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Real-Time Politics: The Internet and the Political Process

Philip E. Agre

Department of Information Studies, University of California, Los Angeles, Los Angeles, California, USA

Research on the Internet's role in politics has struggled to transcend technological determinism—the assumption, often inadvertent, that the technology simply imprints its own logic on social relationships. An alternative approach traces the ways, often numerous, in which an institution's participants appropriate the technology in the service of goals, strategies, and relationships that the institution has already organized. This *amplification model* can be applied in analyzing the Internet's role in politics. After critically surveying a list of widely held views on the matter, this article illustrates how the amplification model might be applied to concrete problems. These include the development of social networks and ways that technology is used to bind people together into a polity.

Keywords amplification model, digital democracy, electronic politics, institutions, Internet, reinforcement model

The Internet's promise of ubiquitous information makes it a perfect screen for projecting the hopes and fears of a society. Nowhere are these projected hopes and fears more elaborate than with regard to politics. Closely bound to national and thus personal identity, yet also by its nature a permanent source of disappointment, the political process is being intensively reimagined in the context of new information and communications technologies. By considering the most prominent ways in which American culture, at least, has imagined the wired political process, and by

subjecting the various forms of imagination to the somewhat harsher light of social analysis, it will be possible to sketch a structural theory of the Internet's actual and potential role in the political life of democratic societies.¹

Let us begin with brief discussions of 10 common (and loosely interrelated) proposals. My purpose is not to debunk or dismiss these proposals, at least not entirely, but to gather materials toward a more robust analysis.²

1. Many theorists, explicitly or not, have equated wired democracy with online discussion fora, for example, on Usenet, the Well, or the Web.³ Some proceed to focus on promising cases of virtual deliberation (e.g., Coleman, 1999; Ranerup, 2001), while others criticize the quality of discussion in particular online forums (e.g., Wilhelm, 1999). In each case the online forum is evaluated relative to an idealized model of the public sphere with its norms of rational debate (Brants, Huizenga, & van Meerten, 1996; Ess, 1996; Walker & Akdeniz, 1998, p. 492; cf. Dean, 2001). The Internet gets credit for its ability to support a pluralistic diversity of intersecting public spheres (Becker & Wehner, 2001, pp. 78–80; cf. Lievrouw, 2001), and it is criticized as a force for fragmentation (Buchstein, 1997, p. 251; Sunstein, 2001) or as yet another site for the silencing of voices through various forms of psychological terrorism (e.g., Herring, 1993). While some studies of online discussion fora have usefully described the phenomenology of a new medium (e.g., Reid, 1999; Rheingold, 1993), the optimistic and pessimistic theories alike have generally framed the questions inadequately. The problem in either case is that the public sphere is, and always will be, a much larger phenomenon than an Internet discussion forum. This is true in several ways. First, the debates in online fora interact with goings-on in other media, for example, television (Bimber, 2000; cf. Bolter & Grusin, 1998). Second, different online fora are embedded in various ways in larger social structures such as professions and social

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Address correspondence to Philip E. Agre, Department of Information Studies, University of California, Los Angeles, Los Angeles, CA 90095-1520, USA. E-mail: pagre@ucla.edu; web site <http://dlis.gseis.ucla.edu/pagre>

movements, and their dynamics are hard to understand except in terms of this embedding (Friedland, 1996; Miller & Slater, 2000; Slevin, 2000; Wynn & Katz, 1997). In particular, a forum's embedding shapes it as an institution—for example, in its ground rules and legal status (Docter & Dutton, 1999). And third, online discussion fora comprise only a small proportion of the uses of the Internet and other convergent digital media in politics. When the Internet is used to distribute talking points to partisans, press releases to reporters, or administrative memos to the staff of a political organization, that too is a potentially significant “impact” of the Internet on politics (Davis, 1999, pp. 70–74; Stromer-Galley, 2000; Wayne, 2000a).

2. A related strand of thought judges the Internet by its ability to bring about a condition of unmediated intimacy often known as political community (e.g., Galson, 1999; Sassi, 2001). Again different estimates of this criterion are optimistic or pessimistic, and again the criterion is misguided (cf. Jones, 1995). The norm of intimacy has different sources in different national political cultures, but in each case it is a form of nostalgia, whether for the religious-communitarian city on a hill (Agre, 2002; Shain, 1996) or for the village community that supposedly predated the upheavals of modernism or capitalism (Wellman, 1999, pp. 1–15). Unmediated intimacy may be feasible in a small group; it may even be necessary and beneficial in the ways that advocates of “strong democracy” (Barber, 1984) and participatory localism (Sclove, 1995) recommend. But modern society, particularly in an era when everything can be connected to everything else, is too big for that (Calhoun, 1992, 1998). Intimacy is particularistic; it requires an investment of time and effort. Modern societies operate because they have learned to operate, at least for many purposes, in the opposite extreme mode of impersonality (North, 1990). The rule of law will not function if judges are deeply embedded in the relational webs of the litigants; that is why judges rotate on circuits. Markets likewise require a taken-for-granted framework of law and custom in order for large numbers of buyers and sellers to transact business with tolerably low overhead. And large-scale political associations require impersonal procedures for choosing leaders, organizing debates, and handling money. Norms of intimacy may have their place—lurching entirely to the impersonal opposite extreme is not warranted either. But the hard analytical problem is to understand how the intimate and the impersonal interact.

3. The Internet is often held to make intermediaries redundant, and this has suggested to many authors that the future of politics lies in referenda (e.g., Grossman, 1995; Hollander, 1985; Slaton, 1992; Toffler & Toffler, 1995). This is the system called “direct

democracy” by its promoters and “plebiscitary democracy” by its detractors. The argument has some merit: To the extent that political parties, legislative representatives, and other political intermediaries serve as communications channels, networking with their constituents and with one another, the spread of ubiquitous digital networks should be able to automate them and undermine their gatekeeping power. In a sophisticated polity the increased use of referenda may well be justified (Budge, 1996). Direct democracy can also be feasible in small groups. But experience in politics and markets alike has shown that simple disintermediation scenarios are rarely accurate, and that computer networking more often brings a reshuffling of the many functions of intermediaries (Brown, Duguid, & Haviland, 1994; Sarkar, Butler, & Steinfield, 1995; Spulber, 1999). New information and communication technologies are helpful not least because they compel analysis of such things, thereby making visible phenomena that might have been taken for granted (Casson, 1997). Political parties and legislatures, for example, do not simply transmit information; they actively process it, especially by synthesizing political opinions and interests into ideologically coherent platforms. They also engage in the discovery process of negotiation. Proposals for direct democracy inevitably misconstrue or neglect these intermediary functions, and political functions that become invisible are likely to be manipulated (e.g., Arterton, 1987, p. 191; Clark, 1998; McLean, 1989). New information technologies will not automate these functions, but they might support them and change their dynamics in ways that can be investigated once their survival is acknowledged.⁴

4. Debates over information technology in politics are hardly new, and a common, almost taken-for-granted proposal during the 1970s has been called *managerial democracy*: the intensified use of computer decision-making tools by government staffs to rationalize, professionalize, and ultimately depoliticize many of the functions of government (Laudon, 1977, pp. 19–24). Once the administration of public services was reduced to an operations research problem, it was held, the problematic aspects of the political process would become redundant—an end to ideology and its irrational conflicts. The reality, as scholars such as the UC Irvine school made clear, is that rational public administration did not live up to the promises that have been made for it (Danziger, Dutton, Kling, & Kraemer, 1982).⁵ For one thing, the politics largely went underground, with the dominant political coalitions manipulating the technology for their own ends under the guise of rational methods. For another, the technology was simply incapable of living up to its promises. Real-world public management problems are more complex than the

models admit, and one is often condemned to guessing the values of hundreds of largely subjective and inevitably political parameters. Of course, rationality and professionalization do have their place in government. But computerized decision-support tools do not eliminate the tension between politics and expertise that is central to all modern government.

