

Trust and Control in Virtual Teams: Unraveling the impact of Team Awareness Systems in Virtual Teams

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ABSTRACT

The inability to convey contextual knowledge has proven to be harmful to the development of trust in virtual teams. Awareness systems have been offered as a way to provide contextual information and promote trust. However, awareness systems allow both team members and supervisors the ability to monitor virtual team members. Monitoring is a form of control and the relationship between trust and control is not well understood. Prior literature indicates that control can both impact the development of trust and alter the effects of trust. In some cases, control helps, hurts, or has no effect on the development and influence of trust. This position paper argues that a clear understanding of control and trust is needed to fully comprehend the implications of awareness systems.

Author Keywords

team awareness systems; virtual team; trust; control.

ACM Classification Keywords

H.5.3.

General Terms

Human Factors; Design; Measurement.

INTRODUCTION

Lack of knowledge about dispersed virtual team members is a major problem for virtual teams [5, 15, 26]. Absent of any information about team members, individuals often assume the worst. This degrades or retards the development of trust in virtual teams [26]. Awareness system (systems that provide information about the activities of one's team members) has been proposed as a solution [6]. These awareness systems allow team members and supervisors to monitor the actions of individual team members. However, monitoring is a form of control and the relationship between trust and control is not well understood.

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In the social science literature there are three views of control and trust: 1) complements 2) substitutes and 3) detriments. In the first view, the use of awareness systems could reinforce trust, in the second view the use of awareness systems could make up for a lack of trust, and in the third view, awareness systems could retard the positive impacts of trust. Despite this, much of the literature has proposed the use of awareness systems as a solution to the lack of contextual knowledge by members of dispersed teams. When one considers the potential implications of monitoring in virtual teams it becomes important to understand the relationship between control and trust.

TYPES OF CONTROL

Monitoring can be done externally or internally. External monitoring originates from outside the team. External monitoring is usually done by an individual who is responsible for evaluating the team's performance at some level. This normally includes managers, supervisors and project leaders [13]. External monitoring allows external evaluators to observe and direct the behavior of team members [2, 3]. External monitoring is used by organizations to align the behavior of individuals with the objectives of the organizations [3, 23]. The control exerted by external monitoring is imposed from the top down; teams have very little influence over the actions taken by managers or supervisors.

Internal monitoring can be viewed as social control imposed by the team. Internal monitoring is driven by team self-regulation where team members take on the role of monitoring and directing each other's behavior [19]. Two things are required for internal monitoring to be effective: 1) There needs to be a high level of agreement among team members on what comprises appropriate and inappropriate behavior [22] and 2) The virtual team members must commit to enforcing these appropriate behaviors. The control exerted through internal monitoring is a decentralized form of control and provides teams with a higher degree of autonomy than control exerted through external monitoring.

TYPES OF TRUST

There are many definitions of trust used throughout the literature [10]. However, one constant theme in most definitions of trust includes some level of vulnerability and

expectation [10, 21, 20]. Individuals are vulnerable to the actions of others and generally expect that they will not be violated. There are at least two types of trust. One, cognitive trust which is a competency based trust, and affect trust which is an emotionally based trust [16, 17, 18, 21]. Competency based trust is grounded in rationality while emotional based trust is derived from affect feelings of closeness [21]. Both types of trust have been found to promote positive team behaviors needed to effectively accomplish work [10, 21, 20].

VIEWS ON CONTROL AND TRUST

Although trust and controls are two mechanisms used to direct team behaviors, their relationship is not fully understood [11]. In fact, despite various attempts across multiple disciplines, no body of research has yielded a consistent pattern of empirical evidence regarding the relationship between trust and control [11]. The current literature about their relationship can be divided into three views: substitutional, complementary and detrimental [8, 24]. In the substitutional view, scholars view trust and controls as opposite ends of a similar spectrum. Teams can rely on either controls or trust, but not both. This view proposes that as controls increase the need and influence of trust decreases and vice versa. The second view, the complementary view, proposes that the two concepts are reinforcing. That, in fact, increases in controls not only increased trust but also increased the importance of trust. Controls provide a “track record for those who perform well” [8, pp. 501] and as a result should increase trust. The third view is that the two are mutually destructive. That once controls are used it signals distrust and any effort to monitor or direct others should reduce the level of trust and the team’s reliance on trust [9, 24].

RELATION BETWEEN CONTROL AND TRUST IN VT

This paper proposes that the impact of controls on trust is dependent on the type of trust and the type of control. This paper proposes that the type of control: internal versus external and the type of trust: cognitive versus affect may help determine when which view of trust and controls will play out. In other words, whether or not awareness systems help or hurt is dependent on the type of trust and who does the monitoring. This means that the impact of awareness systems can have complex consequences for trust in virtual teams.

THE IMPACTS OF AWARENESS SYSTEMS

The literature currently has three conflicting views of the relationship between control and trust in virtual teams [1, 4, 8, 9, 14, 24]. Despite the lack of consensus about the relationship of control and trust, team awareness systems and other forms of virtual controls are being introduced in virtual teams and other virtual collaborative contexts [12]. Therefore, it becomes increasingly important to determine how controls, like monitoring, impact trust in virtual teams. This position paper proposes that research should be

conducted to reconcile the three views on trust and control in virtual teams. In addition, this paper proposes that one key to understanding this relationship is drawing distinctions between the type of trust and control.

SHORT BIOGRAPHY AND MOTIVATION

I am currently an Assistant Professor of Information at the University of Michigan, Ann Arbor, School of Information. I was a BAT doctoral fellow and KPMG scholar at Indiana University where I completed a Ph.D. in Information Systems from Kelley School of Business and minored in Social Informatics through the Center for Social Informatics. I have published in the *Information Systems Research*, *Journal of Management Information Systems* and *IEEE Transactions on Professional Communication* as well as in various conference proceedings. I also written a book entitled *Social Capital and Knowledge Integration in Virtual Teams*. My research focuses on team collaboration through virtual environments. In particular, I have published several papers on the topic of trust in virtual teams. My motivation for attending the workshop is to engage with an interested audience on the topic of trust in virtual teams.

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