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Bruce Bimber

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BRUCE BIMBER

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The technological revolution associated with the Internet is coinciding with energetic scholarly and public interest in the state of civic engagement. This coincidence of contemporary technological change and concern with the nature of engagement is naturally leading some researchers to examine the possibility of linkages between technology and citizenship. For instance, some scholars are studying questions regarding Internet use and acts of formal political participation, such as voting, in order to test the hypothesis that new technology can boost political engagement, especially among younger citizens. Some are pursuing possible effects of the Internet on social capital, exploring whether enhanced electronic communication facilitates social association and trust or displaces social acts with solitary activities. The recent release of apparently conflicting studies about the Internet's effects on social isolation has fueled public debate about this subject generally (Nie & Erbring, 2000; "Tracking Online Life," 2000).

As a participant in research on this topic, I am a strong supporter of the development of a better empirical and theoretical understanding of its various dimensions. Nonetheless, I argue briefly in this paper for abandonment of the idea of "the Internet" in connection with some research on civic engagement. In particular, I advocate rejecting the idea of a distinction between technology-related civic engagement and traditional civic engagement, at least in certain circumstances. In what follows, I suggest reasons why scholars are sometimes justified in discarding "the Internet" as a construct or variable, and I briefly sketch an alternative conceptualization that focuses on features of information itself rather than on technology.

There are at least two reasons why "the Internet" is rapidly becoming a problematic construct in the social sciences, especially in the study of system-level social and political phenomena. The first reason concerns the *integration* of technologies. Already, quite different technological acts are tightly connected: exchanging electronic mail, browsing for civic information, making consumer transactions, and participating in chat rooms or

Bruce Bimber is Assistant Professor of Political Science and Director of the Center for Information Technology and Society at the University of California—Santa Barbara.

Address correspondence to Bruce Bimber, Department of Political Science, University of California—Santa Barbara, Santa Barbara, CA 93106, USA. E-mail: bimber@polsci.ucsb.edu

multi-user environments, to name a few important examples. In the near future, this integration will expand substantially, as disparate communication and information technologies converge into a coupled, integrated technical complex. Increasingly, the Web, electronic mail, television, recorded music, cellular phone service, and a variety of other portable electronic technologies, from personal organizers to automobile navigation systems, will merge. As this technological evolution occurs, what is “the Internet” and what is not will become ever more intricate and, in some cases, unimportant.

Integration poses the following dilemma. On the one hand, the great variety of communication and information-handling capacities of new technology means that use of “the Internet” can entail very different activities with divergent or even conflicting effects on human phenomena under investigation. Time spent in a political discussion in a so-called “chat room” is different from time spent sending e-mail to a group of neighbors about a weekend community project, and these are different from time spent viewing electronic pornography. To speak in simple terms of “the Internet” can conceal important functional differences with distinct implications for civic engagement.

On the other hand, the actual experience of a citizen with different modes of communication or information exchange may on some occasions tend to blur differences. For instance, a citizen who visits a government Web site may in a single sitting view information about a policy problem posted by the government, read public comments written by other citizens, and send a message to an elected or appointed official. From the perspective of the citizen, these actions composing the visit to the Web site may constitute a single perceived or remembered activity. This fact does more than make survey research about Internet use difficult. In such cases, for social scientists to search for “the effect of the Internet” may become a conceptually muddled pursuit. At the very least, the concept of “information technologies” ought to replace the idea of “the Internet” as a possible influence on civic engagement, and the search for effects ought to replace the search for an effect.

