Project Summary

The goal of this four-year effort was to create a framework for a sustainable global community of practice among digital government researchers and research sponsors. Funded by the US National Science Foundation Digital Government Research Program, the project included an international reconnaissance study describing the current status of digital government research, an annual research institute, and a framework for several international working groups.

Scope of Work

An Emerging Global Research Domain

Over the past decade, growing evidence demonstrates the emergence of a global field of inquiry at the intersection of government, society, and information and communication technologies. This domain is often characterized by "e-government," "e-governance," "information society," and other related terms. We use the term "digital government" to encompass this collection of research ideas. In the United States (US), the National Science Foundation's (NSF) Digital Government (DG) Research Program has provided leadership and support for this relatively new domain of research. In Europe, the European Commission, as part of its Information Society Technologies (IST) program, sponsors an ambitious e-government research program. At the same time, the research councils of individual European states support comparable research programs within their borders. Similar efforts are established or emerging in Canada, Australia, India, the Pacific Rim, Latin America, and Africa. International organizations such as the United Nations and World Bank support e-government development and are also becoming interested in associated research.

Because of the relative newness of the DG field, there is insufficient interaction among researchers in different countries compared to what one finds in more established scientific disciplines. Most funded research around the world addresses DG challenges within the context of a single country. Only a handful of investigations have tackled problems that are international in scope. A few others have rested on comparative research designs that with the explicit goal of comparison across national, cultural, institutional, and language boundaries. Such international DG research efforts are still quite limited for several reasons. This is a relatively new domain of inquiry, it involves multiple disciplines (a challenge within a single country, let alone internationally) and there are very few support mechanisms and forums to engage DG researchers with their peers working in this domain around the globe. Furthermore, once a potential collaboration starts that could lead to joint research efforts, it is logistically and financially difficult to sustain it to the point of joint research proposals and reliably funded projects. Consequently, comparative and transnational issues in DG, which are of growing importance in an increasingly networked world, are not receiving the attention they deserve.

An International Digital Government Research Community of Practice

Trends in digital government research and the limited international experiences gained so far suggest at least three ways to internationalize investigations and bring the benefits (and the challenges) of multi-cultural perspectives to this important worldwide field of research:

- Create opportunities for scholars interested in particular domains of study to encounter the work of international colleagues and to engage in discussions that can lead to shared research agendas and joint projects, as well as the more traditional exchange of individual methods and findings.
- Encourage the investigation of international problems that governments routinely must address, such as drug interdiction, immigration, global trade regulation, or border control.
- Support comparative studies that seek universal theories and transferable practices by studying selected phenomena in a variety of cultural settings using consistent designs and methods, with explicit points of comparison and evaluation.

This project focused primarily on the first item as the means to achieve the second and third. It followed a four-year strategy to create opportunities and venues for international discussions to enable DG researchers and educators to advance their work through international collaboration. This strategy had several mutually reinforcing streams of work as follows:

1. International Digital Government Research Review (Reconnaissance Study)

A reconnaissance study identified and summarized the state of international DG research. The results are being used as a baseline benchmark for assessing its subsequent growth and development. The study is also informing the development of a global research network and associated comparative and transnational projects in the digital government domain. The study relied on interviews, literature reviews, and documentary analysis and addresses questions such as the following:

- What international problems are or have been the subject of digital government research efforts? What has been learned?
- What topics have been investigated using comparative methods across national boundaries? What has been learned?
- What problems and topics are or have been emphasized by different research sponsors?
- What are the patterns of investigation (problems, topics, methods, funding sources and mechanisms) in different parts of the world?
- What are the most important international organizations, and units, involved in this research area? Who are the principals?
- What are the most important research institutions, research conferences, journals, blogs, or other online sources of research information that span countries?

2. International Digital Government Research Working Groups

The investigators organized a competition to select and provide support for topical working groups modeled after the US–European "Transatlantic Transport Research" community of practice known as STAR-STELLA. Three groups were selected by peer review. Each group involved about 12- 20 people, including both established researchers and doctoral students. For each group selected, travel support was provided from NSF funds for US participation over the course of three years, including travel support for at least two US doctoral students in each group. (As with STAR-STELLA, travel by participants from other countries was supported by other sponsors). The working groups provided an excellent way to introduce doctoral students to international research issues and programs, by participating under the supervision of their mentors in meetings and investigations that have the potential to become ongoing thematic areas early in their careers. The relationships formed in these venues will also create long-lasting professional connections that serve to further strengthen the network of international digital government researchers.

The first working group meeting in each topical area was a formal research agenda including both comparative questions (i.e., problems that occur in multiple countries) and transnational questions (i.e., problems that are international in scope). Over the course of two years, the working groups were in routine communication, co-authored journal articles as appropriate, participated in international conferences, such as "dg.o", "EGOV", HICCS, etc. Following the final meeting, each group produced a white paper authored jointly by the US and international participants that discusses the research challenges, recommended strategies for undertaking this research, and the accomplishments within its sub-domain. The white papers will be disseminated broadly within the international DG research community. We also expect these papers could be submitted in revised form to established journals or international conferences.