5. Many proposals focus on the voting process. Voting is a central ritual of democracy, as well as a process of information capture and aggregation, so it seems natural to use digital networks to facilitate the voting process (e.g., Becker & Slaton, 2000; Mohen & Glidden, 2001; Motluk, 1997). The idea is reasonable enough in the abstract, but the devil is in the details (Philips & Spakovsky, 2001; Grossman, 2001; Valenty & Brent, 2000; Weber, 2001). In particular, proposals to bring voting to the home over the Internet are problematic (Alexander, 2001). Low voter turnout may well be alleviated to a degree by easier voting, but the requirements for a sound voting process are complex. Even supposing that the injustice caused by the unequal distribution of the technology is overcome with time, problems of vote fraud are more serious. Any voting method that can be overseen by others is susceptible to vote buying and intimidation. Physical isolation of the voter—for example, in a voting booth—is the only sure answer, and the rapid growth of absentee voting in the United States is a matter of great concern, as are vote-by-mail systems such as Oregon's. Despite these difficulties, proposals for electronic voting continue to inspire great passion, and some proponents (e.g., Becker & Phillips, 2001) have been willing to make harsh ad hominem accusations toward critics. Other voting proposals are constitutional in nature; they argue that more advanced technology will support more complex voting methods that allocate representatives or decide referenda in mathematically more advanced ways. The problems here are numerous: the challenges to legitimacy posed by any attempt to revise anything so central to a constitution as its voting methods, the narrowly formalistic concern with mechanisms that only treat the symptoms of a troubled political culture, the mathematical problems that can make optimal voting schemes literally impossible,⁶ and the cognitive and information-design problems that complex voting systems entail. Although modified voting systems might be part of a larger picture, they are a small part of the picture and therefore inadvisable until that picture becomes clear.

6. The Internet allows every host to originate its own packets, for example, by serving Web pages or broadcasting electronic messages to a mailing list. This qualitative symmetry between big and small Internet users, together with exponential declines in the underlying cost of computing, has led many authors, such as Gilder

(1992), to speculate that advanced digital networks will transfer power from large hierarchical organizations to the multitude of dispersed individuals. The Internet certainly harbors significant potential for individual initiative, but the idea that it equalizes power between the great and small needs careful attention. The analysis will proceed along very different lines, for example, according to whether "power" is understood in economic or political terms, and neither understanding of "power" should be confused with the technical notion of computational "power." Even though the Internet's architecture treats all hosts equally in qualitative terms, little follows about the quantitative consequences of that equality, for the simple reason that power in society depends on other factors besides the ability to exchange data on a network. In the economic realm, for example, an organization with an established brand name will, other things being equal, achieve greater market share, and thus greater economies of scale in production, than lesser known players. Many information-intensive markets have a winner-take-all character and entry costs that make established players nearly impossible to dislodge, regardless of one's technical capacity for exchanging packets with others. In the political realm, a technology that democratizes the technical capacity to speak and organize is certainly to be welcomed. But "brand names" play an important role in politics as well, as do long-cultivated networks of personal acquaintance. In politics and markets alike, the Internet helps both the incumbents and the challengers, and both the big and small players. The actual redistribution of power—assuming one knows what "power" even means—will require detailed more analysis, and cannot be inferred from the technical workings of the machinery.

7. One libertarian school holds that the Internet largely dictates the direction of public policy by creating the conditions for a decentralized global market. By facilitating capital flight and making operations mobile, for example, the Internet is held to promote regulatory competition among the world's jurisdictions, inasmuch as "capital goes where it is wanted, and stays where it is well treated" (Wriston, 1999, p. 342). Starved of taxes, regulation-minded governments will therefore be compelled to adopt neoliberal policies (Cairncross, 1997; Friedman, 1999; Wriston, 1992). This theory has its elements of truth, but it is far from completely accurate. Information exhibits vast economies of scale, which promote economic concentration. Economies of scale, moreover, require many companies to operate globally, thus subjecting them to the law of every major jurisdiction—the opposite of the idealized picture of migratory capital. Many business activities require geographic proximity, and the use of computer networks to loosen

some geographic bonds only increases the forces of agglomeration that cause other functions to centralize in world cities like New York or regional innovation centers like Silicon Valley (Krugman, 1991; Mitchell, 2000; Sassen, 1991). Furthermore, the conception of market and government as intrinsically opposed to one another has always been wrong (Hodgson, 1988); the conditions of the modern market were largely brought about by robust intervention by governments (Polanyi, 1944), and governments to this day are deeply allied with their domestic industries in using their diplomatic leverage to promote exports (Melody, 1985). This process has developed for centuries, and has now been internalized beneath a veneer of neoliberal ideology in mechanisms such as the World Trade Organization. The growth of government has historically played a major role in the development of institutions for capturing and circulating information (Hewson, 1999), and computer networking increases the potential for governments to exert control, for example, over their constituent jurisdictions, without regard for geography (Frissen, 1997, pp. 114–115). These dynamics are only intensifying as new information technologies make it possible to coordinate industrial and political activities over wide geographical areas.

8. An opposed school of thought, for example, among the followers of Innis (1951), sees new communications technologies as inevitably centralizing because they allow peripheral regions to be integrated more tightly into the systems of economic and political centers (Gillespie & Robins, 1989).⁷ When the emperor is far away, a degree of *de facto* regional autonomy remains; but the Internet makes the emperor ubiquitous in the same manner as other technologies of control (Beniger, 1986; Lyon, 2001; Scott, 1998). This, too, is a partial truth that becomes disastrous when treated as the whole. New information and communication technologies are not inherently technologies of control; after all, privacy-enhancing technologies such as cryptography stand available as one social choice among many (Agre & Rotenberg, 1997). The new technologies also afford great flexibility in the construction and reconstruction of associations and networks; they facilitate the many forces of disembedding (Carrier & Miller, 1998; Giddens, 1990; Polanyi, 1957) that pull individuals loose from close-knit orders of communitarian social control. The picture is complex, and social structures are centralizing and decentralizing, both, in different and interacting ways.

9. E-mail and chat-room interactions arrive tagged not with visible faces but with cryptic addresses, so many scholars have argued, if tentatively, that the Internet is a force for social equality (e.g., Graddol & Swann, 1989, pp. 175–178; Poster, 1997). In the words

of a much-reprinted New Yorker cartoon (e.g., Mitchell, 1996, p. 6), “On the Internet, nobody knows you’re a dog.”⁸ Conventional markers of social difference (gender, ethnicity, age, rank) are likewise held to be invisible, and consequently it is contended that the ideas in an online message are evaluated without the prejudices that afflict face-to-face interaction. This argument exemplifies the dangers of overgeneralizing from particular uses of the technology. Different forums construct identity in a great variety of ways. Some forums, such as role-playing MUDs, do permit the construction of entirely “virtual” make-believe identities, although even in those forums “true names” are often the norm (Baym, 1998, p. 55; Schiano, 1999). Other forums authenticate their participants to prevent abuse, or else real-world social identities are implicated in the content and process of the discussion (e.g., Burkhalter, 1999; Donath, 1999). In many institutional contexts, such as academia and business, it is normal for individuals to construct elaborate public personae; an institutional participant who receives a message from a stranger can research that person’s background much more readily than might be possible in the pre-Internet world. So it is not true, as a broad generalization, that the Internet decouples communications from identity. The reverse is often the case. Depending on how the Internet is used, it can even reinforce the conventional constructions of identity, or impose even finer gradations of status.

10. Finally, it has often been argued that the Internet is a democratizing force because it facilitates open information (e.g., Cairncross, 1997). There can be no doubt that the Internet and related technologies have played a positive role in opposition movements in several countries (Ferdinand, 2000, pp. 14–15), but the picture is more complex. First of all, the Internet has no power to make information open on its own; the political culture has to want it, and in many societies authoritarian habits beyond a narrow stratum of intellectuals run deep. Nor is the association between the Internet and open information at all inevitable; companies such as IBM build Internet-based systems for their business and government customers whose purpose is precisely to keep information from becoming open. In the public sphere, new technologies also serve as instruments of surveillance, commercialization, and propaganda, all of which are entirely capable of negating the benefits of open information in practice (Buchstein, 1997). More factors have to be taken into account.

INSTITUTIONS

The picture that emerges from these analyses has many elements, but some broad patterns are clear. Political activities on the Internet are embedded in larger social processes,

and the Internet itself is only one element of an ecology of media. The Internet does not create an entirely new political order; to the contrary, to understand its role requires that we understand much else about the social processes that surround it. Single factors do not suffice; nor do one-sided generalizations. Instead there emerges a pattern of tensions: between centralization and decentralization, between intimacy and impersonality, and between politics and professionalism (cf. Calhoun, 1998, p. 383; Frissen, 1997, p. 111).⁹ Faced, for example, with the tension between the potentially antidemocratic implications of technology-enhanced government surveillance and the potentially prodemocratic implications of increased public access to information, it is not enough to declare blandly (as does Cairncross, 1997, p. 257) that one force is more important than the other. Both forces are real and substantial, and a serious theory requires an understanding of the many and various ways in which the forces interact (van de Donk & Tops, 1995).¹⁰ Above all one finds complexity: If the Internet has “effects,” it has many effects scattered throughout the structures of society, so that it is difficult if not impossible to compute a resultant of the vectors along which the various effects run.

