eGovernment, PPPs, and Implementation of the MDGs: Building an empirical foundation for investment decision making

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CTG mission

• To work with government to develop information strategies that foster innovation and enhance the quality and coordination of public services.

• We carry out this mission through applied research and partnership projects that address the policy, management, and technology dimensions of information use in the public sector.
Understanding the world of action

Technology 10,000 mph
Organization & management 1000 mph
Public policies 10 mph
Understanding the world of ideas

Policy

Management

Technology
“What good is technology if it takes six seconds to send a message but six months to get someone to act on it?!”
Question of interest

• What do we know about the influence of digital government and public-private partnerships on the implementation of the UN Millennium Development Goals?
Why is this question important?

• Increasing recognition of the transformational power of technology.
• Cost of technology-based efforts.
  – initiation and implementation costs certainly,
  – but also total cost of ownership and opportunity costs are high.
• Failure rates of technology-based efforts.
• Changing economic environment.
• Increasing recognition that PPPs will play a critical role in the realization of the MDGs.
• Greater focus on relative value questions.
  – We need to know more than we did before about the strategies that represent the greatest value.
  – How can we understand the specific potential and the likelihood of success of any one effort or collecting of efforts.
Public Value Concepts

• The value to the public that results from improving the government as a public asset

• The value that results from delivering specific benefits directly to persons or groups
What do we know?

• We all “know” a lot about these influence relationships.
  – We have experiences as citizens.
  – We have insight as professionals.
  – We have learned as practitioners.
• Can we explain our answers? Do we know what set of conditions caused this outcome? Do we know if these conditions are context specific or transferable?
• Do we have an empirical foundation for answering these questions?
• This became the question of interest in our effort.
Study components

• A comprehensive understanding of the available related research.
• A set of observations about the strengths and weaknesses of current research in terms of being able to answer this question.
• Recommendations to guide the focus and design of future studies related to this question.
Three elements

- **Target** – Realization of the Millennium Development Goals
  - Eight international goals that respond to the world’s main development challenges (MDGs).

- **Tool - Digital Government (there are others)**
  - “The use of information and technology to support and improve public policies and government operations, engage citizens, and provide comprehensive and timely government services” (Scholl, 2007b, p. 21).

- **An enabling strategy – PPP (there are others)**
  - A public-private partnership is a collaborative effort whereby the public sector of a state uses its influence on the private sector in order to form a partnership to achieve some economic and developmental goals.
Methodology

• Conduct a systematic scan of the current literature to identify empirical studies that inform our understanding of the relationship between digital government, PPPs and achievement of the MDGs.
• Relevant keywords were identified and employed in searches of repositories and libraries of research materials, primarily journal publications.
• The general approach taken during this phase was to collect as much as possible without limiting the search to studies that primarily focused on e-government implementations on particular goals.
E-government: A new phenomenon

• “Virtually unknown a decade ago, e-government as a term, as an identified activity, and as a topic for research has grown dramatically.”
Current egovernment research

• Benchmark studies
  – Establish a baseline understanding of some domain or phenomenon.
  – Examples
    • ITU’s Statistical Reports.
    • CTG’s International Digital Government: A Reconnaissance Study.
    • CTG’s Baseline of Digital Presentation Capability in the 50 states.
Current egovernment research resources

• Journals
  – Government Information Quarterly
  – Journal of Information Technology and Politics
  – European journal of Information Systems
  – And others.

• Conferences
  – International conference on electronic governance theory and practice
  – International digital government research conference

• Disciplinary review articles
Digital government research

<table>
<thead>
<tr>
<th>Knowledge framework</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Theory-based work</td>
<td>1</td>
</tr>
<tr>
<td>Framework-based work</td>
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</tr>
<tr>
<td>Model-based work</td>
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<tr>
<td>Schema-based work</td>
<td>8</td>
</tr>
<tr>
<td>Concept-based work</td>
<td>4</td>
</tr>
<tr>
<td>Category-based work</td>
<td>22</td>
</tr>
<tr>
<td>Non-framework-based work</td>
<td>10</td>
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</tbody>
</table>
The MDGs

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a Global Partnership for Development
Goal 2: Achieve universal primary education

- Focus on key words extracted from education goals, targets, and indicators:
  - Primary education
  - Literacy
  - Primary schooling
  - Government ICT
  - E-government
  - Digital government
Goal 2: Achieve universal primary education

• Searches focused on journals using academic databases including Emerald and EBSCO; mainly journals that focused on educational issues.
  – Internal Journal of Education Development
  – Review of Educational Research
  – Computers and Education
  – Journal of Social Policy
  – Economics of Education Review
  – International Journal of Electronic Government Research
Goal 2: Achieve universal primary education

