Preface

IMPERATIVES OF ELECTRONIC GOVERNANCE AND CROSS-BOUNDARY COLLABORATION

In the next decade, the shift from electronic government to e-governance will be one of the most important trends in the government use of information and communication technologies (ICTs). Using ICTs, electronic governance can transform the relationship between government and citizens, especially in the realm of the production and delivery of public services and information, as well as the practice of democratic governance. Governments should utilize ICTs to integrate information and services as well as to provide citizens with personalized information and services that traditionally have been provided by various departments. Moreover, electronic governance is concerned with actively engaging citizens in the making of public policy and program decisions. Such engagement reaches all corners of a society, as citizens voice their concerns individually or collectively via organizations in the public, private, and non-profit sectors.

The growing importance of electronic governance and cross-boundary collaboration results from the confluence of various factors. The development of ICTs is a significant driving force. The advancement of Internet technologies and the development of communication infrastructure (including cellular and smart phones) both enable citizens and government to interact online and via mobile devices. The growth in the number and increasing sophistication of online populations in developed countries and around the world speak to the importance of delivering public information and services online. Moreover, the recent growth of Web 2.0 has begun a new chapter in interactivity and engagement. Governments with more advanced technologies and an active online citizenry have begun to experiment with new ways of interacting with citizens for policy making and service delivery.

Another factor is the increasing recognition of the need for types of cross-boundary collaboration that can create public value. Providing citizen-centric public information and services requires both the horizontal and vertical integration of government information and services. A citizen receives a myriad of infrastructure, health, social, and human services from government; a progressive government is responsible for integrating those services for individual citizens, as opposed to requiring citizens to juggle the services of numerous departments. As advances in ICTs make horizontal and vertical integration possible, the increasing reliance on non-governmental organizations for public service production further elevates the importance of cross-boundary collaboration across the public, private, and non-profit sectors. ICTs play an important role in lowering the cost of such collaboration and monitoring the performance of the complex webs of organizations that provide public services.

Significant challenges lie ahead for the realization of the potential of citizen-centric democratic governance via the use of ICTs. One of these hurdles is the gap in our knowledge with regard to the theory and practice of electronic governance. One main reason for this gap is the fast-paced technological changes. For instance, the recent growth of Web 2.0, increase use of "smart" devices (i.e. smart phones and i-Pad), and expanded use of cloud computing all have implications for government-citizen interaction in a democracy. The next reason for the knowledge gap is the complexity of integration needed for successful e-governance and the resulting difficulty in studying complex problems. Such complexity originates from competing political interests, organizational goals, and technological systems and standards. Finally, scholarly attention to electronic governance has not kept pace with new technological developments and growing complexity judged by the number and quality of relevant journal articles.

Thus, the primary goal of this edited volume is to advance our knowledge about the theory and practice of electronic governance with a focus on cross-boundary collaboration. In particular, this edited volume makes a contribution to the following areas. First, it provides policy and implementation frameworks for e-governance cross-boundary collaboration and integration. Second, it enhances our understanding of the behavior of various e-governance stakeholder groups. Third, it advances our knowledge of evaluation tools and techniques that can be used to improve e-governance performance. Fourth, it examines online citizen participation, paying special attention to recent Web 2.0 developments, while examining certain electronic governance issues such as information access, politics, and institutions. Lastly, this edited volume draws from international experiences to provide diversity in institutional contexts and relevance to countries around the globe.

The main target audiences of the volume are scholars and practitioners interested in improving the theory and practice of electronic governance. That is, scholars and students in the field of public administration/affairs, public policy, political science, and information science focus on the role of Information Technology in public affairs will benefit from this volume. As for practitioners who may be interested in this volume, these include those in government responsible for implementing e-government and e-governance projects and those in non-governmental organizations that engage government in democratic governance issues. Almost all of the chapters will have specific policy and management lessons relevant for practitioners.

