The information revolution under way at beginning of 21st Century is creating societies that are far more information-rich and communication-intensive. Already it has become apparent that this revolution has substantial consequences for economic transactions and the structure of markets. It is also increasingly apparent that the implications of the information revolution extend well beyond economics. A great many features of social and political structure constitute adaptations to an older "communications ecology," in which information was costly and very asymmetric in distribution, and in which access to large-scale communication was highly resource-dependent. Not only the vertically integrated firm and the retail store, but the university, the administrative bureaucracy, the political party, the interest group, and even the civic association are in varying degrees organizational adaptations to informational and communicational circumstances that are now changing. For this reason, we should anticipate many such institutions to evolve as they adapt to new circumstances.

Civic engagement may be among the social and political phenomena subject to change under the influence of the information revolution. One way to inquire about that possibility is to evaluate the extent to which important features of civic engagement appear sensitive to changes in the cost or distribution of information and communication. Civic engagement has many features that might conceivably be responsive to changes in the properties of information and communication: its overall levels or extent, its structure, its normative qualities or properties, and the subjects or issues that motivate it. In this discussion paper, I focus on the first two of these features—the level and the structure of engagement. I also focus on voting and explicitly political collective action, in the context of the US. Specifically, I discuss the following question: How do changes in the distribution and cost of information affect the level and structure of political engagement in the US?

As an approach to this question, I offer the following observation. Contemporary developments in information and communication constitute the third American
information revolution. The first occurred in the period 1830-1845, and the second in the period 1880-1920. These prior revolutions reveal patterns that help illuminate general relationships between information and the level and structure of civic engagement. They help establish a framework for evaluating contemporary developments in civic engagement and communication, suggesting that a causal nexus exists between: a) exogenous changes the cost and structure of information, b) the structure of opportunities for organizing political action, and c) broad features of political engagement. In the brief discussion that follows, I sketch an outline of the prior information revolutions, and then suggest three main hypotheses about the influence of the present information revolution on political engagement in the US.

The First US Information Revolution

In the first four decades after the founding of the American republic, coordinated, national-scale communication of political information was virtually impossible in the US, creating what James Sterling Young called a "quarantine" of government from the people, and the people from one another. The absence of information-flow restricted the possibilities for a national public sphere or coordinated political engagement oriented much beyond local communities. Not until the 1830s and 40s did the exchange or flow of political information on a national scale become possible, through the creation of the nation's "first information infrastructure."

This infrastructure rested upon two foundations: the creation of a national news media system, and the development of the world’s most extensive postal service, the two of which were linked. Between around 1800 and 1840, most of the material carried by the postal service was newspapers rather than letters. This system had revolutionary consequences, making possible what had been impossible before: the development of coherent national political identities, the emergence of a national public will, and coordinated, national-scale political engagement through voting and on occasion policy advocacy. Most importantly, this new information infrastructure created opportunities and demands for political intermediation that had not existed before. It made centralized political communication possible for organizations with adequate resources and scope. Those new opportunities were seized by political parties, who rose to dominance in the 30s and 40s in tight association with the new information infrastructure. Whereas an abortive party system prior to the 30s had failed in part because of obstacles to communication, after the 30s and 40s parties would dominate the flow of political information. The result of this nexus between informational arrangements and parties was the characteristic majoritarianism of 19th Century political engagement in the US. Centralized political intermediaries dominated a communicational environment in which information was costly, simple in structure, oriented around large-scale coalitions rooted in physical place, and directed toward a comparatively spare political agenda focused on electoral contests involving a few major issues.

The Second US Information Revolution
With the coming of industrialization and the rise of the modern American state toward the end of the 19th Century, the informational landscape changed for a second time, again with substantial connections to the structure of political engagement. This second information revolution involved dramatic increases in the volume of information attendant to national civic life, between the 1880s and the 1920s. In the first place, the dislocations of industrialization fed a massive project of association formation and group development in civil society—what one author terms a national "mania" for association formation. As Emile Durkheim argued in *Division of Labor in Society*, the impetus to this reconstitution of civic life was in part communication failures: the inadequacy of old modes of communication and interaction in a restructured society. The new modes of private association were mirrored in political and public life, as the policy agenda grew substantially larger and more complex, and as government itself expanded and became more elaborate and more highly articulated.

