

## International Research Program in Cross-Boundary Information Sharing

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### ABSTRACT

The International Research Program in Cross-boundary Information Sharing is focused on building new knowledge about cross-boundary information sharing in an international context. This transnational program combines the resources of a National Science Foundation Funded research team at the Center for Technology (CTG) in Government together with doctoral students from Public Administration and Policy and Information Science programs at the University at Albany.

### Categories and Subject Descriptors

H.1.1 Information systems and theory

### General Terms

Human factors, management, theory

### Keywords

Information sharing, comparative studies, international, dissertations

### 1. INTRODUCTION OF THE PROGRAM

The International Research Program in Cross-boundary Information Sharing is focused on building new knowledge about cross-boundary information sharing in an international context. This transnational program combines the resources of a National Science Foundation Funded research project<sup>1</sup> at the Center for Technology in Government together with doctoral students from Public Administration and Policy and Information Science at the University at Albany. These projects will draw on research findings from the CTG study and will seek to contribute to the development of new theory in cross-boundary information integration and sharing through testing of these findings in an international context. Dissertation studies are underway in China, Jordan, and Taiwan, with additional studies being planned in Mexico, India and Saudi Arabia. Each project is developed with academic advisers in the U.S. and practitioner partners in the host country. In some cases, academic partners from the host country are also involved in the research sub-teams. This poster will

<sup>1</sup> Modeling the Social and Technological Processes of Interorganizational Information Integration (MIII) research project is funded by NSF Grant # ITR-0205152

present insights about creating comparative research designs appropriate for an international context.

### 2. PROGRAM GOALS

**Goal 1: Extend current theory about cross-boundary information sharing into new policy domains and new international contexts.** This goal will be achieved through six dissertations conducted by students using the same or similar instrument in their home countries with different political, social and cultural context from the US, and in the same or similar policy domains such as product quality, food safety, water pollution etc.

**Goal 2: Develop culturally aware research designs appropriate for international comparative studies in interorganizational information integration.** This goal will be achieved joint authorship efforts at a variety of conference and peer-reviewed journal articles in the area of cross-boundary information sharing. This may also involve joint authorship of grant proposals for continued comparative analysis.

**Goal 3: Build a sustainable network of researchers in cross-boundary information sharing across the world and the foundation for future collaborations among scholars during and after the completion of the dissertations.** This foundation for meeting this goal is being developed currently at the CTG through regular meetings and knowledge sharing among the students. Students are sharing new knowledge gained about relevant topics such as internationalizing research designs and comparative methodologies.

### 3. PROGRAM FORMATION ACTIVITIES

The program formation process includes four program-wide activities being carried out in parallel and by all participants in the program. The four activities currently underway are:

**Activity 1: Develop knowledge about multinational comparative research designs.** The group needs to explore models of multinational comparative research programs. Group meetings and panels will be organized to address the application and approval process of the Institutional Review Board and issues related to research design methodologies specific to international research projects.

**Activity 2: Generate funding to support data collection “at home.”** The group will systematically seek funding from sponsors interested in the goals of the program. Funding will primarily

sought to cover travel of doctoral students to the host country, the transcription of interviews into at least two languages, including the language of the host country and English to extend the future utility of the data, and any other research tool employed in the research.

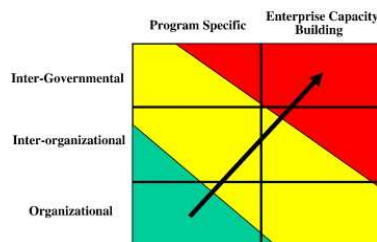
**Activity 3: Research network development.** Workshops will be organized to bring together U.S. based researchers and relevant partners in the host country to build on the research and to foster future partnerships. The case studies completed as part of the program will contribute to a growing compendium of comparative cross-boundary information sharing cases studies.

**Activity 4: Share program model and research findings at research conferences.** Proposals for student-faculty research panels will be developed and submitted to appropriate research conference. The target venues for these panels are academic conferences in 2009; particularly the “International Conference on Digital Government Research”, and the “International Conference on Electronic Governance Theory and Practice.” The program might also be an appropriate topic for the digital government research symposium held each year at the Hawaiian International Conference on System Science. These panel presentations could address some of the findings, benefits, and barriers of conducting international comparative research.

There are a few barriers that may impede the success of this effort. The comparative nature of this effort is the most substantial barrier that we must constantly consider to ensure successful outcomes. Other barriers include the need to maintain strong relationships with partners and scholars, continuous support and commitment from CTG faculty and staff, and issues related to funding. One final barrier that may influence the success of this effort is related to sharing and archiving data and information collected from each of the research projects.

## 4. THE MIII PROJECT

The program is leveraging research underway at the Center for Technology in Government into a program with an international comparative focus. In addition to new insights about information sharing in a global context, the program is developing new understanding about comparative studies, in particular, internationalizing models and protocols.



**Figure 1:** Information Integration Complexity Matrix.

Integrating and sharing information in multi-organizational government settings involves complex interactions within social and technological contexts (see Figure 1). Organizations must establish and maintain collaborative relationships in which knowledge sharing is critical to resolving numerous issues relating to data definitions and structures, diverse database designs, highly variable data quality, and incompatible network infrastructure. These integration processes often involve new work processes and significant organizational change. They are also embedded in

larger political and institutional environments which shape their goals and circumscribe their choices. The purpose of this research is to develop and test dynamic models of information integration in these settings.

## 5. DISSERTATION PROJECTS

### 5.1 Dissertations in Progress

The area of focus in China is product quality and food safety. The purpose of the research is to build a leadership mechanism model of cross-boundary information sharing model in China, and then conduct a comparative analysis between the two models developed in China and the US to identify the similarities and differences between them and further explore the reasons. Data will be collected from the General Administration of Quality Supervision, Inspection and Quarantine of China through interviews and government documents. Then qualitative content analysis will be conducted using grounded theory. Interviews with the officials and program managers in the Bureau are scheduled in April, 2008, supported by China National School of Administration.

The second comparative dissertation study currently underway as a result of this research program will incorporate data gathered from the U.S and Jordan. This dissertation will focus on the impact of authority and executive involvement and leadership on cross-boundary information sharing in response to chaotic events. The focus of this dissertation is on two public health crises—the outbreak of the West Nile Virus in the U.S. and the case of water pollution in Jordan. Both primary and secondary qualitative data will be used to accomplish this project. The primary data will be gathered through semi-structured interviews with top-level executives from government agencies that played a key role in controlling the situation. The secondary data are in the form of transcripts conducted by CTG with public health officials in four states (CO, CT, NY, and OR) in response to the West Nile Virus outbreak. Comparative content analysis will be conducted on the gathered data. Interviews with top-level Jordanian executives are scheduled for the summer of 2008.

The third comparative research that is currently in the planning phase will be conducted in Taiwan. The Taiwanese government puts “Cross-Agency Shared Service” as the foundation of its next stage e-government framework. This research will focus on the leadership factor of MIII specific to government agencies within the public health domain.

### 5.2 Future Dissertations

As this program evolves, additional studies will be planned in Mexico, India, and Saudi Arabia. These future projects will benefit from the findings of the MIII project currently underway at CTG as well as the findings from each of the three dissertations. It is also possible, and the core objective of this research program, to extend the comparisons to include more than the U.S. and the host country, but to also incorporate the outcomes from past dissertations that resulted from this effort.

## 6. ACKNOWLEDGMENTS

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