lived for fewer years in their current house.

New Forms of Expression: In the 1995 survey, 26 percent of users reported being a member of an Internet community. Some 31 percent of long-time users and 17 percent of recent adopters reported participating in Internet communities—23 percent participated in three or four communities, and 27 percent participated in five or more communities. In 2000, 10 percent reported being a member of at least one online community.

In the 1995 survey, 42 percent of users reported contacting family members through the Internet at least once or twice. Long-time users reported contacting family members more often than did recent adopters. In the 2000 survey, 22 percent of users reported contacting family members online at least several times a year. For the vast majority of both long-time and recent users, use of the Internet did not appear to have much impact on the time spent with friends and family. Some 88 percent of users reported that the time spent with friends and family face-to-face or by phone had not changed since they started using Internet. The same proportion of users (6%) reported they spent more time with friends and family face-to-face or by phone, as those who reported they spent less time.

In 1995, 12 percent, and in 2000, 14 percent, of users had established friendships via the Internet. Those reporting higher number of Internet friends in 1995 were more likely to have met at least one of them. In 1995, 17 percent of users reported that they had met face-to-face at least one person they had first met online (not necessarily one of those online friends); and in 2000, 10 percent of users did so. There were only weak or in most cases nonexistent statistical relationships of this Internet-based friendship formation with demographic variables, traditional forms of interaction or personality attributes in either the 1995 or 2000 survey.

CONCLUSIONS

Conclusions from Project Syntopia surveys do not in the main support arguments about pervasive negative or paradoxical effects of the Internet—particularly with respect to community or political involvement, and social interaction or expression. These have been based on case studies and samples that were neither random nor representative. Rather, the findings support the conclusion that this new social technology has substantially benefited society.

However, these survey results do *not* conclude that there are *no* negative aspects or consequences of the Internet. Nonetheless, Internet usage is associated with (a) increased community and political involvement, and (b) significant and increased online and offline social interactions. Hence, the Internet has been found to be an important and multiplicative social capital resource for U.S. society. Further, it is helping to expand a syntopian world, where people interact according to their interests, within and across multiple media, for both good and ill.

REFERENCES

Aspden, P., and Katz, J. E. 2001. Assessments of Quality of Health Care Information and Referrals to Physicians: A Nationwide Survey. In R. E. Rice and J. E. Katz (eds.), *The Internet and Health Communication.* P. 107–119. Thousand Oaks, CA: Sage.

Baron, N. S. 1984. Computer-Mediated Communication as a Force in Language Change, *Visible Language.* 18(2), p. 118–141.

Baudrillard, J. 1983. *Simulations.* Translated by P. Foss, P. Patton and P. Beitchman. New York: Semiotext(e).

Baym, N. K. 1995. The Emergence of Community in Computer-Mediated Communication. In S. G. Jones (ed.), *Cybersociety: Computer-Mediated Communication and Community,* p. 138–163. Thousand Oaks, CA: Sage.

Beniger, J. 1987. The Personalization of Mass Media and the Growth of Pseudo-Community. *Communication Research.* 14(3), p. 352–371.

Carpini, M. X. D. 1996. Voters, Candidates, and Campaigns in the New Information Age: An Overview and Assessment, *Harvard International Journal of Press/Politics.* 1, p. 36–56.

Case, D. O. 2000. Stalking, Monitoring and Profiling: A Typology and Case Studies of Harmful Uses of Caller ID. *New Media and Society.* 2(1), p. 67–84.

Cole, J. 1999. Press Release, Director of UCLA Center for Communication Policy. Retrieved June 2, 2001 from http://www.cc.ucla.edu/press_releast.htm.

Gergen, K. 1991. *The Saturated Self: Dilemmas of Identity in Contemporary Life.* New York: Harper Collins.

Harden, B. Sept. 27, 2001. Bomb Threats Flood in After Terrorist Attacks, *New York Times.* Retrieved Sept. 27, 2001 from *http://www.nytimes.com/2001/09/27/national/27SCAR.html.*

Hiltz, S. R., and Turoff, M. 1995. *Network Nation* (revised ed). Cambridge, MA: MIT Press.

Hoffman, N. 1998. Bridging the Racial Divide on the Internet, *Science.* 280, p. 390–391.

Kapor, M. 1993. Where Is the Digital Highway Really Heading? *Wired.* July/Aug., p. 53–59, 94.