To make sense of these phenomena, it helps to take an institutional approach (Agre & Schuler, 1997; Avgerou, 2002; Bud-Frierman, 1994; Ducatel, Webster & Herrmann, 2000; Dutton, 1999; Gandy, 1993; Kling & Iacono, 1989; Laudon, 1985; Mansell & Steinmuller, 2000; Orlikowski, 2000; van Dijk, 1999; for theoretical background, see Commons, 1970 [1950]; Goodin, 1996; Knight, 1992; March & Olsen, 1989; North, 1990; Powell & DiMaggio, 1991). Society is organized by a diversity of institutions, each of which defines social roles and identities, rules and enforcement mechanisms, situations and strategies. Banking is an institution, and so is the newspaper business. The family is an institution, as are the church, the university, and contract law. The political system comprises several institutions—political parties, legislatures, aspects of the legal system, various types of associations, the customary forms of debate and other communicative interactions, the rules of parliamentary order, the methods of interest group organizing, the profession and practice of news management, and many more. These institutions are centrally concerned with information, but they are also concerned with power and identity and many other aspects of social life.

Institutions persist, and their ways of ordering human relationships can remain relatively unchanged for decades and centuries. The recalcitrance of institutions may be masked during a period of rapid change in information and communications technologies, when a swarm of specific innovations focuses attention on novelty and its opportunities, but even these developments cannot be well understood except against the background of the many dynamics that tend to keep institutions functioning in the

way they already do. Institutions shape thought and language, among other things, and alternative institutional forms can be hard to imagine—even at a time when such imagining is fashionable. Because participants in an institution must coordinate their activities, it is often rational for purposes of compatibility to do things in the ways that others are doing them. Institutions must likewise continue to complement one another, and the transition of several interlocking institutions to new forms is almost impossible to coordinate. Institutions persist in part because of the bodies of skill that have built up within them; another institutional form might be preferable after a long learning period, but in the short term it is the existing forms that people are good at. Above all, institutions persist because they provide a terrain upon which individuals and groups can pursue their goals—goals that the institution itself has taught them, to be sure, but goals that inspire people to forgo substantial opportunity costs anyway.

To say that institutions coordinate activity is not to say that they are wholly cooperative; more often the institution provides a relatively stable and predictable framework for a segmentary politics whose participants cooperate and compete in shifting ways. The framework that the institution provides is itself largely political, and it is well understood as a routinized accommodation among the stakeholder groups that comprise it.

When institutions change, it is not because a technology such as the Internet descends and, *deus ex machina*, reorganizes the institution's constitutive order in its own image. Institutions do often change as a result of the opportunities that a new technology makes available, but it is only through the workings of the institution that the dynamics of the change can be found. As Calhoun (1998, p. 382) puts it, “the main impact [of the Internet], especially in the short to medium term, will be to allow us to do more of the things we were already organized and oriented to do.” Nor is the point restricted to the Internet; Fischer (1992) concluded that Americans in the early 20th century used the telephone “to pursue their [existing] ends . . . more aggressively and fully” (p. 28) and “to widen and deepen existing social patterns rather than to alter them” (p. 262). People in a given institutional setting use a new technology to pursue the goals that the institution provides, using the strategies that the institution suggests, organized by the cognitive and associative forms that the institution instills. If the technology is incomprehensible within the thought forms of the institution then it will probably go unused (Orlikowski, 1993). If nobody can devise an action pattern for deploying the technology in ways that mesh with the existing gears of the institution, then no significant effects of the technology's adoption are likely to be found. It follows that the Internet creates little that is qualitatively new; instead, for the most part, it amplifies existing forces (Agre, 1998a). Social forces are nothing

but coordinated human will, and institutions channel human will in some directions more than others. To the extent that institutional actors can pursue existing goals by reinterpreting existing action patterns in terms of a newly available technology, the forces that their massed actions create will be amplified.

To predict the consequences of widespread Internet use, therefore, it is necessary to survey the forces at work in the existing institutions. This may be difficult if the institutional forms have long remained in equilibrium; the exact nature of the forces might only become evident as the equilibrium begins to move. The Internet will not amplify all forces equally, and not all of the forces will be headed in the same direction. The Internet is amplifying hundreds if not thousands of forces in scores of institutional fields, each with its own logic and resources, and many of those forces conflict. If we ask what effect the Internet will have on the political process, for example, then the question is ill-posed: The Internet has its effect only in the ways that it is appropriated, and it is appropriated in so many different ways that nobody has enough information to add them up. Some of the changes will take the form of "the same, only more so"; others will be qualitative, as the existing accommodations become untenable. Institutions may implode, or they may fragment and reconfigure, or their functions may be absorbed by rivals. Some of the amplifications will be consciously intended by their participations; others will be unanticipated; and in either case the newly amplified forces and their consequences will create a new status quo for the institution's participants to interpret and respond to within the framework of cognition and action that the institution provides (Orlikowski, 2001). Each case needs to be evaluated on its own. In an older vocabulary we can safely say that the contradictions are heightened, but for the most part the dialectic must be sought in its particulars.¹¹

This perspective on the Internet's place in society aligns itself neither with the optimists nor the pessimists but with the realists (Kling, 1997); it is a story neither of continuity or discontinuity alone but of measured components of both. It is sensitive to the dual roles of institutions as both constraints and enablements, and it is tuned equally to the real workings of the technology and to the workings of the social mechanisms with which the technology interacts. It concerns phenomena that are localized not simply in organizational centers but in the distributed sites of practice where institutions shape action and are thereby reshaped in turn. It seeks neither to escape this enmeshment in social process nor to enclose it. It is impressed by the Internet, but it sees the Internet as a small part of the story. It lives with tension; it is neither conservative nor revolutionary.

Before discussing the relationship between the amplification model and other models, it will be helpful to illustrate the concept of amplification with a few brief examples.

1. Among relatively simple cases of amplification is the finding that the people who make extensive use of online political information tend to be the same people who are already strongly interested in politics (Bimber, 1999; Davis, 1999, pp. 23–25; Neuman, 1991, p. 109; Norris, 1999). This sort of finding has disappointed many who have placed naive hopes in the Internet as a force for increased civic involvement. Some have denounced the Internet and Internet hype by the same logic. But such findings are altogether natural from the perspective of the amplification model. They do not logically imply that the Internet does not promote civic involvement, since the Internet might promote civic involvement in many other ways than by providing political information, and we will not know the bottom line until a fuller model of the forces influencing civic involvement in politics becomes available (Norris, 2001; Skocpol & Fiorina, 1999). In any event, the Internet's role in intensifying the political activities of the already involved is significant in itself, and its consequences for the dynamics of political life ought to be explored as well.

2. One of the handful of people who can claim to have invented the personal computer is Lee Felsenstein (Freiberger & Swaine, 1984, p. 100). A red-diaper activist from Berkeley as well as an electrical engineer, Felsenstein wanted to automate the work of volunteers who ran bulletin boards for political movements. Activists would call the volunteer on the phone to report an upcoming event or inquire about events, and the events would be recorded on slips of paper on an actual bulletin board. The job was generally too much for any individual, and volunteers would often burn out by the time they became well enough known to be useful. Mainframe computers were far too large and costly for this job, so Felsenstein invented personal computers and bulletin board systems to amplify the existing force toward the centralized posting of notices of events. The technology was then appropriated by others for other purposes.

3. The Internet also amplifies the routine of issue politics whereby temporary coalitions are pulled together dynamically according to how the various interests sort out (Laumann & Knoke, 1989). This process has long been conducted with face-to-face meetings, telephone calls, and other media, but the Web and electronic mail are exceptionally useful for coordinating moderate numbers of parties with established relationships in moderately complex but largely routinized ways (cf. Tomita, 1980). The incentives to create such alliances are still present, but now the competitive imperative to do so quickly is even greater.