3. Summer Institute on Digital Government Research

An international summer institute on digital government research has provided an intensive residential program for comparing research themes, methods, and results, as well as for building a deeper mutual understanding of the multi-disciplinary nature of DG research. In the first year, an annual institute program for doctoral students was designed to address such topics as (1) explicit comparisons of the philosophies, questions, and methods among the disciplines that make up digital government research, (2) a review of pressing comparative and transnational research questions and ways to study them, (3) how to design an international investigation (4) how to manage an international project, (5) how to apply multi-method and multi-disciplinary approaches, etc. The grant provided a modest honorarium plus travel and residential expenses for five U.S. faculty per year, and scholarships for up to ten U.S. doctoral students. International faculty expenses and similar student scholarships were covered by other sponsors. During the third year, CTG developed a business plan for making the institute self-sustaining, and is currently seeking funding for future Institutes.

Outcomes

Outreach and promotional activities included traditional mechanisms such as posting announcements, research papers, and calls-for-participation in events on various websites including the U.S. digital government research website (http://www.digitalgovernment.org), the Center for Technology in Government website (http://www.ctg.albany.edu), and the EU's e-government research website (http://europa.eu.int/information_society/ activities/egovernment_research/index_en.htm). In addition to widely disseminating the results of the benchmark (reconnaissance) study, the study itself helped identify new outlets and mechanisms for increasing awareness and community building.

The knowledge created by the developmental working groups has been disseminated through presentations at international conferences, publications in scientific journals, and through other mechanisms such as list-serves, monthly electronic newsletters, etc. Each of the developmental working groups hosted an international workshop in conjunction with the Annual International Conference for Digital Government Research (dg.o). U.S. researchers receiving travel support for participating in conferences outside the US also publicized the existence of these efforts to encourage participation.

The international summer institute has increased awareness among doctoral candidates around the globe to sustain the next generation of digital government researchers, by extending their knowledge of support mechanisms and helping them to build a network of collaborators for future research endeavors.

iGov Research Institute

This page has been moved to http://www.ctg.albany.edu/institute

International Digital Government Research Working Groups

The University at Albany's Center for Technology in Government (CTG) selected three groups of international researchers to receive funding to advance digital government (DG) research on issues that cross national boundaries. The groups were chosen through a peer review of proposed research programs that would benefit from close collaboration of U.S. and international partners. U.S. participation in the groups was supported by nearly $200,000 over three years, made possible through a $1 million grant to CTG from the National Science Foundation's (NSF) Digital Research Program (DG). The overall goal of that larger grant was to build and sustain an international digital government research community. The international participants in the working groups received similar financial support from their home institutions or research programs.

The three groups addressed transnational and comparative issues in the following areas:

- Online Consultation and Public Policy MakingTThis group focused on (a) how to evaluate the policy and other social impacts of online citizen consultation initiatives aimed at influencing actual government decision making, and (b) how the optimal design of such initiatives is affected by cultural, social, legal and institutional context. A final product of this international working group is the book *Connecting Democracy: Online Consultation and the Flow of Political Communication*.
- Digital Governance and Hotspot Geoinformatics for Monitoring, Etiology, Early Warning, and ManagementThis group focused on developing a prototype geoinformatic hotspot surveillance system that relies on advanced statistical techniques for detecting hotspots of critical importance to governments around the world in such areas as public health, watershed management, persistent poverty, and networked infrastructure security.
- A Comparative and Transnational Research Agenda in North America This group focused on how to advance electronic government research across geographic and political boundaries in the region. The working group members developed a comparative and transnational research agenda targeted at questions about intergovernmental digital government initiatives in North America. For more information about NADGWG's continued activities, visit their Web pages.

Online Consultation and Public Policy Making

This group will evaluate the policy and other social impacts of online citizen consultation initiatives aimed at influencing actual government decision making, and will examine how the design of these types of initiatives is

affected by cultural, social, legal, and institutional contexts.

Co-chairs:

Peter Shane, Moritz College of Law, Ohio State University

Stephen Coleman, University of Leeds, UK.

Project Summary

The International Working Group on Online Consultation and Public Policy Making is focusing on two main research questions (a) how to evaluate the policy and other social impacts of online citizen consultation initiatives aimed at influencing actual government decision making, and (b) how the optimal design of such initiatives is affected by cultural, social, legal, and institutional context.

The group's most ambitious aim will be to produce a book on identifying and measuring successful e-consultations, and describing how the approach to process design and evaluation should be tailored to the legal, political, and cultural contexts within which online consultation is occurring. Research reports that will form the basis of the book's chapters are expected to emanate from four sub-groups that will consider, respectively, the impact of online consultation on government agencies and policy makers, the impacts of online consultations on public participants and civil society organizations, the relationship between the design of consultation and the kinds of impacts identified, and the ways in which legal, political and institutional context shape prospects for success.

The inquiry will be multidisciplinary and comparative. Team members are based in Australia, England, France, Israel, Italy, Slovenia, and the United States, but various team members are conducting research or participating in significant relevant professional networks in Canada, China, the European Union, Hungary, Japan, Korea, Latvia, Libya, and Morocco, as well. The work will be conducted through five face-to-face meetings, along with the support of online meetings, both asynchronously and in real time, and a Web presence to support this (and other's) research on e-consultation.

