

The National Center for Digital Government

Integrating Information and Institutions

Jane E. Fountain

National Center for Digital Government
Kennedy School of Government,
Harvard University
79 JFK St.
Cambridge, MA 02138
617-495-2823
jane_fountain@harvard.edu

David Lazer

National Center for Digital Government
Kennedy School of Government,
Harvard University
79 JFK St.
Cambridge, MA 02138
617-495-2823
david_lazer@harvard.edu

ABSTRACT

The mission of the *National Center for Digital Government: Integrating Information and Institutions* is threefold: to build global research capacity, to advance practice, and to strengthen the network of researchers and practitioners engaged in building and using technology for governance. We seek to apply and extend the social sciences in research at the intersection of governance, institutions and information technologies. The National Center is host to, or a collaborator for, several research studies undertaken by the principals, research fellows and affiliates.

General Terms

Management, Measurement, Documentation, Performance, Design, Economics, Reliability, Experimentation, Security, Human Factors, Standardization, Theory, Legal Aspects, Verification.

Keywords

Institutional analysis, social network analysis, complexity, political analysis, organizational analysis, knowledge management.

1. INTRODUCTION

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Network building tools and programs include: residential, stipended pre-doctoral fellowships awarded through a competition conducted by the National Center; other fellowships, including post-doctoral and visiting faculty positions; research affiliates from several countries and collaborative research partnerships.

During the 2004-2005 academic year, NCDG field-building activities, in addition to research, have included:

- A workshop on time-critical information services, in partnership with Dr. Thomas Horan of Claremont Graduate University, School of Information Sciences
- A planning session held at the Organization of American States toward a digital government research workshop for the Americas, in collaboration with Professor Jose Fortes of the University of Florida
- A session on digital government hosting a delegation of more than 35 senior civil servants from 11 of 13 Dutch ministries
- Launching of the *Trans-Atlantic Initiative on Complex Organizational Networks*. Initial events include videoconferencing at the Swiss Consulate to link research seminar audiences in Cambridge, Massachusetts and at the Swiss Federal Institute of Technology in Zurich, Switzerland; and videoconferencing to link seminar audiences at Harvard and the University of Amsterdam.
- Pre-doctoral stipended fellows from the State University of New York at Albany; the University of California at San Diego; the University of Toronto; and Boston College
- Visiting research fellows from the U.S., Switzerland, Germany, Austria, Sri Lanka and Japan in residence
- More than 30 affiliates from the U.S., Switzerland, Denmark, France, Canada, Brazil, and Sri Lanka
- Active research seminar series with selected video streaming, videoconferencing, online papers, and links to research centers and projects
- Collaboration on several research projects involving other universities, research centers and governments

To the extent possible, papers, videos and other materials are available to the public on the National Center website. The principals have developed collaborative proposals with

researchers at several institutions as part of the Center's efforts to bridge information and social sciences. Collaborative projects include use of ICTs by members of the U.S. Congress, comparative studies of cross-agency development.

2. RESEARCH

Two major research studies are funded as part of the National Center grant. Fountain is examining the structural, behavioral and political antecedents of sustainable cross-agency relationships and their implications for state structure and the policymaking process. Lazer is engaged in research on the development of online deliberation in communities of practice.

Fountain is the principal investigator for a study of 25 IT-enabled, cross-agency federal government initiatives. The research design extends and refines the technology enactment framework developed by the PI. The research questions include the following: What are the structural, behavioral and political correlates of sustainable cross-agency initiatives? What are the implications of ICT-based cross-agency capacity for state structure and the policymaking process? The empirical focus is 25 cross-agency, e-government projects included in the Presidential Management Initiative, initiated at the outset of the Bush Administration. The research strategy leverages multiple methods including a survey questionnaire, face-to-face elite interviews, participant observation and thorough examination and analysis of primary and secondary documents. An extension of the study involves a matched set of 25 cases in the Government of Canada.

Among the findings to date: First, project participants strongly agree, based on survey results, that they are engaged in important, long-term structural and policymaking changes in the federal government. The majority is strongly committed to their projects and to building networked structures and processes. This was a surprising finding given the stereotype that bureaucrats resist organizational change. Project participants support the "lead agency" approach that has been by OMB to streamline decision making. The commitment to these projects and longer term structural change suggest an important shift in policymaking and public management practice. Second, project participants did not receive requested appropriations from Congress and have had to develop funding systems that are ad hoc in nature and constituted through complicated memoranda of understanding exchanged among agencies. Similarly, governance structures that are not yet institutionalized and exist through agreement by the principals have been developed by each successful project. These findings suggest the provisional nature of the projects and may suggest a weakness in the set of institutional changes mandated as part of the E-Government Act of 2002. Third, the findings to date suggest the time, measured in years, required to negotiate, plan, design and carry out cross-agency projects that involve standardization and integration of complex data and business processes. As a consequence, long-term research investments are appropriate in order to examine organizational and institutional change related to the use of ICTs.

Lazer is coordinating the *dnapolicy.net* initiative. The *dnapolicy.net* initiative involves examination of the processes of knowledge sharing among members of the distributed community of government officials involved in the use of DNA in the criminal justice system, with a focus on the impact of the Internet. This study involves two stages: (1) in depth interviews with

officials from most state DNA labs. The key questions being examined are (a) when an official has a question that they need answered, what determines the sequence of their search for answers; and (b) why does anyone answer questions, given that answering questions is often costly, and potentially undermines competitive advantages. Preliminary findings indicate a wide variety of informational search and answering strategies, with important roles for personality, reputation, embeddedness, and community norms.

The second component of the research involves building a virtual space for knowledge sharing among members of this community. The website is built to enable the development of peer-to-peer communication. It also functions as a data collection tool, tracking the use of the website by particular individuals. These usage data will be, in turn, linked back to data about the practices of particular government agencies, as well as to longitudinal social network data collected from participants. These data will enable a rigorous tracing of how the website affected which actors in the system. Does the website, for example, particularly help more peripheral actors with fewer resources? Does the website enable the development of communication between geographically distant actors who otherwise may face similar challenges (and might thus usefully share information)? What predicts the willingness to share, and the openness to receive information? The initial website has been launched, with additional websites aimed at different subcommunities concerned with DNA use in the criminal justice system to be launched in the following months.

The National Center for Digital Government has gained attention from researchers and practitioners from throughout the globe. It continues to draw social scientists to the emerging field of technology and governance through research and community-building activities.

The website for the National Center is www.ncdg.org.