Chapter 13

A Study of Organizational Narrative Simulation for Decision Support

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ABSTRACT

This paper presents an overview of current decision making approaches. For some approaches abstract information is provided, whereas others require a large amount of labor and time resources to facilitate decision making. However, few address the issues of assisting participants in learning how to make decisions and provide prompt responses to the situations. Harnessing lessons learned from making inappropriate decisions is expensive. To redress this problem, this paper presents a pilot study of the investigation of the psychological behaviors of humans to improve decision making processes with the use of organizational narrative simulation (ONS). By using the ONS method, possible and plausible narrative-based environments can be simulated. Participants can take actions based on their decisions; they can also observe the changes and the consequences. The decisions for handling new challenges generated purposely are validated in a trial that allows prompt responses to the situations. The ONS method is implemented in a selected reference site. The implementation processes, findings, and benefits are presented.

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INTRODUCTION

In the modern era, decision making has become one of the most challenging tasks among humans and organizations. Circumstances change and situation becomes more and more complex (Snowden & Boone, 2007). People nowadays require a variety of knowledge to make decisions under a complex situation (Rey et al., 2009). It is also crucial for people such as management executives and knowledge workers to make decisions in a short period of time so as to establish sustainable competitive advantages over other organizations (Ghahfarokhi & Zakaria, 2009). The decision making processes of humans become more complicated and rapid than before (Huber, 1984). It is not surprising to hear that people make wrong decisions which lead to serious results and the lesson learnt would be expensive. This is particularly true for some high risk industries (e.g., airline, transportation, public utility, healthcare, civil and construction, etc.), where any wrong decisions may lead to industrial accidents which would either cause injuries or fatalities.

Over the years, many researchers have conducted a considerable amount of research to assist managers and knowledge workers to make better decisions by providing different strategies, trainings or systems support (Klein, 1998). Most studies claimed that their proposed methods could support the human decision making process (Antony & Santhanam, 2007; Sharda et al., 1988). Nevertheless, many limitations of these methods still exist. Some of these methods provide a huge amount of information and thereby imposing a huge time demand on decision makers to synthesize and assimilate the information in order to assist decision making. Other methods generate abstract information thereby constraining to only people with sufficient domain knowledge can manipulate the information. Due to the deficiencies of the current methods, decision makers cannot provide instant responses to the problems and may result in situation change and unexpected consequences. Furthermore, few studies show that people actually learn how to make decisions after adopting the above methods.

This paper aims to bridge the research gap to improve decision making processes by considering the psychological aspect of humans during decision making. The remainder of the paper is organized as that the next section describes the current approaches used to support human decision making processes and their limitations. It then introduces the psychological behaviors of humans during decision making. It shows a new approach to enhance human decision making processes. The last sections present the results, significant benefits and conclusion.

RELATED WORK

Current Approaches to Support Decision Making

Decision making has been being a critical task among humans and organizations. In general, a person needs to make a decision when there is more than one choice. Decision makers are responsible for making appropriate decisions by evaluating, among others, the desired objectives, goals and outcomes (Kivijärvi et al., 2009). If organizations encounter similar or same problems before, previous solutions of managing particular problems are gathered and recommended to decision makers. Decision makers often spend time reading and assimilating the recommendations and then apply to existing problems. The new solutions generated will then be one of the future recommendations for the problems. Since the world becomes more and more complex, decision makers need to confront new and challenging issues that have not yet happened in the organizations. Different researchers suggested different approaches for decision making. Typically, they are categorized into two main groups which are technological support and strategic support. A summary of current decision making approaches is shown in Table 1.
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