

## Introduction to the HICSS-53 Minitrack: Business Intelligence, Business Analytics and Big Data - Innovation, Deployment and Management

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New developments in the combined space of business intelligence (BI), business analytics (BA) and big data continue to create new opportunities and challenges for individuals, organizations and society.

Starting from the rich historic foundations in decision support systems, data warehousing, and more recently big data, internet of things, machine learning and cognitive analytics, the combined BI/BA/big data research space offers a wide variety of research questions and challenges for researchers to explore.

Now in its 30th year, this minitrack continues to explore organizational issues of BI, BA, and more recently big data implementations. Its overall focus on innovation, deployment and management reflects the maturity of our collective research and practice.

This year's minitrack includes the following six research papers:

- The opening paper by **Ereth** and **Baars** describes a capability approach for designing Business Intelligence and Analytics architectures. The proposed capability schema includes actions, expected outcomes and environmental restrictions which are all used to determine the most suitable architecture designs. The approach is evaluated using two case and shown to support systematic development of fundamental architecture requirements.

- The second paper by **Bani-hani**, **Tona** and **Carlsson** investigates different resource integration patterns in a self-service approach to business analytics. Using the empirical data collected from a major Norwegian online marketplace and drawing on service-dominant logic, the paper proposes two patterns of resource integration and discusses their organizational implications.

- Focusing on the context of enterprise collaborative platforms, **Mosen**, **Williams** and **Schubert** observe that collaborative activities leave traces in the form of social documents. Their paper presents the main findings of a project to visualize

structure of social documents so that they could be analyzed as traces of collaborative activity. The proposed method for visualization of social documents uses the Social Document Ontology (SocDOnt) and draws on concepts from graph theory. The findings of this research provide foundations for computational ethnography of collaborative work.

- **Möller**, **Stachon**, **Hoffmann**, **Bauhaus** and **Otto** explore data-driven business models in logistics. They develop a taxonomy of two specific types of business models that offer visibility or optimization services in logistics. The main objective of taxonomy development is to uncover the structural composition of these business models, in order to offer foundations for future innovation.

- **Janhofer**, **Barann**, **Cordes** and **Becker**'s research investigates possible applications of Industry 4.0 concepts to Omni-Channel retailing. The main findings of this study show that IoT networks, cyber-physical systems and smart factories provide future opportunities for innovation in the retail sector.

- The final paper by **Storm** and **Borgman** focuses on challenges and success factors in creating a data-driven culture. The main challenges are found to include: resistance to new technology, rigid organizational structures and insufficient focus on usable analysis. All success factors were found to be people-related and included clear communication, leadership by example, sharing relevant and clear results of transformation and openness to change.

We trust that you will find this year's selection of very diverse papers interesting and relevant for your research, education and/or professional practice.