4. The political process became much more informationally intensive during the open-government

revolution of the 1970s, when legislatures and bureaucrats found themselves increasingly compelled to provide rational-sounding justifications for their decisions (Greider, 1992, p. 46). There arose in response a substantial industry producing justifications to order—the so-called think tanks (Ricci, 1993; Smith, 1991). While think tanks are not simply libraries or dispassionate research organizations, nonetheless a history waits to be written of the exploding information infrastructure of politics, particularly at that time and since. The forces encouraging information-intensive politics have only increased, motivated by competitive pressures and the epochal innovation of 24-hour news with CNN. By 1992, then, a substantial tactical research apparatus had arisen, and the Clinton era consisted largely of a day-by-day war of information—not just on the part of government and political parties, but also on the part of privately funded organizations that did nothing but research and publicize alleged scandals (Lieberman, 1994). The 24-hour news cycle constantly required these organizations to come up with facts that served specific rhetorical purposes, such as defusing an opponent's accusation by unearthing examples of comparable actions by others (cf. Lewis, 2000). More recently, digital video editing has allowed political campaigns to produce television advertisements on several hours' notice, thus accelerating the back-and-forth of dueling campaign ads.

5. In any electoral campaign, candidates will try to assemble a coalition that captures a majority of votes without stretching itself so thinly that it invites defection. If all goes as expected, the candidates will end up competing for a few percent of voters in the precise middle of the ideological spectrum. Of course, the precision of these campaign strategies is limited by the accuracy of research on public opinion. The decreasing cost of advanced information and communication technologies, however, allows campaigns to research public opinion in greater depth. The natural consequence is to amplify a tendency toward close elections, to the point where, in the American presidential election of 2000, the error margins of antiquated voting systems gave rise to a serious political crisis. Yet because political parties develop their ideologies and platforms on a national basis, this whole analysis assumes that electoral districts are roughly representative of the electorate as a whole. In reality, redistricting is often driven by the same political strategists. When one party controls the redistricting process, as in the American states, the outcome is generally quite the opposite: electoral jurisdictions that are so ideologically homogenous that elections are rarely competitive. And as the technologies of public opinion research become more sophisticated, political segregation through strategic redistricting has become

amplified as well, to the point where only a small proportion of Congressional districts are seriously competitive (Brownstein, 2002; The Economist, 2002). In such cases, the amplified tendency toward close elections is swamped by another, larger effect. In other cases, closer elections might well be found, assuming that yet other effects do not change the picture in other ways.

COMPARING MODELS

As these examples make clear, the Internet can amplify political processes in numerous ways. The political process comprises a complicated institutional circuitry of routinized information flows (Agre, 1995), and information technology accelerates many of this circuitry's constituent activities. A question that naturally arises is this: In what sense can the Internet change anything? The amplification model gives a clear answer to this question: The Internet changes nothing on its own, but it can amplify existing forces, and those amplified forces might change something. But are those changes qualitative, or are they merely quantitative?¹² Does the Internet really bring anything new? And what does "new" even mean? After all, few political phenomena are completely unprecedented. Do only constitutional changes count as "new?" Is "change" a codeword for a political revolution? The Internet is not old enough to have changed political institutions in such major, qualitative ways. But the invention of writing had profound social consequences through the way that institutions appropriated it (e.g., Giddens, 1985; Goody, 1986), and the Internet certainly has a great potential to amplify institutional forces. The a priori case is clear enough. Before the question can even be usefully asked, however, a more refined analysis is required.

It will help to contrast the amplification model with a relatively sophisticated model that is prevalent in the literature, which I call the *reinforcement model*. The reinforcement model is driven by a political question: It identifies a problematic structural aspect of the polity, and it asks whether the Internet (or whatever information technology is being introduced at the time) corrects the problem.¹³ Most often, the author endorses a "participatory" vision of democracy and therefore asks whether the new technology enables a wider range of citizens to become involved in the political process. The conclusions of this inquiry are negative, so information technology is viewed as reinforcing the system rather than repairing it.¹⁴

Although the amplification and reinforcement models will often make similar predictions, they differ in several ways. The amplification model is not based on a normative theory of politics; it recognizes that different normative theories are likely to drive different empirical inquiries (Bellamy, 2000; van Dijk, 2001), but it takes no normative position. The reinforcement model reckons "change" in

coarse terms: It asks whether a new technology has altered the polity in a particular fundamental way. The amplification model is more fine-grained: It takes for granted that "changes" large and small, quantitative and qualitative, will be found throughout the system, and it seeks to describe those changes and lay the groundwork for the longer, harder task of determining their consequences. The reinforcement model predicts that no qualitative change will be found; the amplification model regards the question as open and urges that it be investigated concretely.

A basic difference is analytical. The amplification model is predicated on "forces," which are the aggregate effects of the actions that institutions organize people to perform. Modern institutions evolve through the interaction of numerous forces, and the amplification model asks how the interaction among forces might be changing. The reinforcement model is predicated on outcomes rather than causes. Particular theories of reinforcement might employ a concept of "forces" to describe the social processes set in motion through the use of new information technologies, or they might use other concepts instead. What matters is the prediction: that the social processes being described will leave certain structural aspects of society unchanged. My own concern is not to refute the reinforcement model, or even necessarily to demonstrate that the amplification model makes better predictions, but instead to contribute new analytical resources.

Let us consider some examples of the reinforcement model. An important early study by Danziger, Dutton, Kling, and Kraemer (1982) considered the role of computing in the organizational politics of American local governments. These authors wished to determine the impact of information technology on the distribution of power among organizational groups such as politicians, administrators, financial experts, and urban planners. To this end, they conducted a large-scale study, using both survey and ethnographic methods. In doing so, they discovered that political contests shape the design and configuration of computers, which then have consequences for the distribution of power. The result that emerged through their analysis is that, statistically, the politics of local governments shaped computers in a way that left the existing distribution of power in place. They referred to this result as "reinforcement politics" (p. 18),¹⁵ and they concluded that computing is a "conservative technology" (1982, p. 231). The solution, they suggested, was to equalize power relations by increasing the scope of public participation in decisions affecting local government computing (pp. 232–244).

Even without these envisaged reforms, however, theirs is not a simple tale of stasis. They do not claim that nothing changes; organizational coalitions will adopt new technologies that promise to enhance their power, and along with new technologies come new organizational forms. In

this sense, existing forces can be amplified, and even lead to structural changes, while still reinforcing the power relations of the organization. The point is especially clear in cases where different forces are chronically in tension. In their historical account, for example, changing computer architectures shifted the balance of forces in political conflicts over centralization and decentralization.¹⁶ Although computing in the mainframe era could only be bought in large blocks (1982, p. 117), minicomputers promised decentralized computing (p. 125). Yet at the same time, the rise of information management software "seemed to suggest that the government might be managed as an integrated whole, rather than as a series of departmental baronies" (p. 125). Technology on their analysis is to some degree an independent variable, in that basic architectural changes take place on a larger stage than local government, but the adoption and configuration of computing in a given setting are mediated by local politics, which are mediated in turn by the uses of computing in practice.

In a recent study of the Internet's place in politics, Davis (1999) argued that

rather than acting as a revolutionary tool rearranging political power and instigating direct democracy, the Internet is destined to become dominated by the same actors in American politics who currently utilize other mediums. Undoubtedly, public expression will become more common and policy makers will be expected to respond hastily. But the mobilization of public expression will still largely be the creation of groups and individuals who currently dominate the political landscape. . . . Today, the production of political news and information is the result of the interaction among official entities, interest group representatives, and the news media. Such interaction will also govern the Internet's presentation of news and information. . . . The current forces dominating political news delivery, who dwarf the independent efforts, also will overshadow them on the Internet. (1999, p. 5)¹⁷

While these assertions are entirely plausible, especially in the short run, they are also quite coarse-grained. Davis' argument is organized as a rebuttal to a certain foil: the widespread notion that the Internet will bring about an unmediated political system dominated by the initiatives of unorganized individuals. And indeed, little evidence suggests that any such system is emerging. In that sense, nothing is likely to change. Notice, however, the types of changes that the Davis argument treats as insignificant, or else merely as confirmation that existing structures have remained unchanged¹⁸:

- The introduction of new players in the existing categories, such as the additional news networks on cable.
- The shifts in relative magnitudes among the various subcategories of players, such as the great expansion of museums and public radio or the trenchment of newspapers.

- The competitive consequences of the increased number of media, which for competitive reasons compel media organizations to seek economies of scope by producing content in most or all of them.
- The emergence of new genres of political communication (e.g., the mixing of political and celebrity formats) and the evolution of existing genres (e.g., the influence of Web design on television).
- The changes in the ethos of journalism (e.g., increased orientation to entertainment) and in patterns of sourcing (e.g., the ability to canvass experts' and advocates' opinions in larger numbers by broadcasting identical e-mail queries to them rather than calling them individually on the phone).
- The acceleration of ongoing dynamics within the existing institutions (e.g., the news cycle and the legislative process).
- The greater ease with which well-funded political movements can construct their own independent media systems (e.g., political parties' video studios, which can produce their own cable programming as well as training materials and advice on issues for their activists and candidates).
- The quantitative shifts in independent political organizations' spending on mass-media advertising versus one-to-one forms of interaction.