In addition, a conference will be held where members of the working group will present papers based on their individual research projects. Ohio State will fund the international participants' travel and expenses, and papers will be published in a special issue of *I/S: A Journal of Law and Policy for the Information Society*.

The International Working Group on Online Consultation and Public Policy Making held its fifth and final meeting in April 2009 in Paris. Hosted by group member Laurence Monnoyer-Smith, the group devoted its working meeting to review and discussion of draft chapters for its planned edited volume, *Connecting Democracy: Online Consultation and the Future of Democratic Discourse*.

The public outreach portion of the meeting was a full-day international symposium on *Electronic Democracy: Towards New Forms of Governance? Issues and Experiences*. The symposium, hosted by Universite de Technologie de Compiengne-Costech and Sciences Po Paris-CEVIPOF included speakers, panels, and discussions on e-democracy and e-consultation in Europe. Members attending included co-chairs Peter Shane and Stephen Coleman, plus members, Sungsoo Hwang, David Lazer, Jeffrey Lubers, Laurence Monnoyer-Smith, Alicia Shatteman, Scott Wright, and Andy Chadwick.

The International Working Group on Online Consultation and Public Policy Making held its fourth meeting on November 7-8 in Washington, D.C. The group continues to focus on its joint authorship of a projected volume, *Connecting Democracy: Online Consultation and the Future of Democratic Discourse*. Group members spent most of meeting presenting draft chapters to one another and reviewing what they believe is likely to be the final organization of the book. Group co-chairs Peter Shane of the Ohio State University and Stephen Coleman of the University of Leeds hope to contract with a publisher in early 2009 and to have the volume completely edited by late summer. A fifth meeting of the group is planned for April 23-24, 2009 in Paris, France both to confirm the book's contents and to share research ideas with representatives of the European Demo-Net project.

In addition to their project discussions, group members spent ninety minutes with former FCC chairman, Reed E. Hundt, who is also a co-chair of the Obama-Biden transition team, conducting a review for the new Administration of the federal government's economics and international trade agencies. Mr. Hundt and the working group discussed the role of the Internet in the recently concluded presidential campaign.

Members attending this past session were Stephen Coleman and Peter Shane (co-chairs), Joachim Åstrom, Sungsoo Hwang, David Lazer, Jeffrey Lubbers, Laurence Monnoyer-Smith, Vincent Price, Alicia Schatteman, Peter Strauss, and Scott Wright. The group also includes Steven Balla, Patrizia Bertini, Andrew Chadwick, Åke

Gr#nlund, Oren Perez, and Polona Pi#man-Stefan#ic. Natalie Helbig, from the Center for technology in Government also attended the Washington meeting.

The group hosted a conference at Ohio State University to share some of their preliminary research into aspects of electronic democracy. At the conference, eight members of the group presented draft papers on a variety of topics connected to the emergence of e-democracy.

In addition to the papers presented at the conference, the group aims to produce a jointly authored book by 2010, under the working title, *Connecting Democracy: Comparative Perspectives on Online Consultation and the Future of Democratic Discourse*.

The papers presented at the conference included:

- Andrew Chadwick, head of the Department of Politics and International Relations and founding director of the New Political Communication Unit at Royal Holloway, University of London, discussed the democratic possibilities entailed in the range of online social practices typically now labeled "Web 2.0."
- Scott Wright, lecturer in New Media and Society at the University of East Anglia, discussed political campaigning and counselors' blogs in the UK.
- Laurence Monnoyer-Smith, associate professor of Communication Sciences at the University of Technology at Compiègne, France, spoke on, *Technology and Inclusion : Framing Online Public Debate to Enlarge Participation*.
- Oren Perez, senior lecturer in the Faculty of Law at Bar-Ilan University, Ramat Gan-Israel, discussed technological prospects for addressing issues of information overload that bedevil the theory and practice of deliberative democracy.
- Steven Balla, associate professor of Political Science, Public Policy and Public Administration, and International Affairs and research associate at the George Washington Institute of Public Policy, and University of Pittsburgh doctoral candidate Sungsoo Hwang, presented two papers dealing with the deployment and use of municipal neighborhood information systems.
- Alicia Schatteman, doctoral student at Rutgers University presented a paper on the Ontario citizen assembly process.
- Kerrie Oakes, doctoral student at Griffiths University, Queensland, Australia presented a paper on the impact of e-democracy practices on the civil service in Australia.

The conference also featured a keynote talk by Tim Erickson, local issues forum director for e-democracy.org, who discussed *Building Democracy Through Local Issues Forums*.

All the presentations are archived and available online. Papers from the conference will be published late in 2008 in a special issue of *I/S: A Journal of Law and Policy for the Information Society*, which is a joint venture of Ohio State and Carnegie Mellon Universities.

Additional financial support for the conference came from the Mershon Center for International Security Studies and the Moritz College of Law, both at Ohio State.

The International Working Group (IWG) on Online Consultation and Public Policy Making assembled for its second face-to-face meeting November 30 - December 1, 2007 at the University of Leeds. The group devoted its first morning discussion to a series of presentations on the state of e-Participation research in Europe, with special reference to the work of DEMO-Net.

