

## Introduction to the Business Intelligence, Analytics and Cognitive: Case Studies and Applications (COGS) Minitrack

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The purpose of this minitrack is to introduce case studies of applications of business intelligence, data analytics and cognitive-enabled smart services across industries and societies. Business intelligence and data analytics have continued to make substantial inroads in the operational, managerial and strategic corporate decision-making processes. Recently, the emergence of cognitive computing systems that augment the creativity and productivity of people, and which are trained using artificial intelligence and machine learning algorithms to predict, infer and, up to some extent augment cognitive capabilities, has also extended the range of business intelligence and data analytics solutions on the market.

We will consider results of recent research with focus on the design, analysis, implementation, adoption, and evaluation of real-life cases that provide us with opportunities to design, develop, and deploy these capabilities as micro-services that solve customer needs, including those with startup potential.

Opening presentation “Meeting Analytics: Creative Activity Support Based on Knowledge Discovery from Discussions” investigates a mechanism to promote innovation by supporting discussions. Discussion mining is used to collect various data on meetings (statements and their relationships, presentation materials such as slides, audio and video, and participants’ evaluations on statements). These data are then used to extract important statements to be considered especially after the meetings has been held and actions have been undertaken. Author presents high-probability statements that should lead to innovations during meetings and facilitate creative discussions. He also proposes a creative activity support system that should help users to discover and execute essential tasks.

In the paper “Customization of IBM Intu’s Voice by Connecting Text-to-Speech Service and Voice Conversion Network” authors investigate applications of popular IBM Intu service, which interacts with users by voice and text. They propose a

voice customization service by which users can directly customize the voice of Intu. The method for voice customization is based on IBM Watson’s text-to-speech service and voice conversion model. Users can train the voice conversion model by offering only 100 or more speech samples uttered in the preferred voice (target). Then the output speech of Intu (source) is converted into the speech uttered in the target voice.

The last paper “The Challenges of Business Analytics: Successes and Failures” is a case study devoted to implementation of business data analytics programs in organizations; both successfully and unsuccessfully. It discusses in details the implications for selected organization. Authors analyze benefits and shortcoming of BI implementations across industries using several well-known industry cases. Based on the lesson learned, they offer ideas on how to implement a successful business analytics program.

We hope you will learn new ideas in this exciting field of study and enjoy all presentations at the minitrack. We thank the authors for submitting excellent results of their work to make this minitrack successful.