Together, these developments constitute a vast multiplication in the number of organized private and public political actors, and in the number of subjects about which political information was developed and exchanged. The result was a form of information revolution rooted not in technological change, *per se*, but in complexity. More sources and destinations for information that dealt with more subjects meant that the costs, requirements, and possibilities for managing political information and communication changed almost as dramatically between 1880 and 1920 as they had a half-century earlier, when the first information infrastructure was built. As Samuel Hays writes, the developments of this period "increased manyfold the factors one had to take into account if he wished to influence the course of events," and it demanded "new perceptions of the scope and complexity of the political arena and new devices for gathering information."

This second information revolution made political information complex and particularized, where it had been centralized and simple in structure. Demands by government entities and private actors for increasingly detailed and specific information advantaged a different kind of political intermediary: the information specialist, the organization that could commit resources to increasingly particularized flows of information in an ever more highly articulated political system. As communicational and informational generalists, parties were increasingly disadvantaged by these new informational circumstances, and by the 1900s and 1910s, private civic associations and groups were gaining a solid footing in world of political organizing and communication. These groups, themselves rooted in private communication functions were far better situated than parties to deal in the new public communication tasks. This shift in the nature of information and communication laid an important part of the foundation for the pluralistic structure and fragmentation that would characterize political engagement throughout the 20th Century.

One lesson of the first information revolution had been that centralized political communicators could dominate a communication environment where information was costly but simply structured. A new lesson was apparent by the 1920s, long before the maturation of interest-group pluralism later in the century: highly specific, detailed flows of costly information advantage information specialists. As R. Douglas Arnold and also
Susanne Lohmann have argued, the result has been a bias in the political system toward the *best informed*. That is, narrowly organized interests have dominated the American political scene not simply because they have more money, or better organizational resources than do parties or other political forms, but in part because they are better able to wield information for and about the political system under circumstances where information is complex and costly.

Another lesson of these revolutions is that overall *levels* of political engagement are not particularly sensitive to changes in the cost or structure of political information. Subsequent to the initial mass enfranchisement of citizens in the US—which was coincident with the first information revolution but which had many causes—no historical changes in the cost or structure of information have exerted significant effects on levels of political engagement, and certainly not in a positive direction. As Michael Schudson has argued, what relationship exists between the availability of information and civic engagement may well be negative.

The general inference to be drawn from these developments is that historically substantial changes in the cost or structure of political information create opportunities for new forms of political intermediation and the organization of civic engagement, even while having little direct effect on overall levels of engagement. These new opportunities advantage some forms of political organization over others, with potentially substantial long-term effects on the structure of political engagement.

*The Third Information Revolution*

The contemporary information revolution is once again altering the properties of political information, in two specific ways. It is dramatically decreasing the cost of information and communication, permitting political actors with few resources to undertake acts of information-management and communication previously the exclusive domain of resource-rich organizations and individuals. It is also adding to the complexity, differentiation, and non-linear structure of information and communication. This revolution is therefore extending one trend from the industrial era while reversing another, adding to the complexity of information while decreasing its cost.

These developments suggest several general hypotheses about how contemporary developments in information technology may affect political engagement, and this paper concludes with a summary of them. First, *the contemporary information revolution will not lead to higher levels of political engagement in the US*. There is little evidence for the existence of a positive relationship between the cost or structure of information and aggregate levels of engagement. While the institution of Internet-voting might contribute somewhat to voter turnout, other features of the information revolution will likely do little to enhance levels of political engagement.

Second, *the contemporary information revolution will contribute toward greater fragmentation and pluralism in the structure of political engagement*. Just as happened in the second information revolution, increased informational complexity and differentiation
will likely continue to favor specialized, particularized modes of organizing and intermediation. The result will be an accelerated and increasingly fragmented form of pluralism.

And third, the information revolution will weaken the relationship between possession of traditional political resources and the capacity to organize political action. That means more ad hoc, rapidly cycling forms collective action, increasingly important "flash" campaigns for public policy, and more independent or third-party campaigns for office. Organization-less mobilizers will increasingly compete effectively with traditional political organizations. One important result will be increasing dissociation between structure of civic engagement and the distribution of traditional resources and infrastructure throughout society—the substitution of information infrastructure for civic infrastructure.