- Searches also focused on conference proceedings, organization reports, and country profiles
  - ICEGOV – International Conference on Electronic Governance Theory and Practice – UNU-IIST
  - DEXA
  - InfoDev
  - WebDev

- The articles found were from 2001-2007
Goal 2: Achieve universal primary education

- Countries and regions mentioned in articles:
  - Least Developed Countries
  - Malaysia
  - Kenya
  - Philippines
  - United Kingdom
  - The Netherlands
  - Mauritania
  - China
  - Finland
  - Africa
Goal 2: Achieve universal primary education

- The majority of studies were position papers pointing to the need to invest and investigate the use of ICT and digital government implementations for educational purposes.
- There were a couple of empirical studies identified:
  - Studies focused on general issues related to ICT in education and not on the developing context.
Goal 5: Improve maternal health

- Countries and regions mentioned/covered in these studies/reports:
  - United Arab Emirates
  - Egypt
  - Bangladesh
  - Uganda
  - Sub-Saharan Africa
  - USA
  - Nigeria
  - UK
  - The Netherlands
  - Sweden
  - Africa
  - Australia
Goal 5: Improve maternal health

- In searching for studies and reports on this goal, we used terms associated with maternal health indicators.
  - Mortality rate
  - Professional healthcare personnel
  - Universal access & reproductive health
  - Contraceptive prevalence
  - Adolescent birth and pregnancy
  - Antenatal care
  - Family planning
  - Government ICT
  - E-government and digital government
Goal 5: Improve maternal health

• Similarly, searches were conducted using Google Scholar and academic databases including Emerald, EBSCO, and JSTOR. Journals included:
  – The Electronic Library
  – Maternal and Child Health Journal
  – Reference Services Review

• Organizational reports were also included in the search.
  – WHO Report
  – International Development Research Centre
  – I4d
Goal 5: Improve maternal health

- Countries and regions mentioned/covered in these studies/reports:
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  - Nigeria
  - UK
  - The Netherlands
  - Sweden
  - Africa
  - Australia
**Goal 5: Improve maternal health**

- There were a number of county profiles included in the list of articles found.
  - These typically discussed and highlighted initiatives with respect to government’s use of ICT and issues revolving around maternal health.

- Other studies focused on lessons learned from applying US-CDC guidelines. The authors investigated CDC guidelines and encouraged others to apply them. They conclude by noting that “the community approach that evolved from using the guidelines was vital as it promoted collaboration among maternal and child health partners”
Goal 5: Improve maternal health

• Other studies, especially organizational reports were positional papers aimed at highlighting the role of ICT for the successful improvement in healthcare delivery in Africa and made some recommendations regarding the role of ICT.

• Other authors also point out the need for empirical studies to determine the impact of the surge in infrastructure and policy development.
Observations

• Generally, published materials related to the question of interest present positions and perspectives on the value of egovernment in a particular context.

• Some published materials are based on single cases.

• Relatively few of these materials present empirical evidence of the influence nor do they present models of the influence relationships or the conditions within which desired influence can produce expected results.

• Adding a research component to most egovernment projects is difficult to do.
Timing of research

Problem definition
Goal setting
Policy formulation
Strategy formulation

Design
Development

Deployment
Implementation
Operations

Performance assessment
Evaluation
Unhelpful timing

Problem definition
Goal setting
Policy formulation
Strategy formulation

Deployment
Implementation
Operations

Design
Development

Performance assessment
Evaluation

Independent research efforts

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Technology in Government
Modestly helpful timing

Problem definition
Goal setting
Policy formulation
Strategy formulation

Deployment
Implementation
Operations

Design
Development

Performance assessment
Evaluation

Research

Center for Technology in Government
Most helpful timing

- Problem definition
- Goal setting
- Policy formulation
- Strategy formulation
- Deployment
- Implementation
- Operations
- Design
- Development
- Performance assessment
- Evaluation
- Research
Risks of doing

- Takes more time and money to work this way
- Need patience, especially at the start
- Research may be overtaken by events
- Added complexity requires project management skills
- Government assessments (especially when results are unwelcome)
- Academic outputs are delayed
Risks of not doing

• Lack of empirical base regarding impact of relative strategies to guide investment decision making.
• Investing in projects that do not provide the greatest potential value to citizens.
  – Research could inform understanding about ICTs, PPPs, and the interdependence of the MDGs.
• Lost opportunity.
• Lack of understanding of the complexity of any particular initiative within a given set of conditions.
• Lack of understanding of the conditions under which a particular ICT strategy will deliver the value expected.
• And more...
Moving forward

• New theories to guide research in this area emerging.
  – Sociotechnical theories
    • Sociotechnical systems theory is theory about the social aspects of people and society and technical aspects of machines and technology. Sociotechnical refers to the interrelatedness of social and technical aspects of an organisation.
  – And others.