Katz, J. E. (ed.). *Machines That Become Us: The Social Context of Personal Communication Technology.* New Brunswick, N.J.: Transaction.

Katz, J. E. 1999. *Connections: Social and Cultural Studies of the Telephone in American Life.* New Brunswick, NJ: Transaction.

Katz, J. E., and Aakhus, M. A. (eds.) 2002. *Perpetual Contact.* New York: Cambridge University Press.

Katz, J. E., and Aspden, P. 1997a. Motives, Hurdles, and Dropouts: Who is on and off the Internet and Why, *Communications of the ACM,* 40(4), p. 97–102.

Katz, J. E., and Aspden, P. 1997b. A Nation of Strangers, *Communications of the ACM.* 40(12), p. 81–86.

Katz, J. E., and Aspden, P. 1997c. Motivations For and Barriers to Internet Usage: Results of a National Public Opinion Survey, *Internet Research: Electronic Networking Applications and Policy.* 7(3), p. 170–188.

Katz, J. E., and Aspden, P. 1998. Internet Dropouts in the USA, *Telecommunications Policy.* 22(4/5), p. 327–339.

Katz, J. E., Aspden, P., and Reich, W. 1997. Elections and eElectrons: A National Public Opinion Survey on the Role of Cyberspace and Mass Media in Political Opinion Formation during the 1996 Election. Paper presented at the 25th Annual Telecommunications Policy Research Conference, Crystal City (Arlington, VA), September.

Katz, J. E., and Rice, R. E. The Telephone as a Medium of Faith, Hope, Terror and Redemption: America, September 11. *Prometheus.* Forthcoming.

Katz, J. E., and Rice, R. E. 2002. *Social Consequences of Internet Use: Access, Involvement and Interaction.* Cambridge, MA:MIT Press.

Katz, J., Rice, R..E., and Aspden, P. 2001. The Internet 1995–2000: Access, Civic Involvement, and Social Interaction, *American Behavioral Scientist.* 45(3), p. 404–419.

Kiesler, S., Siegel, H., and McGuire, T. W. 1984. Social Psychological Aspects of Computer-Mediated Communication. *American Psychologist.* 39(10), p. 1123–1134.

Kraut, R., Lundmark, V., Patterson, M., Kiesler, S., Mukopadhyay, T., and Scherlis, W. 1998. Internet Paradox: A Social Technology that Reduces Social Involvement and Psychological Well-being? *American Psychologist.* 53, p. 1017–1031.

Merton, R. K. 1957. *Social Theory and Social Structure* (2nd ed). New York: Free Press.

Nie, N., and Erbring, L. 2000. *Internet and Society.* http://www.stanford.edu/group/siqss/Press_Release/Preliminary_Report.pdf

Numes, M. 1995. Jean Baudrillard in Cyberspace: Internet, Virtuality, and Postmodernity. *Style.* 29(2), p. 31–27.

Parks, M. R., and Floyd, K. 1996. Making Friends in Cyberspace, *Journal of Communication.* 46, p. 80–97.

Pool, I. de Sola. 1983. *Technologies of Freedom.* Cambridge, MA: Belknap Press.

Putnam, R. D. 1996. The Strange Disappearance of Civic Life in America, *The American Prospect.* 24, p. 34–46.

Rainie, L., and Kohut, A. 2000. Tracking Online Life: How Women Use the Internet to Cultivate Relationships with Family and Friends. Washington, D.C.: The Pew Internet and American Life Project. http://www.pewinternet.org/reports/pdfs/Report1.pdf

Rash, W. 1997. *Politics on the Nets: Wiring the Political Process.* New York: Freeman.

Rheingold, H. 1993. *The Virtual Community: Homesteading on the Electronic Frontier.* Reading, MA: Addison Wesley.

Rice, R. E. 1987). New Patterns of Social Structure in an Information Society. In J. Schement and L. Lievrouw (eds.) *Competing Visions, Complex Realities: Social Aspects of the Information Society.* p. 107–120. Norwood, N.J.: Ablex.

Rice, R. E. 1987b. Computer-mediated Communication and Organizational Innovation, *Journal of Communication.* 37, p. 65–94.

Rice, R. E. 2001. The Internet and Health Communication: A Framework of Experiences. In R. E. Rice and J. E. Katz (eds.) *The Internet and Health Communication: Experiences and Expectations.* p. 5–46. Thousand Oaks, CA: Sage.