It may be argued that these changes are not produced by the Internet, which is merely one contributing factor among many. But for the amplification model, that is just the point. The Internet is appropriated within the framework of existing institutions, and it contributes to the forces that those institutions have already organized. The same people who appropriate the Internet in the service of particular strategies are also likely to appropriate other media as well: cable television, telemarketing, direct mail, and so on, most of which are facilitated by emerging information technologies in several ways. In analyzing new uses of information technology, the forces are analytically prior to the tools.

As a final example of the reinforcement model, let us consider Hagen (2001). Hagen describes with some acuity how "digital democracy" projects in the United States, United Kingdom, and Germany have been shaped by the political cultures of each country, and especially the deficiencies that each political culture perceives in itself. He judges these projects as failures, however, essentially because the root problem in each case is citizen disillusionment resulting from globalization (2001, p. 65). He is skeptical, therefore, about the Internet's ability to "save" democracy, and he explains his skepticism using the word "amplify":

ICT do not change political institutions and processes by virtue of their mere existence. Rather, their use may amplify

existing social behaviours and trends. This can be [attributed] to the fact that the development of technological applications is controlled by specific dominant factors. With its instrumental character, ICT becomes a trend-amplifier in a given area of application. (Hagen, 2001, p. 55)¹⁹

Despite his vocabulary, however, a close reading makes clear that he is using the reinforcement model. Like Danziger, Dutton, Kling, and Kraemer (but unlike Davis), Hager attributes the amplifying effects of the Internet to the ability of dominant social powers to shape the technology itself, and not to the uses to which a very general-purpose technology is likely to be put. And his argument as a whole, like the others', is structured around the question of whether the Internet will reverse these established power relations. What is crucial for Hagen, following Arterton (1987), is the model of the political process that is embodied in the technology:

Computer technology is not an independent force working for the better or worse of democracy, but it is amplifying other trends at work or reinforces existing institutions. This explains why on the whole, . . . those projects . . . have aimed to support traditional, well-established structures [rather] than those which have tried to employ new, transformative democratic ways and means. (Hagen, 2001, p. 56)

This passage reflects a curious tension in Hagen's argument (and in much of the reinforcement literature). On the one hand, computer technology is characterized as an amplifier of existing trends. On the other hand, amplification is treated as a wholly conservative force. It follows that computer-based political initiatives can produce true change only if they refuse to amplify, but instead stand outside the terrain of contending forces. Yet he has just asserted that computer technology is not an exogenous force but something internal to the institutional system. This makes it hard to understand how any change is possible, even in principle. Hagen's analysis might be contrasted (for example) with dialectical theories that hold that institutions are intrinsically dynamic, that they generate the conditions of their transformation through their own internal contradictions, that those contradictions suffuse all aspects of a society including its technology, and that social practice is necessarily a matter of selectively amplifying one endogenous force or another.

The underlying problem with Hagen's analysis lies in his diffuse model of "amplification." His notion that the Internet "amplifies" social trends is very broad. Because he does not explain what sorts of things these "trends" are, he cannot explain which specific technologies amplify which specific trends. He also places too much weight on the question of which model of democracy is embodied by a particular technology. Although specific technologies can be tailored to quite specific models of use, in practice the economics of software militate in favor of generalized functionalities that are compatible with a wide range of

institutional forms. Other factors are equally important, such as the intrinsic cost of the machinery, technical training and support, and training and support in the practical skills of politics. What matters, in Danziger, Dutton, Kling, and Kraemer's (1982) terms, is the "computer package" as a whole. Political changes through the adoption of information technology, therefore, are unlikely to take the form of stand-alone "digital democracy projects," but will more likely involve a diversity of institutional players appropriating relatively generic technology in a diversity of institutional locations.

DIGITAL EMBEDDING

The reinforcement model, I have suggested, is concerned with a question that cannot now be answered, assuming it is well posed at all: whether the Internet's use in politics will lead to qualitative changes in the constitution of the political system. A better starting place, I want to argue, is with a different question that is closer to the ground of everyday political practice: What role does the Internet play in the evolution of the very category of the person? This phrase, "the category of the person," refers to the way in which people are conceptualized and interwoven by a society's institutions.²⁰ A polity is ultimately a maze of practical arrangements by which people live together, and the Internet is ubiquitous in the sense that it changes the detailed workings of nearly every one of those arrangements.²¹ The sheer ubiquity of the Internet, however, does not automatically imply that its use will have any particular type or magnitude of aggregate consequences. Only by analyzing that ubiquity will its actual consequences become apparent. I consider two aspects of the Internet's ubiquity, one relatively familiar and the other less so, and then I draw tentative conclusions about the sense in which the Internet, by amplifying existing social forces, might change things.

Lateral Relationships

The Internet can connect anyone and anyone else, but the patterns of connection are not random. One pattern is that people exchange information with others with whom they have something in common (Agre, 1998b). Choose any condition that people find important, and it is nearly certain that a far-flung community will have arisen of people who share that condition. These communities of practice include professions, interest groups, extended families, and people who live with the same illness or share a recreational interest.²² Most of the functioning online fora on the Internet are organized around these commonalities, but communities of practice should not be identified analytically with the technologies that support them. Few communities are strictly "virtual." Most communities employ several media, and most of them have some degree of formal organizational existence that is defined in technology-independent terms.

It helps to understand communities of practice in institutional terms: What a community's members share before anything else is a location in some institution. For example, cardiologists are a community of practice because they are all members of the same profession with its shared training, vocabulary, publications, meetings, rules, career paths, and so on. Not every institutional location, however, defines a community of practice. For example, the students in a school may form a community of practice, but only if their dealings with one another are intensive enough. Universities whose students mainly commute to classes typically lament their lack of community. Likewise, the patients of a given medical system, who might initially lack any knowledge of one another despite their structural commonalities, might form themselves into a community of practice, for example, through support groups or activist movements.

In addition to their common structural location, the members of a community of practice generally also share a common practical and epistemic world: certain places, activities, and recurring practical dilemmas within which questions arise and answers make sense. The community's members will experience incentives to share information, although the mechanisms of information sharing will depend on the workings of the institution: The institution might induce its participants to study one another's work products, or journalists might circulate among them gathering information for trade journals. By reducing some of the costs of some kinds of information sharing, the Internet amplifies the forces that bring communities of practice together (Brown, Duguid, & Haviland, 1994). It bears repeating that those forces must already exist; if information sharing is unimaginable without the Internet, it may still be unimaginable with it (Orlikowski, 1993). But where the forces are present and the resources are sufficient, the Internet is generally adopted furiously once a critical mass of community members signs on. The effects on society will depend on the specifics; for example, diaspora communities can more effectively support their brethren in civil wars if that is what they wish, and human rights campaigners can more easily spread news of the atrocities that result (Kaldor, 1999, pp. 208–209; cf. Zhang & Hao, 1999).

The pooling of knowledge in communities of practice serves many purposes in politics. Some are relatively obvious: using the Internet and other emerging communications technologies, for example, the participants in activist groups can more easily coordinate their political tactics (Frederick, 1993). But the main significance of the ubiquitous lateral comparing of notes might be more fundamental: It amplifies what might be called the collective cognition of the society. This cognitive background noise, which occurs in any society but is especially developed in the networked democracies, covers a spectrum from mundane chatter through the coordination of practical activities

to the sharing of news on current issues to the overt work of political coalition building. The entire spectrum is necessary: Without the hum of everyday information sharing, it is unlikely that a community's members will be on the same page when a political issue emerges. The dividing line between "political" and "nonpolitical" communication is, for this reason, nonexistent. When legislators and administrators monitor the thinking and experience of their counterparts in other jurisdictions, for example, they are laying the cognitive groundwork for harmonizing their governance activities more profoundly than any treaty could do, and this effect will surely only intensify with the spread of the Internet and the globalization of English.²³ It is possible, therefore, that researchers who fail to discover "political participation" on the Internet are looking in the wrong place.

