

# Information and American Democracy

TECHNOLOGY IN THE EVOLUTION OF  
POLITICAL POWER

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## Information and Political Change

This book is an inquiry into the evolution of American democracy. It explores an aspect of democratic politics in the United States about which surprisingly little is known: the relationship between characteristics of political information in society and broad properties of democratic power and practice. My inquiry is motivated in part by the dramatic revolution in information technology taking place at the beginning of the twenty-first century. Over the space of about five years, we have witnessed the adoption of new means for communication and management of information by virtually every political organization and institution of consequence in the country. At no time in the history of American democracy has a new set of communication and information-handling capacities been assimilated so rapidly by the political system.

The pace of these changes has precipitated much speculation about political change and transformation, from visions of direct democracy and erosion of processes of representation and institutional deliberation because of new technology to enhancement or degradation of the “public sphere” and the state of citizens’ civic engagement. Such speculations resonate strongly in a period when democracy in America is enervated by many problems: low voter turnout, the distortions of money and campaign finance arrangements, low public trust, a political culture dominated by marketing and polling, and the profound influences of one particular technology, television. What the new capacities for communication and the management of information portend for such problems, and indeed whether they portend anything at all, is one focus of this book.

The year 1999 was in many ways a milestone for the revolution that was taking place in information technology, in part because an unusual form of political behavior appeared. This activity involved peripheral organizations and ad hoc groups using information infrastructure to

undertake the kind of political advocacy that traditionally has been the province of organizations with far greater resources and a more central position in the political system. A good example comes from very early in the year, when the Federal Deposit Insurance Corporation (FDIC) and other agencies proposed new regulations under the friendly euphemism “Know Your Customer.” The Know Your Customer rules included requirements that banks report certain customer financial transactions to the government in order to assist authorities with the identification of money laundering and other illegal activities.

The FDIC, which insures private deposits in banks and provides other regulatory functions in the financial sector, is typically not the source of controversy or high-profile political conflict. The agency’s activities fall into one of those corners of public policy where little citizen attention illuminates details of the relationship between an industry and its regulators. When the FDIC published its proposed rules late in 1998 with the agreement of the banking industry and Congress, and in coordination with allied agencies – the Office of Thrift Supervision, the Office of the Comptroller of the Currency, and the Federal Reserve – “Know Your Customer” seemed a routine change in banking regulations.

Yet by February of 1999, just two months after the agency’s Notice of Proposed Rulemaking formally initiated the public phase of regulatory proceedings, everything about the politics of Know Your Customer had changed. Vehement public objections poured into the agency at an unprecedented rate, complaining about threats to privacy and government intrusion into citizen affairs. Congressional support dried up as legislators backed away, and the banking industry itself announced that it, too, opposed the rule. By early March, when the comment period ended, the FDIC had accumulated about 250,000 public comments, all but a hundred or so opposed. In the face of strident public opposition and the about-face by other political actors, the agency had found itself politically isolated. Drawn up short by the magnitude and vehemence of the objections, the FDIC along with its sister agencies withdrew the regulations and issued public statements bordering on contrition.

What lay behind this unexpected collective action on behalf of financial privacy and the remarkable back-tracking by an agency? A good deal of social science research suggests that we should find a powerful organization or coalition of organizations behind such a large effort. Political scientist Jack Walker has described the practical requirements of citizen-based policy advocacy in the following way: “Political mobilization is seldom spontaneous. Before any large element of the population can

become a part of the American political process, organizations must be formed, advocates must be trained, and the material resources needed to gain the attention of national policy-makers must be gathered.”<sup>1</sup> Some scholars have likened this process to the requirements of formal business enterprise, observing that internal features of groups as organizations are typically the strongest predictors of their success at recruiting and mobilizing citizens behind issues and succeeding with political demands.<sup>2</sup>

Yet in the FDIC case, as in others that took place in 1999, little such organizational infrastructure is found. No powerful interest group or public lobby with hundreds of thousands of members had mobilized citizens. No deep pockets had funded the effort. No political consultants or media advisors had orchestrated public relations and the media angles. No candidate or public official had drawn attention to the regulatory proposal. Neither the Republican nor Democratic party organizations had worked the issue. Virtually none of the ingredients of collective action that social science theory suggests should lie behind citizen-based policy advocacy was present.

