Global Intelligent Governance—A Collaborative Platform

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ABSTRACT

The purpose of this panel on "Global Intelligent Governance—A Collaborative Platform (GIG-CP)" is to discuss the feasibility and need for developing a collaborative platform to facilitate a global network-to-network collaboration of research in intelligent governance (IG). The discussion could provide a guide to establish the platform which will enable collaboration among international research networks. The platform will facilitate establishing common protocols for sharing high quality and high value open data. It would transform data-driven public engagement in collaborative decision making processes. There are three aims of the project: (i) to facilitate the development of research network collaboration; (ii) to enable the design of a global data hub, and (iii) to examine the IG skills required for the future workforce.

CCS CONCEPTS

• ; • **Social and professional topics** → Computing / technology policy; Government technology policy; • **Information systems** → Information systems applications;

KEYWORDS

Collaborative platform, Open data, Global data hub

1 INTRODUCTION

The purpose of the "Global Intelligent Governance—A Collaborative Platform (GIG-CP)" panel is to examine the development of a collaborative platform to facilitate a global network-to-network collaboration of research in intelligent governance (IG). IG combines the computational resources and the institutional governance requirements for effectively administering agencies and managing public services. Computationally, IG encompasses technological resources, methods, and services for communication and computation, data analytics, and networking. The technological resources span both hardware (IoT, robotics, sensors, cyber-physical systems) and the software (data, AI, cyberinfrastructure, security protocols). Institutionally, IG includes the people, processes, services, and institutions that can effectively use the technological means for public management. Overall, IG facilitates large scale data collection from disparate sources, analyzing them through advanced computational methods (including machine learning), and simulation and data visualization for evidence based intelligent solutions.

2 BENEFITS FOR PUBLIC MANAGEMENT

A collaborative global platform for intelligent governance has several benefits from the global to the local public management. With rapid evolution of digital technologies, the global platform can be harnessed for new intelligent decision making processes. Computational methods and algorithms can be quickly transferred to solve complex local governance problems. IG can employ various digital technologies to make collaborative decisions in an agile way. It encompasses a range of different regional concepts used around the world, including cognitive cities, smart governance, ubiquitous cities, and knowledge based cities. The IG researchers are interdisciplinary, including policy science, public administration, urban and regional planning, and other urban informatic fields. IG requires crafting new forms of human collaboration internationally using information technologies to obtain better governance outcomes, enhance sustainability, and improve quality of life in the face of governance challenge).

The GIG-CP project can facilitate the development of common protocols of the platform for global cooperation. The network of networks approach is key for establishing such protocols of the

platform; the goal cannot be realized by a single network. Regional research networks around the world need to come together to find common aspects of high quality and high value data which are useful for governance in their contextual settings. The global connection is also crucial since it allows for researchers to test their hypotheses with data which have been traditionally beyond their scope and accessibility. Comparative learning and sharing perspectives are essential for efficient and effective decision making at global scale. A global platform should address basic issues such as secure identification, non-repudiation, digital verification, secure data exchange and individual privacy. The platform could interface between the regional data hubs and share the resources seamlessly for researchers to "plug and play." The global pandemic of Covid-19 could also be potentially helped with the collaborative platform. With the rapid spread of pandemic, we need evidence based strategies for addressing the problem.

3 VISION OF THE PROJECT

The long term vision of the GIG-CP project is to enable collaboration among research networks through the platform. On the computational side, the platform should be able to interface a network of global data hubs that facilitate researchers to gain access to urban data across countries and regions. The open data and open government movement has gathered momentum worldwide as public agencies have made their data available online (e.g. data.gov in the United States). Local, state, and federal government agencies mandatorily collect vast amounts of data—quintessentially, BIG data. The data are of different types (quantitative, spatial, textual, image, voice) and from various sources (administrative data, surveys, public meetings, sensors). As a result, public agencies are vast repositories of administrative data. Yet, these data have limited use for researchers since they have various degrees of integrity, quality, an). If the data are standardized and made accessible, they would transform urban governance research world-wide by many folds. The GIG-CP vision would facilitate establishing common protocols for sharing high quality and high value open data. On the institutional side of governance, the CI enabled platform would transform data-driven public engagement in collaborative decision making processes. Governance entails complex decision making with differing roles of public agencies, nonprofits, and private entities.

