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# IT artefact & practice theorizing – pragmatic perspectives: Editorial

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## 1 The need for theorizing in information systems

During the last decade, there has been a growing interest for theorizing in the information systems (IS) discipline. One important impetus for this was the call for theorizing the IT artefact as articulated by Orlikowski & Iacono (2001). Another impetus was similar claims by Benbasat & Zmud (2003). Besides concrete theory contributions, there have been further discourses on *what* to theorize and *how* to theorize. It is not only the IT artefact that needs theorizing, following claims by Orlikowski & Iacono (2001). There are also claims for theorizing practices (e.g. Feldman & Orlikowski, 2011). There is also a growing interest for the constituents of a theory and how to theorize (e.g. Gregor, 2006). This is actually well represented in pragmatic research approaches, such as design research (e.g. Gregor & Jones, 2007; Kuechler & Vaishanvi, 2012) and action research (Davison et al, 2012). Following these interests in theorizing IT artefacts and practices we are happy to present this special issue.

## 2 Special issue: background and purpose

On June 10, 2012 a pre-ECIS workshop on “IT Artefact Design & Workpractice Intervention” (ADWI-2012) was arranged in Barcelona. Organizers of this workshop were the Department of Management and Engineering, Linköping University, Sweden, the Innovation Value Institute, National University of Ireland Maynooth, Ireland and the AIS special interest group on Pragmatist IS research (SIGPrag). The ADWI workshop attracted several submissions and 15 papers were, after a regular peer-review process, selected for presentation at the workshop ([www.vitsorg/adwi/](http://www.vitsorg/adwi/)). The papers were grouped into three themes:

- Artefact & practice theorizing
- Practice research
- Design research

Based on the result of workshop a decision was made to produce two special issues in *Systems, Signs & Actions* with selections of papers from the workshop. The themes of the two special issues are:

- Collaboration and validation in practice research and design research
- IT Artefact & practice theorizing – pragmatic perspectives

The first special issue was published in 2012, as volume 6, issue 1, with the theme “Collaboration and validation in practice research and design research”. The second special issue is now published in this issue of *Systems, Signs & Actions* (volume 7, issue 1 of 2013).

After a selection and review process we are now happy to present the special issue “*IT Artefact & practice theorizing – pragmatic perspectives*” consisting of six papers in total. Three papers emanate directly from the ADWI workshop. Three papers are commentary papers.

The three regular papers have been improved through four rounds of review and revision through the workshop and special issue referee processes. Göran Goldkuhl and Brian Donnellan were the co-chairs of the workshop and we are also the editors of this special issue and the authors of this editorial.

The purpose of this special issue is to make contributions to theorizing IT artefacts and practices within IS. The papers have clear pragmatic orientations, both in emphasising action and activity perspectives and also in some cases having a clear relation to pragmatically oriented research (mainly design research).

We express thanks to all colleagues that have contributed in different roles to the workshop and to this special issue. We thank the following persons for acting as reviewers for the workshop and this special issue: Mark Aakhus, Pär Ågerfalk, Steven Alter, Michel Avital, Karin Axelsson, João Alvaro Carvalho, Dubravka Cecez-Kecmanovic, Rodney Clarke, Gabriel Costello, Stefan Cronholm, Hannes Göbel, Karin Hedström, Markus Helfert, Ola Henfridsson, Jonny Holmström, Robert B. Johnston, Katrin Jonsson, Gustaf Juell-Skielse, Arvind Karunakaran, Jenny Lagsten, Habin Lee, Per Levén, Mikael Lind, Rikard Lindgren, Lars-Olof Lychnell, Judy McKay, Sinéad Murnane, Erik Perjons, Johan Petersson, Sandeep Puro, Kai Riemer, Matti Rossi, Mark Silver, Atish P. Sinha, Jonas Sjöström, Rajiv Vashist, John Venable, Hans Weigand, Trevor Wood-Harper and Fahri Yetim.

### 3 Papers in this special issue

The papers in this special issue are dealing with different aspects of IT artefact and practice theorizing. As said above, this issue consists of three regular papers and three commentary papers.

The first regular paper is *What is IT in use and why does it matter for IS design?* authored by Kai Riemer and Robert B. Johnston. This paper investigates the notion of the IT artefact and it challenges common conceptions of this. Founded in Heideggerian philosophy, the authors advocate for a holistic ontology instead of a dualist ontology that separates the subject (user) and the object (artefact). IT is seen as equipment which is co-constituted with a nexus of other equipment, user practices and social identities. The use of (ready-at-hand) equipment is done in an everyday fluent manner by the user, which makes the equipment disappear from its conscious attention. The main message of this paper is that IT as equipment is a necessary per-

spective for design in IS. This is grounded through discussions of the user, practice changes and IT acceptance.

The second regular paper is *Is Work System Theory a Practical Theory of Practice?* authored by Steven Alter. This paper extends Alter's earlier works on the Work System Method and the Work System Theory. It does so by investigating different conceptions within pragmatism, such as practice theory and practical theory. Specifically the paper investigates Work System Theory in relation to UML, workpractice theory (of Goldkuhl) and other different practice theories with a sociomaterial orientation. This investigation includes also a comparison with the work of Riemer and Johnston (the first paper in this special issue). The paper discusses possible extensions and future directions of Work System Theory in relation to these different pragmatic conceptions.

