Trust: The MVP of the Knowledge Management Team

Logan Buchanan

INF 385Q

December 14, 2005
Trust: The MVP of the Knowledge Management Team

Many organizations are investing significant time and financial resources in technologies to enable them to collect, share, and store information. However, in addition to these technologies, trust plays an important role in transferring personal knowledge to organizational knowledge. It is likely that in the absence of trust, new knowledge initiatives will fail. Bukowitz and Williams (1999) comment that trust is an “emotion-laden word” to use when discussing business issues, but that trust is the “linchpin upon which the entire premise of knowledge sharing hinges. Without it the knowledge-sharing organization is an oxymoron” (p. 194).

Recently, the risks and opportunities that are part of the “global exchange of data, information, and knowledge have become social issues” (Probst, Raub, & Romhardt, 2000, p. 165). There is a growing trend towards international teamwork and virtual teams and offices. As the popularity of teamwork increases, the importance of knowledge sharing and distribution as a factor of success increases as well. In virtual organizations, there are fewer opportunities for working together or meeting informally. Groupware, such as Lotus Notes, is useful for offering consistent management of shared information and supporting the process of group work. However, electronic tools will not be used to share knowledge if the company’s organization and culture do not promote trust (Probst, Raub, & Romhardt).

Bukowitz and Williams (1999) see three forms of trust that people have related to knowledge sharing and their organization. The first is trust that the organization will not fire employees as soon as all knowledge has been transferred from the employee to the company. The second is a trust that the system will facilitate a return on knowledge contributions. Third is a trust that others in the company will use the contributed knowledge in an ethical manner.
Reluctance to Share

A lack of trust is likely to reduce the extent to which people are willing to share information with others. The lack of trust creates uncertainty and a perception of risk that not everyone involved in the exchange will benefit equally. Andrews and Delahaye (2000) found that scientists actively decided with whom they would share their own knowledge and that personal knowledge was seen as a valuable commodity that should not be casually shared. The factor that influenced knowledge-sharing decisions was perceived trustworthiness, which was based on perceptions of what the colleague was likely to do with sensitive information. A senior scientist commented, “If you haven’t got trust and confidence then it doesn’t matter what else you’ve put in place […] to try and encourage cooperation, it’s not going to happen” (p. 804).

A department head reported:
There is no way that people would share knowledge willingly in our company. Especially since management pushed the last re-engineering project through, everybody guards his patch for all he is worth. The motto seems to be: “Don’t make yourself unnecessary. Somebody might believe it next time.” (Probst, Raub, & Romhardt, 2000, p. 164).

People do not automatically share their knowledge with others. At the individual level, there are two types of barriers related to willingness to share knowledge. One type of barrier affects the ability to share knowledge and the other affects the will to share. Willingness is influenced by several factors including pride in the ownership of the knowledge, lack of time, and fear of hurting one’s position in the organization. Employees often view certain aspects of their personal knowledge as part of their power base within the organization, or as private information.

Organizational culture can affect the content and scope of the transfer of knowledge. However, political or power-based barriers are of greater significance. It is highly unlikely that someone will feel inclined to share knowledge if doing so will weaken the one’s position.
problem happens most frequently in strongly politicized organizations, and in these cases efficient knowledge sharing is rare. One strategy in this situation is to link knowledge sharing to pay and incentives. Also, requests for knowledge need to be treated with acceptance and not as an admission of incompetence (Probst, Raub, & Romhardt, 2000).

Goman (2002) found that in general, people in leadership positions say that knowledge sharing is important, but continue to withhold information deemed unsuitable for employees. Additionally, leadership talks positively about collaborative input while in reality decisions have already been made. Also, employees at all levels report that they think knowledge is power, they are insecure about the value of their knowledge, they have a lack of trust for others in the organization, they fear negative consequences, and they work for people who do not share what they know.