During the afternoon, the IWG assembled both in subgroups and in plenary session to refine its ideas for a forthcoming jointly authored volume on the phenomenon of online consultation and its relationship to the overall landscape of democratic discourse. Members had prepared for the meeting by creating short summaries of the chapters for which they have primary responsibility, documents that, in turn, provided the basis for the group's more focused discussion on the overall structure and argument of the book. The final morning session was devoted to a mini-seminar aimed at situating the group's own agenda against the backdrop of ongoing research programs and theoretical debates in political communications.

The group devoted its inaugural meeting to a mini-symposium during which all members made presentations regarding their current research agendas, as well as to a deliberative session to formulate a working plan for its three-year research effort, "(R)E-Connecting Democracy." "(R)E-Connecting Democracy" will produce a multi-authored book on (a) how to evaluate the policy and other social impacts of online citizen consultation initiatives aimed at influencing actual government decision making, and (b) how the optimal design of such initiatives is affected by cultural, social, legal, and institutional context.

A Comparative and Transnational Research Agenda in North America

This project seeks to better understand the role of technology in the ability of individual nations to respond to public problems and in the ability of nations to work together in response to transnational problems. The focus on Canada, Mexico, and the United States will allow the researchers to look at topics that are germane to North America as a whole.

Co-chairs:

Theresa Pardo, Center for Technology in Government, University at Albany

Luis F. Luna-Reyes, Universidad de las Americas, Mexico.

Project Summary

As the governments of the world evolve toward a more global perspective on the social, political, and economic issues facing our nations it is critical that research efforts are sensitive to and respond to this evolution as well. New requirements for cross-boundary collaboration driven by a global view demand new understanding about how individual nations respond to public problems and about how nations work together in response to transnational problems. New forms of government enabled by technologies and made possible through new models of cooperation and collaboration made possible through new models of cooperation and collaboration must be explored and tested. As researchers, we must also create new models and strategies for working together across geographic and political boundaries, focusing on the efforts of government ass they seek to work in this new way. This proposal seeks support for an international digital government working group that will focus on understanding new models of collaboration required by the global nature of government problems as well as the role of technology in facilitating these inter-organizational initiatives. The activities of this working group will focus on the development and pursuit of a research agenda that attends to comparative questions about intergovernmental digital government initiatives in North America as well as questions related to North American digital government initiatives that are transnational in nature.

Although the three countries of North America are very different in many aspects (providing good variation), they have important similarities in government and a federal system). Project leaders in the three countries appreciate the importance of intergovernmental relationships for the success of many digital government initiatives. In addition, the three countries are closely related and interdependent in several political, economic, and social issues. Therefore, the results may also have important policy implications for each of the three countries and North America as a whole. Finally, the inclusion of a developing country, a country with a highly developed presidential – system, and one with a highly developed parliamentarian – system will allow the results to be relevant to many countries specifically as well as many regions around the world.

Group co-chairs will be Dr. Theresa A. Pardo from the Center for Technology in Government, University at Albany, and Dr. Luis F. Luna-Reyes from the Universidad de las Americas, Mexico. The eleven-member working group includes members from three countries: Canada, Mexico, and the United States. Eleven institutions are represented by the group.

This initiative provides the opportunity for the members of the working group, many of whom have collaborated together in the past, to take their joint interest and expertise in this area to a new level. The grant funds will provide the opportunity to leverage many previously productive two and three way collaborations among members of the proposed group to a more significant and focused effort towards a long-term research and practice collaboration.

CTG, as a member of the North American Digital Government Working Group (NADGWG), hosted their fourth meeting in our nation's capitol. NADGWG, a group of researchers and practitioners from a variety of institutions and disciplines from Canada, the United States, and Mexico, was formed with the support of the National Science Foundation Digital Government Research program and the home institutions of its members. The group explores the advancement of electronic government research across geographic and political boundaries.

Over the past three years, this group meets virtually and also holds an annual meeting in one of the host countries cities. Over the past three years the meetings were held in Philadelphia, Pennsylvania; Cholula, Mexico; and Quebec City, Canada. This year's meeting was held in Washington DC on December 13 – 16, 2009.

At this year's meeting the NADGWG participants continued their work on the development of a comparative transnational research agenda, as well as participated in a one day workshop hosted by the Digital Government

Society of North America and the United States Office of General Services Administration on December 15th focused on Social Media and Government, *Sharing Cutting-Edge Practice and Research*. NADGWG members contributed to this meeting by presenting their work to the participants of the workshop.

Researchers from Canada, Mexico, and the United States met for a two-day working session at the Centro de Investigación y Docencia Económicas (CIDE). The group developed a framework for investigating and analyzing intergovernmental collaboration and interoperation including cross-border collaboration. The group is in the process of preparing a detailed research proposal to the Mexican Programa Interinstitucional De Estudios Sobre La Región De América Del Norte (PIERAN), which is aimed at developing a sound theoretical foundation and a detailed research agenda for the study of international intergovernmental collaboration and interoperabilty in North America.