A second reason for abandoning the idea of “the Internet” is *mutualism*, the interdependence of new and old modes of communication in civic life. As information technology becomes increasingly ubiquitous, it is both displacing certain old forms of communication and becoming a seamless backdrop to other persistent, traditional forms of communication. Most political campaigns, civic groups, nongovernmental organizations (NGOs), and other organizations now rely both upon traditional infrastructure and new information infrastructure. Candidates for elected office employ broadcast advertising *and* Web sites. Interest groups distribute traditional mass mailings *and* electronic mail. Grassroots citizen groups use electronic mail to distribute requests that members send traditional mail to elected officials. Traditional political protests or boycotts are organized and managed via information technologies, especially electronic mail, but are advertised through broadcast and print media. The effort to distinguish between “cyberspace” or the “virtual” world and the landscape of traditional civic engagement will in many cases grow futile. Already the jargon that became popular in the late 1990s—“electronic democracy,” “cyberpolitics,” and so on—is untenable because it presumes a sharp separation that in practice often does not exist.

I do not suggest rejecting in all cases the effort by social scientists to isolate “information technology” as an independent variable of explanation—or more accurately, as a set of variables. There are indeed many social science problems that may be amenable to treating “use of electronic mail,” “use of civic information sites on the Web,” and the like as variables. For the most part, these problems are likely to be associated with questions of individual-level behavior. For instance, studies focused on how citizens use

their time, and what activities they engage in and with what intensity, will continue profitably to seek correlations with the extent of use of various forms of information technology. Other problems dealing generally with behavioral or attitudinal associations with technology use clearly make sense. Moreover, there is likely much to be learned from examining the development of specific information technologies as subjects of explanation. Asking why we have a particular technology and not some other is central to understanding the role of technological evolution in social change.

Still, there are a growing number of issues involving civic engagement for which traditional distinctions between the “on-line” and “off-line” worlds are already troublesome. This is especially true where the unit of analysis goes beyond the individual, or where the focus of explanation is an aggregate phenomenon, such as explaining the broad structure of civic engagement, the quality of public deliberation, or features of political processes and institutions.

So, if “the Internet” and even “information technology” are sometimes to be avoided in conceptualizing certain features of the revolution in information technology and its possible implications for civic engagement, what alternative might be more suitable? One possibility, although certainly not the only one, is characteristics of information itself. Analysis of civic engagement might well proceed, I believe, by modeling a civic landscape that is growing increasingly information rich and communication intensive, rather than one that is permeated by one technology or another. Technologies change and evolve over time, of course, but the trend toward lower and lower marginal costs of information and communication will likely continue for the foreseeable future. If information technology is a cause, its proximate effect is to create societies that are in many ways more information rich and communication intensive, societies where the marginal cost of information and communication is very low. The question, then, becomes one of understanding the ultimate effects that follow from those new informational circumstances.

One need not adopt the exclusive claim that information technology matters for civic engagement *only* to the extent that the cost and distribution of information matter in order to accept the utility of thinking about the revolution in information technology as important because of the importance of information costs and distribution. Nor need one adopt a position of technological determinism to accept the likelihood that one of the most important proximate effects of new information technology is less costly and more pervasive information. A good deal of what matters for civic engagement is not information technology per se, but rather the information conveyed by it.

Following are a few considerations that proceed from this observation, as illustrations of refocusing attention away from “the Internet” and toward “information.” One important fact about information itself is that throughout the 19th and most of the 20th centuries, the information associated with political participation and many other forms of engagement was a costly and semiprecious commodity. The information needed to organize large-scale collective action and to engage in effective national-level policy advocacy, to name just two categories, was not readily obtained, managed, or distributed in the absence of organizational infrastructure—what pundits of the economy now call “bricks and mortar.” For this reason, information and communication were dominated by organizations with substantial resources: political parties, interest groups, media businesses, and other well-endowed organizations.

Indeed, a great many features of social and political structure constitute adaptations to an older “communications ecology,” in which information was costly and asymmetric in distribution, and in which access to large-scale communication was highly resource

dependent (Levy, 1997). Not only the vertically integrated firm and the retail store, but also the administrative bureaucracy, the political party, the interest group, and even the civic association are in varying degrees organizational adaptations to historical properties of information (Castells, 1996).

