Chapter VII

Using Patterns to Capture Tacit Knowledge and Enhance Knowledge Transfer in Virtual Teams

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The virtual team presents a challenging environment in which to share knowledge. These teams can span time zones, geographies, and even cultures. As a result, storytelling sessions and other two-way communications among team members are frequently unachievable. “Maps” to knowledge experts are useless if these experts cannot be reached at the moment when knowledge is needed. In order to transition knowledge from one virtual team member to another, organizations often resort to sharing knowledge in the form of documents or other types of explicit knowledge. However, explicit knowledge typically lacks the context required to be truly useful to the knowledge consumer. A possible solution to this limitation presents itself from another discipline. Patterns and pattern languages, which have their origin in the field of building architecture and urban design, offer a way to enhance explicit knowledge by capturing the context that is typically missing in documented knowledge and by adding a rich, story-like flavor designed to facilitate knowledge transfer.

Documents and other explicit forms of knowledge representation are often a necessary evil when attempting to share knowledge in a dispersed organization or a virtual team environment. Time differences and geographical displacement limit the availability of experts for consultation with knowledge consumers. Moreover, due to the transitory nature of a virtual team, the knowledge created by one team may not always be available to another team. Team members move on and take their knowledge with them unless a determined effort is made to record that knowledge.

There are several advantages to explicitly documented knowledge. This type of knowledge representation can be categorized by subject matter and can easily be
distributed to virtual team members. Documents also preserve knowledge for future use if an expert leaves the organization or when virtual communities of practice dissolve. The primary disadvantage of documented knowledge, however, is its lack of contextual richness. The conversion of knowledge into an explicit, documented form typically results in the loss of tacit knowledge. At an APQC conference, Thomas Davenport summarized this reality best when he stated “... Knowledge dies when it is disembodied” (Stuart, 1995). Any delay in documenting knowledge could impact the capture of tacit knowledge even further. The longer it takes to record knowledge, the more likely it is that key knowledge components will be overlooked. Knowledge consumers can learn from the assumptions made and the alternatives considered during a problem-solving exercise. Unless compelled to consider these key components, knowledge experts may unwittingly omit contextual information that could be useful to the knowledge consumer, information that will help the consumer adapt the expert’s knowledge to fit his own situation.

In contrast to documented knowledge, two-way communication and storytelling are often mentioned as the most effective way to transfer knowledge from one person to another. Stories are rich in context and are enhanced with the gestures, expressions, enthusiasm, and other nonverbal techniques of the storyteller. They are enlivened with characters, dramatic conflict, and the setting within which they transpire. In addition, any interaction with a storyteller, such as a question and answer session, allows the people listening to a story to better adapt the message of the story to their own situation.

In order to best share knowledge in a virtual team environment, a happy medium must be found between easily accessible, yet context-poor explicit knowledge and the richness of knowledge that is captured and transferred in the form of stories. An attempt must be made to externalize as much of an expert’s tacit knowledge as possible in a form that can be internalized by others and then used to adapt existing knowledge or to generate new knowledge. Patterns and pattern languages may provide the balance between creating a permanent knowledge record and sharing tacit knowledge in a way that enhances learning and new knowledge creation. The goal of this paper is first to review the importance of storytelling as a method for transferring knowledge and then to introduce readers to **patterns**, their story-like nature and teaching components, and the potential they have for facilitating the transfer of knowledge in a dispersed team environment.

**BACKGROUND**

**The Role of Storytelling in Knowledge Transfer**

A great deal of research and literature has been dedicated to the role that storytelling plays in effective knowledge transfer. In order to better understand the value of storytelling in the knowledge transfer process, preliminary definitions of “knowledge” and, in particular, **explicit** versus **tacit** knowledge seem appropriate.

Knowledge might be described as “value added” information. It transcends mere information because it is context specific, it contains meaning and purpose, and it is actionable. Knowledge about previous mistakes, as well as the various assumptions and thought processes taken to arrive at a solution, is just as important as knowledge of
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