

Open Research Questions on Information and Technology in Global and Domestic Politics – Beyond “E-” -”¹

Micah Altman, Harvard U., <Micah_Altman@harvard.edu>

Ken Rogerson, Duke U.

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Abstract: In order to identify the open research questions related to information technology and politics, the ITP section convened its first ever working group. This working group drew on the hundreds of presentations at the annual meeting relating technology and politics as well as on previous surveys of information technology research questions (such as Altman & Klass 2005 and Berman and Brady 2005), in order to identify important open research questions in this rapidly evolving area. Together these questions illuminate a research agenda that explores the interaction of information technology with the core political science concerns of power, political deliberation, authority, legitimacy, security, democracy, and justice.

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Accelerating technological change is one of the defining characteristics of this era. And the intersection of information, technology, and politics is a constantly changing arena. Technological change can provide the subject of political debate such as in the controversy over electronic voting (see Tokaji 2005); affect the means by which politics is conducted, such as in the use of information technologies to provide government services and collect regulatory feedback (see Fountain 2001; West 2005; and Mayer-Schonberger and Lazer 2007); or challenge our understanding of political theories and concepts, such as the meaning of privacy and of the public sphere (see, respectively, Etzioni 2000 and Sunstein 2007, on the meaning of privacy and the compartmentalization of 'public' speech, Bimber 2003 on the effect of information technologies on democracy, and Benkler 2006 on the reinterpretation of the public sphere). Each of these perspectives are visible locally, regionally, nationally and globally.

How does such change affect political institutions and political society? Krasberg's first law provides one answer²: "Technology is neither good nor bad; nor is it neutral" (Krasberg 1986, 545) Yet, beyond these, political science provides few answers. Our goal in this article is to make some initial steps towards answering this large question by generating many smaller questions – questions that are important, tractable, and whose answers should be expected to lead to a cumulation of knowledge in this area.

Part of the process of generating these questions involved initiating an APSA annual meeting working group. The American Political Science Association has recently initiated the practice of sponsoring working groups, which are essentially intensive seminars, centered around a common theme, that draw on the content of the annual meeting. There were 17 working groups formed for the 2007 APSA meeting, with a median registration of 16, and comprising over 325 registered participants. These groups spanned topics such as the war experiments, interpretivism, civic education, indigenous politics, and the war in Iraq.

² Ecclesiastes 1:9 suggests yet another. (be more specific here, what does this scripture suggest?)

This year the Information Technology and Politics Section initiated its first working group on *Information and Technology in Global and Domestic Politics*. This working group drew on the hundreds of presentations at the annual meeting relating technology and politics as well as on previous surveys of information technology research questions (such as Altman & Klass (2005) and Berman and Brady (2005)), in order to identify important open research questions in this rapidly evolving area.

As coordinators, we identified a theme, created a proposal, identified a list of relevant panels and short courses, prepared a draft set of research questions, and facilitated discussion on the topic but did not lecture on it. Participants organized themselves at the outset of the annual meeting, augmenting the proposed list of panels, convened during the meeting to discuss the theme, panels and their own work, and met at the end of the meeting to synthesize what we had discussed.

By bringing together participants from diverse institutions, establishing a seminar that was small and engaged, and offering opportunities to discuss the same themes regularly throughout the conference, the working group was able to stimulate an unusually broad perspective on information, technology, and politics. In varying degrees and from different perspectives, the working group identified a spectrum of research questions. We grouped these questions into four broad categories.

First there are pressing questions in every area of policymaking. These are perhaps the most familiar type of question since they frequently appear in the media. Although too numerous to enumerate, examples of these include: Will electronic voting create more fair and reliable outcomes? Can non-democratic countries effectively censor information on the web? Do electronic campaigning and fund-raising change provide ways to engage new groups of voters? Are blogs replacing other news organizations as a primary source of citizen information? Does electronic delivery of government services solve inequities or create new ones? Does technology help or hinder the policymaking process?