THEMES AND INSIGHTS

This edited volume treats several interrelated themes, the first of which centers on cross-boundary integration and collaboration. The chapters organized under this theme shed light on government implementation frameworks for information and technology integration, thus illuminating the analysis of implementation experience. The next theme complements the first, supplementing it with the perspective of e-governance users. The third section incorporates the perspectives of service providers and users, focusing on the evaluation of outcomes and performance, and evaluation criteria and tools, all of which are essential to improving e-governance performance. The subsequent section investigates the larger infrastructural, institutional, political, and organizational conditions required for successful e-governance; it strongly emphasizes a range of international experiences, which broadens the institutional contexts examined here. Finally, the last section examines growth trends in the online population as well as the use of Web 2.0. This discussion is particularly useful for scholars and practitioners who aim to advance the field

of e-governance. What follows is a more in-depth discussion of the above mentioned themes, featuring brief introductions to the chapters found in this volume.

Cross-Boundary Integration and Collaboration

Tzeng and Hu's chapter identifies critical issues facing cross-boundary integration and collaboration for e-government services. The authors use a focus-group approach to examine electronic public service integration in Taipei, Taiwan, and are able to uncover certain relevant issues, such as legal and institutional constraints, information privacy and security, trust, data ownership, nature of service, and technical readiness. The issues listed above have been empirically grounded, confirming their relevance, even in a non-Western context. Moreover, Tzeng and Hu argue for the importance of leadership and incentives in addressing barriers to cross-boundary collaboration for e-governance. Thus, a policy recommendation points to the need for a careful analysis of both the supply and demand of cross-boundary e-government services. This deliberative approach will help anticipate and remove barriers to e-governance integration and collaboration.

The government information sharing framework proposed by Estevez, Fillottrani, Janowski, and Ojo provides a multidimensional and operational framework for cross-boundary integration of government information. Moreover, this framework--which encompasses technological, organizational, inter-organizational, and environmental dimensions--can serve as an implementation template for addressing issues in e-governance information integration. Furthermore, the emphasis on capacity building, as marked by stages of maturity of experience in sharing, infrastructure support, and information strategy, is especially instructive for implementation. Thus, the recommended framework improves the conceptual clarity and implementation effectiveness of government information sharing. To illustrate the framework's relevance, the authors apply it to cases in Australia, the United Kingdom, the United States of America, New Zealand, and Estonia. The international reach of the case studies, which are located in four continents, further increases the framework's applicability.

Sung's chapter offers executive insights into government-wide integration and collaboration for e-governance. He highlights the critical role of cross-boundary integration in moving to e-governance, capitalizing on his extensive leadership experience in guiding government-wide e-government projects in Taiwan. He offers practical implementation strategies, such as managing interdependence and adapting to environmental changes to move e-governance forward. Specific activities for strategy implementation include the promotion of common standards, articulation of service value, and strengthening of control and coordination mechanisms. The two implementation cases, namely e-government services platform and e-housekeeper services, offer rich examples of practicing cross-boundary integration.

The analysis of Belgium's design and implementation of government-wide cross-boundary e-governance in Leyman's chapter offers important insights. It reinforces citizen-centric information and services as the core value and design principle of e-governance. The author's design of an e-government system has an identity and access management system at its core, and this helps integrate electronic services from various government departments. This design has implications for Europe as a whole. A viable model for integration of e-government, Leyman argues, should be a federated one. The federated structure is in alignment with the institutional framework of the European Union, and this European perspective further sheds light on cross-broader collaboration of electronic governance.

Citizen/User Centric E-Governance

Chang and Obi's chapter proposes and empirically tests a user-centric model of e-governance, with an emphasis on user satisfaction with e-services. The authors surveyed citizens as e-governance service users in Taipei and Tokyo. Their findings suggest the positive impact that citizens' experience in public affairs has on the perceived quality of e-services. In contrast, the perception of risks associated with the use of IT-enabled government services negatively impacts the perception of e-service quality. Interestingly, citizens' expectation does not bear a statistically significant relationship with satisfaction, when the perception of e-service quality is controlled for. The main contributions of this study include underscoring the importance of first understanding the user when designing and implementing e-governance services and providing a comprehensive user-centric model of e-service satisfaction. Specific policy lessons drawn from both cities underscore the need for broad-based positive civic engagement and the importance of mitigating perceived risks associated with e-services.