Instead, a peripheral group in American politics, the Libertarian Party, initiated the protest against the FDIC’s regulations – a group never before able to marshal national-level resources for an advocacy effort of this size. Like most American “third parties,” the Libertarians are habitually constrained by the interdependent limitations of a small membership, few financial resources, and a system of electoral rules oriented toward two-party competition. Instead of using traditional organizational infrastructure, which it sorely lacks, the party relied almost exclusively on information infrastructure. Its leaders used the Internet to identify interested citizens, distribute information, and solicit participation in the protest. Starting with a small list of active party members, the initiators of the effort began a process of information exchange and communication about the pending policy change. That flow of information expanded geometrically, spreading quickly far beyond the party’s membership and sphere of influence. The aggressiveness and extent of the Internet-based campaign – not the clout of the Libertarians themselves – successfully signaled to agency officials as well as to legislators that banking privacy

<sup>1</sup> Jack L. Walker, *Mobilizing Interest Groups in America: Patrons, Professions, and Social Movements* (Ann Arbor: University of Michigan Press, 1991), p. 94.

<sup>2</sup> Paul E. Johnson, “Interest Group Recruiting: Finding Members and Keeping Them,” in Allan J. Cigler and Burdett A. Loomis, eds., *Interest Group Politics*, 5th ed. (Washington, D.C.: CQ Press, 1998), pp. 35–62; Terry M. Moe, *The Organization of Interests* (Chicago: University of Chicago Press, 1980).



could be a significant electoral issue. In the end, this was the story of how an industrial-era government institution created during the New Deal responded to collective action during the information era.

That this story does not appear to square with standard theories of policy advocacy and collective action is intriguing for several reasons, not the least of which is that many other political organizations and groups are attempting to repeat the Libertarians' success with issues of their own. Across the spectrum of interest groups, new information infrastructure appears to be affecting strategies of recruitment, advocacy, and mobilization. Electoral campaign organizations have also embraced new technology-based modes of internal organization and communication, as well as external communication with voters. The first major legislative effort of George W. Bush in 2001 revealed how new means of communication had become a routine part of the political scene. While trying to sell his tax cut in the states of swing Democratic senators, Bush told an audience in Atlanta, "If you find a member that you have some influence with, or know an e-mail address, or can figure out where to write a letter . . . just drop them a line."<sup>3</sup>

Researchers observing such developments have already amassed a sizable catalogue of contemporary uses of information technology by political actors, including new forms of mobilization, descriptions of how campaigns make use of new technology, and portrayals of how information technology is employed by government institutions themselves.<sup>4</sup> Much of this research, which we consider throughout this book, has supported one or more of three main findings. The first is a largely null finding of participation effects. This finding emerges from attempts to discover a stimulus effect from new technology on political engagement

<sup>3</sup> The speech was March 4, 2001, reported in Frank Bruni and Alison Mitchell, "Bush Pushes Hard to Woo Democrats Over to Tax Plan," *New York Times*, March 5, 2001, p. A1.

<sup>4</sup> E.g., see: Lori A. Brainard and Patricia D. Siplon, "Activism for the Future: Using the Internet to Reshape Grassroots Victims Organizations" (paper presented at the annual meeting of the American Political Science Association, Boston, Sept. 4–7, 1998); Laura Gurak, *Persuasion and Privacy in Cyberspace* (New Haven: Yale University Press, 1997); Karen James and Jeffrey D. Sadow, "Utilization of the World Wide Web as a Communicator of Campaign Information" (paper presented at the annual meeting of the American Political Science Association, Washington, D.C., Aug. 27–31, 1997); Anthony Corrado and Charles M. Firestone, eds., *Elections in Cyberspace: Toward a New Era in American Politics* (Washington, D.C.: Aspen Institute, 1996); Christopher Weare, Juliet A. Musso, and Matthew L. Hale, "The Political Economy of Electronic Democratic Forums: The Design of California Municipal Web Sites" (paper presented at the annual meeting of the American Political Science Association, Atlanta, Ga., Sept. 2–5, 1999).

