Workshop on Open Information Infrastructures Enabling Innovations

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Abstract: Information infrastructures and the large amounts of data that are accessible through them offer tremendous potential for innovation. In this workshop, we present and discuss two examples of such high-impact innovations: an *open data* e-infrastructure and government *re-use* of a business information infrastructure. Both offer possibilities for innovations in the public sector. The workshop covers both the infrastructures themselves and their challenges.

Information infrastructures are open, heterogeneous, evolving and IT facilitated sociotechnical systems that are shared between multiple actors [HL10]. They include the information technology (IT) and organisational structures and networks, and the facilities and services based thereon that actors, society and economies need in order to function [TLS10]. These information infrastructures impact and even reshape the organisations and their services, also in the public sector [JCG09]. Information infrastructures and the large amounts of data that are accessible through them offer tremendous potential for innovation in the publicsector.

This workshop covers the impact of open information infrastructures on enabling innovations. It does so by discussing practical implementations and innovation projects, and the consequences thereof for government organisations and their relationships with citizens and businesses. Through sharing knowledge and experiences gained from multiple perspectives and backgrounds, the workshop aims to both widen and deepen the understanding of the participants on the opportunities and challenges of open information infrastructures as an enabler for innovations of the public sector.

Two specific information infrastructure developments are presented to and discussed with the participants:

- An OPEN DATA infrastructure for opening government information to citizens, researchers, civil servants and other stakeholders. Open data have been recognized as a way to advance citizen engagement, increase economic welfare and improve governmental decision-making [JCZ12]. However, existing open data infrastructures are not sufficiently supporting the reuse of open data and users are barely able to exploit the full potential of open data. The aim of this part of the workshop is 1) to describe and discuss mechanisms for developing a more open government by using open data and 2) to present an open data infrastructure that incorporates several of these mechanisms and that could contribute to the development of a more open government. The presentation focuses on features and functionalities of the open data infrastructure and a live demonstration. Participants can learn how they can use this infrastructure, for example, for their own research.
- The RE-USE OF DATA in global business information infrastructures for government supervision and control purposes. In the domain of global supply chains, innovations are currently undertaken to enhance data sharing and the timely availability of accurate data in global trade networks. This concerns business information infrastructures, but given the strong role of regulation and compliance (e.g. tax, security) this also requires intensive information exchange with, among others, customs authorities. In this part of the workshop, we discuss how governments can be involved in business innovations and re-use the information that comes from that to more effectively and efficiently perform supervision and control tasks. We primarily focus on the government of such public-private information infrastructures, and the role that government organisations should play in it.

Acknowledgement

This workshop is related to two projects under the 7th Framework Programme of the European Commission: ENGAGE (www.engage-project.eu), and CASSANDRA (www.cassandra-project.eu). The authors would like to thank their colleagues in these projects for their input for this workshop although the vViews expressed are the views of the authors and not necessarily of the project.

References

- [HL10] Hanseth, O. and K. Lyytinen, *Design theory for dynamic complexity in information infrastructures: the case of building internet.* Journal of Information Technology, 2010. **25**: p. 1-19.
- [TLS10] Tilson, D., K. Lyytinen, and C. Sørensen, *Digital Infrastructures: The Missing IS Research Agenda*. Information Systems Research, 2010. **21**(4): p. 748-759.
- [JCG09] Janssen, M., S.-A. Chun, and J.R. Gil-Garcia, Building the next generation of digital government infrastructures. Government Information Quarterly, 2009. 26(2): p. 233-237.
- [JCZ12] Janssen, M., Y. Charalabidis, and A. Zuiderwijk, *Benefits, Adoption Barriers and Myths of Open Data and Open Government*. Information Systems Management, 2012. **29**(4): p. 258-268.