Trust in Computer Mediated Communication

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INTRODUCTION

How we work in an increasingly computer-mediated world requires new ways of understanding how teams work together effectively with new technologies and how they make sense of the organization. We see this in the knowledge structures, which are created by teams and by the organization in which the teams are embedded. Further, knowledge structures also affect the performance of the team in the accomplishment of their work. What the team knows in its function as a team varies, due to different norms and expectations, and use of knowledge sources, which includes technology and new work processes. However, when a new knowledge source is adopted, new ways of working emerge. For example, two changes in our ways of working are the increases in knowledge work and the increasing use of 'virtual' connections using information and communication technologies. Inevitably, such changes will affect the explicit and tacit knowledge held by organizations and their members.

Explicit knowledge is codified knowledge, distributed through formal methods of communication, often found in procedures and guidelines. Tacit knowledge is experiential knowledge held by individuals. Tacit knowledge is most frequently shared using informal methods of communication. The tacit knowledge learned from these new ways of working must be shared across team members, which helps to validate both existing and new routines and knowledge. Teams are the most common and efficient way of creating knowledge as teams contextualize each other's expertise and perspectives, (re)interpret and (co)construct shared understanding, allow emergent knowledge in the form of new ideas, and establish credibility criteria for the routines they typify and establish. However,

to do so, teams must have trust in each other, as well the organization. In this article, we examine the roles that explicit and tacit knowledge play in building, acknowledging, and recognizing trust among individuals, teams, and organizations. We also address the types of trust, including swift trust, and the relationship between trust and technology. We conclude with future research directions and a recapitulation of pitfalls when building trust.

BACKGROUND

Explicit and tacit knowledge are critical components in organizations. Explicit knowledge, such as organizational norms, routines, and 'ways of knowing', traditionally is created in a shared physical 'place' or from objects within an organization, such as written policies and procedures. In contrast, tacit knowledge is defined as operational knowledge, decision-making judgment in the absence of data, or discrete interpersonal skills in individuals. Tacit knowledge is difficult to quantify and to transfer from one individual to another, from one individual to a group, or from one group to another. This becomes a major obstacle in the creation of teams, since teams have a range of diverse memberships and structures, and use a variety of technologies with which to work and to innovate.

Raghuram, Tuertscher, and Garud (2010) identified a number of challenges related to trust, cohesion, and technology as teams transcend place, time, space, and culture. Teams may be physically collocated teams, blended teams, or virtual teams (Hanson, Engel, & Gobes-Ryan, 2010). The defining difference is whether the team is physically collocated, located across physical and virtual spaces, or located only in cyberspace

(For the purposes of this article, the use of the phrase *virtual teams* may also include *blended teams*). In addition to project tasks and milestones, teams also contain a social structure that links the individual team members in such a way that successful completion of each member's job is necessary to achieve larger goals and desired outcomes for the team and the organization. Thomas, Bostrum, and Gouge (2007) suggest as virtual relations increase, organizations will want to know how to make these relationships more effective and to develop common work practices around ICT use. Hence, the location of team members and the methods of communication open to them may affect the team's ability to collaborate effectively. Successful collaboration is associated with trust, and to an equal extent, power. For virtual teams, the question is how to create a collaborative environment conducive to communication when members have access to each other through networked technologies.

Communication among Teams

It is in the communication of both the explicit and the tacit knowledge possessed by an organization and its members that we see as the critical challenge in the transition to or blending of virtual and physical work (Belanger & Allport, 2008; Polyani, 1966). Because of this, within daily team praxis are embedded the relationship and the contextualization of power and trust. Effective communication in blended work teams requires trust, as "Virtuality requires trust to make it work: Technology on its own is not enough" (Handy, 1995, p. 44). We construct a "trust relationship" through the content and frequency of formal and informal communication of content and process (Panteli & Duncan, 2004). Trust not only enables cooperation, it also becomes the means for complexity reduction or disambiguation (Eisenberg, 2007). Trust is especially valuable in alliances, such as inter-firm, joint ventures, or contracted work, because firms, teams, and individuals rely on their partners' performance and are vulnerable to partners' actions (Kumar, 1996).

However, as part of an analysis of trust, we suggest it is imperative to consider power. Power is an important contextual factor. Power creates unilateral dependencies or unbalanced relationships. These dependencies and relationships affect the trust of a team with its organization, as well as among team members

or among the team members and team leader. Bachmann (2001) suggests that trust and power together are the means of coordinating organizational relationships at the interpersonal and the structural levels.

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What is Trust?

Although everyone 'knows' what trust is, there are many definitions of trust depending upon the discipline or the reader. In her review of the literature on trust and computer-mediated communication, Lippert (2008, p. 1) reminds us that trust is "a contextual phenomenon commonly applied to casual conversation without conscious knowledge of what the construct means or how it manifests in daily interactions." For the purposes of this discussion, we use the first definition found in the Merriam-Webster Dictionary (2012), which has two meanings: "assured reliance on the character, ability, strength, or truth of someone or something" or "one in which confidence is placed." Both of these definitions mirror Lippert's contention that trust is interpersonal, i.e., "the object of trust is another individual" (2008, p. 2). We further suggest that trust is a beneficial, self-reinforcing outcome in a relationship. We also distinguish between trust and trustworthiness. Trust is a psychological state that occurs within the trustor (Rousseau et al., 1998), while trustworthiness is a perceived characteristic of the trustee (Rotter, 1971).

However, as we move through disciplines or professional fields, definitions may change ever so slightly. Generally, these definitions suggest trust involves specific expectations that each party will act in a mutually beneficial way, since that dependence involves some sort of risk (Paul & McDaniel, 2004). Since trust is generally situated as an interpersonal issue, organizations must understand how their employees view trust.

Types of trust can have a relationship to each other. Paul and McDaniel (2004), for example, categorize interpersonal trust as having three parts: calculative trust, competence trust, and relational trust. Other forms of trust include deterrence-based trust, cognition-based trust, and affect-based trust.

Calculative trust is often associated with deterrence-based trust, since both forms of trust attempt to avoid undesired outcomes (Ba, 2001). People believe they can rely on another party, based on a rational calculation of the payoffs and costs of doing business with that

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