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Data Collaboratives

How to create value from data for public problem solving? Panel

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Data Collaboratives: How to Create Value from Data for Public Problem Solving?

Panel

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ABSTRACT

This panel¹ is dedicated to the theme of ‘data collaboratives’, a novel form of public private partnership to leverage data for addressing societal challenges. The panel brings together prolific researchers and practitioners to share lessons and discuss how value is created from data collaboratives for the solving of public problems. The panel will highlight prominent examples of data collaboratives at international, national, and regional/city-levels and discuss the value creation mechanisms underlying them, as well as more broadly best practices and challenges associated with data collaboratives. The panel offers an opportunity for conference attendees to engage with this emerging new theme through interactive discussions and presentations of cutting-edge research and practice.

CCS CONCEPTS

• **Applied computing** → **Computing in government**

KEYWORDS

Data collaboratives, big data, open data, value creation, data science, societal challenges

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1 INTRODUCTION

In the present, we face a range of complex ‘wicked’ problems which often cannot be solved by any single authority in the public sector, such as climate change or refugee crises. The magnitude of such problems is often hard to estimate and the cause-effect relations are complex [1]. Therefore, using an evidence-based approach with regards to such problems is extremely important. Access to new datasets relevant to these problems can empower policy makers and provide a more accurate and comprehensive picture. In fact, an increasing number of initiatives have emerged around the world to facilitate data sharing and collaboration to leverage (new) sources of data for addressing societal problems. They are called ‘data collaboratives’.

By definition, data collaboratives are “cross-sector (and public-private) collaboration initiatives aimed at data collection, sharing, or processing for the purpose of addressing a societal challenge” [2]. An essential element of data collaboratives is that organizations from different sectors collaborate to create value from data. Corporate data sharing, also termed ‘data philanthropy’ [3], is a prominent avenue for data collaboratives, whereby corporations share some of their data to help advance a societal

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issue. The recently launched Data Collaboratives Explorer² currently showcases 87 examples of data collaboratives from around the world (as of 28-03-2017). Data collaborative initiatives have emerged in the domains of humanitarian action, environment, economic development, transportation, healthcare, crisis response and others. A number of global players are active in this field, such as the UN Global Pulse, World Bank, UNOCHA.

While experimentation intensifies and academic research grows, it is important to further mutual learning and sharing of lessons between the two communities. So far there is little synergy between the developments in practice around data collaboratives and the digital government research. There is a lack of common terminology and of shared understanding of the novelty and complexity of this new phenomenon. Therefore, this panel aims to bring together leading researchers and practitioners to showcase their results and discuss a number of critical issues around how data collaboratives can be used to create value for public problem solving. The panelists were selected based on their unparalleled expertise on the topic of data collaboratives and/or closely related domains. They have combined expertise in data sharing, public private collaboration, data analytics, open and big data innovations, and data collaboratives. The topic of data collaboratives is particularly suited for a panel since it is a novel development in digital government research, and there are a growing number of initiatives in practice involving different levels and types of government organizations. Further, there is a solid base of research in the digital government research community of potential value to data collaborative practitioners.

2 ISSUES OF THE PANEL

Data collaboratives as a novel form of partnerships offer much potential for addressing a range of public problems. Although more and more data is available, the creation of value from data remains challenging. Data collaboratives can potentially deliver a wide range of public sector benefits, such as improving situational awareness and response, improving public service design and delivery, enabling forecasting and prediction based on the data, supporting evaluation and impact assessment of policies, as well as contributing to knowledge creation and transfer between the sectors [4]. Value can range from high level societal value like poverty reduction, to operational values, like greater efficiency of decision making. However, data collaboratives are not a homogeneous phenomenon and can be 'configured' differently based on the type of data, involved parties, purpose of the initiative [2]. This makes it hard to compare the value generated by the initiatives. Besides, value creation is a complex process in which many stakeholders are involved, processes are hard to pre-define, and also some level of coincidence plays a role. Some initiatives may be more successful in value creation than others.

