Introduction to the
Designing and Deploying Advanced Knowledge Systems Minitrack

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The objective of this minitrack is to contribute to the body of knowledge that helps academics and practitioners to
- design, deploy and evaluate advanced knowledge systems,
- explore and leverage appropriate project management methods and tools for designing and deploying knowledge systems, and
- study changing organizational knowledge processes and structures.

First, work systems and the knowledge systems enabling them need to be aligned with emerging technologies to ensure organizational acceptance and to support effective organizational value creation. Traditional, often monolithic knowledge system architectures can be redesigned due to technological progress manifested by, for example, social networking sites, mashups, semantic technologies, and ubiquitous information and communication technologies. In our view, these redesigns are the basis of advanced knowledge systems.

Second, project management involved in the design and deployment of knowledge systems differs from the project management involved in traditional information systems projects. Examples abound in the literature about knowledge systems deployment efforts that failed because (1) the business cultures did not encourage and reinforce knowledge sharing, and (2) the necessary organizational change could not be implemented. Such failures could often have been avoided if (1) more balanced efforts between the design and deployment of knowledge systems had been implemented, and (2) the design and deployment efforts had been managed through coordinated design and deployment projects. Deployment projects have a crucial role in implementing organizational and social changes. Yet, deployment is often considered only as a phase in larger design-driven projects.

After a rigorous review process, three papers were accepted for publication in the proceedings and for presentation.

The first paper is co-authored by Meshari Alwazae, Paul Johannesson, and Erik Perjons. The authors propose a domain-independent documentation classification system to facilitate effective search and retrieval of best practice documents in a large collection of such documents. They have designed a domain-independent classification system and evaluated it with the help of practitioners and academic experts. Both practitioners and academic experts could recognize and apply the characteristics of best practices (e.g., implementation area) and the labeled values in the proposed classification system.

The second paper is co-authored by Jie Tao, Omar El-Gayar, Amit Deokar, and Yenling Chang. It proposes an approach to extract, select, and disambiguate terms embedded in domain specific documents in order to enrich existing ontologies. This approach has been implemented in a research prototype and tested in a laboratory environment to illustrate the feasibility and efficiency of the proposed method. To determine empirically the accuracy of the proposed approach, domain experts in the finance domain analyzed the extracted information and found it to be useful.

The third paper is co-authored by Fabian Schmidt, Jörg Gebhardt, and Rudolf Kruse. It discusses the problem of presenting explanations for inconsistencies to domain experts. The authors examine the approach of creating and presenting explanations by discussing different components of inconsistencies and resulting consequences for explanations. Additionally, they present a prototypical user interface that consolidates different parts of explanations into one, more complete view of a given inconsistency.

We wish to thank all of the authors who submitted work for consideration in this minitrack. We also thank the dedicated reviewers for the time and effort they invested in reviewing the papers: Irena Ali, Domenik Bork, Robert Andrei Buchmann, Michael Leyer, Yikun Lu, Sree Nilakanta, Jari Palomäki, Alexander Richter, Daniel Russell, and Matthias Schumann.

We believe that the accepted papers contribute significantly to furthering our understanding of advanced knowledge systems. We look forward to discussing them in our session.