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Direct Communication *versus* Virtual Communication in Virtual Teams

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Abstract

Several studies suggest that computer-mediated communication can lead to decreases in group effectiveness and reduce satisfaction levels in terms of trust and comfort of its users. Supported by an experiment, where the emotional or affective aspects of communication were tested with the experimentation of two architectures, Direct Communication Architecture (DCA) and the Virtual Communication Architecture (VCA) this paper validates the thesis that, from the users' perspective, there is no opposition to the acceptance of virtual environments and interfaces for communication, and that these environments are able to cope with the reconfiguration dynamics requirements of virtual teams or client-server relations in a virtual enterprise operation.

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1. Introduction

Man communicates since the earliest signs of human life. From simple processes of exchange until speech, and later using symbols and written communication [1], today communication is a basilar process for business [2-6] and is a very important dimension of virtual team working [7]. The pace has accelerated the ways to communicate, overcoming time and space barriers, so communication has become computer-mediated: from videoconference or computer conferencing, which can be thought of as the “traditional” face-to-face communication of today, until virtual communication interfaces and environments, where there exists a computer simulated world between the interlocutors.

Even though there are many communication tools used to collaborate in virtual teams (VT), not many studies have suggested their global efficiency, therefore, the new challenge to cope with the business requirements relies on how to apply the philosophy of effective and efficient virtual communication. Paradoxally, existing research points to two conflicting findings: from one side some researchers pointed the advantages of computer mediated communication in VT, transcending the space and time limits while others mention the loss of cohesiveness, trust, comfort, confidence.

In this paper, the authors demonstrated that communication in VT can take place by using a Direct Communication Architecture (DCA) (simulating face-to-face communication) or by using a Virtual Communication Architecture (VCA).

The DCA consists of a computer-mediated face-to-face communication, through videoconferencing software, where the end-user is able to see and hear an interlocutor on the other side (on his /her computer screen). The interlocutor’s features such as physical appearance, age, race, and tone of voice are subject to the user’s perception (Fig. 1).

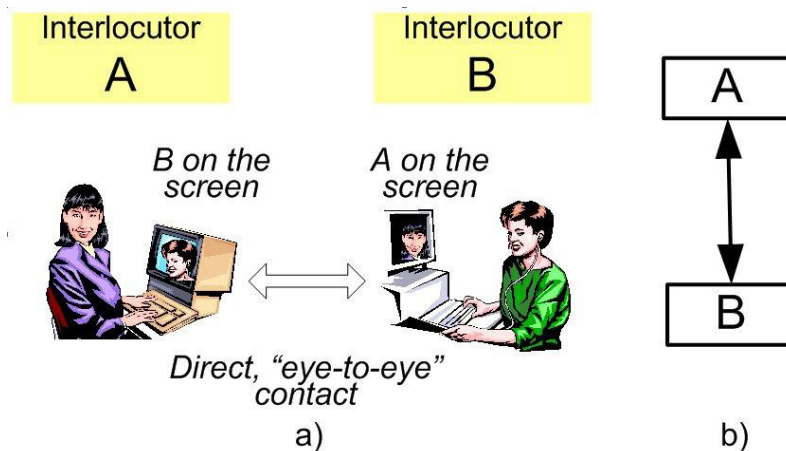


Fig. 1. a) informal; b) logical representation of Direct Communication Architecture

The VCA uses the virtual reality-based representation of the interlocutor’s image (software agent or avatar) as an interface, where the end-user cannot see or hear the real image of the human interlocutor because he is “masked” and emulated by the avatar interface; the end-user always sees the same interlocutor’s mask and hears the agent’s voice. The VCA hides or virtualizes the communicating people (Fig. 2).

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