Chapter 32
Can Internal Social Media and Data Mining Be a Powerful Communication Vehicle in Reaching Employees in Change Management in Industry 4.0?

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ABSTRACT

With the rapid changes in the information and communication technologies through Industry 4.0, managers and change agents are now able to unlock wholly new streams in communicating change to their stakeholders. Social media can be an important "vehicle" to facilitate better and faster change management, whereas data mining can provide some crucial insight about employee perception about change. The purpose of this chapter is to capture the reader's attention towards the relationship between change management and Industry 4.0 tools specifically: social media and data mining. For that purpose, three in-depth interviews with senior managers of a Turkish telecommunication and technology services provider were conducted. The results support the research questions partially but point out new variables (national culture and generation gap) to consider in the relationship between employee behaviors and social media usage as an internal communication tool. Lastly, this chapter aims to provide suggestions for further studies.

INTRODUCTION

The business landscape of the 21st century is characterized by ever changing trends and events that happen with so much rapidity that they take most business leaders by surprise. Five decades ago, futurist Alvin Toffler (1970, 1) said "The acceleration of change in our time is… an element force". Today, Argyris (2004) and Ruben (2005) and many other scholars agree that change has become a ubiquitous

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staple in organizational life and will likely remain as such beyond our time. With this mind, if anything has remained constant in the history of organizations, it has been the change.

The first decade of the new millennium has been forecasted to be a period of tremendous change in the workplace (Gordon et al., 2000). The structure, content, and process of work have changed drastically. Knowing how to adapt and change successfully has become a critical and timeless challenge for all organization (Feldman, 2004; Piderit, 2000) and an interesting subject for many scholars to explore. After numerous articles, papers and books; professionals and consultants reports have been published about organizational change after one another, several approaches to how organizations should plan, implement, and manage the change process were introduced, experimented and theorized. However, we are in a new era- Fourth Industrial Revolution- commonly known, as Industry 4.0- the evolution to new business models, processes and techniques. It appears to be changing the way organizations function. Fourth Industrial Revolution is based on the development of a completely automated and intelligent production, capable of communicating autonomously with the main corporate players. At the same time, obviously, Industry 4.0 has become a new theme for management scholars and business economics disciplines (Piccarozzi, Aquilani & Gatti, 2018).

Industry 4.0 means change- change for societies, industries and organizations. Change is everywhere and in everything. Industry 4.0 will likely change how we think, how we produce, how we interact in the organizations, how we manage our workforce, and many more. As Harold Goddijn, CEO of TomTom NV said, "*It's just mind-boggling what has been achieved in the past 10 years. The speed by which things are changing is increasing at astonishing rates, product cycles are much shorter, innovation is happening faster, and it is very challenging for the C-suite, as well as the employees, to keep up with the pace." (Deloitte, 2018).*

One of the biggest changes Industry 4.0 brought in this century has been in communication. The process of corporate communication has evolved over the years, with many path-breaking inventions that lift organizations from one level to another. Researchers state that the initiative of Industry 4.0 approach is expected to have influences on corporate communication, as it comprises communication systems and tools by network systems and will change internal communication (Valik, 2013). Industry 4.0 builds and extends the impact of digitization in new and unanticipated ways into organizations, represents entirely new ways in operations and management, and creates opportunities to run businesses better, faster, and more cost effectively. The recent trends in IT such as cloud computing, data mining, connectivity and multimedia networks have big impact on organizations' effectiveness. Understanding these trends from change management perspective can be critical and if not necessary, because communication and organizational change are interdependent. There has been a unanimous agreement among organizational researchers that effective communication is the crucial and key component of a change process (DiFonzo & Bordia, 1998; Lewis & Seibold, 1998). Communication provides clarity, direction and enforces commitment to change. On the other hand, poorly managed change communication or lack thereof results in not only rumors, resistance to change, and exaggerating the negative aspects of the change (DiFonzo et al., 1994; Smelzer & Zener, 1992), but also causes the failure of organizational change initiatives (Coulson-Thomas, 1998).

The continuous improvements in IT in Industry 4.0 provides managers and change agents more alternative modern forms of communication in reaching their stakeholders during change. One example can be the sudden rise of Social media usage. As Clayton (2015) explained the value of Social media in change management in his study *"Because we spend nearly three hours per day on social platforms, and because more than half of employers are already using internal Social media, companies also have*