Preface

The need to share experiences and expertise with the goal of promoting efficiency and maximizing output has become a norm in many organizations. Advancements in technology have made information sharing and management processes even more feasible across space and time. However, it is imperative that these processes of working together are not taken for granted and that more research is conducted into how to continually improve collaborative processes and decision-making in organizations. This book, *Collaborative Communication Processes and Decision Making in Organizations*, pulls together research and examples of technology in promoting collaborative processes to enhance the effectiveness of organizations and educational environments. One of the great features of this book is its practicality. The chapters are based on research and experiences, and they offer the reader guidelines on how to effectively manage virtual teams, use technology appropriately, and ensure effective decision-making. The global focus of this book is a welcome addition to the literature on collaboration and decision-making. By drawing on research from multiple countries, this book offers a unique opportunity to examine how technology is being used around the globe and the lessons that could be drawn from such use.

The materials in this book provide a variety of information on practice and theory on the use of information technology for decision-making. The resources are presented with various audiences in mind. The resources provide diverse reading on information technology in decision-making that will benefit students and instructors in the disciplines of group communication, organizational communication, and leadership programs. They offer useful practical insight on the subject of collaboration in virtual teams and decision-making and provide motivation for projects and independent studies. The materials in this book provide examples of what is happening with the facilitation of decision-making in collaborative virtual team environments in organizations. It provides insightful contextual information to management and designers seeking to understand how virtual teams are set up and managed efficiently.

INTRODUCTION

Collaboration is a term that has been used by many in different fields to connote working together to accomplish goals. It is the process of mobilizing resources from diverse sources to achieve particular goals. These resources could be human as well as material and they complement each other. This means there is the need for some consensus on what collaboration is and the mechanisms to employ to ensure the success of the collaboration. Effective collaboration does not just happen, it takes a definition of common goals, communication, focus, and the employment of appropriate tools to make it a reality (Arnuad & Mills, 2012; Morten, 2009).
At the core of these collaborative processes is the use of technology. In this book *Collaborative Processes and Decision-Making in Organizations*, we examine how technology is helping to facilitate collaborative processes in multiple areas. The work of Scott and Timmerman in chapter one shows the way the use of technology in group settings affects group processes. In chapter five, Pellas examines how technology influences learning. The discussion of the major impact of open source as alternatives to proprietary software by Akyeampong in chapter three emphasizes the continual evolution of the World Wide Web in making several tools available to a wide range of users. Effectively implemented collaborative technologies can lead to innovations as discussed by Esen in chapter four.

As laudable as collaborative processes may be, they are fraught with several challenges that must be dealt with by those involved. These challenges are sometimes compounded in virtual teams. One major challenge is ensuring that resources pulled for the purpose of collaboration complement each other. This even becomes more important when the collaboration involves people from diverse cultural backgrounds. These cultural differences can lead to miscommunication and other barriers that could derail the process of collaboration. The Fusion Model of collaboration as proposed by Janssens and Brett (2009) gives us some insight into how collaboration could be fostered to maximize the qualities that each member of a team brings to the task at hand. The metaphor of Fusion Cooking and how it allows for assorted tastes and smells is an apt description of the nature of collaboration. As a work borne out of collaboration between authors from multiple countries, this book exemplifies the significance of collaboration in academic work, a much needed approach to research and the sharing of knowledge in the world of academia (Ou, Varrial, and Tsui, 2012). The diverse topics covered in this book illustrate the significance of drawing on multiple disciplines, cultures, and examples to offer glimpses into trends in collaborative processes and the technologies supporting them.

**Virtual Teams**

A virtual team implies a group of people working on mutually agreed upon tasks; they are not geographically bound and are connected electronically through fixed and mobile user technologies that allow members and the team to perform assigned tasks successfully at any time. Virtual teams are often formed for a limited period of time and for specific projects and tend to be self-managed (Yukl, 1998). They may exist for a short period of time (Stewart & Manz, 1995); however, such organizational phenomena allow institutions to harness the expertise available through such arrangements (Martins, Gilson, & Maynard, 2004). The use of virtual teams, once thought to promise flexibility and responsiveness for organizations (Powell, Piccoli, & Ives, 2004), has become standard practice for most organizations: small, medium, large, profit, and non-profit.