The North American Digital Government Working Group held its fourth meeting at Université Laval in Québec City, Quebec, Canada from November 20-22, 2008. Fourteen members of the working group met together in the facilities of the Institute of Information Technology and Society, Université Laval; all three countries were well-represented at the meeting. The three day meeting focused on refining the Working Group's overall Research Agenda, moving forward the research activities of each of the Working Group sub-groups, and exploring key issues of interest with invited guests. The first day of the Working Group meeting opened with a welcome from Dr. Diane Poulin, the Chair of the Institute of Information Technology and Society. Following Dr. Poulin's remarks, members provided activity updates since the last meeting for both the overall Working Group and the two sub-groups; Border States Information Sharing, and Full Information Product Pricing Strategies. The members reviewed the various grants received so far and discussed strategies for seeking additional funding to continue the work of the Group. In addition, items published since the last meeting were acknowledged and continuing publication plans were outlined and agreed upon including a continued presence at conferences such as the International Digital Government Research Conference and the Hawaii International Conference on System Sciences (HICSS). The later part of the day provided opportunity for the sub-groups to work on their respective research initiatives.

The second day of the Working Group meeting opened with a welcome from Ms. Jacqueline Dubé, Présidente-directrice générale, Centre francophone d'informatisation des organizations (CEFRIO) and featured presentations from the Commission for Environmental Cooperation as well as a number of officials of the Quebec Provincial government including the Ministry of Government Service and the Ministry of Agriculture. Each presented on current issues and initiatives in their organizations. After the presentations, which included a brief overview of the Working Group, the members engaged in round table discussions with the guests exploring areas of common interest and to identify opportunities for collaboration. Discussion topics included overall digital government strategy as well as structural arrangements for and challenges in managing information technology at an enterprise level; information sharing and governance issues related to organic product traceability; and information sharing and collaboration in environmental protection at border regions.

On the final day, Working Group members continued their research agenda discussions by breaking into small groups and exploring key transnational and comparative questions as well as creating a presentation framework for the agenda. The members also developed a plan for completion of the agenda including an outreach strategy. Several administrative discussions were held including coordinating interdependencies among the two sub groups and the development of a Working Group web page. Planning for the next round of Working Group meetings was completed with plans for a meeting at the International Digital Government Research Conference, dg.o 2009, in Puebla, Mexico and a full Working Group Meeting in Albany, NY in October of 2009. The Working Group meeting ended with an informative (and brisk) walking tour of Old Quebec, one of the oldest cities in North America and since 1985, a UNESCO World Heritage Site.

Support for the meeting was provided by the U.S. National Science Foundation who funded travel for members of the working group from U.S. institutions, by Consejo Nacional de Ciencia y Tecnología (CONACYT), who funded the travel for members of the working group from Mexican institutions, by the Minister of International Affairs of the Québec government, who paid for some group activities, and by the Institut Technologies de l'information et Sociétés of Université Laval, that provided meeting facilities and support.

The North American Digital Government Working Group held its third meeting in Montreal, Quebec, Canada, on Sunday May 18th, 2008. The meeting was scheduled to coincide with dg.o 2008. Fourteen members of the workgroup were in attendance. A 2.5 hour meeting was held on Sunday night around an abbreviated agenda of topics of importance to the full workgroup. Additionally, the two subgroups were given a brief amount of time during the meeting to schedule additional time together. The agenda included working group business including a discussion of the working group web site, a proposal for an edited book, the research agenda setting activities, and the planning for the fourth working group meeting to be held this November in Quebec City, Quebec.

The meeting started with an open discussion of general lessons learned and challenges facing subgroup efforts. These include funding, translation of research protocols, grant applications, and other related documents and the human subjects process. The role of the institutional review board and its relationship with international comparative work was discussed and generally agreed to be problematic. The working groups decided to put the edited book effort on hold and to focus on the research agenda development efforts. A team was formed to focus on the research agenda setting activities. The members leading the planning for the fourth meeting of the working group shared the status of plans for that meeting and invited feedback on and participation in those efforts.

In addition to holding the third meeting at dg.o 2008, the workgroup activities were well-represented at the conference with three posters being presented, a panel session organized by three members of the working group based on ideas generated at the second working group meeting in Cholula, Mexico, as well as participation in a panel on the three international working groups organized by the PIs of the DGI project.

Members came together at the Universidad de las Americas for three days in November 2007 to continue the working group activities launched during its first meeting. The opening day of the working group meeting involved a set of discussions organized around group formation activities, as well as in the subgroups formed during the first meeting. The design of the second day provided an opportunity to spend a full-day with government officials from a variety of ministries of the Mexican Federal Government and other organizations involved in digital government in Mexico. The morning session consisted of a series of panel presentations on Digital Government, Information Society, and Innovation in Mexico. Following the panels, the working group members met in small groups with the panelists to discuss key areas of common interest and to explore future collaboration efforts.

Two initial projects are starting to consolidate as part of the research agenda and as potential sources of collaboration among the three countries. These projects include one to explore Border States Information Sharing, and another to explore Full Information Product Pricing Strategies to promote international commerce and regional development.