Knowledge pooling is generally considered a good thing, but its consequences can be mixed. When communications are weak, local communities are relatively isolated, and mutual isolation has advantages. Best practices may not be transferred, but neither are worst delusions. Evolutionary theories of institutional change depend on the existence of these cognitive islands, so that institutional experiments can proceed relatively uncorrupted by the example of others.²⁴ Global networking does not necessarily bring about global homogeneity if other forces exist to keep subcommunities apart, but arbitrage is a powerful force.

These concerns arise, for example, in the development of law. The common law tradition requires appeals courts to discern patterns in decisions that emerge from individual cases. This assumes that comparable cases can be tried somewhat independently of one another, so that the appeals courts can credibly claim to have discovered that order in establishing their precedents. The danger is that the appeals court is actually ratifying a conventional wisdom that influenced each individual decision along similar lines when alternative analyses might otherwise have been found. Because lawyers have strong incentives to communicate among themselves, this danger has always been present. The spread of highly developed legal information systems, however, has certainly amplified it.

Similar concerns arise in the evolution of federalism and in the globalization of the policy process (Bennett, 1997). When the policy-formation processes of different jurisdictions are tightly intertwined by social networks, news reporting, Web monitoring, and the coordinated strategies of supranational interest groups, it becomes less likely that a variety of approaches can be tried separately and compared.

Spacing

A final example of amplification is found in the reconstruction of human relationships. Every individual has a

social network, and the Internet makes it possible for everyone to stay in touch more continually with everyone they know. Extended families, for example, can organize mailing lists to broadcast news updates that might otherwise have spread more slowly through dyadic phone calls or annual reunions. Buyers and sellers in a marketplace can interconnect their computers to track availability and prices, or to monitor ongoing compliance with a complex contract. Professors report spending additional time each day, on top of their usual teaching duties, answering their students' electronic mail (Rhoades, 2000, p. 39). In some cases no particular force impels this increased regularity of contact. But technical limits are no longer a great barrier when, for reasons of sentiment or self-interest, those forces do exist. Spouses can talk 10 times a day on their cell phones; friends can exchange a steady patter of text messages. Holiday card lists need no longer be pruned on account of the costs of postage; people who fall out of touch can more easily find one another again. Software enables salespeople to keep track of their relationships with a multitude of clients. The result, Wellman (2001) argues, is to amplify a sort of networked individualism: individuals embedded in continual, electronically mediated engagement with their entire social networks.²⁵

A larger phenomenon might be called "spacing": drawing out the logic of institutionally organized relationships and making that logic explicit in the configurations of technology. Before discussing the concept of spacing theoretically, let us consider some examples. One example might be found in commonly observed patterns among relatively affluent families in the West. As television sets and telephone lines become cheap, the family home tends to break apart into separate media spheres for each individual—what Bovill and Livingstone (2001) calls "bedroom culture." Families that are dispersed into these separate spheres need not fall out of touch; on the contrary, new communications technologies such as cellular telephones and electronic mail make everyone constantly reachable, a development that children in particular do not always welcome (English-Lueck, 1998). Something important has happened here: Each individual inhabits a discrete world, yet the worlds are interconnected, and the interconnections are negotiated within a framework organized by the prevailing rules of the institution—in this case, the institution of the nuclear family. The institution might give some individuals the authority to initiate contact with others, or it might provide others with the right to render themselves unreachable, and these aspects of the relationship are reinvented in the new technical context (Dutton, 1999). The phenomenon is called "spacing" because it gives technological form to the institutionally organized spaces between people, inscribing in technology and its uses their separate individuality and the protocols through which they interact.

Another example of spacing is found in academic research. To participate in the research community is to construct an elaborate public persona through research papers and presentations. A research library is, among other things, a warehouse of the public personae of professional researchers, and researchers commonly monitor one another's careers by reading articles, attending talks at conferences, taking note of participation on editorial boards, and so on. New researchers are socialized into an array of rituals for developing relationships with others based on their personae, including the ritual of defining precisely and publicly the intellectual relationships between their own research projects and those of others.²⁶ The resulting professional network is a central fact of life for numerous purposes, from job hunting to conference organizing to tenure and promotion.

New information and communication technologies draw out these relationships more explicitly, so that each member of an individual's network can be a more continual presence. In addition to the letters employed by 17th-century researchers and the conference interactions of the 20th century, contemporary researchers can exchange a steady stream of electronic messages with everyone in their network (Koku, Nazer, & Wellman, 2001). Home pages on the Web make a researcher's vita public and searchable. As research publications become available electronically, the researcher's persona becomes instantly and universally available. Networks of relationships become visible in the bibliographies of these online publications, and are also reified in the alias files that map network members' names to their electronic mail addresses.

In each case—family and research community—the institution defines a set of roles and relationships with their attendant rules, representations, incentives, expectations, and strategies. The individual is embedded not simply in a social network, as in Wellman's theory of networked individualism, but in a network of institutional locations. Information and communications technologies do not revolutionize these institutional facts; rather, the technologies are used in ways that clarify and amplify their logic. To some degree, as in conferencing systems and digital libraries, the institutional roles and relationships may be inscribed into the architecture of the technology. In any event, as in the use of cellular telephones, the technology is inserted into the communication practices of a relatively stable institutional field. The technologies connect the individuals, the connection patterns map the institution, and the principal basis of communication shifts increasingly from geographical locality to structural relationships (Simmel, 1955 [1922]). The various parties become continual presences for one another, but their interactions have an architecture that is defined by the institution and made explicit in the workings and usage patterns of the technology.²⁷ The parties are not atomized, but neither are they merged.

Rather, the technology reflects and amplifies the spacing among them—the institutionally structured middle distances that define them each as distinct persons in the social order.

The relevance of this story to the political process is straightforward. Liberal political institutions are organized around the individual, and the secret ballot and voting booth shift voting from community and party to individual (Barber, 1984, pp. 187–188). Likewise, the scale, dynamism, and relatively loose integration of mass society shift the organizational basis of politics away from neighborhood hierarchies and toward the individual as a statistic. Information technologies have further transformed the individual (at least from a large political organization's point of view) into a database entry. Mass political communications retain their economies of scale, but they are increasingly integrated with political strategies on other levels. Political organizations become able to gather data on individual voters (Hunter, 2002; McLean, 1989, pp. 61–76; Mintz & O'Harrow, 2000; Wayne, 2000b), and as more attributes of each voter are stored, it becomes possible to generate scripts tailored to each voter's interests, for example, in get-out-the-vote campaigns (Stepanek, 2000) or in day-to-day tactical campaigns of telephoning voters (Jameson, Glaze, & Teal, 1999). Although such databases existed before the Internet became widespread, the Internet can distribute tactical messages much more cheaply than can fax machines (Kerber, 2000). As technology improves and information-gathering intensifies, and as political information gathered for one purpose (e.g., polling) becomes available for other purposes (e.g., fund raising), the information infrastructure of the political system is growing rapidly.

As Poster (1990) observes, database entries do not just passively describe people. On the contrary, the database is part and parcel of a discourse in Foucault's sense of the term—a complex of linguistic forms and practical arrangements that organize both the individual's own subjectivity and the institutions in which the individual participates.²⁸ The point is not that database entries are always accurate, or that database entries completely define the people they represent. The point is simply that the data and the person are woven together into a system, with all of the complexity, contingency, and internal tension that that implies. In this sense, political databases help to reify a particular sort of political subject.²⁹ The particular conception of voters that the databases embody certainly has its precedents: in marketing, the science of public opinion measurement, earlier methods of political campaigning, and the research of academic political scientists. By embodying this conception, however, the technology helps give the relationships a fixed and routinized character. Voters can now expect to receive programmed, targeted communications that address them with some precision, enclosing

them in a permanent, real-time system of political surveillance and tactical campaigning.³⁰

The point generalizes to the full range of institutionally organized roles and relationships that make up a complex modern polity. Large companies, for example, have long used computers to track and tactically mobilize organizational “stakeholders” who maintain relationships with particular legislators (e.g., Cox, 1984, pp. 18–19), and the Internet makes this practice cheaper and faster, encouraging its use on a larger scale. In fact, political intermediaries of all types use the Internet to indoctrinate and mobilize their constituents, for example through e-mailed newsletters. Given that the Internet has disappointed many democratic theorists by failing to create extensive “participation” by ordinary citizens, one’s evaluation of the Internet’s place in politics will rest largely on its role in amplifying the role of political intermediaries. The consequences of this role depend, in turn, on whose agency is emphasized. Do intermediaries use the Internet to mold their passive followers, or do citizens use the Internet to shop among intermediaries, maintaining only shallow and transient relations with any of them? The answer presumably lies between these extremes.³¹ Perhaps intermediaries will even fall apart as the Internet’s ubiquitous, low-cost communication mechanisms take over much of their infrastructural role. For present purposes, the point is simply that the Internet is helping to give a more explicit shape to a set of structural relationships that already existed. Citizens are developing their own private media spheres, in which they receive and exchange political messages increasingly fitted to themselves as individuals.