Rice, R. E., McCreadie, M., and Chang, S. J. 2001. *Accessing and Browsing Information and Communication.* Cambridge, MA:MIT Press.

Selnow, G. W. 1994. *High-Tech Campaigns: Computer Technology in Political Communication.* New York: Praeger.

Starobin, P. 1996. On the Square, *National Journal.* June 25, p. 1145–1149.

Stoll, C. 1995. *Silicon Snake Oil.* New York: Doubleday.

Symposium 1995. Emerging Media Technology and the First Amendment, *Yale Law Journal.* 104, p. 1613–1850.

Turkle, S. 1996. Virtuality and its Discontents: Searching for Community in Cyberspace. *The American Prospect.* 24, p. 50–57.

Van Alstyne, W. W. 1995. *First Amendment: Cases and Materials* (2nd ed.). Westbury, NY: Foundation Press

White, C. S. 1997. Citizen Participation and the Internet: Prospects for Civic Deliberation in the Information Age. *Social Studies.* 88, p. 23–28.

Wynn, E., and Katz, J. E. 1997. Hyperbole Over Cyberspace: Self-Presentation and Social Boundaries in Internet Home Pages and Discourse. *The Information Society.* 13(4), p. 297–329.

APPENDIX A
PROJECT SYNTOPIA SOCIABILITY SURVEY QUESTIONS

Ia. Community Involvement

1. How many of each type of organization do you belong to? (0; 1-4; 5-9; 10-19; >20)
   a) Religious (e.g., church or synagogue member)
   b) Leisure (e.g., hiking, biking, bowling or tennis club)
   c) Community (e.g., Lions club or volunteer for political cause)

Ib. Political Involvement

2. In following the 1996 political campaign how would you rate the importance to you of each of the following (1=high importance to 4=no importance):
   a) News or opinion magazines
   b) Newspapers
   c) Television
   d) National and local TV shows
3. I am going to ask you about some political activities and whether you did any of them in the past year (Y/N).
   a) Attend any political rallies?
   b) Make phone calls on behalf of candidates?
   c) Give money to a political cause, committee or campaign?
   d) Write/fax letters to elected officials?
4. Thinking back over the period since the beginning of October, in terms of your online activities and the 1996 election campaign, did you (Y/N):
   a) Read any bulletin board posting or discussion groups about the campaign or elections?
   b) Did you have any email exchanges or chat room discussions or postings with friends or family about the 1996 political campaign and election?
   c) Receive any email about the campaign or elections?
   d) Send or receive any email from a government official, candidate for office, or political campaign committee?
   e) Send any email to others about the campaign or elections?
   f) Visit any web sites with political campaign-related information?
   g) Did you follow any part of the election by reading news online?
   h) Did you follow the voting on election day from your computer?
   i) Did you view information online about the election after it was over?
   j) Have you read information online or received email about the impact of the election?

IIa. Social Interaction

1. In the last week, about how many times did you get together with friends? _____

2. Do you strongly agree (1) , agree, disagree, or strongly disagree (5) with the following statement: In your social life you're frequently away from home.

3. Of the ten people living closest to your home, how many do you personally know?

4. In the last week, how many times did you contact people using the following forms of communication, outside of work? (that is, sending, not receiving) (0; 1-4; 5-9; 10-19; >20)

   a) Letters
   b) Phone calls

II b. New Forms of Expression

1. Do you consider yourself to be a member of an Internet community or communities? (Y/N)

2. Have you ever contacted family members over the Internet? (Never; Once or twice; Several times a year; Several times a month; Several times a week or more)

3. Which statement best describes the amount of time you spend with friends and family face-to-face or by phone since you started using the Internet? (I spend less time; It hasn't changed; Now I spend more time with friends and family offline)

4. Do you know people only through the Internet that you consider to be your friends? (Y/N)

5. Have you ever met any of these people in person? (Y/N)

6. Have you ever met someone online only and then gone on to meet them in person? (Y/N)

ENDNOTES

[1] Some, but by no means all, public opinion surveys use weighting post hoc to compensate for nonresponse bias or ineffective sampling frames. However, many other statisticians express deep concern about applying weighting procedures to correct problems of this nature. They view weighting as highly susceptible to serious (and difficult to detect) errors. These statisticians include Kalton, Zieschang and Kish. Data are not weighted because of concerns raised by these authors. Since most analyses test for significant effects of a wide set of demographic variables, so some biases are controlled for statistically.