or learning at the individual level. It does not appear, at least so far, that new technology leads to higher aggregate levels of political engagement. The failure to identify major effects has a great deal in common with the “limited effects” tradition in media studies dating back to the work of Paul Lazarsfeld in the 1940s. That literature sought and failed to find substantial direct effects of mass media on public opinion and other dependent variables common in the study of political behavior. Its failure to account for processes such as agenda setting and framing was key, and this provides clues in the search for effects of contemporary information technology. It seems clear so far that information technology does not exert large direct effects on traditional participation and public opinion, but it is far from clear what other effects might exist.

The second finding in scholarship on information technology and politics is the existence of the so-called digital divide, a gap between those “on line” and “off line” that falls along socioeconomic, racial, and gender lines. The claim is that access to the new information environment is decidedly unequal, and moreover, it is unequal in ways that exacerbate traditional divisions and inequalities in society. The evidence for this effect is now substantial and unequivocal. However, viewed in light of the limited participation effects finding, the implications of the digital divide are less than certain.

The third finding from research so far is the presence of novel forms of collective action. A number of descriptive case studies – the earliest dating to the mid-1990s – have documented instances of unusual groupings of citizens organizing and using information technology in pursuit of political objectives. The emphasis in these studies is the capacity of political entrepreneurs to overcome resource barriers by using comparatively inexpensive information technology. These events suggest interesting developments in the nature of collective action, the limited participation effects and digital divide notwithstanding, and the case of the Libertarians and the FDIC falls into this category.

This book begins where these three strands of literature leave off, in an effort both to advance our understanding of their findings and to integrate them into a larger picture. The book addresses the following questions: What do stories such as the Know Your Customer protest mean? Will similar developments lead to political transition as well as technical change? What do the possibilities portend for how scholars theorize about politics? Increasingly, the important intellectual tasks associated with information technology and democracy involve synthesizing a larger causal picture across events and cases in order to assess

what theoretical connections might link contemporary developments with important historical episodes, such as the emergence of interest group politics a century ago and the development of party politics a century before that. In what ways might the history of American political development shed light on current changes in American politics, and vice versa?

The process of synthesizing a larger, theoretical framework for understanding information technology and politics has proven divisive as scholars attempt to capture various developments in technology under the rubrics of political scale, equality, deliberation, community, social association, and the like. One theorist is Benjamin Barber, who in *Strong Democracy* advocates the use of information and communication technologies for enhancing citizen engagement with democratic affairs.<sup>5</sup> In that work, published while the revolution in information technology was in its infancy, Barber addresses the possibility of telecommunication technology serving as a means for overcoming problems of scale in large democracies and for creating communicative forums such as “town halls,” which would not be limited by physical proximity. Similar views are suggested by other political theorists not widely known for their conceptions of information technology. The best example is Robert Dahl, who argues that democracy is threatened more by inequalities associated with information and knowledge than by inequalities in wealth or economic position. Dahl writes in *Democracy and Its Critics* that information technologies may provide important remedies for political inequality by making political information more universally accessible.<sup>6</sup> Communitarian theorist Amitai Etzioni makes a similar argument, claiming that technological improvements in the flow of information may both enhance equality and contribute to the construction of stronger community.<sup>7</sup>

On the other hand, a number of scholars have come to more pessimistic conclusions, among them empirical researchers who bring a vital calibration to purely deductive analysis. Some of these researchers have argued that the politically decentralizing capacities of information technology, like those demonstrated in the story of the Libertarians and the FDIC, will be overcome by traditional organizational interests. Some suggest that traditional media firms will successfully colonize new technology,

<sup>5</sup> Benjamin R. Barber, *Strong Democracy* (Berkeley: University of California Press, 1984).

<sup>6</sup> Robert A. Dahl, *Democracy and Its Critics* (New Haven: Yale University Press, 1989).