Virtual teams in organizations are usually “geographically dispersed” and are engaged in collaborative activities (DeRosa, 2009, p. 17). Such organizational virtual activities are key to competitiveness (Bergiel, et al., 2008) and underscore the fact that the use of virtual teams and virtual collaborative systems are pervasive in organizations (Martins, et al., 2004). This reality was envisage in the mid-1990s by Bernes-Lee and others who projected that in the future the Web will be able to facilitate all kinds of dynamic virtual activities:
1. Allow documents to be referenced by name, independent of their location.
2. Non-experts users of the Web will be able to make links to organized published information thereby allowing computer-supported collaboration with front-end update and annotation.
3. It will facilitate sophisticated document type definitions for commercial online publishing.
4. Improved interface of online publishing through two- and three-dimensional images.
5. Allow for the integration of concurrent editors and other real-time features such as teleconferencing and virtual reality.
6. Easy-to-use servers for low-end machines to ease publication of information by small groups and individuals.
7. Evolution of objects from being principally human-readable documents to contain more machine-oriented semantic information, allowing more sophisticated processing (Bernes-Lee, Cailliau, Luotonen, Nielsen, & Secret, 1994).

At the time, Bernes-Lee et al. concluded that the Web had not met its design goal as the facilitator of electronic publishing and a source of knowledge. However, it had demonstrated a potential for diverse information and the resourcefulness of information providers that pointed to an exciting future. Studies into the early 2000s indicate the realization of the envisioned potential of the Internet and for that matter virtual technology (Huber, 1990; Leidner & Elam, 1995; Powell & Dent-Micallef, 1997). The resulting findings have identified issues related to management, location or geography, and performance of virtual teams as the main aspects of collaborative team activities that need to be address to ensure the practicality and success of virtual teams.

Nemiro (2004) described collaborative work systems as “those in which conscious efforts have been made to create strategies, policies, and structures, as well as institutionalize values, behavior, and practices that promote cooperation among different parties in the organization in order to achieve desired business outcomes” (p. xviii). Nemiro explained that virtual teams cannot exist without technology, but their effectiveness also depends on addressing issues related to human and organizational relations that help create the work environment including virtual organization activities. Corporate virtual teams are said to have started in the 1960s and took off in the 1990s with US (United States of America) companies leading the innovation (Ebrahim, Ahmed, & Taha, 2009). In their analysis of the common criteria of virtual teams, they considered a virtual team to be, “small temporary groups of geographically, organizationally, and/or time dispersed knowledge workers who coordinate their work predominantly with electronic information and communication technologies in order to accomplish one or more organization tasks” (p. 2654).

Chudoba, Wynn, Lu, and Watson-Manheim (2005) focused on measuring virtuality and understanding its impact on organizations. Their “study suggests that virtual teaming can be characterized in terms of three [factors] – team distribution, workplace mobility, and variety of work practices” (p. 298). It becomes evident from their work that virtual teaming is essential to any organization that has personnel working in different geographic locations, on different projects, and with different work teams. Similarly, Combs (2007) considered a virtual team as “a group of individuals who work across time and traditional boundaries on a temporary basis to bring different perspectives and skills to the team” (p. 27), and identified team leadership as key to efficiency.
Adopting technologies for virtual collaborative activities requires understanding “the difference between Information Technology (IT) and Information Systems (IS). This means Information Technology (IT) has to be built into a fully integrated and operational [Information] System (IS)” (Corrigan, 2007, p. 133) in order to facilitate a virtual cooperative process that involves users. Because effective virtual collaborative work requires addressing issues related to the virtual workplace in terms of how activities are facilitated, performed, and evaluated (Zemliansky & St.Amant, 2008) and how decision-making is performed efficiently and in a timely manner (Bohanec, 2009), the findings of Xia and Mao in chapter thirteen on the use of phones in China demonstrates how many organizations are taking advantage of all the technological tools available and accessible to them. The ubiquity of phones makes their use practical in the day-to-day activities of organizations.

