Chapter 8.9
Virtual Collaboration and Community

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ABSTRACT

This chapter introduces the concept of a Virtual Organization (VO), using the Internet to link geographically separated participants in an efficient and novel manner. In particular, the chapter contrasts the attributes of Project VOs and Community VOs. The former tend to be more formal and arise for a particular collaborative goal with a limited lifetime. The latter are less formal and more open-ended, with a less specific purpose, largely aimed at developing an online community as an end in itself. The features of Project and Community VOs are compared and the various technologies are discussed. Two case studies are presented as examples. This is a rapidly chang-ing area with new technologies becoming rapidly available, but the underlying concepts and reasons for the existence of VOs in the support of virtual collaborative practice remain more stable.

...the manner in which a virtual community develops must be dictated by the organic needs of its members, not the other way around —Howard Rheingold, The Virtual Community

INTRODUCTION

People have collaborated throughout their development. Without collaboration, the human race would never have survived and indeed thrived. Humans are well adapted to intelligent behavior and cooperation when needed but are less well

suited to lone survival. This situation has continued through from the days when cooperative hunting for food was required to the modern world of electronic communication, which has developed extremely rapidly over the past decade or two. Despite the pace of change, many people have used this new environment to their advantage, whether professional, socially, educationally or commercially. Increasingly, global organizations see the benefits of collaboration across distances as a means of providing focused attention to complex problems without physically relocating individuals (Malhotra and Majchrzak, 2004). All these aspects require an adaptation to a completely new medium that supports new types of virtual community that were almost unimaginable only a generation ago.

There have been some forward thinkers who can be identified with hindsight. For example, Marshall McLuhan coined the now classic expressions "*the medium is the message*" and "*global village*" in the 1960s, in the context of media in general, especially the various electronic media. These concepts have become even more apposite with the coming of the Internet, largely after McLuhan's death in 1980. Early virtual communities, such as the WELL (Whole Earth 'Lectronic Link), started in 1985 originally via dial-up lines and then via the Internet, and still continuing today, were embryonic examples of what has now become commonplace in the networked world. The phenomenon of the virtual community has been tracked by Howard Rheingold (2000) in his publication on the topic, which drew attention to this new form of community and the variety of collaborative interactions it can engender via the Internet and web technologies.

This chapter considers the current status of online collaboration and communities. In particular, it attempts to categorize different forms of virtual organization that exist for a variety of purposes. The technological features available for use are considered with respect to different types of virtual organizations and collaborative practice.

VIRTUAL ORGANIZATIONS (VO)

The nature of virtual collaboration and community is manifested in the notion of the *Virtual Organization* (VO). Such organizations are built upon 'cyberinfrastructures' (Internet, web services, etc.) to link groups of people and resources distributed across organizational, institutional, and/or geographic boundaries. They are formed to leverage complementarity, core competencies and pooled resources to create productive 'organizations', be they not-for-profit, community-focused, corporate, research or educational, and they may often appear to others to be a single unified organization with a real physical location (Churchill et al., 2001; Lee et al., 2006). The VO stems from the concept of a distributed virtual networking system, the development of which has as its goal to provide a new and more effective means of using computers as tools for communication, collaboration and information sharing with others (Schraefel et al., 2000). The term VO has also been associated with 'collaboratories', online communities (Preece, 2000) and virtual environments, among others. VOs as collaborative structures have further been the study of a range of practitioners, including computer scientists, organizational theorists, sociologists, and business modelers.

In the most general terms, what characterizes VOs are the fact that they are principally computer-supported and are underpinned by collaborative tools and HCI (Borda and Farnhill, 2006; Churchill et al., 2001; Fitzgerald et al., 2008; Kimble and Hildreth, 2005). There are a number of ways in which VOs are currently supported, not least through web-based services and applications that demonstrate the Web 2.0 concept (O'Reilly, 2005). These are not technologies as such, but services (or user processes) created using the building blocks of the Internet and the web. These include blogs, wikis, multimedia sharing services, content syndication, podcasting, and content tagging services. Many of these applications of web technology are relatively mature, having been developed and in

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