Considered from one perspective, this development in the category of the person is conservative. Oakeshott (1991 [1975]), for example, distinguished between two conceptions of the person as a political being: a merger of the Many into the One expressing the unifying purposes of the state, versus an individuation of personae in the social forms of civil association, each of them contracting their own relationships as they see fit. Civil association, in particular, is not a simple or natural condition of negative freedom. It is institutional; it is constituted by an authority; it must be instilled and legitimated. It does not discover distinct individuals and introduce them to one another; quite the contrary, it simultaneously produces individuals and organizes the spaces between them. This view of the person contrasts with the view that is implicit in calls for intimacy or solidarity as the basis of politics. Because Oakeshott viewed political order as flowing from the state, he believed that collapsing the boundaries among individuals would submerge their individual judgement in a collective mind that the state would control. He saw this as an invitation to tyranny, and he saw the individualism of civil association as the foundation of a conservative order.

Oakeshott’s is an especially strong endorsement of spacing as a precondition of a virtuous political order. But even if associational orders flow from more diverse sources than Oakeshott allows, the larger point is clear enough. By drawing out and reifying the informational architecture of relationships, and by making all of a person’s relations to others continually present, the Internet amplifies a particular type of social order. This effect, once again, is not intrinsic to the Internet; it arises through the incentives that existing institutions create to take hold of the Internet in familiar ways, along familiar lines. Nor does it follow that the Internet’s impact on society is essentially conservative; the tendency toward increasingly explicit spacing among individuals is only one of the many forces that the Internet amplifies, and many of these forces conflict.

Nonetheless, the implications for the political process would also seem clear. Civil association is a system of interlocking institutions, not a shapeless meeting of unformed minds, and the Internet allows the relational order of those institutions to be inscribed in the finest details of daily life. For those who are interpellated into the political process, the relationships of political combat are increasingly pervasive, increasingly constant. It may be too strong to say, with Buchstein (1997, p. 260), that “the Internet is less applicable [to] the creation of new forms of democratic public spheres than [to] the support of already existing ones.” But new political forms will emerge only by counterbalancing or transcending a regime of political integration, and a category of the political subject, that the Internet is rapidly amplifying.

Assessment

Among the many dynamics that interacts with spacing is the intensification of lateral communication that I described earlier in this section. The steady background hum of information sharing within communities of practice, though measureable on the level of Internet message traffic, will be harder to evaluate in political terms. Even so, some of the consequences are clear enough: the strengthening (to whatever degree) of interest groups that have formerly lacked an infrastructure for lateral communications, the occasions for networking and cross-fertilization (at whatever rate) across borders, and the growth (however tentative) of a global civil society. In fact, we would appear to confront a tension between two forces: a radical force arising from the increased ability of institutional stakeholder groups to organize across organizational and political boundaries, and a conservative force arising from the increased reification of existing institutional orders in the usage patterns of digital communications media.

Appearances, though, are misleading. The relationship between lateral relationships and spacing is more complicated than a crudely defined tension between stasis and

change. Consider, for example, the political organizations that might arise within a given stakeholder group: consumer advocates, medical activists, union members, shareholders, industry executives, and so on. To be effective, those organizations need formal structures: decision-making mechanisms, divisions of labor, accounting systems, communications channels, and other institutional arrangements, each of which defines a repertoire of roles and relationships. A political organization that adopts Internet tools to support these structures—whether conferencing, spreadsheets, voting mechanisms, membership databases, or other functions—will thereby reify that existing system of relationships. The Internet might help the organization to expand its membership, respond more quickly to its environment, cooperate more effectively with similar organizations in other jurisdictions, and ultimately exert greater power in the political process. The consequences for the substance of policy, and even for the qualitative organization of political institutions on a larger scale, might be significant, but these effects will come about because of spacing, not in spite of it.

Of course, these developments will surely create opportunities and stresses that lead to organizational changes of other types—changes that arise through the same combination of entrepreneurship, economics, and accident that drive organizational changes in any setting. The technology might inhibit some changes through the inertia of institutionalization (Kling & Iacono, 1989), or it might promote them by providing new tools to the changes' proponents. Or it might do both. The matter will have to be assessed in each case. And that is perhaps the most important recommendation of the amplification model: the need to take each case on its own terms, analyzing the full range of interacting forces that might exert a long-term effect on the substance and process of politics.

NOTES

1. For convenience I allow the meaning of "the Internet" to shift as needed across the whole universe of convergent digital technologies. The term preferred in Europe, information and communication technologies (ICTs), is more accurate, but it carries too many connotations of bureaucracy and not enough connotations of digital convergence.

2. The list of theoretical proposals that I will present is hardly complete. For broader surveys of the literature, see Arterton (1987), Axford and Huggins (2001), Dutton (1992), Harrison, Stephen, and Falvey (1999), Malina (1999), and van de Donk and Tops (1995). Neuman (1991, pp. 5–6) provides a concise bulleted list of the conventional claims about the political effects of new media. Friedland (1996) situates the early history of the community networking movement in the context of theories of civic life. Practical guides to the Internet's role in politics include Bennett and Fielding (1999), Browning (1996), Kush (2000), Maxwell (2000), Schwartz (1996), and Walch (1999). See also Alexander and Pal (1998), Barney (2000), Gibson and Ward (2000), Gutstein (1999), Kakabadse and Kakabadse (2000), Rash

(1997), Selnow (1998), and Sunstein (2001). Works that have appeared as this article is going to press include Kamarck and Nye (2002), McIver and Elmagarmid (2002), Rosenau and Singh (2002), and Saco (2002).

3. See, for example, Kitchin (1998), Mitchell (1996), Toulouse and Luke (1998), and Vandenberg (2000), or the "cyberdemocratic" model advocated in Hoff, Horrocks, and Tops (2000), which is otherwise quite sophisticated. For a historical perspective see Grosswiler (1998), and for an extensive skeptical analysis see Netanel (2000). An early speculation about the online polity is Toffler (1970, pp. 423–428).

4. On the use of the Internet by legislatures, see Coleman, Taylor, and van de Donk (1999).

5. See also Hoos (1983) and Lilienfeld (1978).

6. The problem, briefly, is that when more than two options are available, voters cannot always meaningfully rank-order them, for example because they differ along multiple dimensions. Arrow (1951) proved a set of theorems to the effect that no rational voting scheme is possible in some such situations. For further discussion and the implications for electronic referenda, see McLean (1989).

7. It should be said that Innis's own thought was more discerning and less deterministic than this implies, particularly about the ambivalent nature of economic and power relations between centers and peripheries.

8. The cartoon, by Peter Steiner, appeared on page 61 of the 5 July 1993 issue of *The New Yorker*.

9. Likewise, Fischer (1992, p. 265) resolves the question of whether the telephone increased Americans' local or long-distance relationships by concluding that it increased both, and that it intensified existing involvements rather than creating new ones. His point is not that nothing changed; he also concluded that the telephone contributed to what he calls "privatism": conducting social activities in the home rather than in public places (p. 266). On the whole, though, he concludes that "we might consider a technology, such as the telephone, not as a force impelling 'modernity,' but as a tool modern people have used to various ends, including perhaps the maintenance, even enhancement, of past practices" (p. 272).

10. In contrast to "monist" theories that emphasize a single factor in explaining the social consequences of new media technologies, Neuman (1991, pp. 15–20) argues for "balance theories" based on the search for "interaction effects" among explanatory factors on different levels of analysis. In particular, he suggests (1991, pp. 41–43, 165) that the forces of the communications revolution, which tend toward democratic pluralism, are in conflict with the forces of audience psychology and political economy of the mass media, which tend toward totalitarianism, leading to a balance at an uncertain point in the middle. Winston's (1998) argument is broadly similar.

11. Ranerup (1999) enumerates some of the "contradictions" involved in the design of a system for online deliberation, using the term to refer to the trade-offs that arise in designing an online forum that is embedded in a contradictory institutional field.