4 PROJECT AIMS

There are three main aims for the IG panel. The first aim is *to facilitate the development of research network collaboration*. This aim is intended to cross fertilize ideas across the global networks in an effort to arrive at common understanding of IG needs while being sensitive to the contextual regional requirements. Most of the existent research in the digital governance domain focus in either a specific region or country or a specific domain of study, lacking a holistic or a transdisciplinary perspective. The networks are at different levels of maturity, with some European and Asian networks comparable to that of American research networks. While these cross-country networks are important, a few country level research networks also exhibit similarly high levels of maturity. Hence, we need to consider the country level networks as well. The second aim of the project is to *enable the design of a global*

data hub. As public agencies become larger repositories of data, the regional and country networks can have greater access to these data for comparative research on urban governance issues. At the same time, the research networks need to ensure data integrity, validity, openness, and accessibility. Advanced computational tools are also required for analyzing and visualizing the data from across multiple domains. The third aim is *to examine the IG skills* for the future workforce. There is also extremely limited IT emphasis in the public management and governance pedagogy.

The panel of networks included in GIG-CP are global, across Africa, Asia, Europe, Middle East, South America, and North America. There are both formal and informal networks with cross-country and country level scope. The formal networks have an established organizational structure; the informal networks are not as well established. As the networks are at differing levels of maturity, they are at different degrees of research on intelligent governance. The hope of the panel is to establish the common research questions, protocols and challenges in establishing the platform.

5 PANEL ORGANIZATION AND PANELISTS

The panel will be comprised of research network representatives across the globe, spanning Asia, Latin America, Europe, and North America. Each representative will highlight the specific requirements of the regional needs, and how a global common platform can bring together the research communities in an express way. The panel will begin with a broad overview of the vision of the project, followed by a moderated discussion of what the global platform should entail. The discussion will be guided by the following questions:

- How can a global platform help with governance from your perspective?
- What are the existing capacities for research and education on intelligent governance in the region?
- What are the gaps that the global platform can help resolve?
- What should the design features of the global platform should ideally comprise of, from your perspective?

The panel participants will be as follows:

Michael Ahn: He is an Associate Professor at the University of Massachusetts Boston. He is a National Council Member of the American Society for Public Administration (ASPA), and the chair of the Section on Science and Technology in Government (SSTIG).

Yu-Che Chen. He is the Director of the Digital Governance and Analytics Lab. His current research interests are cyberinfrastructure governance, public policy and governance of artificial intelligence, and collaborative digital governance.

Sukumar Ganapati (Moderator). He is an Associate Professor and the former Director of the Ph.D. program in Public Affairs. His research interests focuses on housing, community development, e-government, and information technology applications.

Robert Krimmer. He holds the ERA-Chair Full Professorship of e-Governance within Skytte Institute at University of Tartu in Estonia. He is also an Adjunct Professor of e-governance in the Ragnar Nurkse Department at Tallinn University of Technology. His research is focused on digital transformation, cross-border e-services, electronic participation and democracy,

Gabriela Viale Pereira. She is an Assistant Professor for Information Systems at the Department for E-Governance and Administration at Danube University Krems and Research Fellow at CTG UAlbany. Her research is focused on digital government and ICT-related Governance, especially in the context of smart cities.

Cristián Pliscoff. He is the Coordinator of *Magister en Gobierno y Gerencia Pública* at INAP - Universidad de Chile. He is also a former Director of School of Government and Public Management of the Institute of Public Affairs. His research interest are in public sector reform, ethics and corruption, and transparency.

Hsien-Lee Tseng. He is a Research Coordinator at the Taiwan E-Governance Research Center (TEG). His major research interests include decision analysis, technology management, and application of big data.

Jiannan Wu. He is the Distinguished Professor and Executive Vice Director of China Institute of Urban Governance and Head of Division and Liberal Arts and Social Science, Shanghai JiaoTong University, China. His research interests include: theory of public organizations, performance management, reform and innovation both in the public and private sectors.

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