

# **Action Research and Design Research Integrations: Introduction to the SIGPrag 2013 Workshop at ICIS in Milano, Italy**

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## **Background**

Among information systems (IS) scholars there is a great interest for research approaches such as action research (AR) and design (science) research (DR). AR is an established research approach within social research and during the last decades it has also been an established approach within IS. Based on the works by Susman & Evered (1978) a type of canonical AR has emerged within IS (Baskerville & Wood-Harper, 1998; Davison et al, 2004). Even if there has existed design-oriented research within IS for a long time, it has not had a clear research-methodological foundation until rather recently. The articulation of DR as a research approach within IS (made by Nunamaker et al, 1991; March & Smith, 1995; Hevner et al, 2004) has had a great effect on how to conceive research in IS that involves any development/design efforts. There is now a huge increase of IS research that self-identify as DR.

Both research approaches go beyond pure explanation and understanding and they are associated with improvement and change. These resemblances have inspired several scholars to compare these approaches and claim similarities (e.g. Burstein & Gregor, 1999; Cole et al, 2005; Järvinen, 2007; Papas et al, 2012; Alturki et al, 2012). However, not all scholars acknowledge that they should be seen as similar. Iivari & Venable (2009) have identified several differences between AR and DR and they have objected towards treating them as research approaches of similar kinds. Comparisons of AR and DR have been conducted in different ways; sometimes as an analysis based on empirical material; sometimes as just a conceptual analysis; and sometimes including an investigation of paradigmatic foundations.

Based on identified affinities between AR and DR, several proposals for integrations of these two approaches have been put forth. An early one was made by Cole et al (2005). This proposal can be seen as a forerunner to “Action Design Research” (ADR) presented by Sein et al (2011). ADR can be seen as DR with a strong flavour of AR emphasising intervention in local practices. ADR has already received a great interest among IS scholars. There exist, however, several other proposals for AR/DR integrations. Another integration of AR and DR is made by Baskerville et al (2009) in their “Soft design science methodology”. They integrate AR and DR through the use of a well-known AR approach: Soft Systems Methodology (SSM) (Checkland, 1981). Wieringa & Morali (2012) have presented a combined AR and DR approach called “Technical Action Research” (TAR). This is defined as a researcher-driven approach based on ideas of idealized design. They have explicitly contrasted their approach to ADR, which is labelled as “problem-driven”. Another integrated approach is presented by Lee (2007). This is based on dialogical action research (Mårtensson & Lee, 2004) and defines roles for researchers and practitioners. A recent AR/DR approach is presented by Goldkuhl (2013). This is called “Practice Research through Intervention and Design” (PR-ID). There are also several empirically based reflections on combinations of AR and DR (e.g. Sjöström, 2010; Goldkuhl, 2012; Papas et al., 2012).

“Design science research” is a fairly modern label of research within IS. However, design has occurred as a natural ingredient in many earlier intervention-oriented IS research endeavours; both in what has been called “action research” and under other labels. Examples of this are the Multiview approach (Wood-Harper, 1985; Baskerville & Wood-Harper, 1998), AR with prototyping (Chiasson & Dexter, 2001), collaborative practice research (Mathiassen, 2002) and AR inspired by design thinking (Figueiredo & Cunha, 2007). Research following the lines of participatory design (e.g. Kensing et al., 1998) and

cooperative design (e.g. Greenbaum & Kyng, 1991; Bødker et al, 2000) should also be mentioned here since they build on a reflected combination of design and intervention.

A fundamental reason for a combined interest in AR and DR is their common basis in pragmatist philosophy (Cole et al, 2005; Ågerfalk, 2010; Goldkuhl, 2012). Epistemologically, these two research approaches go beyond pure description and understanding and aim for knowledge in the doing and in the making.

## **The 2013 Workshop**

This international workshop built on the growing interest in studying, combining and integrating action research and design research by bringing together scholars to inquire possible combinations and integrations. The papers presented at the SIGPrag 2013 were:

- "Patterns of Interactions between Designers and Users in the Design Innovation and Refinement Processes" by Jaehyun Park
- "CoDisclose: An Approach to Disclosing Design Rationale" by Jonas Sjöström, Owen Eriksson and Pär Ågerfalk
- "Inter-organizational Social Networks: An Action Design Research Study" by Matthew Mullarkey, Alan Hevner and Rosann Collins
- "Communication in Action and Design Research on Information Systems" by Mark Aakhus

These submissions underwent peer-review and accepted papers were presented at a pre-ICIS event in Milano, Italy on December 15, 2013. The event was organized by the AIS Special Interest Group on Pragmatist IS research (SIGPrag).

The program chairs (Pär J. Ågerfalk, Uppsala University, Sweden, and Göran Goldkuhl, Linköping University, Sweden) invited members from the SIGPrag advisory board as well as SIGPrag members to conduct the paper reviews.

The program also featured an opening overview talk on Action Research and Design Research by Göran Goldkuhl and an invited panel on "Action research and design research integrations" with panellists Sandeep Purao, Roel Wieringa, Göran Goldkuhl and Pär Ågerfalk (chair). Before the panel, the panellists gave extended position presentations on the topics of "Technical Action Research" (Wieringa), "Practice Research through Intervention and Design" (Goldkuhl) and "Action Design Research" (Purao).

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