

Trust in Virtual Communities

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INTRODUCTION

Trust is one of the key factors that emerged as a significant concept in virtual communities. Trust is so complicated that it is hard to define in one standardized way. Trust issues have evolved into two major ways in the fields of virtual community and security. Among a huge literature concerning trust in virtual communities, a majority of literature addresses technical solutions on trust-building by providing new Web-based applications. They range from human users authorization, semantic Web, agent technologies and access control of network to W3C standardization for content trust and security. Some examples include AT&T's Policymaker or IBM's Trust Establishment Module (Blaze, Feigenbaum, & Lacy, 1996; Herzberg, 2000). Only a minority deals with understanding the concept of trust and sources of trust-building from social and cultural aspects. It appears to miss the essence of trust in virtual communities, although an integrated approach is needed for building trust in communication and the use of virtual communities. This article aims to present the definition of trust and relevant concepts for recognizing sources of trust-building in virtual communities. This article also presents future research implications for further development on trust and trust-building in virtual communities.

BACKGROUND: DEFINITION OF TRUST

Trust has been defined by several researchers in many disciplines. One definition of trust is "the confidence that a person has in his or her favorable expectations of what other people will do based on previous interactions" (Gefen, 2000, p.726). Trust is also defined as the firm belief in the competence of an entity to act dependably, securely and reliably within a specified context (Grandison & Solomon, 2000). The common features of trust from these definitions is that trust is a notion of manifestation in reasoning and judging processes that has originated in psychology (Treck, 2004). It is understood as an implicit set of beliefs that the other party will refrain from opportunistic behavior and will not take advantage of the situation (Hosmer, 1995; Moorman, Zaltman, & Deshpande, 1992). Ridings (Ridings,

Gefen, & Arinze, 2002) asserts that trust is working as a subjective substitute to rules on participants' behaviors and creates the necessary atmosphere that makes engagement with others frequently. Especially in virtual communities, where rules of social behavior are absent, the most common agreement is that trust is essential and noteworthy for the continuity of the community (Ridings et al., 2002).

Trust is understood as complicated and problematic in the literature on computer-mediated communication or group support systems (Hosmer, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998). It depends on the situation where participants' contact is possible in person and/or in face-to-face contact. Trust in virtual communities occurs as a conversation to one or many individuals as well as to a general audience, as posted at bulletin board. That is, trust is the concept of the generalized and collective level in the context of interpersonal relationships (Rotter, 1971; Jarvenpaa, Knoll, & Leidner, 1998). The mutual interest and sharing of experience bring closeness to the community for the common and shared topic, which fosters trust to the community. Repeated and accumulated interactions between participants increase trust. In contrast, lack of face-to-face contact and visibility causes loss of trust in communications. Easy camouflage to mask one's identity, gender, age or race, as well as to create multiple aliases bring suspect to participants and result in decreasing trust in virtual communities.

SOURCES OF TRUST-BUILDING

A literature on trust-building from the traditional communities addresses the characteristics of trust that can be also applied to virtual communities. The concept of trust was considered as an assessment, not as an entity, that is measurable in some ways (Denning, 1993). Denning thought that the assessment resulted from past experience and interactions. Since the 1990s, several researches on trust-building have made efforts to measure factors of trust-buildings. For example, trust is considered as multidimensional, consisting of three factors in an intertwined mode: ability, benevolence and integrity (Butler, 1991; Mayer, Davis, & Schoorman, 1995). Ability indicates skills or competencies that enable an individual to influence to a certain topic, such as mutual

interest, event or hobby in virtual communities. Benevolence is the expectation that others support to do good to the trustee, such as posting to the ongoing discussion to encourage or to help. Integrity is the expectation that another will act in accordance with socially accepted standards of rules or honesty, such as the norms of reciprocity that the community needs to function. Jarvenpaa's research groups adopted the three factors for surveys of virtual communities and demonstrated that trust consists of three separate dimensions in virtual community contexts, as well (1998). Another subsequent research group merged the three factors into two scales—ability and the combination of benevolence and integrity—and conducted a survey to examine what factors build trust and how they are related in trust-building (Ridings et al., 2002). The result of this survey present that trust is a significant predictor of virtual communities members who join to exchange information, especially to get information; and their belief of trust increases by their responsiveness and confiding behavior.

Lynch asserts that the level of trust is the binding of *identity* with *behavior* (2001). Identity alone does not provide trust for the provider of given information. Trust is built over the knowledge of past behavior and subjective assessment of the character of an identity. Possession of identity, therefore, creates some accountability for behavior, and observation of behavior over time allows one to form expectations about the behavior association with an identity (Lynch, 2001). With this identity, people can exercise control over their self-presentation by choosing names, signature files or personal descriptions and aliases. The differing levels of an invented self-representation can be possible from anonymity, pseudonymity and real identity (Wood & Smith, 2001). In a virtual community, anonymity is a state of communicating where the identity of the communicator is not readily apparent. Pseudonymity lies at the one end of real-life identity and the other end is anonymity with some degree of protection.

One problem relating to identity arises in judging what identities are authentic by shifting to multiple selves and involving the fragmentation of many selves (Tuckle, 1995). The *authenticity* of the identity and content is tied to the authoritative identity performed by and for authorizing sources. This naturally produces an emphasis on the attribution of sources as a means to enhance the apparent authenticity of information. The judging of authenticity is a dynamic process, with accounts being presented and undermined by participants in an ongoing interaction. In virtual communities, several elements are required to be considered authentic: personal testimony, objective statement and externally attributed sources combined with the choice of images, fonts and layouts (Hine, 2000).

Another approach to understanding trust-building in virtual communities is taken from a perspective of *authority*. Based on Wilson's concept of cognitive authority, which means influence on one's thoughts as one would consciously recognize as proper (1983), Fritch and Cromwell examined how people assess trust and authority over the contents of information in a networked world (2001). Since there is no filtering of information in virtual communities, determining authority of information is important in assessing trust. Authority over information is determined by authorship (i.e., who authored the information), ownership (i.e., who is actually responsible for information) and affiliation (i.e., who sponsors the information). Fritch and Cromwell provided a theoretical model of specific criteria as sources of authority: author competence and trustworthiness (by author identity and author credentials); document validity (accuracy of information, presentation and formats of information, organizational identity and authority); overt affiliation with an institution; and covert affiliation with an institution.

Trcek also provided basic relevant factors as a means for assessing trust from the following criteria: irrationality, context dependence, action binding, temporal dynamics, feedback dependence and trust differentiation. He argued that these factors can be used for evaluating systems in a standardized way (2004). Although there have been many attempts to understand and measure trust, there is no one framework most commonly accepted to measure trust in the context of virtual communities.

FUTURE TRENDS AND CONCLUSION

As long as trust is one of the important issues in virtual communities, the idea of formalizing trust is complicated. Its specific identifying criteria are getting more complicated to identify to participants in virtual communities. As we integrate trust into virtual communities, understanding sources of trust-building is clearly going to be necessary and inevitable. A plethora of future research for further development exists in relation to trust and trust-building in virtual communities. Although a common standard model for evaluating trust does not exist, technical solutions on trust management applications will be increasing. At the same time, social and cultural aspects of trust-building in virtual communities will continue to be developed. Comparative approaches to understanding trust in different communities or from different types of information sources will be interesting, feasible areas for further research. Investigating the relationship of trust and frequency of use of the community can be studied, as well.

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