<sup>7</sup> Amitai Etzioni, *The Spirit of Community: Rights, Responsibilities, and the Communitarian Agenda* (New York: Crown Publishers, 1993).

preserving patterns of power established in the era of broadcasting.<sup>8</sup> Similarly, traditional advocacy organizations and parties are moving to extend their dominance to the new realm of information technology. Their success might relegate events like the FDIC protest back to the political periphery. Several recent empirical studies have suggested that intensive use of information technology may diminish social capital, counteracting whatever gains in participatory equality might flow from it.<sup>9</sup> Some scholars are concerned that the information revolution might advance the speed of politics, thus undermining deliberation and consolidating the trend toward government-by-public-opinion-poll.<sup>10</sup>

Concerns about fragmentation and the loss of the common public sphere now comprise an important undercurrent of critique of information technology by many scholars, one to which we return in the following chapters of this book.<sup>11</sup> Among those concerned is Benjamin Barber, who eventually shifted away from his earlier enthusiasm, expressing the reservation that contemporary information technology may undermine the quality of political deliberation and the nature of social interaction.<sup>12</sup> The most authoritative theoretical claim so far in this vein comes from constitutional scholar Cass Sunstein. He interprets the information revolution in terms of the decline of the “general interest intermediary” and the failure of the public common(s), and the replacement of these by a political communication system that fosters fragmentation and polarization.<sup>13</sup>

These possibilities pose some of the central empirical questions that this book addresses: How is technology affecting society and politics? Was the Libertarian Party’s success in 1999 merely an outlier, the kind of counterexample one occasionally tolerates in social science theory? Or

<sup>8</sup> Richard Davis, *The Web of Politics* (London: Oxford University Press, 1998); Richard Davis and Diana Owen, *New Media in American Politics* (London: Oxford University Press, 1998).

<sup>9</sup> E.g., see Norman Nie and Lutz Ebring, “Internet and Society: A Preliminary Report,” Feb. 17, 2000, [http://www.stanford.edu/group/siqss/Press\\_Release/Preliminary\\_Report.pdf](http://www.stanford.edu/group/siqss/Press_Release/Preliminary_Report.pdf). For a different view, see “The Internet Life Report,” The Pew Internet and American Life Project, Pew Charitable Trusts, May 10, 2000, <http://www.pewinternet.org>.

<sup>10</sup> Jeffrey B. Abramson, F. Christopher Arterton, and Gary R. Orren, *The Electronic Commonwealth* (Cambridge, Mass.: Harvard University Press, 1988).

<sup>11</sup> For a useful summary grounded in political theory, see Anthony G. Wilhelm, *Democracy in the Digital Age: Challenges to Political Life in Cyberspace* (New York: Routledge, 2000).

<sup>12</sup> Benjamin R. Barber, “The New Telecommunications Technology: Endless Frontier or End of Democracy,” in Roger G. Noll and Monroe E. Price, eds., *A Communications Cornucopia* (Washington, D.C.: Brookings Institution, 1998), pp. 72–98.

<sup>13</sup> Cass Sunstein, *Republic.com* (Princeton, N.J.: Princeton University Press, 2001).

might the Know Your Customer protest represent a new phenomenon of lasting consequence for American democracy – collective action increasingly dissociated from traditional political resources and infrastructure?

In addition to the empirical matters, this book also seeks to address a set of deeper theoretical issues and social science questions. The premises behind these questions are that information technology is relevant to politics because information *itself* is relevant, and that the revolution in information technology that burst on the American landscape in the mid-1990s is fundamentally a revolution in information – in what it costs, how it flows, and the nature of its distribution. Within the concept of “information” may lie links that connect historical episodes of American development with contemporary politics and technology.

For the purposes of exploring theoretical issues in this book, I often depart from discussing technology and instead discuss information, which I define very broadly. There are several reasons for doing so, some pragmatic and some conceptual. First, because of the continuous change and integration of technologies, there is danger in constructing explanations of social and political phenomena framed around period-specific instantiations of technology. The set of technologies known throughout most of the 1990s as “the Internet” is steadily merging with other technologies, such as broadcast television and radio, recorded music, cellular telephony, and handheld electronic devices. As these technologies evolve, what is actually “the Internet” will become less clear and less important. The fundamental modes of communication that various technologies enable will become more crucial than the machinery involved.