A useful way to conceptualize what is happening in the contemporary period, then, is in terms of changes in those features of information and the likely responses by systems of organizations and institutions adapted to an earlier information environment. Because the cost and accessibility of information are changing dramatically, for technological reasons, systems of organizations whose historical resource allocations and structure are adaptations to higher information costs may also change. Large, resource-rich organizations may reorganize themselves and reallocate resources, and novel groups and organizations and even individuals may increasingly be able to perform some of the functions traditionally reserved for larger, resource-rich organizations. In general, changes in information mean that the linkage between traditional resources and the capacity to communicate and manage information is weakening.

The possibility of a diminished connection between resources and information suggests a number of hypotheses regarding civic engagement. I suggest just a few here as examples of the utility of conceptualizing the revolution in information technology in informational rather than technological terms. One possibility is that the contemporary information revolution will contribute toward greater fragmentation and pluralism in the structure of civic engagement. A richer, more complex information environment facilitates specialized, targeted communication and organization. Lower information costs reduce the need for large, inflexible, bureaucratic organizations that benefit from economies of scale and the accumulation of resources and permit, in their place, more specialized and more flexible organizations. Novel groups and organizations formed only for the duration of a single political effort or civic event may increasingly replace more traditional, institutionalized entities as organizers of civic engagement.

In the arena of electoral democracy, this trend would involve further erosion of the power of traditional political parties and might contribute to the viability of independent and minor-party campaigns that can use comparatively inexpensive information infrastructure as a partial substitute for traditional political infrastructure.

A related hypothesis that stems from the general thesis of a weakened relationship between resources and information is the acceleration of political processes and more rapid cycling of the political agenda. A public agenda shaped by major organizations and institutions that tend to dominate information moves more slowly and with greater momentum than a public agenda shaped by a larger number of nimble information intermediaries. This means, for instance, that quickly organized "flash" campaigns for public policy may increasingly replace the more measured, strategic efforts of highly institutionalized political advocates. Taken together, these various possibilities imply a substantial deinstitutionalization of civic life under the influence of inexpensive, ubiquitous information.

Other possibilities that flow from this conceptualization are normative in nature. For instance, in principle decreases in the cost of information and communication multiply opportunities for civic learning and engagement. Although recent U.S. history reveals little evidence that citizens avail themselves of new informational opportunities, this multiplication might be interpreted as a reduction in constraints on political action. Technological contributions to the weakening of the relationship between resources and the information vital to democracy may also, in principle, assist in the establishment of political equality, as Robert Dahl (1989) has argued. Contemporary

changes in the information environment may therefore represent enhancements in liberty, and perhaps improvements in some aspects of equality as well.¹ At the same time, changes in the information environment that tend to deinstitutionalize politics, fragment communication, and accelerate the pace of the public agenda and decision making may undermine the coherence of the public sphere. The result may be, as Benjamin Barber (1998) has warned, reductions in the deliberativeness of democracy, as well as diminished possibilities for identifying a public good beyond the simple utilitarian aggregation of private interests. Taken together, normative possibilities such as these suggest that the cost and accessibility of political information may ultimately modulate a general trade-off between liberty and the achievement of a deliberative common good.

These considerations do not exhaust the implications of conceptualizing the revolution in information technology in informational rather than strictly technological terms, nor do they imply that other conceptualizations might not also shed light on questions about contemporary civic engagement. But they do suggest the potential usefulness of reframing questions about “the Internet and civic engagement.” In many cases, the best way for scholars to make theoretical headway on that topic, as well as to connect studies of novel technologies to larger historical patterns, may be to move beyond the technologies themselves.

Notes

1. This observation applies to equality among citizens with access to information technology, and is not meant to deny problems of disparities in access. A majority of Americans have access to the Internet, defined as the Web or e-mail, and this majority is growing rapidly. Yet, for many of those without access, information technology exacerbates inequality.

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