Chapter XIII

Expanding the Information Carrying Capacity of the New Media in the Context of Virtual Teams

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Abstract

This chapter considers the pivotal role of computer-mediated communication in supporting the work of virtual teams. The limited information carrying capacity of computer-mediated communication channels has been well documented and the subject of much research. Media richness theory is the context for a proposed technique aiming to increase the information carrying capacity of CMC in virtual teams. The
technique, based upon developing a shared social construction, is presented and suggestions on how it may be evaluated are proposed.

Introduction

With the growth of global organisations, virtual teams, and advances in networks and telecommunications, face-to-face meetings are no longer the sole communication medium used by organisations to facilitate collaborative work. Computer-mediated communication (CMC) systems that have emerged in recent years have revolutionised communication and made possible new and expanded forms of group work. These CMC systems have become an integral component of organisational communication as they are more convenient and less expensive than travelling to face-to-face meetings as well as being integrated into multi-media environments and digital networks (Baltes et al., 2002). CMC media include e-mail, voice-mail and video conferencing over digital networks. These media have come to be known as the new media as opposed to the traditional media of face-to-face meetings, telephone and text based documents. There has been much research exploring the use of the new media attempting to develop theoretical approaches for explaining media choice and usage in organisational contexts where available media for communication has now been complemented by the new media. However, there has been little work done to investigate how CMC systems can be used as effectively as conventional face-to-face meetings to enhance group performance. This issue must be addressed as CMC is emerging as the preferred medium to facilitate virtual workgroups.

The aim of this chapter is to address this gap by giving a synopsis of previous work and presenting a framework based upon a shared social construction in an attempt to advance our understanding regarding the effective use of CMC within organisations. The structure of the chapter is as follows: firstly an overview of the theoretical perspectives that have been developed is presented, emphasising the key issues of the effective use of CMC; secondly a dialogue technique framework proposed by Huang et al. (1998b) is presented, describing how dialogue technology may be adopted to help organisational members work effectively in mediated environments; thirdly, a model is presented that integrates the dialogue technique into a process of developing a shared social construction in collaborative work environments, which may
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