A second reason for conceptualizing the revolution in information technology in terms of information itself concerns the interdependence of old and new forms of communication. During the 1990s, a good deal of the literature on the social and political impacts of technology implicitly or explicitly differentiated between the “on line” and “off line” worlds, comparing Internet-based politics with traditional politics or “virtual” communities with “real” ones.<sup>14</sup> Yet new information technologies continue to operate alongside and complement traditional media and older

<sup>14</sup> For examples of the terminology of “cyberpolitics,” “digital democracy,” and the like, see: Barry N. Hague and Brian D. Loader, eds., *Digital Democracy: Discourse and Decision Making in the Information Age* (London: Routledge, 1999); Cynthia J. Alexander and Leslie A. Pal, *Digital Democracy: Policy and Politics in the Modern World* (New York: Oxford University Press, 1998); Steven G. Jones, ed., *Cybersociety: Computer-Mediated Communication and Community* (Thousand Oaks, Calif.: Sage Publications, 1995); Graeme Browning, *Electronic Democracy: Using the Internet to Influence American Politics* (Wilton, Conn.: Pemberton Press, 1996); Kevin A. Hill and John E. Hughes,

modes of communication. Electoral campaigns use web sites and television commercials, e-mail and the postal service, wireless devices and fax machines. A campaign might use broadcast news coverage to steer citizens to a web site for making donations, which are then used to purchase campaign advertising on television. Often it makes more sense to speak of a single “world” with on-line and off-line features than attempting to maintain a distinction between an on-line world and an off-line world, categories that are largely artifacts of historical transition. The revolution in information technology means that democracy is growing increasingly information-rich and communication-intensive, not simply that democracy is now characterized by the use of one particular technology or another.

Just what constitutes “information” for the purposes of this analysis? Information has lovely literary and scientific histories that on rare occasions intersect.<sup>15</sup> It is beyond the scope of this book to trace those histories, but I hope it is sufficient to observe that in English literature and philosophy, the word “information” makes occasional appearances as far back as Chaucer’s *Canterbury Tales*, prior even to the printing of the Gutenberg Bible.<sup>16</sup> Shakespeare animated the word memorably in *Coriolanus*, when Menenius asks forgiveness for the bearer of bad news: “But reason with the fellow, before you punish him, where he heard this, lest you shall chance to whip your information and beat the messenger who bids beware of what is to be dreaded.”<sup>17</sup> Among philosophers, John Locke’s invocation of information in *An Essay Concerning Human Understanding* is striking because of its foreshadowing of Claude Shannon’s later creation of the modern scientific theory of information: “From whence commonly proceeds noise, and wrangling, without improvement or information.”<sup>18</sup> Differentiating information and noise in a

*Cyberpolitics: Citizen Activism in the Age of the Internet* (New York: Rowman and Littlefield, 1998).

<sup>15</sup> For a thorough analysis of the modern meaning of information from a humanistic perspective, see Albert Borgmann, *Holding on to Reality: The Nature of Information at the Turn of the Millennium* (Chicago: University of Chicago Press, 1999).

<sup>16</sup> Geoffrey Chaucer, “Tale of Melibeus,” in *The Canterbury Tales*, ed. Paul G. Ruggiers (Norman: University of Oklahoma Press, 1979), p. 933, line 1486.

<sup>17</sup> William Shakespeare, *Coriolanus*, ed. Lee Bliss (Cambridge, Eng.: Cambridge University Press, 2000), p. 234.

<sup>18</sup> John Locke, *An Essay Concerning Human Understanding*, Book 3, Ch. 10, Section 22. VI. Public domain version 1995 [1690], available at <http://www.ilt.columbia.edu/Projects/digitexts/locke/understanding/chapter0310.html>. In 1948, Claude Shannon published a mathematical model of the communication of information that remains the foundation of information theory in engineering. See C. E. Shannon,

mathematical way would indeed prove a centerpiece of twentieth-century digital theory, 250 years after Locke.

