: What are current trends in BI and Data Analytics?

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For the foreseeable future, Business Intelligence and data analytics technologies will continue as key enablers of most organizations' data and decision support strategies. The opportunities for mobile BI are many, and the trends toward self-service data analytics and visualization are both exciting and promising for data-driven organizations.

Business Intelligence (BI) and related technology initiatives attract a lot of attention from technology experts, managers, consultants and vendors. A recent survey of BI professionals identified data discovery/visualization, self-service BI and data quality/master data management as the most important trends. In her recent Datapine blog, Mona Lebied (2016) identified key areas for BI and data analytics ranging from security and digitization to cloud analytics, embedded BI and data storytelling.

Artificial Intelligence (AI) is one area attracting considerable attention. With managers in organizations large and small trying to come to grips with the prospect of AI in general and the possibilities for AI within the context of their business. Gartner has flagged advanced AI and machine learning as the top BI trend for organizations in 2017. Cognitive technologies in the form of neural networks and natural language processing are being used to make business processes and products smarter.

As part of digital transformation or "Digitization" that is occurring, advances in virtual reality (VR) and augmented reality (AR) provide exciting and innovative opportunities for intermingling data and 'real world' objects offering enhanced training and education experiences in areas such as healthcare. Augmented reality (AR) integrates digital information with a user's environment in real time. It is a live direct or indirect view of a person's immediate physical, real-world environment with information provided about what one sees. Virtual reality (VR) refers to a computer-generated simulation of a three-dimensional image or environment that one can interact with using specialized computing and display technologies.

Predictive and prescriptive analytics are not a new phenomenon. However, data scientists continue to investigate new ways to extract valuable insights from historical and current data to forecast future probabilities as well as exploring the potential effects of future decisions.

Core to developing new strategies to generate value from BI and data analytics, managers and

analysts will continue to experiment and explore new opportunities in visual data discovery and data storytelling and journalism. Moving beyond traditional graphs and charts, this era of infographics pushes boundaries in terms of trying new ways to use data to tell a business story through the effective use of sophisticated approaches to data visualization.

Collaborative BI is fostered through the increased availability and use of mobile technology and Web 2.0 technologies. Business Intelligence is no longer solely for Senior Managers and IT people. The enhanced availability of self-service BI provides great opportunities to share data and subsequently provide better opportunities for collaborative decision making. Further, improvements in BI software facilitate new ways for embedding BI features in existing software applications.

With increasing investment of resources in data and technology and heightened expectations around data-driven business objectives, we anticipate many organizations will establish dedicated Business Intelligence Centres of Excellence (CoEs) to deliver on the promise of data analytics and self-service BI, cf., Lebeid, 2016. These centres will eventually drive the business data strategy.

Data governance and security are high priorities for most organizations involved with BI and analytics. Security is a consideration for all businesses looking at cloud analytics and cloud storage options. While self-service BI affords many benefits to individual users, realizing this level of BI flexibility and agility is challenging in terms of maintaining data governance and data quality35 (Potter, 2015).

Finally, the data scientist is definitely part of the future for decision support. The analytics skillset will continue to be important. Indeed, the sophisticated combination of mathematical, technical and business skills of a data scientist will become more important to many Information Technology roles.

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Last update: 2017-02-18 04:31