• Tools to support egovernment research emerging
  – Defining concepts
    • Public Private Partnerships
  – Scale development
  – Stromer Galley’s development of a coding schema to support analysis of the quality of the group deliberations now possible through the use of ICTs.
Example - Clarifying core concepts

• Schudson (1997) makes a distinction between political deliberation and sociable interaction, arguing that deliberation is essential to democracy; although, it is rarely enacted in practice.

• Deliberation for him requires that people discuss a common problem and reach consensus on how to solve that problem.
  – It is difficult discussion that requires people to disagree with each other and to assess the clarity and strength of competing arguments.

• Sociable interaction, by contrast, is conversation between people.
  – The goal of these casual conversations, even when the topic is political, is to build social relations or simply to get along.

• Conversation, by this definition, is not the same as deliberation, in part because political conversations are not a means to an end of solving a social or political problem.
Government Information Sharing Complexity Matrix

Inter-governmental

Inter-organizational

Organizational

Program Specific Problem-solving

Enterprise Capability Building

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Public Value Concepts

- The value to the public that results from improving the **government as a public asset**

- The value that results from delivering specific **benefits directly to persons or groups**
A kind of culture gap

<table>
<thead>
<tr>
<th>Government</th>
<th>Research</th>
</tr>
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<tbody>
<tr>
<td>• risk averse</td>
<td>• pushes the edges</td>
</tr>
<tr>
<td>• needs quick answers to guide action</td>
<td>• takes a long-range view to accumulate understanding</td>
</tr>
<tr>
<td>• wants practical advice</td>
<td>• tests hypotheses and generates theory</td>
</tr>
<tr>
<td>• treats public admin as a profession or set of skills and activities</td>
<td>• treats public administration as a discipline or field of study</td>
</tr>
<tr>
<td>• Organized by programs</td>
<td>• Organized by disciplines</td>
</tr>
<tr>
<td>• Specialized vocabulary</td>
<td>• Specialized vocabulary</td>
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<tr>
<td>• Specialized skills and knowledge</td>
<td>• Specialized skills and knowledge</td>
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</tbody>
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Program / Project-oriented

Theme / Topic-oriented

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A kind of culture gap - Expanded

- Government
- Research
- Private Sector

Program / Project-oriented

Theme / Topic-oriented
Learning and action partnership

Practical Problems of Government

Practitioner skill & knowledge

Academic skill & knowledge

Improvements in Practice

New Knowledge & Venues for Future Research
Strategies to create new research capacity

• Create new capacity for conducting comparative studies
  – NADGWG
  – IISRN
  – New curricular components
• Create new global research and practice communities
  – IGov
  – International Conference on Electronic Governance Theory and Practice
  – International digital government research conference
  – WSIS Expert Group Meetings
  – And others.
Digital Government Initiatives in Multi-jurisdictional Policy Domains: A North American comparative and transnational research agenda
The International Information Sharing Research Network (iISRN) was launched in 2007 at the Center for Technology in Government at the University of Albany. The iISRN is focused on building knowledge about information sharing in an international context and making that knowledge available to researchers and practitioners around the world. The iISRN program brings together doctoral students and faculty in a coordinated research network dedicated to examining key questions of information sharing theory and practice within the domain of government. This innovative network is leveraging present research findings from three U.S. National Science Foundation grants to the Center for Technology in Government by supporting comparative studies of these findings in the form of doctoral research on information sharing conducted in US and non-US contexts. Future plans for iISRN include creating a repository of culturally sensitive data collection instruments; creating a secure, accessible, and usable data repository; creating a set of resources to inform comparative information sharing research designs; and building a sustainable international research network focused on information sharing in a governmental context.