The first meeting of the North American International Working Group took place in Philadelphia in May of 2007, and was attended by close to fifteen participants of the working group from Canada, Mexico and the United States. The meeting focused on group formation discussions, sustainability of the group, setting a research agenda, and potential products. The brainstorming sessions led to numerous ideas and themes for research from border and immigration issues to economic and trade issues to e-government leadership to create digital cities and smart regions in border areas.

Digital Governance and Hotspot Geoinformatics for Monitoring, Etiology, Early Warning, and Management

This project will focus on developing a prototype geoinformatic hotspot survellience system that relies on advanced statistical techniques for detecting hotspots of critical importance to governments around the world in such areas as public health, watershed management, persistent poverty, and networked infrastructure security.

Co-chairs:

G.P. Patil, Department of Statistics, Penn State University, and collaborators in India, Indonesia, United States, and Nigera, Poland, and Taiwan.

Project Summary

For the declared scope of the proposal competition, this proposal may look ambitious, but the proposed working group would like to call it opportune. Given the opportunity, we believe that the visionary sponsors would feel happy and proud of their vision and our response. We are at present an international Center – Satellite – Assemblage. With the proposed funded support, we plan to become an international Row-Column-Lattice-Composite-Group, with every purposeful pair, triple, and more, synergistically advancing to launch an International Digital Governance and Hotspot Geo Informatics Forum at the end of the three year period.

The domain of interest of the proposed working group lies in the exciting theme of a successful five year NSF Digital Government Project in its midcourse for Geo Informatics Surveillance. A declared purpose of digital governance is to empower public with information access to enable transparency, accuracy, and efficiency for societal good at large. Spotting what is hot and prioritizing becomes naturally, hotspot Geo Informatics has become a critical need for the 21st century.

Our working group efforts will be motivated by vital case studies of societal importance around the world, pertaining to public health, eco health, eco system conditions, watershed management, persistent poverty alleviation, and networked infrastructure security. The international partnership will function with internet communications focused on the coupling of live case studies and prototype methods and tools. The projected five face-to-face meetings will strengthen and sustain the interactive and collaborative components. The meetings will be organized to maximize productivity and output for each case study, for each method, and for each tool. Each meeting will be in nature of a cross-fertilizing five day workshop and short course, equipped with everyone's laptop and projection. Everyone will in turn be a professor, a student, a scientist, decision maker. The working group will initiate a publications program.

The proposed working group will function and sustain itself in 10 headings with 10 co-chairs. The overall working group will have 22 members across six countries inclusive of USA, Italy, India, Indonesia, China, and Japan. The number of US participants will be 8, inclusive of 2 doctoral students. The number of overseas participants will be 14, inclusive of 4 doctoral students and 4 young researchers. Thus, the working group will consist of 11 seasoned researchers, 5 young researchers, and 6 enthusiastic doctoral students.

The third meeting of the working group was held at JalaSRI, Jalgaon, India at the Unique District Level Watershed Surveillance and Research Institute during December 17-29, 2008. The twelve-day program again brought together working group members and invited participants with a wide range of expertise and experience to participate in presentations, tutorials, deliberations, and brainstorming events. In addition, field trips were taken to several damn sites (Hatnur Dam Pump Station and Waghur Damn), a pipe factory, and the Ozarkheda Reservoir.

As a result of some of the working group activities, emerging and existing project ideas have come to life and partnerships have emerged. For example, the District Level Watershed Surveillance and Research Case Study Team has evolved into a research, training, and outreach institute with 15 full-time researchers and two model watersheds serving as field laboratories, covering over one thousand and fifty thousand hectares areas. They have also created a stimulating anthem and two exciting dance dramas (90-minutes in duration for urban and rural audiences) that bring together local wisdom and present day science to demonstrate digital governance, hotspot geoinformatics, river and stream networks, sensor networks, youth brigades, and watershed development.

The Italian Map of Nature Case Study Team has joined hands with the Indian District Level Watershed Surveillance and Research Case Study Team to recently win a Milan City Millennium Development Goals Grant for the purposes of examining the appropriate development and application of hotspot methodology and software in the watershed field.

Activities of the co-chair have created an opportunity for a consortium, which is now in planning stages, between Penn State; TERI University, Delhi; JalaSRI, Jalgaon; and the International Crop Research Institute for Semi-Arid Tropics, Hyderabad for Geoinformatics, Environmetrics, Ecometrics, and Aquatics for Water, Energy, and Natural Resources Development. TERI is connected to the Intergovernmental Panel on Climate Change (IPCC).

The group at present includes members from the United States, Germany, Italy, India, Indonesia, China, and Japan. The next group meeting is scheduled for June 1-7, 2009 in Delhi and Jalgaon.

The second meeting of the working group was held at JalaSRI's Conference Room, December 15-23, 2007. Co-chair Ganapati Patil, Penn State Center for Statistical Ecology and Environmental Statistics, organized the meeting of some thirty-five members and invited participants, representing a wide variety of disciplines and institutions. The group as also represented a range of expertise and experience, with a focused common interest in digital governance and hot spot geoinformatics for monitoring, etiology, early warning, and management. The five-day program included insightful and colorful presentations and deliberations followed by brainstorming, round table dialogues and planning for international initiatives.