² <http://datacollaboratives.org/>

More and more an ecosystem approach is adopted to creating value from data in which diverse organizations are involved [5].

In this panel we will discuss the following issues:

- types of value that can be created and the variations in the underlying value creation mechanisms in the context of data collaboratives;
- similarities and differences between international and city-level data collaboratives in terms of value creation;
- successful examples of data collaboratives;
- value propositions for private and public organizations involved;
- lessons learnt and best practices;
- challenges associated with data collaboratives.

The panel is aimed at building bridges between practice and research by discussing how digital government research can contribute to data collaboratives practice and vice versa. The panel will include interactive elements and encourage critical discussions between the panelists and the audience. The take away from the panel for the attendees will be new knowledge about the value creation mechanisms underlying data collaboratives and the complexities and challenges associated with them. The panel will offer ideas for a research agenda, as data collaboratives is an emerging new theme in the digital government research.

3 PANELISTS

The panel will feature the following speakers:

Stefaan Verhulst is Co-Founder and Chief Research and Development Officer of the Governance Laboratory @NYU (GovLab) where he is responsible for building a research foundation on how to transform governance using advances in science and technology. Verhulst's latest scholarship centers on how technology can improve people's lives and the creation of more effective and collaborative forms of governance. Specifically, he is interested in the perils and promise of collaborative technologies and how to harness the unprecedented volume of information to advance the public good.

Marijn Janssen is a full Professor in ICT & Governance and chair of the Information and Communication Technology (ICT) section of the Technology, Policy and Management Faculty of Delft University of Technology. Dr. Janssen's research interests are in the field of orchestration, shared services arrangements, and open and big data and infrastructures. He is Co-Editor-in-Chief of Government Information Quarterly, conference chair of IFIP EGOV series and is chairing mini-tracks at the dg.o, ICEGOV, HICCS and AMCIS conferences. He was ranked as one of the leading e-government researchers in surveys in 2009, 2014 and 2016, and has published over 380 refereed publications.

Theresa A. Pardo, Ph.D. is the director of the Center for Technology in Government at the University at Albany, SUNY and a full research professor in public administration and policy at

Rockefeller College. Dr. Pardo is a co-developer of the top-ranked Government Information Strategy and Management concentration at the University of Albany and is past president of the Digital Government Society. Dr. Pardo serves as OpenNY Adviser to New York State's Governor Andrew Cuomo and is Chair of the U.S. Environmental Protection Agency's National Advisory Committee. She is a member of the User Working Group of the NASA Socioeconomic Data and Applications Center (SEDAC). Additionally, Dr. Pardo is a member of the Steering Committee of the National Science Foundation funded North East Big Data Hub, an International Advisor to the E-Government Committee for the China Information Association, and serves as an Expert Advisor to the Open Data 500 Project.

Robert Kirkpatrick is the director of United Nations Global Pulse, a flagship innovation initiative of the Secretary-General driving big data revolution for sustainable development and humanitarian action. His work in government, UN agencies, NGOs and the private sector has focused on developing solutions at the intersection of technology, policy and social change. He has spent more than 15 years creating technology tools for business, public health, disaster relief, security coordination, citizen journalism, telemedicine, crisis monitoring, and conflict mediation.

Amen Ra Mashariki, Ph.D. is the New York City's Chief Analytics Officer and leads the Mayor's Office of Data Analytics (MODA). Dr. Mashariki is an accomplished leader within government, private sector and academia with experience in bringing Big Data processing and analytics for large and complex data management efforts. Previously, Dr. Mashariki served as Chief Technology Officer at the U.S. Office of Personnel Management. Dr. Mashariki holds a Doctor of Engineering from Morgan State University, USA

The panel is moderated by Dr. Iryna Susha.

Iryna Susha is a postdoctoral researcher in the Department of Informatics at Örebro University, a guest researcher at Delft University of Technology, and a visiting scholar at The Governance Lab of New York University. Iryna's current research focus is on data collaboratives and how they can be efficiently used to address societal challenges. Her earlier works on open government, open data, and citizen participation have appeared in various international journals and conferences.

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