Successful virtual teams are those that have shared goals, minimal power disparity, and build trust among team members (Panteli & Tucker, 2009). The difference between high and low performing virtual teams are considered to be evident from nine practices related to the level of initiative, assuming leadership responsibility, the use of a shared process for decision-making, and problem solving. The remaining practices are understanding how the team’s work contributes to organizational success, providing timely feedback to one another, trusting one another to get things done, willing to put in extra effort to get things done, working together effectively, and helping one another to achieve team goals. These practices are considered necessary for the success of virtual teams. However, leadership is considered critical to the formation, efficiency, and success of virtual teams (DeRosa, 2009). A suitable virtual team leadership model could be one that is opened to the concept of shared leadership and is informed by “social network analysis” (Shuffler, Wiese, Salas, & Burke, 2010, p. 13). In this book, Morris and Connaughton, in chapter seven, enumerate some of the competencies needed to manage virtual teams effectively.

The emphasis placed on leadership means that virtual team configuration is essential and is “associated with team performance.” The make-up of a team can “significantly influence team outcomes” (Ofir & Zhang, 2010, p. 371). Therefore, researching effective leadership styles for virtual teams and making sure that leaders and team members are properly trained is essential. In addition, researching cross-cultural issues that need to be addressed in the virtual team environment and how to determine the form, need, and assess team tasks are equally important (Badrinarayanan, Madhavaram, & Elad, 2011). Chen, in chapter six of this book, draws our attention to some of the challenges that are posed by virtual teams and some of the measures that could be taken by organizations to be more effective. By taking a comprehensive look at their teams, organizations can better position themselves to deal with some of these challenges. The suggestions offered by Flammia and St.Amant, in chapter eight, provide further tools that could be drawn from by virtual teams to enhance their effectiveness.

Another significant factor to take into consideration with regards to virtual teams and their effectiveness is the role of critical thinking. Drawing on the education sector, Sofo and Sofo in chapter sixteen underscore the need for virtual teams to ensure that critical thinking is embedded in an environment where technology becomes the main medium through which interactions and learning are conducted. In chapter eleven, Heizmann’s systematic examination of how organizations can promote critical thinking provides some of the measures that virtual teams can take to ensure their effectiveness.
Decision Making in Organizations

Decision making is invariably embedded in collaborative processes. It is the process of defining a course of action or responding to a specific incident. Both the rational and the alternative models of decision-making are significant processes in helping individuals and groups to decide a course of action. The rational, optimizing, satisficing, intuitive, multiple sequence, phase models and wide variety of decision-making models proposed are all to some extent dependent on the level of information available to the decision maker(s). This book presents a wide range of examples of how technology is used in decision-making processes in organization. From the knowledge management processes discussed by Chelmis, Sorathia, and Prasanna in chapter two to the call for management to be well informed about technology by Baporikar in chapter nine, we see how technology is intricately embedded in organizational decision making.

In this technological age, decision making in many organizations has taken on different shapes and forms. In this book, you will find several examples of how technology is being used or could be used to facilitate decision-making processes in organizations. Golden and Pinoe, in chapter fifteen, examine how the use of Group Decision Support Systems (GDSS) support decision making in long-term planning. MacCarthy and Pasley, in chapter fourteen, work on decisions around new products and bring into focus the diverse nature of organizations and their decision-making processes.

The wide array of examples from various workplaces and regions of the world offer insight into how the changing nature of technology, information processing, and individual responses to them are changing or could change the decision-making processes in many organizations. Knowledge management is significant in considering the role of technology in decision making (Khun & Jackson, 2008; Nonaka & Takeuchi, 1995). For instance, in his analysis of technology and management in this book, Baporikar, in chapter nine, underscores the need for management to have working knowledge of technologies that enhance decision-making processes. The example of how technology was used in managing the decision-making processes of a successful global company as analyzed by Goksoy, Vayvay, Yilmaz, and Yilmaz in chapter twelve emphasizes how technology has become an integral part of decision-making processes in organizations, and could be used to raise morale and promote efficiency.

The equivocal nature of organizations must be taken into consideration in the decision-making process (Wieck, 1979). Although technology facilitates these processes, the ability to use it effectively and also employ the human elements that are based on experiences, cognition, and intuition enhances the process of decision making. In chapter ten, Phebus, Gitlin, Shuffler, and Wildman focus on the role of cognition and trust in the team process. They emphasize the significance of the intangibles in the process. These factors are important in any group processes, especially in virtual team environments where time and space separation are so real.

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REFERENCES