The participants were hosted by the enthusiastic North Maharashtra University Vice Chancellor K.B. Patil and the University Research Faculty on their beautiful campus in Jalagon. Bhavarlal Jain, the visionary founder of the innovative, multinational initiatives for drip-irrigation on the paush green micro-watershed, also participated. Another local participant included District Collector Vijay Singhal, who presented a case study on his district level river linking area. Distinguished visitors included former cabinet ministers of the State of Maharashtra interested in the district level issues of watershed management and nature conservation.

The international working group continued planning of a Hotspot GeoInformatics and Digital Governance Case Book. The tentative plan is to emphasize the following key parts in the Case Book : (1) Digital Governance and Hotspot GeoInformatics Methods, and Software Tools with Case Studies in USA; (2) Map of Italian Nature, and

(3) Indian District Level Water Harvesting and Management.

"With the momentum provided by their effort, long term prospects for continuing this collaboration is good" said Dr. Patil. "The chances are that we will have prepared ourselves into launching an international forum for digital governance and hotspot geoinformatics. And since the programs of several working group members are in the process of being institutionalized in one form or the other, it will help strengthen and sustain continuity. Furthermore, sophisticated scientific issues and their implications for the models, methods, and tools will continue to keep the hotspot geoinformatics areas in the forefront. And this would help strengthen and sustain continued scientific challenges, methodological opportunity, software sophistication, and novel information technology for digital governance."

The next meeting of the group is slated for December 2008 again at JalaSRI, Watershed Surveillance and Research Institute, M.J. College, North Maharashtra University, Jalgaon, Maharashtra State, India. It is a novel and unique digital governance initiative in at the district level for watershed surveillance and geoinformatics involved with river connectivity for water availability, bioreserve connectivity for endangered species, microwatershed development, bird flu and dengue fever, and socioeconomics of poverty and unemployment.

Co-chair Ganapati Patil, Penn State Center for Statistical Ecology and Environmental Statistics, organized the meeting of some twenty five members and invited participants, representing a wide variety of disciplines and institutions as well as a range of expertise and experience, all with a focused common interest in digital governance and hot spot geoinformatics for monitoring, etiology, early warning, and management. The five-day meeting included presentations and deliberations, followed by brainstorming round table luncheon dialogues and international initiatives planning evenings.

The group has begun its planning of a case studies book for publication, Hotspot GeoInformatics and Digital Governance Case Book. It is expected to be a frontline monograph on this theme covering timely issues and areas of societal and scientific importance. A declared purpose of digital governance it is to empower public with information access to enable transparency, accuracy, and efficiency for societal good at large. Spotting what is hot and prioritizing it become natural undertakings as a result of the space-time information access. Naturally, hotspot geoinformatics has become a critical need for the 21st century.

Publications & Results

Reports and Working Papers (2)

Building On-ramps to International Research Collaboration: Replicable strategies for entry, productivity and sustainability
Wed, 31 Oct 2012

Globalization presents important opportunities and difficult challenges that demand internationally-trained, culturally-aware researchers to collaborate on topics that cross borders, political systems, and cultures. International research collaborations on topics such as livability of cities, political participation, or the health of civil society offer potentially great benefit, but such work tends to be sporadic and informal because traditional research training and funding structures make it logistically and financially impractical. In response to this problem, from 2007 through 2010, we experimented with two low-cost innovative approaches or "on-ramps" to international collaboration in digital government research: a set of three international working groups composed of scholars from a variety of countries and disciplines and an annual residential research institute for PhD students to develop an early appreciation for the global impact ICTs on the public sector. This evaluation report shows that both approaches are low cost, high impact strategies to forge lasting networks of relationships as well as long-term career benefits.

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culturally-aware researchers to collaborate on topics that cross borders, political systems, and cultures. International research collaborations on topics such as livability of cities, political participation, or the health of civil society offer potentially great benefit, but such work tends to be sporadic and informal because traditional research training and funding structures make it logistically and financially impractical. In response to this problem, from 2007 through 2010, we experimented with two low-cost innovative approaches or "on-ramps" to international collaboration in digital government research: a set of three international working groups composed of scholars from a variety of countries and disciplines and an annual residential research institute for PhD students to develop an early appreciation for the global impact ICTs on the public sector. This evaluation report shows that both approaches are low cost, high impact strategies to forge lasting networks of relationships as well as long-term career benefits.

International Digital Government Research: A Reconnaissance Study (1994 - 2008) UPDATED
Mon, 31 Aug 2009

Today, digital government (DG) research is being conducted all over the world. Most of this work is focused within the geographic and political contexts of individual countries. However, given the growing influence of global economic, social, technical, and political forces, the questions embedded in digital government research are now expanding to international dimensions. A reconnaissance study such as this one focuses on the defining characteristics of a topic rather an in-depth analysis. In this report, we describe the size, scope, variety, and trajectory of the field illustrated with selected studies and organizational profiles. This study is part of a multi-year effort funded by the United States (US) National Science Foundation (NSF) to create a framework for a sustainable global community of digital government researchers and research sponsors.

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Download complete EndNotes References File.