For the purposes of the present inquiry, I begin with a modern definition of information, based on the *Oxford English Dictionary*: “knowledge communicated concerning some particular fact, subject, or event.” Knowledge about facts, subjects, or events is inextricably bound to virtually every aspect of democracy. Such knowledge may concern the interests, concerns, preferences, or intentions of citizens as individuals or collectives. It may also concern the economic or social state of communities or society, or the actions and intentions of government officials and candidates for office. In what follows, political information constitutes any knowledge relevant to the working of democratic processes.

In his classic *The Nature and Origins of Mass Opinion*, John Zaller observes that the content of elite discourse, such as claims about the state of the world from party leaders and editorial positions of newspapers, contains information, but it is not “just information.”<sup>19</sup> Because political discourse is the product of values and selectivity as much as verifiably “objective” observations, it comprises a mix of information and other factors. For my purposes this definition too narrowly constrains the concept of information by associating it with “truth” and “objectivity.” I assume that when a political actor communicates a personal statement about the world containing a mix of facts and values, that actor is simply communicating a package of information, some of it dealing with “facts” and some of it with his or her values and predispositions. Some “facts” may even be wrong, but they can be communicated nonetheless and they constitute information.<sup>20</sup>

“A Mathematical Theory of Communication,” *Bell System Technical Journal* 27 (July 1948): 379–423, and (October 1948): 623–656.

<sup>19</sup> John Zaller, *The Nature and Origins of Mass Opinion* (Cambridge, Eng.: Cambridge University Press, 1991), p. 13.

<sup>20</sup> That a recipient of communication may have difficulty distinguishing the facts and values in a message or may be unable to verify truth claims does not change the fact that information in a broad sense has been transmitted, perhaps with a high level of uncertainty associated with it. How much “true” information recipients extract from a message is a function of their own sophistication and their knowledge of the person communicating. Imagine, for instance, a situation where a candidate for office broadcasts a factually false message that his opponent is a communist, or an opponent of civil rights, or an adulterer. If a voter, believing the message, abandons her support for the accused candidate and votes instead for the accuser, there can be no doubt that communication has occurred and that information – albeit containing a false claim – has been transmitted. Whether the information in a message is “true” or “objective,” and whether in this case the accuser sincerely believes his propaganda, is a separate question from the existence of information and communication.

“Information” need not stand in opposition to opinions, stories, rhetoric, or signals about value structures. Information might be a “fact” about the rate of inflation published by the Bureau of Economic Analysis just as well as a political official’s statement about the need to control inflation. A candidate’s promise on a web site or broadcast advertisement “to protect Social Security” conveys certain political information, just as a Congressional Budget Office report on Social Security fund solvency conveys other information of a different and perhaps more satisfyingly “objective” sort. Information is simply something that can be known or communicated.

To avoid epistemological and ontological concerns that fall outside the scope of this book, it is useful not to bind the definition of information too tightly to the human acts of perception and knowing. I assume that information can exist independently of its perception and understanding by any particular political actor. It is important, however, to observe the intimacy of the connection between “communication” and “information,” as implied in the Oxford definition. Throughout this book, I use “communication” to mean simply the transfer or exchange of information. Certainly, different forms of communication may convey different quantities of information in different ways, but I do not attempt to isolate the two concepts.

My definition of information therefore extends well beyond facts, and my definition of communication well beyond a quantitative transmission model. My conception of information is consistent with Inguun Hagen’s interpretation of the process of television news-watching by citizens, which may involve not only becoming informed in a narrow sense, but also diversion, habit or ritual, and fulfillment of a sense of duty or obligation.<sup>21</sup> Information defined this way permeates human activity, and in principle the complete range of human meaning can be conveyed by communication.

Defined this broadly, information becomes vital to democracy in myriad ways: in the processes by which citizen preferences are formed and aggregated, in the behaviors of citizens and elites, in formal procedures of representation, in acts of governmental decision making, in the administration of laws and regulations, and in the mechanisms of accountability that freshen democracy and sustain its legitimacy. None of these elements of the democratic process can operate apart from the exchange and flow

<sup>21</sup> Inguun Hagen, “Communicating to an Ideal Audience: News and the Notion of an ‘Informed Citizen,’” *Political Communication* 14, no. 4 (1997): 405–419.



of information among citizens and their associations and organizations, among citizens and government, and within government itself.

