Proceedings of the 53rd Hawaii International Conference on System Sciences | 2020

HICSS2020 – Mini Track on Digital Government Innovation: Social and Service Innovation in the Digital Age

Gianluca Misuraca

European Commission's Joint Research Centre gianluca.misuraca@ec.europa.eu

Ulf Melin

Department of Management and Engineering Linköping University, Sweden ulf.melin@liu.se

Shuhua Monica Liu

Fudan University Shuhua.monica.liu@gmail.com

Digital government technologies, practices, and service provision offer substantial opportunity to improve or innovate how governments, citizens, and communities engage in governing and governance; collaborate to resolve societal, community, and global challenges; and foster new forms of deliberative and data-driven processes. Both practice and research communities suggest that the use of information and communication technologies (ICT), or different forms of digital technologies, in governments and societies at large has substantial innovation potential.

Further, Digital Social Innovation (DSI) provides new ways of empowering citizens and engaging them in civic action, they provide new ways of building social movements, delivering public values and services and creating social impact in fields as diverse as education and training, governance and democracy, energy and environment, transport and housing, healthcare and social services.

Phenomena like the sharing economy, big and/or open data, automation, robotization, social media, lowcost open hardware, crowdsourcing, intelligence, just to mention a few, has a possibility to significantly impact government organizational structures, managerial and financial practices, and overall culture. These technologies provide the potential to transform (incremental or radical) the way we work, live and interact with one another, address the challenges ahead for our governance systems, achieve progress and well-being for citizens and society, and create efficiencies within governments as they meet community and citizen needs. At the same time technologies can be challenging and make digital divides visible. More scientific and actionable knowledge on digital government innovation, focusing social and service innovation in a digital age is therefore needed.

In this Mini Track eight high quality research papers will be discussed, looking at different aspects of social and service innovation in Digital Government.

The first paper titled *Mapping the Evolving Intellectual Structure of Digital Innovation Research on the Public Sector: a Document Co-citation Analysis* presents results from a document co-citation analysis (DCA) to explore the underlying and evolving structure of research on digital innovation (DI) in the public sector, In particular, the paper examines what streams of scientific literature have been used in scholarly practices of citation in the study of innovation in the domain of e-government, which are the central documents in the identified research streams and whether emerging academic contributions around DI has had an impact on this field of research.

The second paper, *Landscaping of Artificial Intelligence in public administrations in Europe*, provides a preliminary overview of the use of AI technologies in the public sector in Europe, attempting to indicate, classify and understand current AI-implementations in the field and set the basis for further research and recommendations for policy.

The third paper, titled *Problem Conceptualization* as a Foundation of Data Analytics in Local Governments: Lessons from the City of Syracuse, New York, investigates how data analytics is actually used in a local government and what are the main steps in this process, suggesting that the conceptualization of the problem is a critical step in producing meaningful data analytics, but also in thinking about innovations even when data is not readily available.

In the same vein, the paper *Open Data Standards: Vertical Industry Standards to Unlock Digital Ecosystems*, looks at standards as essential means to facilitate value creation from open data, arguing that the literature has insofar been silent about why specific standards are chosen and how these standards are

implemented. To this end, the paper presents findings from an action research project with the Swedish public transport industry, where open data standards were both chosen and implemented.

The fifth paper, *Impacts of Digitalization: Many Agendas on Different Levels*, analyses what kind of impacts different digitalization initiatives in a mid-size city create and for who, showing that the impacts vary for different stakeholders and according to divergent perspectives, with implications on the assessment of the success and benefits of the digitalization initiatives.

Following the debate on impacts, the sixth paper, entitled *The Impact of Information Technology Evolution on the Forms of Knowledge in Public Sector Social Work: Examples from Canada and the UK*, explores the potential of digital changes to transform the way the public sector operates, with specific regard to the experience of social workers in a Canadian province, which replicated the practice previously implemented by UK child protection workers, and suggesting that forms of knowledge may evolve with technological change.

Moving then to the discussion on the potential of digital innovation to facilitate citizens engagement, the seventh paper, E-participation with social media in Science, Technology and Innovation: Brazilian States Research Support Foundations case. discusses the approach of the Brazilian States Research Support Foundations (RSF) to promote the use of social media in all social strata with effect on citizen participation in political discussions, bringing citizens closer to scientific governmental institutions and intensifying the interactions between government, researchers and citizens, using an informal and accessible language.

The paper titled *The Influence of Public Values on User Participation in e-Government: An Exploratory Study*, concludes the mini track with an analysis of four e-government projects, investigating the relevance of public values as key drivers behind user participation, and formulating recommendations for practitioners to guide the choice of the method to use.