There is some debate as to the extent that trust can be developed and sustained in social relations using only electronically mediated communication. The extent of face-to-face interaction that occurs between people affects not only the basic social relationship but also the extent to which trust can be developed and sustained. One school of thought contends that it is not possible to develop and maintain trust using only Information and Communication Technologies (ICTs). Roberts (2000) finds that high levels of face-to-face contact and a process of socialization are generally required to establish and reinforce a trusting relationship. Additionally, the richness of face-to-face contact can ease the communication difficulties resulting from differences in culture and language. Maznevski and Chudoba (1999) also share this perspective. The authors found that in global virtual teams, regular, intense, face-to-face meetings, in addition to other meetings using various media, improved the social relationship and the level of trust amongst team members.
However, other authors take a different approach and argue that it is possible to build and sustain trust in relations that only use ICTs. Pauleen and Yoong (2001) suggest that social relations can be built by the strategic use of a variety of electronic communication mediums such as telephone, email, video conferencing, and online chat.

Jarvenpaa and Leidner (1999) found a correlation between social exchanges and trust in virtual teams. Teams with low initial trust exchanged few social messages in the first two weeks while teams beginning with a high level of trust had initial communication that was largely social. However, while social discussion appears to foster trust in the beginning of a project, it is insufficient in maintaining trust in the long term. Groups that were able to maintain high levels of trust throughout the task integrated social information into otherwise task-oriented messages. Additionally, unequitable, irregular, and unpredictable communication hindered trust. When team members neglected to forewarn others in the group that they would be out of communication for a given period, it was difficult for team members to have confidence in their team.

In the same study, Jarvenpaa and Leidner concluded that unless one trusts quickly, one may never trust at all. This idea is known as “swift trust.” The survey data suggest that only four out of twenty nine teams shifted from a low initial trust condition to a high trust condition. The first few team messages set the tone for how the team interrelated over the course of the project. Managers can help teams to start off positively by providing a clear definition of responsibilities and guidelines on how often to communicate, with an emphasis on a regular pattern of communication. These findings suggest that trust can be established in social relations that are completely virtual, although the trust was extremely fragile.
Bolstering Trust to Encourage Knowledge Sharing

Although it is difficult to create, an atmosphere of trust is necessary for efficient sharing of knowledge (Probst, Raub, & Romhardt, 2000). Trust needs to be established slowly through positive examples, but can be quickly destroyed, and the damage can be long lasting. Employee management plays an important role in creating a positive culture for knowledge sharing. Structures and incentive systems can be used to establish a knowledge-oriented culture. Managers can also support the culture by their own actions, commitments, and speech. Leadership of knowledge sharing should be by example. A knowledge-oriented culture allows for trust and open discussion of problems. The use of electronic tools should be combined with communication, openness, and personal interaction. It is not realistic to expect employees to make an effort to share knowledge when the culture of the company does not promote trust.

Goman (2002) found that there are some conditions under which people are willing to share their knowledge. People will share under conditions of visible support of leadership, clearly defined and meaningful objectives, high levels of trust, great team leadership, and shared rewards. To create these conditions, managers can create opportunities for people to interact, both formally and informally. People learn what is important to leadership by the actions they see, so leaders need to model knowledge sharing. They should also recognize and reward those who share information and encourage others to do so as well.

There are four challenges, according to Bukowitz & Williams (1999), in achieving trust within organizations. The first is that the organization must support a contract of reciprocity. If employees believe that the organization drains them of all information and then lays them off, they are unlikely to be willing to share their knowledge.
The second challenge is to create explicit policies on the use of intellectual assets. People who share knowledge are much more likely to continue to do so if their contributions are acknowledged in some way by those who use them. Organizations can use explicit policies and procedures to develop an understanding of what constitutes appropriate use of others’ ideas. A sense of personal indebtedness is lost when people use groupware.

When people download information, there is a tendency not to feel that they owe the contributor anything, but instead that the information is free and comes without strings attached. The contract of reciprocity does not work in groupware systems unless specific policies and procedures are present. Some possible policies are to ensure that the name of the contributor is always associated with the contributed knowledge, to require that users let contributors know that they desire to use their material, or to institute feedback mechanisms for contribution.

