Organisation designing though the practice of multi-method research in Information Systems

(extended abstract)

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Purpose of the research

Our increasingly knowledge and experience intensive economy (Yoo, Boland, & Lyytinen, 2006) poses new challenges and opportunities for organisation designing in an interconnected social world (Benkler, 2006). Practices for the strategic use of digital tools and platforms aimed at transforming organizations, redesigning cooperation models, and shaping the environment can benefit from the development of conceptual models and methods grounded on a deep understanding of the underlying logic of complex socio-technical systems. Also theorizing in such dynamic space requires the development of new intellectual frameworks and knowledge infrastructures (Edwards et al., 2013).

Information Systems (IS) studies for their systemic view of organisations, design thinking orientation, and their multimethodology research process (Mingers, 2001, 2006) offer a promising perspective for developing knowledge across disciplinary boundaries (Baskerville & Myers, 2002) and providing solutions to the managerial challenges of digital transformation (Yoo, 2013). The aim of this paper is to deepen the understanding on how multi-methodology is applied in the practice of information systems research. To this purpose we adopt a practice lens (Feldman & Orlikowski, 2011) for analysing the case of an IS research centre by reflecting on the evolutionary pattern of its research agenda.

Theories used and contribution to the literature

As the relationship between Information Technology (IT) and organization evolves, the potential for new forms of organizing is continually created (Zammuto, Griffith, Majchrzak, Dougherty, & Faraj, 2007). On the one hand recent advancements in information infrastructures, platforms, and applications are blurring the boundaries between the physical and digital worlds by providing ubiquitous communication, sensing, and computing capabilities (Hanseth & Lyytinen, 2010; Yoo, Henfridsson, & Lyytinen, 2010). On the other hand individuals and organizations make use of IT as a resource for achieving their own goals in a given environment (Wade, 2004). This creates unparalleled opportunities for innovating current forms of organizing towards socially interactive, ethically sensitive, trustworthy, self-organized and resilient systems by connecting people and organizations. Nevertheless, IT also constrains practices and poses issues in terms of privacy, ownership, freedom of speech, responsibility, technological determinism, digital divide, cyber warfare, and other ethical issues (Floridi, 2010). In such environment, the architecture and governance of new organisational forms in which individuals, groups, and organisations interact beyond the boundaries of formal organisations, in both online and offline settings, requires a better understanding of the emerging phenomena. The dynamics of complex networks of people and IT artefacts must be deeply understood for setting up cooperative environments characterized by intensive information sharing, collaboration, and collective action (Benkler, 2006;

Shirky, 2008). In this scenario, information infrastructures, platforms, and IT applications represent the material dimensions of organizational practices and are dynamically entangled with their social dimensions.

Although some authors have recognized the relational character of IT affordances (Hutchby, 2001; Leonardi, 2011; Markus & Silver, 2008) the networked nature of both human and material agencies is still overlooked. In other words the relationship between a person and an IT artifact is considered as a dyadic relationship but the composition and the structural aspects of social groups and digital products are seldom recognized. On one side social groups can be organized through hierarchies, markets, clans, fiefs in the physical world and as online communities in the virtual world (Shirky, 2008). On the other side, IT artifacts as digital products present a layered modular architecture (Yoo et al., 2010). When both the individual view of human agency and the monolithical view of material agency are abandoned, the complexity generated by underlying mechanisms is revealed and new theoretical frameworks are required for analyzing the dynamics of such adaptation processes (Allen & Varga, 2006; Amaral & Uzzi, 2007; Anderson, 1999; Holland, 1998; Lewin, 1999).

Our contribution to this body of knowledge is to apply these concepts to current IS research practices in order to show how organisation designing is enacted though the practice of multi-method research.

Research method

Our discussion draws on the evolutionary pattern of the research agenda of a research centre on information systems that embraces a multi-method research approach. With this purpose, an exploratory case study (Yin, 2009) is conducted in the context of the Research Center on Information Systems (CeRSI) of LUISS Guido Carli University.

Since 1999 CeRSI is the unit in charge of both base and applied research in the areas of information systems, enterprise software and knowledge platforms, organization studies, and information and communication technologies. CeRSI regularly runs scientific research and consultancy activities, and participate to national, European, and international R&D programs. CeRSI also promotes the development of research in cooperation with most prominent Italian and foreign scientific communities, and performs, upon request by public or private, national or international, organizations, scientific counselling and researches in the aforementioned thematic areas (Spagnoletti, Baskerville, & De Marco, 2013).

Research at CeRSI is done in conjunction with project activities in which CeRSI members participate in the iterative phases of designing and evaluating IT artefacts. A multidisciplinary team of IS scholars with backgrounds in computer science, engineering, economics, management, cognitive and political sciences collaborate in both project and research activities by bringing together a multiplicity of methods for planning interventions and analyzing phenomena from different perspectives. This approach allows addressing relevant problems and engaging in national and international cooperation with other universities and research institutions.

Main results

Research at CeRSI focuses on three subject areas. The first is related to architectural and governance mechanisms for service environments enabling digital transformation (D'Urso, De Giovanni, & Spagnoletti, 2013; Resca, Za, & Spagnoletti, 2013; Spagnoletti & Resca, 2012). The second is related to organizational learning processes and capability development (North-Samardzic, Braccini, Spagnoletti, & Za, 2014; Za & Spagnoletti, 2013). The third refers to IT governance models, methods and tools in relationship with the evolution of socio-technical systems (Baskerville, Spagnoletti, & Kim, 2014; Spagnoletti & Federici, 2011; Spagnoletti & Resca, 2008; vom Brocke, Braccini, Sonnenberg, & Spagnoletti, 2013). Among the more recent application domains for these concepts are e-Health and social services, e-business, and e-participation. Beyond these topics oriented studies the research group is engaged in a

continuous quest for new research methods through meta-level studies on existing approaches (Spagnoletti, Za, & Winter, 2013; Za & Spagnoletti, 2013) and the application of emerging methods (Marzo, Za, & Spagnoletti, 2013; Sein, Henfridsson, Purao, Rossi, & Lindgren, 2011).

The analysis of scholarly contributions recently published by CeRSI members provides insights on the role of multi-method research in shaping the evolutionary trajectories of organisation designing research and practice.

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