The focus on civil servants and the inclusion of organizational variables in Chiang's chapter further expand our understanding of users and multiply the dimensions considered in modeling users/citizens. The survey of Taiwanese civil servants gives insight into cross-boundary e-governance systems that have civil servants as the target users. Empirical findings raise the importance of attitudes and norms in determining intention to accept online service delivery. The relevance of attitudes and norms speaks to the role of the organizational culture as a key driver in adopting online service delivery. A surprising finding is that technical skill level is not an important factor for determining adoption, when several other factors such as risks and attitude are controlled for. Perhaps, technical skill acts as a threshold and a tech-savvy civil service has passed that threshold and is thus inconsequential in adoption decisions.

Citizen centricity should be an important design principle for successful e-governance, as the critical review of Thailand's e-government plan in Tubtimhin's chapter suggests. Such principle provides justification and momentum for the integration between the front and end-office e-government applications as well as the vertical and horizontal integration for successful e-governance. Thailand's effort to develop comprehensive ICT and e-government plans over the last decade highlights some challenges and opportunities shared by other developing countries in improving e-governance. The improvement needed in accessibility, infrastructure, ICT literacy, business process, organizational design, management, and assessment will help propel Thailand and other countries to the next level of citizen-centric e-governance.

Evaluation Instruments and E-Governance Assessment

Morgeson's chapter fills an important lacuna in our knowledge concerning the impact of e-governance from the user's perspective. This external perspective provides a more balanced e-government performance measurement model that can put adequate weight on user experience. Morgeson brings to focus what matters to users/citizens/customers. These include basic elements such as navigation, search, and look and feel, all of which can have significant implications for user online experience of government. These elements, along with investigation of U.S. federal government websites, serve as the foundation for an assessment framework that incorporates citizen (external) perspectives. Such an e-government performance assessment framework for government-wide adoption can serve as an important tool to monitor and improve e-government services.

In their chapter, Hsiao, Chu, and Lee address an under-studied but critical group of stakeholders in successful e-governance: businesses. Moreover, the authors make a significant contribution to the

development of an outcome-oriented e-governance model that advances the theory and practice of e-governance assessment. The notion of public trust, satisfaction, and adoption, as well as costs and benefits, are included in the outcomes. A large, government-wide empirical study, coupled with integration of relevant bodies of literature, lend a strong theoretical and practical grounding to the model. The authors' study of a labor insurance system in Taiwan yielded over 4,000 valid responses; thus, it can offer insights into the validity of an evaluation instrument. This chapter will be particularly relevant for those interested in conceptualization and operationalization of e-governance impact.

The chapter by Huang, Lee, and Hsiao empirically studies the use of online surveys as instruments for evaluating e-governance. Using online surveys to gauge user experience of e-governance has the advantages of low cost and speedy response. Data are collected in electronic format and ready for prompt analysis. The authors draw on their combined experience with conducting online surveys to evaluate e-governance, and they are able to identify several challenges, such as low response rates, difficulties in achieving representativeness, and challenges posed when working with government agencies. The authors propose several ways to increase response rates and to achieve a higher level of representativeness, such as offering surveys immediately upon completion of e-governance transactions and weighting to represent underlying demographics. Securing cooperation from government agencies to conduct survey and evaluation of e-governance activities, as suggested by the authors, will require building a long-term partnership between the research team in academia and the targeted government agency. These are important lessons for not only research teams, but also government agencies that are considering using online surveys in evaluating e-governance.

Rodríguez-Bolívar, Caba-Pérez, and López-Hernández's chapter applies the CapGemini methodology to the evaluation of municipal e-government services in select Latin American and Caribbean (LAC) countries. This study fills the knowledge gap with regards to the performance of e-government in nineteen LAC countries such as Argentina, Ecuador, Paraguay, Peru, Cuba, and Brazil, to name a few. Empirical investigation focuses on capital cities that can serve as good barometers of development progress. These LAC countries represent an area of potential growth in the application of e-government. Moreover, the utilization of an established methodology, CapGemini, provides for a systematic and comparative evaluation of e-government and policy lessons. In general, there is significant scope for development. Another important policy lesson is the need for public administration reforms to foster more open and participatory government. Such basic reforms will help realize the type of e-inclusion which the next stage of e-government calls for.