Using self-publishing to promote ownership is the third challenge. Studies suggest that knowledge workers are primarily motivated by recognition and appreciation for their thinking. Self-publishing is another way to give people a feeling of ownership over their knowledge. Perhaps the incorporation of blogs, if used responsibly, could help foster a trust and a sense of ownership and control over one’s work. Another idea is to provide people with greater control over how their knowledge is packaged or distributed by providing them with resources to create home pages or send information to subscribers. According to Burkowitz and Williams (1999), Sun Microsystems and US West have adopted this approach, and individuals and teams are responsible for maintaining their own websites. There are some drawbacks to this approach; some information is duplicated and a powerful search engine is necessary to help people find information.
Overlapping spans of trust is the final challenge. Trust has a significant impact on the movement of information in an organization. If the individuals responsible for processing and disseminating information are not trusted, communication breakdowns can occur. Generally, trust is based on personal relationships. Every person has a group of individuals with whom he or she is willing to share deep knowledge. This group is the person’s “span of trust.” These spans of trust are typically relatively small. Often companies mistakenly assume that trust can be established merely from membership in the same organization. If an individual’s span of trust is limited to a few hundred individuals, this does not bode well for organizations attempting wide scale knowledge sharing initiatives. Organizations need to ensure that new connections with people result in overlapping spans of trust. For example, at 3M, technology owners are responsible for finding ways to use technology across the entire organization. Thus, they are able to develop relationships with other researchers in many different divisions. To develop overlapping spans of trust, organizations should look for ways to insert key people into a wide range of natural groupings. One way to do this is through special assignments (Bukowitz & Williams, 1999).

Two forms of interpersonal trust, trust in a person’s benevolence and trust in a person’s competence, enable effective knowledge sharing (Abrams, Cross, Lesser, & Levin, 2003). Interpersonal trust can be viewed as people’s willingness to be vulnerable, such as when asking for help or information. People often consider the benevolence of a colleague when determining the extent to which they will admit their lack of knowledge. Benevolence-based trust allows a person to seek information from a colleague without fear of negative repercussions. People must also trust that the other individual has adequate expertise to offer information. This concern
relates to competence-based trust, when the individual feels confident that the other person is a reliable source of information.

As discussed previously, trust is a vital factor in increasing knowledge exchange. However, aside from suggesting increased face-to-face interactions or proving employees with more time and space, little guidance is offered regarding how to promote interpersonal trust. Abrams, Cross, Lesser, and Levin (2003) conducted over forty interviews in twenty organizations to gain a broad perspective into ways in which managers can promote trust in their organizations. From their interviews, Abrams and her colleagues identified ten practices and behaviors for promoting interpersonal trust.

The interview results indicated that those who kept sensitive material to themselves were seen as more trustworthy. One person mentioned that he was willing to share helpful but sensitive information with a specific person because he was confident that the person would not divulge the information. In contrast, an individual stated that there was a manager who had a reputation for sharing information told to him in confidence and therefore, many people did not trust him and did not share helpful but sensitive information with him. Managers can promote discretion by holding others accountable for divulging sensitive information and through their own actions.

Another important determinant of trust is consistency between words and actions. When these are aligned, people can place confidence in what one says rather than attempting to determine hidden agendas. Those people who “walk the talk” are most trusted and are perceived as caring about others and as following through on commitments. To promote both benevolence and competence trust, managers should be clear about commitments, set realistic expectations when committing to something, and follow through on commitments.
Frequent communication allows for more information to be gathered when forming assessments of others and provides more opportunities for people to develop a shared vision and language. One way to make meetings more conducive to promoting trust is to have people read material beforehand and use the meeting time to work together for joint problem solving. It is beneficial to create several problem-solving teams composed of members from various functions or physical locations to create relationships across these boundaries. These relationships often last beyond the meeting, which serves to create a stronger network. Face-to-face communication is beneficial in these situations. Abrams’ interviewees mentioned that having a meaningful connection with others involved discussions on both a personal and a professional level.

People are more willing to trust others who exhibit a willingness to listen, share, and collaborate with them to solve problems. People are wary of individuals who will only answer clear-cut questions or discuss complete solutions. Management should avoid being overly critical of rough ideas that are still developing. They should sometimes be willing to accept incomplete solutions from people attempting to solve a problem and be willing to work with people to improve their partially formed ideas.

There is a “trickle down” effect for trust; people take their cues from the larger environment. The way that managers treat employees sets an example, and employees will treat other employees in a similar manner. Fair and transparent decisions on personnel matters result in a more trusting environment. Managers should ensure that personnel rules are clear and applied equally.