More to the point, the *structure* of information in America at the outset of the twenty-first century is very different from that at the outset of the twentieth century, just as its structure then differed from that in the age of Jefferson. Not only the volume of political information available in society, but also its distribution and cost, have varied from one age to another. This important observation introduces the central theoretical problems that this book addresses. How do historically changing properties of political information affect the evolution of democracy? What patterns might exist in the evolving nature of information and its relationship to politics? To what extent can the character of democracy be traced to causes rooted in the informational characteristics of a particular age? To pose these questions is to situate modern technology and applied questions about the contemporary information revolution in the larger sweep of American political development.

#### OVERVIEW OF THE THEORY

Surprisingly, information and political development have been understood far better in isolation than in relation to one another. Scholars of democratic politics typically do not explore the possibilities of information serving as a motive force or an independent variable. For most researchers who attempt to find cause-effect relationships for political outcomes, information at best constitutes context rather than a cause, a factor that remains on the sidelines. As a result, ideas about information and democracy typically achieve no better than a skeletal existence, as in Francis Bacon's aphorism in *The Great Instauration* about knowledge and power being synonymous. His famous observation provides little insight into the real relationship between knowledge and power, and in any case was intended as a reflection not on politics but on science and human agency in the natural world.

How can the relationship between information and political change be approached theoretically? My perspective is based on the observation that many features of social and economic structure were derived from the characteristics of information during the period in which they arose. Throughout most of the twentieth century, for example, the information necessary for economic transactions, education, social interaction, and many other facets of modernity had certain properties. It was hierarchically organized, costly to obtain and difficult to manage,

and in most settings asymmetrically distributed. French social theorist Pierre Levy refers to these properties as a “communications ecology,” the basic features of information and communication to which human institutions and organizations are adapted.<sup>22</sup> Vertically integrated firms, retail stores, administrative organizations, and even universities are in part adaptations to a communications ecology in which information is costly and asymmetric.

From this perspective, the contemporary information revolution involves deep changes in the communications ecology, with potential consequences for institutions and processes whose structures are in substantial ways adapted to older communications arrangements. This revolution is not simply an increase in the volume of information, or what philosopher Albert Borgmann calls “the roar of information.”<sup>23</sup> It is also qualitative, as information of all kinds becomes cheaper, its structure ever more complex and nonlinear, and its distribution far more symmetric than at any time in the past.

In principle, such developments could have structural consequences that are far-reaching. Indeed, it is already apparent that economic structure is sensitive to such changes, as economic transactions are transformed on a large scale, new methods of retailing visibly overtake the commercial world, and old business relationships and structures give way to new, information-intensive arrangements. Perhaps less abruptly but no less profoundly, other institutions sensitive to features of information and communication may change as well. Education may be altered for better or worse (or both) as printed matter grows less central to the transmission of knowledge, meaningful engagement with others at a distance becomes more readily possible, and the kinds of skills relevant to economic and personal well-being change. The fabrics of social association, cultures, even private lives may be rewoven, insofar as these depend upon the nature and accessibility of information. And so it may be for democracy, to the extent that its structures represent adaptations to particular informational circumstances.

I argue that this perspective can illuminate contemporary political developments as well as some critical moments of historical change in the United States. Reexamining founding-era debates, the early history of parties, and the industrial revolution in the United States suggests that an informational perspective can shed new light on important junctions

<sup>22</sup> Pierre Levy, *Collective Intelligence: Mankind's Emerging World in Cyberspace* (Cambridge, Mass.: Perseus, 1997).

<sup>23</sup> Borgman, *Holding on to Reality*, p. 3.

in American political development. A remarkable and widely overlooked element of the Federalist–Anti-Federalist debate involves informational complexity and institutional arrangements. Considering this debate sets the stage for evaluating the properties of information and their influence on U.S. political development from the founding era on. In the transition from an elitist political system with highly circumscribed citizen engagement in the early nineteenth century to a majoritarian democracy where power was wielded through large coalitions based on broad citizen involvement among white men, I suggest, is evidence of the first major reconstitution of political information. Another is associated with the evolution of the modern, group-based, pluralistic political system.