12. In the case of print culture in early modern England, by way of comparison, Zaret (2000, p. 13) observed that

printing's relevance for the birth of the public sphere goes beyond change in the *scope* and extends to the *content* of political communication. Competition among stationers is important for explaining changes in *scope*, when a flood of cheap texts and simple prose enlarged public access to political debates and discussion. For explaining changes in the *content* of political communication, the heightened capacity

of printing, relative to scribal culture, for reproducing texts is crucial for understanding how political discourse became oriented to the constitution and invocation of public opinion.

Zaret argued that this led to the “imposition of a dialogical order on conflict” (2000, p. 13). He continued:

Printing’s technical capacity to reproduce texts led to the production of broadsides and pamphlets that referred to other texts, often accompanied by partial and, less often, full reproduction of the referenced texts. Readers thus confronted political texts that responded to prior texts, simultaneously referring to, excerpting from, and commenting on them. (2000, pp. 13–14)

13. The comments of an anonymous referee clarified my thinking on this point.

14. A notable exception to the pattern is Arterton (1987). For Arterton, the political problem to be overcome is low levels of voter participation, especially as manifested in low voter turnout. But in reviewing early experiments with two types of technological fix for this problem, online discussion groups and electronic plebiscites, he is cautiously optimistic. He is aware of (what he calls) “the co-optation hypothesis,” but holds that the experiments he studied did not prove it (1987, pp. 199–200).

More representative (though not centrally concerned with the political system) are Morrison, Svennevig, and Firmstone (1999), who counterpose the exaggerated rhetoric of a “communications revolution” to (what they call) “functional amplification.” Their project is clearly frustrated by the difficulty of turning the language of “revolution” into a hypothesis that is sufficiently well-defined to test.

We take it that the term “communications revolution” must mean one or all of the following: a radical change in social organization; a radical change in how people view the world; and/or a radical change in the way people lead their lives. Our findings do not point to a communications revolution having taken place, nor do they indicate that such a revolution is about to happen. What they do suggest is functional amplification rather than any displacement of existing communications. (pp. 58–59)

Their notion of functional amplification, however, draws its substance from a polemical opposition to the idea of revolution. That is why, as with much of the literature on the reinforcement model, the term “amplification” strangely loses its normal connotations of dangerous, unbounded increase, and instead suggests inertia or homeostasis: “E-mail is, in functional terms, essentially an amplification of the physical mail system. It makes life easier (or at least faster, which is not necessarily the same thing), but not radically different” (p. 59). They assert, reasonably enough, that “At this time we simply cannot say, for example, whether the substitution of e-mail for posted letters will change the relationship between individuals and to institutions at large” (p. 59). But observe how the superficial nature of the “revolutionary” hypothesis of a generalized change between individuals and institutions threatens to condemn rebuttals such as Morrison, Svennevig, and Firmstone’s to a similar superficiality. Later, in rebutting the “revolutionary” hypothesis that the cellular telephone cause a more mobile society, they do say this:

It has been the increased mobility of both business and social life that has guaranteed the mobile phone a place in

contemporary life. The success of the mobile phone offers a particularly close fit between social factors and technological possibilities, and a good instance of the dialectical relationship of the social and the technological. (p. 72)

But they proceed to explain this dialectic purely in terms of the network effects that give rise to the familiar S-shaped technology adoption curve, and not in terms of any coevolution between the workings of the technology and the workings of the society that both produces and appropriates it.

15. The various chapters of Danziger, Dutton, Kling, and Kraemer (1982) were authored by different pairs of the authors, but for simplicity I have cited the book as a whole. On the idea of reinforcement politics see also Laudon (1974) and Pratchett (1995). Ferdinand (2000, p. 9) observes that “Existing parliaments in democracies . . . have tended to be more interested in applying the new technologies to help them become more effective, rather than adopting innovations that might undermine their traditional status and authority.”

16. As this example illustrates, “forces” in the amplification model should not be confused with “interests,” “coalitions,” or other political groupings in studies such as Danziger, Dutton, Kling, and Kraemer (1982).

17. Hill and Hughes (1998, p. 182) and Norris (1999) have drawn similar conclusions. Graham, a conservative opponent of democracy, argues that “the Internet . . . by its very nature . . . has a tendency to promote reinforcement of interest and opinion among the like-minded” (1999, p. 83).

18. This list of phenomena is obviously drawn from experience in the United States, although the larger point probably generalizes. In earlier work with Owen (Davis & Owen, 1998), Davis gives some of these factors greater weight (for a summary see pp. 255–256) and also emphasizes the distinctive features of the new media. Still, Davis and Owen’s argument is organized around the question of whether new media are significantly enhancing political participation. Their conclusion is essentially negative: “The realization of a truly democratic vision of public discourse facilitated via the new media . . . will require a large-scale societal commitment to change” (Davis & Owen, 1998, p. 257).

19. He attributes this idea to Reese et al. (1979). Also, note that Hagen uses the terms “ICT” (i.e., information and communication technologies) and “Internet” interchangeably. As I mentioned in note 1, this is my own practice as well. In addition, I have corrected an apparent English usage problem in the quoted passage: In place of “attributed,” Hagen actually says “contributed.”

20. See Carrithers, Collins, and Lukes (1985). A more precise phrasing would be: the way—no doubt complex and contradictory—that the individual is *constituted* by a society’s institutions.

21. I am using the word “ubiquitous” in a nonstandard way. For Weiser (1991), ubiquitous computing is woven transparently into everyday life; I want to suggest that Weiser’s concept of ubiquity can be productively developed by analyzing everyday life into the overlapping zones of activity that different institutions organize. Computing, on this analysis, is not just ubiquitous in a literal, geographic sense (“everywhere”); it is also ubiquitous in a structural sense (“everything”).

22. The term “communities of practice” is due to Lave and Wenger (1991). For a systematic analysis see Wenger (1998). Organizational theorists have long emphasized the theme of lateral communication; it is often attributed to Fayol (1949 [1916]), who despite his prevailing rationalism and conservatism argued that strict hierarchical control was insufficient and advocated a “gang-plank” system whereby

subordinates on a given organizational level have structured opportunities to interact. Only with more recent work, however, have these lateral relations been interpreted as spontaneous organisms with complex physiologies. The notion that Internet discussion groups constitute what Rheingold (1993, p. 110) called "grassroots groupminds" has been part of the culture of the medium from its earliest days.

23. An especially striking example of this phenomenon is worth quoting at length:

The most informal and passive level of transnational judicial interaction is the cross-fertilization of ideas through increased knowledge of both foreign and international judicial decisions and a corresponding willingness actually to cite those decisions as persuasive authority. The Israeli Supreme Court, the German Constitutional Court, and the Canadian Supreme Court have long researched US Supreme Court precedents in preparing their own conclusions on constitutional issues such as freedom of speech, privacy rights or fair process. Young constitutional courts in Eastern and Central Europe and the former Soviet Union are now eagerly following suit. The paradigm case in this regard is a recent decision by the South African Supreme Court. In finding the death penalty unconstitutional under the South African Constitution, the Court cited decisions from national and supranational courts all over the world, including Hungary, India, Tanzania, Canada, Germany, and the European Court of Human Rights. (Slaughter, 2000, pp. 204–205, footnote omitted).

On the general phenomenon of governance networks, see also Marin and Mayntz (1991) and Riles (2000).

24. On evolutionary theories of institutional change, see Hodgson (1993, 1999).

25. See also Bellamy (2000, pp. 49–50). Fischer (1992, p. 268) observes that the telephone "expanded a dimension of social life, the realm of frequent checking-in, rapid updates, easy scheduling of appointments, and quick exchanges of casual confidences, as well as the sphere of long-distance conversation."

26. I have codified a great deal of this practical networking knowledge in a how-to article for doctoral students entitled "Networking on the Network" that is available on the Web at <http://dlis.geis.ucla.edu/people/pagre/network.html>.

27. Akrich (1992) makes a similar point in describing how social roles are inscribed into the workings of designed artefacts.

28. In fact, Poster says that the database is itself a discourse, but it is more accurate to say that the database is one of the constituents of the larger discourse that binds numerous parties together into a polity.

29. The Foucauldian analysis of the liberal subject has been developed in a large literature; see for example Barry, Osborne, and Rose (1996). My purpose here, however, is not to evaluate this literature, which in my view fails to provide an adequate account of political agency or of institutions generally, but simply to draw on certain elements of Poster's Foucauldian analysis of databases.

30. On origins the "permanent campaign" and the profession that administers it, see Blumenthal (1980). For an update, see Johnson (2001).

31. For a brief discussion, see Horrocks, Hoff, and Topps (2000).

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