Having common goals and language increases trust within informal networks. Managers should set common goals early in the project, seek opportunities to create common terminology, and watch for misunderstandings due to differences in language or thought processes. A second
organizational factor is to hold people accountable for trust. Managers need to manage and reward trustworthy behavior. Evaluating people’s trustworthiness sends a strong message that trust is important. Managers can explicitly include measures of trustworthiness in performance evaluations, not reward high performers who are not trustworthy, and publicize key values such as trust by highlighting both positive examples that have been rewarded and negative examples that have been punished.

Expectations of how people should act at work can create an artificial separation between employees that erodes trust. Making interpersonal connections and learning about commonalities with coworkers are important for establishing a sense of trust. Non-work connections make people seem more human, approachable, and safe. One organization that was interviewed created a book containing background information that allowed employees to learn about a coworker’s expertise. The intent of the book was to encourage integration of a merged group. The book also included personal information such as ideal vacation, first job, hobbies, hidden talents, and weirdest experiences. It was the personal information that people actually read and used in making contact with others. It is important, however, not to divulge personal information that is revealed in confidence.

Another trust building behavior is to give away something of value. The process of social exchange relies on trust. The provider of information makes a calculated assessment of whether the receiver of information will reciprocate in the future. Knowledge seekers often interpreted being given access to a sensitive or limited resource by a knowledge provider as a sign that the person viewed them as trustworthy. This promoted a feeling of reciprocal trust. When appropriate, managers should take risks in sharing past experiences with others and be willing to offer others their personal network of contacts.
The final trust building behavior is to disclose both one’s expertise and limitations. Being honest about one’s limitations gives people a feeling of confidence that they can trust what the person claims as his or her strengths. Managers should make clear both what they know and what they do not know. They should admit when they do not know something and defer to people who know more about a topic.

The findings of Abrams, Cross, Lesser, and Levin are widely applicable, but do not specifically address specific trust issues that may arise in virtual organizations. Jarvenpaa and Tanriverdi (2002) conducted their research on virtual knowledge networks. Building trust in virtual networks presents some different challenges and solutions than in a traditional office environment. Trust is especially important in virtual knowledge networks because these networks tend to involve a great deal of uncertainty, have many different stakeholders with differing motivations, and are limited by the same technology that allows them to exist. To build trust in a virtual knowledge network, leadership practice shifts from being firm-centric to network-centric.

In a hierarchical system common to many firms, managers should be able to resolve conflicts of interest among individuals for the good of the group (Malone, 2004). In a market system, the communication structure allows anyone to share information with anyone else in the market. However, markets do not work well when participants have conflicting incentives that make them unable to agree on what is best for the system overall.

In building virtual knowledge networks, Jarvenpaa and Tanriverdi (2002) view dealing with the conflicting incentives of diverse parties involved in the network as one challenge. A balance between managing the generation of ideas and the distribution of the profits from those ideas must be reached. Managers not only need to be able to motivate each member of the
network to contribute his or her best knowledge in a consistent manner, but also to ensure that contributors receive a fair share of the rewards. If members do not receive a share of the rewards proportional to the knowledge they contribute, they will not be motivated to make future contributions. Evan Brown, an engineer at DSC Communications (now owned by Alcatel) is one example of why it is important to reward knowledge contributions. Brown claims to have developed a working solution, in his leisure time, for converting old machine code into something that modern computer languages could understand. Alcatel’s employment contract maintains that it owns all tacit and explicit knowledge of its employees. A judge compelled Brown to explicate the 400 pages of code that made up the algorithm for his solution. Alcatel engineers have been unable to run the code successfully. Brown claims that he could make it work with a little extra effort, but has no incentive to do so because Alcatel will claim ownership of all resulting benefits.

In trying to meet the interests of the shareholders at the expense of the employee’s interests, Alcatel has damaged both parties. Because the product is non-functioning, shareholders will be unable to capitalize on this billion-dollar idea. Additionally, after observing what happened to Brown, who is currently unemployed and unable to commercialize his solution due to the court ruling, other employees at the firm may not be willing to share their own ideas. Also, after seeing the loss of a billion-dollar idea, shareholders may take their investments elsewhere. In hindsight, Alcatel should have rewarded Brown with part of the profits from his idea. This would set a good precedent for motivating other employees to share their ideas in the future and would have created greater overall value for the shareholders.

