

Chapter 98

How to Engrain a Big Data Mindset into Our Managers' DNA: Insights from a Big Data Initiative in a French Business School

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ABSTRACT

The industry experts' claim that big data will be the next frontier for innovation, competition, and productivity, has turned from an unfounded omen to an obvious reality. In the looming data-driven business era, data will pervade organizations and will thus affect their nature and functioning. The central role played by data is about to impact the main mechanism that fuels the life of organizations, decision making, which will then gradually redefine the job and function of managers. In May 2014, a French top-ten business school launched a 2-week big data initiative aiming at immersing future managers into a big data simulation and also sensitizing them to the overall cultural shift that big data is about to engender within organizations. Using semi-real data about a French newspaper, 100 graduating students were engaged into a big data serious game which main objective was to use data visualization techniques on a large dataset hosted on a Hadoop cluster in order to derive business recommendations to higher management. By conducting observations, taking field notes, and interviewing participants, important insights could be derived for educational institutions that are contemplating the importance of including big data into their curricula but also for organizations that strive to engrain a big data mindset within their managers.

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INTRODUCTION

There is now no doubt that there exists a reality beyond the big data buzz. By realizing that data have the potential to be a key business driver, organizations are gradually shifting towards a new business era in which data will be treated as precious and strategic resources. McKinsey's 2011 claim (Manyika et al., 2011) about big data being the next frontier for innovation, competition, and productivity, has now turned from omen to an understated reality. In this data-driven business era, data will pervade organizations and will thus affect their nature and functioning. As a consequence, the main mechanism that fuels the life of organizations, decision making, will be significantly impacted by the central role played by data. In other words, big data is gradually redefining the job of managers by incorporating data into decision processes.

In May 2014, a French business school launched a 2-week big data initiative aimed at immersing future managers into a big data simulation and engraining into them a big data mindset. Using semi-real data about a French newspaper, 100 graduating students were engaged into a big data serious game which main objective was to use data visualization techniques in order to derive business recommendations from user data hosted on a Hadoop cluster. By conducting observations and interviewing students during the serious game, important lessons could be derived for organizations that strive to engrain a big data mindset within their managers. For instance, the workshop clearly highlighted that the lack of solid database-related skills as well as certain statistical concepts could prevent managers from effectively extracting the business value contained into data. Besides, lessons generated from the workshop can also help business schools and universities to identify pedagogical strategies to sensitize future managers towards the predominant role that big data is going to play as well as to provide them with the necessary skills and mindset.

The chapter particularly targets business schools that are contemplating the decision to integrate big data into their mainstream curricula as well as into specific trainings. It also provides insights about how big data is gradually redefining the function and job of managers. By doing so, this chapter also aims at helping organizations to tailor effective trainings to raise awareness about the transformation of management in the big data era. The public sector, perceived as "the most fertile terrain" for benefitting from entering the data-driven era, is particularly targeted as governments have collected huge amounts of 'siloes' data and have for long suffered from an overall lack of efficiency and performance (Brown et al., 2011).

This book chapter is organized as follows. In a first section, it explains that beyond the big data buzz there exists a big data reality that will globally impact all businesses and our society as a whole. It concludes by contemplating how big data will affect managers, how business schools shall take it into consideration, and how the Information Systems field can play a leading role in developing and delivering adapted curricula. After succinctly presenting the French business school context, the workshop and details about its pedagogical engineering are presented. Based on results drawn from data collected throughout the event, the last section derives insights and recommendations for organizations as well as business schools and universities. A conclusion summarizes the key points raised throughout the chapter.

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