Second, even preliminary attempts to answer these policy questions expose the wide range of open questions regarding fundamental empirical regularities that can predict the effect of technology on politics, such as: How has information technology changed the ability of political actors to influence politics? Do new forms of communication electronic blogs, commenting systems, and reputation systems contribute to information polarization? How have voter-database technologies affected privacy, openness, and trust in elections and electoral institutions? How can the Internet and other information and communication technologies be used to broaden and deepen citizen engagement? How does the increasing depth and breadth of information available about citizens affect privacy, trust, and openness? Does the increased targeting of information delivery, campaigning, and political organization lead to a more polarized, less deliberative citizenry? What kinds of organizations, communities, and groups are most likely to be created, supported, and enabled by information and technology? What kinds of problems do information and technology create for organizations?

Moreover, political change due to technology can be predicted (see for example Standage 1999, Bimber, 2003), sometimes incremental, and sometimes dramatic. What conditions determine the rate of change? How has information technology affected international security and sovereignty? How and under what conditions has civil society used technology for political change?

Third, to answer these questions scientifically will require new tools for drawing complete and reliable inferences from the emerging flood of data about politics and political behavior that is being made available through information technology. This explosion of new data sources promises to yield detailed individual behavior in space and time and in interaction with other people. Some examples include social network data, e-mail messages, blog postings, cell phone records, audio and video logs, commercial transactions, records of all sorts of

commercial, political and educational behavior recorded on-line, and even complete and continuous records of individual activities in space and time.

These new forms of data raise both general and specific questions: How can we effectively extract political expression from blog postings, web sites, video and audio? How do we effectively collect, preserve, and disseminate these new forms of data? What statistical methods and models are most appropriate for making inferences from data on huge social networks that varying in time and in space? How can information technologies be designed to make it possible for the social sciences to collect new kinds of data in a broad range of political, environmental, and social settings? And, how does technology change the way we interpret the data that we collect?

And at the same time that new methods and data are emerging, more established methods of data collection in social science seem to be becoming decreasingly effective. Indeed, some of the empirical pillars of political science, such as face-to-face and telephone surveys are accelerating toward the point of crisis. (See Steeh 1981; Smith 1995; Atrostic, *et al.* 2001; de Leeuw and de Heer 2002; Curtin 2005) Collectively, these new forms of data mark a coming shift in the empirical basis for social science research. There is a growing realization that innovations in information technology and the concomitant development of the technical and intellectual infrastructure to make use of it have the potential to revolutionize the social sciences (Berman & Brady 2005; Lightfoot 2007). And we need to solve these methodological problems in order to reach this potential.

Fourth, technological change and new forms of information offer unanticipated implications for political theory, and could even change our understanding of political concepts. Core political concepts such as power, security, deliberation, political communication, legitimacy, authority, governance, security, elites & leadership, democracy, justice, public vs. private spaces, policymaking, fairness, social networks – all of these are being altered by technological and informational changes: How do people in different cultures and times conceive of

these concepts in relation to their actions in and through technology? How can the Internet and other information and communication technologies be used to broaden and deepen citizen engagement and enhance democratic deliberation? Does technological change differentially impact the capacities of different groups or institutions to act politically – for example through political communication, organization, governing, deliberation and the exercise of power? Where and when is the use of standards and technology a way of centralizing control, management, or policing of political information and action, and under what conditions does it lead to more distribution of communication, monitoring, control and participation? How does technology make cultures or subgroups more visible or legible? How does the increasing ubiquity of communication change peoples' understanding of private, collective, and political spaces for communication and actions?

Many of these questions do not fall neatly into the existing “e-“ categories, such as “e-government,” “e-democracy,” and “e-society”. And these categories do not seem to easily lend themselves to useful theoretical frames or methodological approaches to these questions. Informational and technological infrastructure underlie much of society and politics, yet its role remains under-conceptualized.

This is a fundamental challenge of studying infrastructure: Successful infrastructure is difficult to perceive – it exists without needing much attention – it is just 'there', and expected to be so. Thus there is an irony: the nature of infrastructure tempts us to ignore and to focus on the central theoretical, empirical, or policy problems, forgetting about technology altogether, yet infrastructure can very much affect how these problems are resolved. In conducting research we should remember that technology is not a separate category of political study, but a pervasive influence on politics.

Together these questions illuminate a research agenda that explores the interaction of information technology with the core political science concerns of power, political deliberation, authority, legitimacy, security, democracy, and

justice. We are certain that many important questions remain to be addressed or discovered. These comprise an ambitious research agenda for policy, empirical analysis, methodology, and political theory.

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