Wood's chapter uses e-government stages theory to critically examine the e-government of U.S. county governments. Wood adapted and integrated several models of e-government development to develop a stage theory, which proves to be productive in tracking the development of e-governance, identifying areas for improvement, and formulating developmental strategies. One defining feature of more advanced e-government is the maturity of integration and civic engagement. Wood evaluates the e-government performance of a random sample of 100 counties in two time periods, 2007 and 2010. The results suggest a more cautionary approach to the highly anticipated e-government benefits. Limited development is present particularly in the area of civic engagement.

Institutional and Political Aspects of E-Governance

Relly's chapter examines the institutions for electronic governance in India and China. The theoretical lens adopted is institutionalism. Viewing laws and regulations focused on government information access

(open government) as the core institution for e-governance is instructive because access to government information is one of the main conditions for meaningful citizen participation both offline and online. The large populations and economic dynamism of India and China elevate the importance of this empirical investigation. This study underscores the great potential of e-governance in both countries, even amidst challenges posed by political systems and infrastructure. The comparison between China and India reveals how "engines" of e-governance development can differ: China relies more on government and academia, while India is more reliant on grassroots movements. India is facing profound challenges in terms of literacy rates and infrastructure development, while this is less so for China. A common theme is the critical importance of political support and infrastructural development (institutional and physical) in efforts to realize the potential of e-governance.

Shiang, Lo, and Wang's empirical investigation of the implementation of freedom of information regulations provides valuable lessons on national implementation. Their analysis of the five-year implementation of Taiwan's Freedom of Information Act underscores the importance of back-office support. An indicator of progress can be seen in the fact that most public agencies in Taiwan have a designated section focused on meeting freedom of information regulations. Interestingly, freedom of information requests via established channels are rare. Such requests, when filed and processed, are mostly via opinion e-mail boxes of public agencies. This finding points toward the need for a comprehensive look at how citizens interact with government when obtaining government information. The research, moreover, highlights the importance of strong back-office support of implementation.

Sanchez and Ganapati's study of the role of the Internet in diasporic Iranian and Eritrean communities underscores both the innovative use of the Internet for political mobilization and the importance of political and institutional relationships in mediating the influences exerted by these communities. This chapter expands this edited volume's coverage to include the Middle East and Africa. The uses of social networking, blogging, and other new media are examples of the innovative use of new Internet technologies in electronic governance. The ability to mobilize diasporic communities in various host countries and connect with fellow countrymen in their homeland demonstrates the Internet's ability to connect people across time and space. The authors discern three factors that mediate the impact of such political mobilization on polity, including the diasporic communities' relationships with home governments, their ability to create linkages, and their power relations with homeland populations.

Yang's chapter provides a timely and insightful discussion of the nature and challenges of e-governance in China. Based partly on a review of relevant studies and policy statements, the study reveals China's commitment to modernizing its administration via the use of information and communication technology. However, the orientation is administrative in nature, with a heavy emphasis on control. As a result, the Chinese government faces significant challenges in meeting the increasing public demand for online participation in policy-making. But China's emphasis on government control is likely to mean that it may miss opportunities to engage citizens online. Yang argues that to advance e-governance, the Chinese government needs to conduct a critical examination of guiding values (control vs. engagement). In fact, this is an important lesson for any country aiming to develop its e-governance capacity.

New Frontier in E-Governance

Yang, Zhang, and Tang's chapter, entitled "Internet Use and Governance in China," explores various e-governance issues and provides a timely assessment and forecast. This chapter advances our knowledge of e-governance in two ways. First, it provides a broad review of Internet use as it relates to electronic

governance in China, a country with the largest online population in the world (beginning in 2008). The authors provide a review that covers the political and social implications of Internet use in a developing country, using credible, national statistics acquired from the China Internet Network Information Center. Second, this chapter reviews studies of e-government websites in China and provides an illustration of the development of e-governance in the public sector. The authors are able to identify various areas for improvement, especially the need for integrating e-government systems at all levels of government. China's experience charts a new territory in terms of how government can capitalize on its citizens' fast-growing Internet use. The use of Internet for civic engagement, an essential component for e-governance, depends on democratization and institutional changes.