The third regular paper is *From ensemble view to ensemble artefact – an inquiry on conceptualisations of the IT artefact* authored by Göran Goldkuhl. This paper investigates the notion of an ensemble artefact as proposed by Sein et al (2011) in their description of Action Design Research. The conceptual origin of the ensemble artefact is the ensemble view by Orlikowski & Iacono (2001). The paper investigates the “conceptual journey” from ensemble view to ensemble artefact and also other IT artefact conceptions by Orlikowski & Iacono. Based on these inquiries an alternative view is articulated: A communication tool view of IT artefacts. This view is compared with the ensemble view, especially in a design research context. The notion of ensemble artefact is contested, and so is also the suggested use of it as a main conceptual basis in design research.

Besides these three regular papers there are three commentary papers included in this special issue. There are two papers with commentaries to Goldkuhl's paper (the third regular paper). There is a last commentary paper written by Göran Goldkuhl with commentaries on the two other commentary papers.

As described in section 1 above, there was an important call for theorizing the IT artefact made by Orlikowski & Iacono (2001). Their call gave rise to many responses with discussions, objections and applications. Among numerous responses three distinct responses need to be mentioned here: “Featuring technology in studies of e-collaboration technology effects” by Markus (2007), “A foundation for the study of IT effects: A new look at DeSanctis and Poole's concepts of structural features and spirit” by Markus & Silver (2008) and “Action design research” by Sein et al (2011). Markus (2007) and Markus & Silver (2008) present a view on the IT artefact emphasising affordances as a key notion. Sein et al (2011) have presented a new approach (ADR) to design research centred on the ensemble artefact as the primary design object.

The fourth paper (a commentary paper) is *Ensemble Artifacts: From Viewing to Designing in Action Design Research* authored by Sandeep Puroo, Ola Henfridsson, Matti Rossi and Maung Sein. This is a response to Goldkuhl's paper on the conceptual journey from ensemble view to ensemble artefact. The authors argue that the notion of ensemble *artifact* in ADR is appropriate because it highlights the forward-looking orientation of designing artifacts and stresses the importance of the context for the evolution and use of the resulting artifact. This is in contrast to the retrospective orientation of the ensemble *view* nomenclature from Orlikowski & Iacono (2001) that was used as a basis for the development of ADR.

The fifth paper (a commentary paper) is *Conceptualizing the SocioTechnical (ST) Artifact* authored by Mark Silver and Lynne Markus. This is a response to Goldkuhl's paper where he writes about different conceptions of IT artefacts. The authors claim that IT artefacts have both technical and social design features and therefore they should be better regarded as "SocioTechnical artifacts". They propose that the study of the ST artefact - consequences connection has potential to be a unifying force in the IS field.

The sixth paper (a commentary paper) is *The IT artefact: An ensemble of the social and the technical? – A rejoinder* authored by Göran Goldkuhl. This is a response to the other two commentary papers in the special issue, i.e. those authored by Purao et al and Silver and Markus. As one step in a further conceptualising of the IT artefact, the notion of an artefact is investigated. This is used as a basis to further clarify the social (and technical) character of the IT artefact and the consequences of this view for the design of such artefacts and their use contexts.

These four papers included in this special issue and the four mentioned preceding papers can be said to form a scientific dialogue with many threads.

As a whole, we think that the six papers in this special issue give important contributions to the discourses on the IT artefact and practice theorizing. We look forward to further dialogue, in this outlet or other forum.

## References

- Benbasat I, Zmud R W (2003) The identity crisis within the IS discipline: Defining and communicating the discipline's core properties, *MIS Quarterly*, Vol 27 (2), pp 183-194
- Davison R M, Martinsons M G, Ou C (2012) The roles of theory in canonical action research, *MIS Quarterly*, Vol 36 (3), pp. 763-786x
- Feldman M, Orlikowski W (2011) Theorizing practice and practicing theory, *Organization Science*, Vol 22, p 1240-1253
- Gregor S (2006) The nature of theory in information systems, *MIS Quarterly*, Vol 30 (3), p 611-642
- Gregor S, Jones D (2007) The Anatomy of a Design Theory, *Journal of AIS*, Vol 8 (5), p 312-335
- Kuechler B, Vaishnavi V (2012) A Framework for Theory Development in Design Science Research: Multiple Perspectives, *Journal of AIS*, Vol 13 (6), pp 395-423
- Markus L (2007) Featuring technology in studies of e-collaboration technology effects, in Kock N (ed, 2007) *Emerging e-collaboration concepts and applications*, IGI, Hershey
- Markus L, Silver M (2008) A foundation for the study of IT effects: A new look at DeSanctis and Poole's concepts of structural features and spirit, *Journal of the AIS*, Vol. 9 (10/11), pp 609-632
- Orlikowski W J, Iacono C S (2001) Desperately seeking the "IT" in IT research – a call to theorizing the IT artifact, *Information Systems Research*, Vol 12 (2), pp 121-134
- Sein M, Henfridsson O, Purao S, Rossi M, Lindgren R (2011) Action design research, *MIS Quarterly*, Vol 35 (1), p 37-56