

Introduction to HICCS-48 Organizational Issues for Big Data, Business Analytics and Business Intelligence Minitrack

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The provision of the right data with appropriate quality according to the needs of decision makers or automated processes is crucial for successful operations of companies and government agencies. Management Information Systems, Decision Support Systems, Executive Information Systems, interactive online analysis (OLAP), data mining, dashboards and recently predictive analytics are examples for the historic advancement of business analytics/business intelligence concepts for the front-end, while databases, data warehousing and recently ‘big data’ are examples for the development of the underlying technical infrastructure concepts. The smart combination of task-oriented front end innovations and technology-driven infrastructure innovations allow for enhanced decision speed, more efficient extracting, cleaning, and aggregating data from source systems, maintaining and analyzing larger data sets, and demand-oriented access to data.

From an information systems perspective, business analytics (BA), business intelligence (BI) and ‘big data’ constitute a dynamic, fascinating and highly relevant field of research. This includes managerial considerations (BI/BA strategy, BI/BA organization and governance, BI/BA value, data quality management, etc.), process-centric business intelligence, and inter-organizational aspects. As organizations are learning how to leverage ‘big data’ (including social media data, mobile data, web data and network data) new innovative applications are expected to emerge, and with them new research challenges, yet to be discovered.

This year’s minitrack includes the following nine research papers:

- **Hardy** investigates business analytics in the context of continuous assurance. Informed by an exploratory analysis of four case studies, this research offers important theoretical and empirical insights for the field of Business Analytics.

- **Goul, Balkan and Dolk** use design science research foundations to establish requirements for predictive analytics-driven Campaign Management Support Systems (CMSS). The outcomes of this research include a conceptual architecture and monitoring engine, both founded in vigilant information systems design theory.

- Through an exploratory case study **Marjanovic** investigates complex consequences of taking business analytics out of organizational context and making it available to consumers, rather than business users. Based on insights obtained, the paper proposes a new direction in BI/BA research, termed “analytics-as-a-consumer-service”, extending and combining previous research in business analytics, “analytics-as-a-service” and Consumer Information Systems.

- Based on the results of a series of expert interviews with 21 companies, **Baars** and **Hutter** develop a framework for: a) identifying relevant measures for tackling issues of BI agility, and b) for classifying them with respect to potential business impact. The framework has been evaluated and further refined in workshops with BI experts.

- The paper by **Krawatzeck, Dinter** and **Pham Thi** investigates the ways to make BI more agile. Informed by current literature and practice, the authors propose the so-called Agile BI action Catalog.

- The well-known research challenge of making BI more dynamic through operational intelligence is investigated by **Haenel** and **Felden**. The authors describe a multi-theoretical framework using dynamic capabilities, organizational information processing, process virtualization and Work Systems Theory.

- **Corbett** and **Webster** bring a theoretical perspective to understanding the implications of big data for organizations. Their paper presents the results of a grounded study examining how one utility organization was able to successfully deploy smart meters and take advantage of big data.

- **Queralt, Cortes, Baars, Brinkmann** and **Marti** investigate new research challenges created for Business Intelligence and Analytics created by fusing storage and computing. Their paper outlines the interplay of various architectural layers from storage to business with an object oriented platform at its core as well as illustrate the consequences of low-level infrastructure innovations on the business layer.

- Finally, **Nam, Kang** and **Kjm** define big data analysis as a type 3 innovation and extent previous studies on the adoption/assimilation of innovation technologies. The paper develops a three-stage adoption integrative model based on the diffusion context literature.

We hope that you will find this year's selection of papers interesting and relevant.