Moving the discussion back to a more generalized setting, there are two theories related to the sharing of information; social exchange theory and social capital theory (Kankanhalli,
According to social exchange theory, people do a favor for others with a general expectation of a future return but without a specific expectation of the return. Social exchange assumes a relatively long-term relationship. The currencies of social exchange are time and resources. Increasing the benefits and reducing the costs for contributing knowledge can help to encourage knowledge sharing. A cost associated with knowledge sharing is that knowledge contributors may perceive a loss of power and unique value within the organization. Another cost is the time and effort required to codify and input knowledge. Benefits act to motivate behavior. Extrinsic benefits such as monetary rewards, enhanced reputation, and reciprocal benefits, are sought after as a means to ends that people desire. Increasing self-efficacy and helping others are intrinsic benefits.

Social capital refers to the resources that are part of the networks of human relationships. These networks include both virtual and proximate communities. The three key aspects of social capital that have a bearing on knowledge exchange are trust, norms, and identification. Generalized trust is an impersonal form of trust that depends on behavior that is generalized to an entire social unit. Generalized trust refers to the “belief in the good intent, competence, and reliability of employees with respect to contributing and reusing knowledge” (Kankanhalli et al., 2005, p117). Strong generalized trust allows people to trust others in the social unit without having much specific knowledge about the person. When generalized trust is strong, people are more likely to contribute because they believe that their knowledge is unlikely to be misused by others. When generalized trust is weak, contributors may be concerned that others will inappropriately use their knowledge. Explicit rewards may not be able to overcome the unsupportive norms of an organization (Markus, 2001). At Ernst & Young, although consultants were “aware of and evaluated on their use of and contribution to the knowledge management...
system,” there was still some concern about contributing knowledge (Markus, p 83). It is thought that this reluctance may stem from people’s mistrust that their information will be misused.

To promote knowledge contribution, management can “raise the perceptions of knowledge self-efficacy among valued knowledge contributors by indicating to them that their knowledge contribution makes a significant different to the organization” (Kankanhalakki et al., 2005, p 133). This can be achieved by highlighting improvements in organizational performance that result from their knowledge contributions. Organizations such as Amazon.com regularly recognize top reviewers, which can serve to increase the self-efficacy of the knowledge contributors.

Another strategy is that management can endeavor to increase the level of enjoyment people experience from helping others. This may be achieved by encouraging knowledge recipients to express their appreciation to the contributor for the received knowledge. The Most Valuable Professionals Program at Microsoft Corporation is an example of an initiative that tries to increase the feeling of altruism of knowledge contributors. In the program, people who provide useful technical assistance are identified and told that they have helped others (Microsoft, 2002). A third strategy is to provide organizational reward such as preferred work assignments, bonuses, or job security in return for knowledge contributions (Kankanhalall et al., 2005).

Trust results from social relations (Rutten, 2004). People have social interactions with one another, and if these interactions are favorable, it can further their future exchange relations. Trust is viewed as an element of social capital. The sociological literature sees trust, or the
willingness to take risks, as a byproduct of successful collaboration. Trust is created and continually renewed through social exchanges and is created over an extended period of time.

There should be trust in the tolerance for mistakes, which enhances the culture for knowledge creation (Ford, 2001). The trust discussed in respect to knowledge creation is organizational trust. This means that employees trust that the organization tolerates mistakes and thus the employees will engage in the more “risky,” sharing behavior. Interpersonal trust also plays a role. The employee needs to trust that his or her supervisor will follow the organizational policies.

In some cases, lack of trust hinders progress and the issue must be directly addressed before the project can move forward. In the early 1990s, surgical teams at five New England medical centers participated in a skill sharing study (Davenport & Prusak, 1998). The goal of the project was to see if a skill-sharing process that included observation of other’s work could improve the rate of success for the surgery. The project substantially reduced the mortality rate of the coronary-artery bypass surgery. One factor that contributed to the success of the project was the surgeons were presented with information about the better success rates of some of their colleagues. This provided motivation to change behavior and provided the surgeons with competence-based trust that their colleagues had adequate expertise to be a source of information. Another factor that contributed to the success of the project was that the surgeons already shared a common language.