Journal Articles and Conference Papers (2)

Cultivating the Next Generation of International Digital Government Researchers: A Community-Building Experiment
September 26, 2011

Over the last two decades universities and post-secondary education policies have addressed globalization trends by internationalizing curricula and articulating global concern in their missions. This paper presents an evaluation of an international training program for early-career digital government researchers, designed to develop their interest and skill in cross-cultural, multidisciplinary, and practice-oriented research. The program overall appears to stimulate participants' individual creativity, scholarly productivity, and professional networks, while broadening their appreciation for work that investigates internationally important topics and involves not only multidisciplinary but multicultural teams. The survey results also suggest that a short-term (one-week), intensive, immersive, and relatively inexpensive program can have strong and lasting effects on early-career scholars.

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Promoting International Digital Government Research Collaboration: An Experiment in Community Building
June 12, 2011

Global issues present many opportunities for digital government (DG) researchers to form long-lasting relationships that lead to shared research agendas focused on questions of international importance. The practical feasibility of international DG research partnerships is of interest for both investigators and funders. This paper reports the evaluation of an experiment to create sustainable international digital government research collaborations by providing legitimacy and modest funding within a minimal set of structural and management requirements. Participants rated the experience as highly positive, contributing substantially to their research productivity, community building, international awareness, and professional growth. While the working group strategy is not a substitute for direct research support, it is a readily replicable method to build international research communities, and to stimulate and enhance their scholarly work.

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Funding Sources

Press Releases & News Stories

Press Releases

A Global Network of Scholars: UAlbany's Center for Technology in Government Holds 2010 iGov Research Institute in The Netherlands
Mon, 19 Jul 2010

UAlbany's Center for Technology in Government Holds 2009 iGov Research Institute in Seattle, WA
Mon, 22 Jun 2009

UAlbany's Center for Technology in Government Holds the 2008 iGov Research Institute in Manchester, UK
Mon, 14 Jun 2008

UAlbany's Center for Technology in Government Announces 2008 iGov Research Institute
Tue, 18 Dec 2007

UAlbany's Center for Technology in Government to hold First Annual Institute on International

Digital Government Research in New York City
Mon, 09 July 2007

UAlbany's Center for Technology in Government to Host Chinese Official from the State Information Center in Beijing
Tue, 13 Feb 2007

UAlbany's Center for Technology in Government Announces First Annual Institute on International Digital Government Research
Mon, 05 Feb 2007

UAlbany's Center for Technology in Government Announces Selection of Four International Working Groups on Digital Government Research
Wed, 13 Dec 2006

UAlbany's Center for Technology in Government Receives $1 Million to Create International Digital Government Research Community
Tue, 13 Jun 2006

UAlbany's Center for Technology in Government Receives $1 Million to Create International Digital Government Research Community
Fri, 21 Oct 2005

News Stories

First Annual Institute on International Digital Government Research

Government Technology

February 5, 2007

Related Web Sites

Partnerships for International Research and Education (PIRE)
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12819

Partnerships for International Research and Education (PIRE), a program initiated in 2005 by the National Science Foundation, seeks to catalyze a cultural change in U.S. institutions by establishing innovative models for international collaborative research and education. The program will enable U.S. institutions to establish collaborative relationships with international groups or institutions in order to engender new knowledge and discoveries at the frontier and to promote the development of a globally-engaged, U.S. scientific and engineering workforce. Successful proposals will describe excellent, focused science and engineering research projects that are based on integrated research and education efforts, and substantive intellectual contributions from international collaborators who bring unique capabilities to the research activity.

E-Gov Golden Book
http://www.worldegovforum.com/?lang=en

The E-Gov Golden Book is an initiative of the World E-Gov Forum of 2006. It will feature biographies of 250 public and private sector individuals who have made a significant worldwide impact on the fields of e-Government and e-Democracy over the last five years. It is a starting point of a social network that is meant to enable worldwide collaboration and exchange of good practices among people facing similar issues and obstacles.

International Research Fellowship Program (IRFP)
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5179

The objective of this fellowship program of the National Science Foundation is to introduce scientists and engineers in the early stages of their careers to international collaborative research opportunities. This will allow them to further their research capacity and global perspective and to forge long-term relationships with scientists, technologists and engineers abroad.

U.S. digital government research program website
http://www.digitalgovernment.org

The Digital Government Program funds research at the intersection of computer information sciences and government information services, with the goal of bringing advanced information technology to the government information community.

European Union's e-government research website
http://ec.europa.eu/information_society/activities/egovernment/index_en.htm

This thematic portal is an online guide through all relevant European union policies and activities related to a new information age. It provides information to address the recent transformation in the industrial landscape of the developed world, which through telecommunications liberalization, the explosive growth of the Internet, and the increasingly networked nature of business and society, have led to the birth of the Information Society (IS).

Roadmapping eGovernment 2020
http://www.egovrtd2020.org

CTG partnered in this project sponsored by the European Commission, and led by the University of Koblenz in Germany, involving nine international partners from European regions, the U.S., and Australia. The project identified and characterized the key research challenges and possible implementation models for holistic and dynamic governments in 2020 and beyond. The project is global in nature and included a review of the current status of e-government research, followed by a series of regional scenario-building workshops in which government, academic, and other participants collaborated to describe possible futures.

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