Transitions are revealing because they expose important underlying causal mechanisms that may be obscured in times of stasis. History will undoubtedly record the late twentieth and early twenty-first centuries as a period of marked transition fueled by new communication and information capacities. One theme of this book is how the revolution in information technology provides an opportunity to explore contemporary *and* historical connections between information and features of democracy. We have the Internet to thank for directing our attention to an old and fundamental phenomenon, one as old as Madisonian ideas about the extended republic and the advantages of a federal nation over a confederation of small states.

This perspective is broadly akin to scholarship in economics dealing with information and organizational structure, although I do not employ the formal assumptions of the economics of organization or the tenets of rationalism. Rather, it is sufficient to assume simply that organizations and institutions matter, that they tend to respond over time to changes in opportunities and constraints, and that opportunities and constraints are powerfully shaped by the nature of information and communication. Commentators on American politics frequently identify democratic failings in the world of political communication – in the ways that mass media present news, in the ways that candidates and government officials communicate with the public, in the privileged treatment accorded the messages of certain groups, in citizens’ habits of political learning and attention to public affairs. Critiques of the state of political communication tacitly accept a fundamental assumption that the evolution of systems of communication exerts forces on the evolution of democracy. This book explores that assumption.

The theoretical relationship between information and political transition that I seek to describe has been overlooked by most scholars who

attempt to explain political development from an empirical perspective. Up to a point, scholars have been safe in paying little attention to matters of information. The status of who possessed or managed political information and who did not, as well as the accessibility of information generally, have changed slowly during many eras of American political development, with the exception of four periods that I refer to as “information revolutions.”<sup>24</sup>

One finds only hints about a possible connection between information and political change in the work of scholars dealing with various episodes of American politics. It is customary in histories of the interest group system, for instance, to observe the importance of communication technologies in facilitating what groups do.<sup>25</sup> Consequently, telephone banks, fax machines, and the ability to manage mailing lists electronically are mentioned in the story of modern pluralism but given little importance, as in David Truman’s classic *The Governmental Process*. In a tantalizing but largely overlooked passage, the father of modern empirical research on pluralism writes that “the revolution in the means of communication” is a precondition of the development of the interest group system.<sup>26</sup> To say that one factor is a “precondition” for another is to use a strong term. It invokes a linkage that is necessary but not necessarily sufficient – half of a causal claim, so to speak.

Truman goes so far as to remark that “the revolution in communications has indeed largely rendered obsolete . . . Madison’s confidence in the dispersion of the population as an obstacle to the formation of interest groups.”<sup>27</sup> This is a subtly provocative suggestion about the role

<sup>24</sup> Communication researcher Irving Fang also employs the term “information revolution,” but applies the concept to the entire history of communication in the West. He identifies six information revolutions: the Writing Revolution, beginning in the eighth century B.C.; the Printing Revolution, beginning in the fifteenth century; the Mass Media Revolution, beginning in middle of the nineteenth century and encompassing mass newspapers, the telegraph, and photography; the Entertainment Revolution, beginning in the late nineteenth and early twentieth century and including recorded sound and images; the Communication Toolshed Revolution, beginning in the mid-twentieth century and encompassing the home as the locus of entertainment communication; and the contemporary Information Highway Revolution. See Irving Fang, *A History of Mass Communication: Six Information Revolutions* (Boston: Focal Press, 1997).

<sup>25</sup> Allan J. Cigler and Burdett A. Loomis, eds., *Interest Group Politics*, 5th ed. (Washington, D.C.: CQ Press, 1998); Mark Petracca, *The Politics of Interests* (Boulder: Westview, 1992); Jeffrey M. Berry, *The Interest Group Society* (Boston: Little, Brown, 1984).

<sup>26</sup> David Truman, *The Governmental Process: Political Interest and Public Opinion* (New York: Alfred E. Knopf, 1965), p. 55.

<sup>27</sup> *Ibid.*