Sometimes, as in the case of the Boston Harbor tunnel project, knowledge transfer can be successful only if the various groups are brought together to the same location. Initially the Boston tunnerlers did not trust that a few sheets of paper from the other side of the world could improve their drilling process. Eventually, tunnelers from New Zealand were flown to Boston to
facilitate knowledge transfer. The engineers from both groups were able to meet face-to-face, share both professional and personal information, and establish a feeling of trust.

Technology

Technology does have a place in knowledge management, and can be used to facilitate knowledge sharing and to help people communicate and work together to overcome time and space barriers. Marwick (2001) evaluates several technologies that contribute to knowledge managements, and uses Nonaka’s model of organizational knowledge creation as a framework for the evaluation. The table below shows the process by which knowledge is transformed within and between forms usable by people, typical activities that involve each type of knowledge conversion, and examples of technologies that may be applied to facilitate the knowledge conversion process.

<table>
<thead>
<tr>
<th>Conversion of knowledge</th>
<th>Activities</th>
<th>Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socialization - tacit to tacit</td>
<td>Team meetings and discussions</td>
<td>E-meetings, synchronous collaboration (chat)</td>
</tr>
<tr>
<td>Externalization – tacit to explicit</td>
<td>Dialog among team members, answer questions, tell stories</td>
<td>Answering questions, annotation</td>
</tr>
<tr>
<td>Internalization – explicit to tacit</td>
<td>Read and study documents from a variety of databases</td>
<td>Visualization, browsable video and audio of presentations</td>
</tr>
<tr>
<td>Combination – explicit to explicit</td>
<td>Add a document to a shared database, email a report</td>
<td>Text search, document categorization</td>
</tr>
</tbody>
</table>

Marwick warns that knowledge management problems cannot generally be solved merely by the deployment of a technology solution. Overcoming technological limitations seems to be less of an issue than overcoming cultural limitations. Technology is useful in facilitating knowledge sharing that would otherwise be especially difficult due to constraints such as time or space. The most common method for sharing tacit knowledge is in face-to-face meetings. Groupware can either be used to supplement conventional meetings or to replace them. Groupware provides a
virtual space in which participants can share experiences. If a team is geographically dispersed, the importance of shared experiences in virtual space is enhanced.

A richer shared experience is achieved with real-time on-line meetings. These meetings may include video and text-based conferencing, as well as synchronous communication and chat. Instant messaging has properties between those of personal meetings and the telephone. A chat is thought of as being much more like a conversation (Marwick, 2001). It seems likely that this form of communication would also fall somewhere between personal meetings and telephone calls in terms of being a useful form of communication for building trust.

In terms of establishing trust among participants, it was found that videoconferencing at a high resolution “was almost as good as face-to-face meetings, whereas audio conferencing was less effective and text chat least so” (Marwick, 2001, p. 818). It was also found that allowing only group members to have access to the discussions promoted frankness and built trust.

Conclusion

In conclusion, there seems to be a strong consensus in the literature that trust is an extremely important factor in successful knowledge management. It also appears clear that people will not share information when they are afraid. This fear can stem from a variety of issues, such as that people are afraid that their knowledge will be misused or that by sharing they will no longer be needed in the organization. People also need an environment that is conducive to sharing. The environment should be predictable and consistent, should foster feelings of community, and should allow for both social and work related communication among individuals. In a sense, people have a hierarchy of needs that must be met before knowledge sharing can occur. Basic level needs such as a feeling of safety and security must be met before people will be motivated to share, especially for intrinsic or altruistic reasons.
Obviously, not all types of communication are equal when it comes to building a sense of trust. It is generally agreed that face-to-face meetings are the best form of communication for this. However, modes of communication such as high quality video conferencing, telephone conversations, and chat can also play a role in allowing people to form more trusting relationships. Text based communication such as email and documents that provide background information about employees can also be useful in helping people form bonds.
References