Dissertation studies are underway in China, Jordan, and Taiwan, with additional studies being planned in Mexico and Saudi Arabia. In their dissertation research, students are drawing on findings from CTG's Modeling Interorganizational Information Integration (MI3) and Knowledge Networking in the Public Sector (KNPS) research studies and working to contribute to the development of new theory and cross-boundary information integration and sharing through testing these findings in an international context. In addition to meeting regularly with iISRN, each student works with his or her dissertation committee at the University at Albany and with academic and practitioner partners in the host country.

iISRN currently involves faculty mentors from the University at Albany, staff from the Center for Technology in Government, and five doctoral students from China, Jordan, Mexico, Saudi Arabia, and Taiwan who are part of the Public Administration and Policy and Information Science programs at the University as well as one student from the U.S. located at the University of California at Santa Barbara. iISRN meets once a month to discuss network goals, key challenges in comparative information sharing studies, dissertation progress to date, and future opportunities, as well as to share knowledge about relevant topics such as comparative research design and issues related to human subjects.

An overview of key activities of the Network to date are provided below.

**Guest Speakers**
The Department of Public Administration at the Maxwell School of Syracuse University celebrated the 40th Anniversary of Dwight Waldo’s Minnowbrook Conference by examining The Future of Public Administration, Public Management, and Public Service Around the World.

Our 40th Anniversary Celebration was held in two parts:

- Preconference Workshop With New Scholars, September 3-5, 2008, at the original Minnowbrook conference site at Blue Mountain Lake, New York (“Phase One”)

About the original Minnowbrook conference:

In September, 1968, Dwight Waldo, Albert Schweitzer Chair at the Maxwell School, sponsored a conference of young public administration scholars at the Minnowbrook conference site of Syracuse University. Waldo was concerned that “neither the study nor the practice of Public Administration was responding in appropriate measure to mounting turbulence and critical problems” of the day (Marini, 1971: xiii).

The conference ideas, reflective of the tumultuous sixties, sparked a critical examination of public administration scholarship and practice aptly called the “New Public Administration.” The conference left an enduring legacy for our field.
iGov Research Institute
June 21-28, 2009
Seattle, Washington

The iGov Research Institute is a week-long residential program of the Center for Technology in Government. It provides doctoral students from around the world an opportunity to assess the impact of information and communication technologies on the public sector and to understand the value of doing research in an international context.

Program
The Institute is a combination of both classroom and field activities. more >>

Faculty
Internationally known researchers from a variety of academic institutions share their expertise and experiences. more >>

Location
Each year, the Institute is held in a city that is an international leader in a specific aspect of digital government. The 2009 Institute will take place in Seattle, Washington. more >>

Students
Doctoral students from all relevant disciplines and academic fields are welcome to apply. more >>

Applications
Applications for the 2009 iGov Research Institute are available here. more >>

Sponsor
The Institute is supported by a grant from the NSF.

Applications Due
March 2, 2009

“As a practitioner and doctoral student, I found the Institute’s curriculum of combining theory and practice was an excellent tool for learning. The bringing together of theory and practice has already added me in both my work and academic experiences.”

— Craig P. Orgeron, 2007 Institute Student, Mississippi State University
The 3rd International Conference on Theory and Practice of Electronic Governance (ICEGOV2009), will take place in Bogota, Colombia during 10 – 13 November 2009. The conference will bring together practitioners, developers and researchers from government, academia, industry and non-governmental organizations to share the latest findings in the theory and practice of Electronic Governance. Read more...

10-13 NOVEMBER 2009
BOGOTA, COLOMBIA

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URL: www.icegov.org
ICEGOV 2008 Program Distribution

Submissions by Country
ICEGOV 2008 Program Distribution

North-South Distribution

Developed Country, 45

Developing Country, 72

Mixed, 9

Sectoral Distribution

Academia, 69

Government, 14

Industry, 14

NGO, 9

Mixed, 20
“What good is technology if it takes six seconds to send a message but six months to get someone to act on it?!”
Question of interest

• How do digital government and public-private partnerships accelerate and support public service delivery and contribute to the implementation of the United Nations’ Millennium Development Goals?
Preliminary recommendations

- Convene and participate in ongoing conversations about the issues and challenges, how they were dealt with, some evaluative materials that will help others.
- Encourage all stakeholders to include attempts at some research effort in their projects.
  - e.g. Evaluation, modeling, understanding context.
- Use the coming years to come up with a repository of research on ICTs, PPPs, and MDGs.
Preliminary recommendations

• Encourage stakeholders to invest new attention to evaluation and to methodologies for examining projects as a way to inform decision making about investment alternatives.

• Develop new empirical evidence about what works, why something works and why it doesn’t.

• Use that new knowledge for speeding up the implementation and successful follow-up after 2015.
Next steps

• The project team will meet with members of the UNDESA Team to gather feedback on the findings to date and to integrate additional materials from the Geneva workshop.

• The project team will develop a report of the findings and recommendations for release on the UNPAN site, the CTG Web Site for use by government decision makers, researchers, international development agencies.
Thank you.

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