

**THE NATIONAL CENTER FOR DIGITAL GOVERNMENT
INTEGRATING INFORMATION AND INSTITUTIONS
WWW.NCDG.ORG**

**Jane E. Fountain, Principal Investigator; David Lazer, Co-Principal Investigator
Robin McKinnon, Executive Director; Ines Mergel, Project Coordinator**

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 and do this through two major research projects of the principals and through a variety of research studies and activities developed in collaboration with other scholars or supported in other ways by the Center.

Network building is accomplished in several ways, through residential pre-doctoral fellowships, research affiliates from several countries and collaborative research. During the past year, NCDG field-building activities have included:

- Pre-doctoral fellows from University of Illinois, Urbana-Champaign; Princeton; and the Fletcher School of Law and Diplomacy awarded NSF stipends (fields include electrical engineering, law, American politics, and international relations)
- Visiting and other research fellows from the U.S., Switzerland, Germany, Austria, and Chile in residence¹
- More than 30 affiliates from the U.S., Switzerland, Denmark, France, Canada, Brazil, and Sri Lanka
- Active seminar series with selected video streaming, online papers, and links to research centers and projects
- Collaboration for NSF national workshops on social science research, e-rulemaking and authentication (reports and other supporting materials from these workshops are on the Center website at www.ncdg.org)
- Catalyst and 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

¹ A key part of the NCDG mission is to bring together, as well as to help train the next generation of, social scientists, information scientists, and computer scientists on the governance challenges of the 21st century. National Center fellows during the first two years of the project include: Warigia Bowman, Doctoral fellow, KSG; Amanda Coe, Research Fellow, Fulbright Scholar, Canada; Kenneth Neil Cukier, Fellow, Asia Wall St. Journal; Rahul K. Dhanda, Research Fellow, Interleukin Genetics; Kevin M. Esterling, Post-doctoral Fellow, Brown University; Matthew Hindman, Doctoral fellow, Princeton University; Marc Holitscher, Dept. of International Relations, Univ. of Zurich, Switzerland; Robin McKinnon, Research Fellow, KSG; Ines Mergel, Doctoral Fellow, University of St. Gallen, Switzerland; V. K. Samaranayake, Faculty Fellow, University of Colombo, Sri Lanka; Maria Christina Binz-Scharf, Post-doctoral Fellow, KSG; Kuno Schedler, Faculty Fellow, University of St. Gallen; Michelle N. Meyer, Research Fellow, Harvard Law School; Birgit Rabl, Doctoral Fellow, University of Salzburg, Austria; Audrey Selian, Doctoral Fellow, Tufts University; and Rajiv C. Shah, Doctoral Fellow, University of Illinois at Urbana-Champaign.

projects include research on broadband and local government, use of ICTs by members of the U.S. Congress, the development and use of web portals for aboriginal tribes, and computational politics.

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 directs a study of IT-enabled, cross-agency federal government initiatives built on the technology enactment framework developed by the PI. The research questions are: What are the structural, behavioral and political antecedents 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 surprising because the level of engagement and commitment was unknown. Strong resistance to the "lead agency" approach that has been used in the PMI is not reflected in our data. 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 using complicated memoranda of understanding among agencies. This finding indicates a weakness in the 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 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 the creation of a series of virtual spaces for knowledge sharing for members of the community of government officials involved in the use of DNA in the criminal justice system. The critical research question is whether and how the web might enable knowledge sharing within a "community of practice." Initial fieldwork reveals great informational needs, in particular in the state and local agencies involved in data sharing. The federal agencies involved act as an informational hub of sorts; however, it is clear that the core-periphery structure is unable to handle the informational needs of the periphery. The development of a more decentralized information-sharing system is hindered by the geographic dispersion of the government actors involved. This system should therefore be a good candidate for some type of web-enabled information sharing system.

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 will be launched in May, with additional websites aimed at different subcommunities concerned with DNA use in the criminal justice system launched in the following months.

The National Center for Digital Government serves as a central research node, a catalyst for collaborative research, and source of fellowships for emerging researchers.