Pan, Chen, and Wang's chapter pushes the envelope of e-governance by examining an innovative Web 2.0 public governance application in Taiwan. The authors first developed a framework for assessing government use of Web 2.0 by synthesizing the research literature on the value of public governance offered by Web 2.0. Using this framework, they conduct an empirical study of the central government's Vision 2020 Web site, which utilizes Web 2.0 features to facilitate the interaction between the elite and the general public in the process of envisioning Taiwan's future. The authors argue that the government must engage citizens with Web 2.0 technologies—it is a growing technology, and trust can be gained with active engagement. The main policy and management lessons concern the need to focus on ease-of-use to achieve a higher level of engagement, as well as the need for leadership to facilitate back-end integration. This study offers a much-needed analytical framework and management recommendations for advancing e-governance, just as more countries are beginning to formulate and implement plans to take advantage of Web 2.0 technologies for public governance.

Chen's contribution to this volume, an analysis of the U.S. federal government implementation of Government 2.0, further enhances our knowledge with regard to utilizing Web 2.0 to improve public governance. The United States is at the forefront of technological innovation. The long-standing tradition of open government also provides the institutional foundation for online civic engagement. This chapter provides a framework and specific policy and management recommendations for countries aiming to pursue Government 2.0. An adequate framework for Government 2.0, the author states, needs to be comprehensive; it must encompass policy/managerial, organizational, and technological dimensions. This chapter also highlights certain critical success factors, such as having policy guidance and supporting institutions, providing incentives and resources, and developing and promoting government-wide technical standards for better implementation.

MAIN CONTRIBUTIONS AND OPPORTUNITIES

This edited volume makes several contributions to the advancement of electronic governance. First, it provides insights into the theory and practice of improving electronic governance. To move to the next level of maturity, electronic governance needs to address challenging issues surrounding cross-boundary collaboration, civic engagement, institution-building, and innovative technologies (i.e. Web 2.0). Collectively, the chapters in this volume address these issues. Second, this volume provides useful frameworks for implementation and evaluation, such as frameworks for cross-boundary integration of government Information Systems, citizen-centric e-governance services, and evaluation of e-government performance. These frameworks are grounded in the research literature and critical investigation of existing practice.

Another main contribution of this volume is the coverage of countries that are either emerging or leading in the implementation of e-governance. China, India, and Latin American countries are charting courses in electronic governance. Several chapters in this volume provide in-depth examination of the challenges and opportunities respective to each country. Several chapters also offer a critical examination of leading examples of e-governance and thus are able to provide policy lessons relevant for those countries at the beginning stages of development. Web 2.0 in the United States, citizen-centric systems in Belgium, and government-wide integration in Taiwan are such examples. Collectively, these chapters also underscore the importance of political/managerial commitment, institutional support, performance evaluation, and citizen-centric service and engagement in e-governance success.

Future research should examine the implementation and evaluation frameworks suggested here, but applied in various contexts. Also, future studies can focus on the efforts of developing countries to advance e-governance based on this volume's rigorous empirical investigations of e-governance integration and civic engagement. Furthermore, e-governance performance evaluation is another productive area of future research; diminishing public resources and calls for accountability both require tracking and improving e-governance performance. Moreover, scholars and practitioners should begin to monitor the impact of the rapid development of Web 2.0 and Semantic Webs, not to mention, the impact of the increasing connectivity and openness offered by "smart" mobile devices. Clearly, government is in a position to lead the effort to develop technical standards that are able to ensure interoperability and identity management schemes that can foster citizen trust.

Yu-Che Chen
Northern Illinois University, USA

Pin-Yu Chu
National Chengchi University, Taiwan