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DG.O 2021: Digital Innovations for Public Values: Inclusive Collaboration and Community

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DG.O 2021: Digital Innovations for Public Values

Inclusive Collaboration and Community

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ABSTRACT

This panel highlights digital government practices that exemplify the dg.o 2021 conference theme: Digital Innovations for Public Values: Inclusive Collaboration and Community. Public values serve as the guiding principles for the development and implementation of digital innovations for public service. Inclusivity is a salient public value to bridge the digital divide in the development, access, and use of information and communication technology. Cases presented in this panel illustrate civic engagement via digital technologies for inclusive collaboration; collaboration between government and residents as well as government, university, and community organizations; and utilization of digital technology to strengthen community at local and national levels. These cases feature projects of the Digital Governance and Analytics Lab at the University of Nebraska at Omaha, the hosting university of dg.o 2021 as well as similar projects done by research collaborators at Florida International University and University of Massachusetts Boston.

CCS CONCEPTS

• **Social and professional topics**; • **Information systems**;

KEYWORDS

Digital innovations, public values, digital inclusion, collaboration, virtual community, cyberinfrastructure

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1 INTRODUCTION

This panel features digital government practices that exemplify the dg.o 2021 conference theme: Digital Innovations for Public Values: Inclusive Collaboration and Community. Public values should serve as the guiding principles for the development and implementation of digital innovations for public service [1]. Recent developments in innovative technology—such as artificial intelligence, IoT, blockchain, social networking platforms, 5G, etc.—offer unprecedented opportunities for public value creation [2]. However, at the same time, the fast advancement of technologies further accentuates the digital divide between individuals, organizations, and nations.

2 INCLUSIVE COLLABORATION AND COMMUNITY

Inclusivity is a salient public value to bridge the digital divide in the development, access, and use of information and communication technology. Collaboration can span boundaries of organizations, sectors, and national borders. A community-based holistic perspective is needed to integrate various technologies and stakeholders to jointly create public values. The featured studies below offer experiences and insights.

3 FEATURED STUDIES

3.1 E-participation to promote public values

This study, led by Dr. Lee, illustrates how citizen participation via digital channels can promote public values such as transparency and trust in government. It offers a model for collaboration between government and citizens for public value creation. Moreover, it addresses the challenges of digital inclusion exemplified in a community engagement project via e-participation in City of Lincoln, Nebraska.

3.2 Enhancing public safety of drone (UAS) uses

This study, led by Drs. Chen and Huang, examines how we can leverage technology and collaboration to enhance public safety at the community level. The increasing use of unmanned aircraft systems, also known as drones, has become a source of societal concerns such as public safety and individual privacy. This study looks at collaboration between the University of Nebraska Omaha and the City of Omaha to develop community best practices to enhance public safety. It also explores drone pilot behavior and how to use information technology to enhance their use of drones to enhance public safety. It is inclusive in engaging volunteer experts and people in the community to collaboratively advance safe use of emerging technologies.

3.3 Creation of an equitable learning community to leverage cyberinfrastructure

This study is an effort led by Dr. Sukumar Ganapati and funded by the U.S. National Science Foundation (NSF, Award # 1924154) to create an equitable learning community to leverage cyberinfrastructure. The goal is to empower policymakers who traditionally have had limited access to cyberinfrastructure with the knowledge and skills to do so, enabling better public service decisions. These policymakers will learn machine learning, data analytics, Internet of Things, and digital security as well as how to access and utilize cyberinfrastructure resources to conduct policy analysis. As a result, they will be in a position to leverage information to better solve policy and program challenges. The approach here is a community-as-a-whole collaborative approach to engage key stakeholders, including those in government and nonprofit organizations. In addition, this project is inclusive in bringing resources to disadvantaged communities in minority and low-income communities through Florida International University, a Hispanic-Serving Institution (HSI) located in Miami.

3.4 Innovative mechanics integrating human insights and digital technologies

The City of Boston, Massachusetts, has been at the forefront of the smart city and civic technology movements in the US. Its use of smartphone apps, open data approach, and the involvement of civic hackers and citizens in the development and implementation of smart services have resulted in a unique form of a smart city: a "people-centered" smart city. This case study examines the institutional engine behind Boston's smart city innovation, the Office of New Urban Mechanics and its efforts and achievements toward people-centered smart government. Furthermore, the culture of civic technology and open government in the greater Boston area, characterized by active civic technology activities and collaboration between the government and citizens, is examined for its role as a catalyst in the foundation of Boston's development into a uniquely collaborative form of smart government.

Table 1: Panel Organization

Topic	Duration	Responsible person
Theme of dg.o 2021	10 mins	Panel chair
Cases	45 mins	All panelists
Questions and Discussion	20 mins	Moderator

4 PANEL ORGANIZATION AND PANELISTS

4.1 Organization

This panel is 75 minutes in length. It will begin with introduction of the dg.o 2021 conference theme, followed by the presentation of the cases listed above. The panel will include twenty minutes of discussion and questions for sharing experiences and insights.

4.2 Panelists and their roles

The names and institutional affiliations of the authors appear directly below the title. Dr. Yu-Che Chen also serves as the chair and moderator. All other panelists present their respective studies.

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REFERENCES

[1] Yu-Che Chen. 2017. *Managing Digital Governance.* Routledge, New York, NY.
[2] Matt Young, Justin Bullock, and Jesse Lecy. 2019. Artificial discretion as a tool of governance: a framework for understanding the impact of artificial intelligence on public administration. Perspectives on Public Management and Governance, Vol. 2, Issue 4, 301-313.