Leveraging Collaborative Technologies for Sharing Tacit Knowledge: An Integrative Model

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Collaborative technologies (such as e-mail, instant messaging, chat rooms, discussion groups, groupware, etc.) seem uniquely positioned to assist in sharing of knowledge within in any organization, and between an organization and its environment. Collaborative technologies have the potential to help large, global organizations where employees neither know who within the organization may have expertise that can solve their problems, nor have the opportunity to gather around a "water cooler" to share ideas and knowledge. A number of studies are looking at ways to make knowledge within an organization explicit and share that explicit knowledge. Nevertheless, a large subset of knowledge within any organization is still not explicit, or is tacit in peoples' heads. Organizations are eager to "tap" that tacit knowledge capital in the interest of the organization's objectives, and yet current collaborative technologies have not met that challenge. Our research question is how can the potential of collaborative technologies for sharing tacit knowledge (without making it explicit) be assessed and what can be done (in terms of features, functions, policies, etc.) to make the collaborative technologies effective "virtual water coolers" for organizations.

The starting point for this integrative model is the Technology Acceptance Model that covers individual and organizational characteristics that affect the use of technology. We extend the model to examine the sharing of tacit knowledge within a collaborative environment. We use research in the area and other theories (viz. Theory of Planned Behavior, Innovation Diffusion Theory and Social Cognitive Theory) to identify individual and organizational characteristics that affect sharing of tacit knowledge. The presentation will cover a conceptual model and a set of individual and organizational characteristics affecting use of collaborative technologies, and individual and organizational characteristics affecting sharing of tacit knowledge. The implications are that collaborative technology must have the necessary features and functions to support those individual and organizational characteristics which in turn will, within appropriate policy framework, enable sharing of tacit knowledge among those individuals in such as organization.

The presentation will also include the results from a set of experiments conducted in the use of discussion forum to share knowledge among groups of students at a large mid-Atlantic university. The experiments were conducted intentionally with no organizational settings or constraints, except that the students belonged to specific courses. The students in each of those courses were given access to a discussion forum in the Blackboard system used at the university. The students were not required to use the forum, nor were they given any incentives or disincentives, such as points towards their course grade. Without any such organizational settings, as anticipated by the conceptual model, very few students tried to use the discussion forum for sharing knowledge. The survey data collected from students, who did not use the forum, included their reasons for not using the forum and their perceptions of if and under what circumstances they may use it. Analysis of that data provided useful information in support of the conceptual model, namely the lack of certain organizational characteristics did affect the (non-)use of such a collaborative technology for sharing tacit knowledge, and students' perceptions of circumstances under which they may use the forum supported the individual and organizational characteristics and propositions from the conceptual model. The presentation will conclude by identifying a series of experiments that will be conducted in the future to test the whole conceptual model.