



POSITION PAPER

Implicit knowledge

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Abstract

This position paper refines the familiar distinction between tacit and explicit knowledge by the addition of a further category: implicit knowledge. It goes on to consider the implications of implicit knowledge for knowledge management in organizations.

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Introduction

A fundamental to knowledge management is the codification of knowledge into two basic forms: explicit knowledge (i.e. easily codified and shared asynchronously) and tacit knowledge (e.g. experiential, intuitive and communicated most effectively in face-to-face encounters.) There is, however, a middle ground. With dedicated and focused efforts, some knowledge believed to be tacit can be transformed into explicit knowledge. This body of knowledge is the organization's implicit knowledge.

The value and leveragability of implicit knowledge is vast and represents a new frontier in knowledge management. However, an organization must take several strategic steps in order to position it adequately. First, the sources and nature of the implicit bodies of knowledge must be identified and quantified. This is not an easy step. It demands a level of scrutiny beyond what is typically applied to identify tacit and explicit resources.

Getting to implicit knowledge mandates taking a second look at all the so-called tacit knowledge resources to determine whether that knowledge could be codified if it were subjected to some type of mining and translation process. Then, it requires implementing that mining/translation process.

Positioning implicit knowledge management within the knowledge management framework

Many knowledge management projects will focus on the explicit knowledge base. But, if the majority of an organization's knowledge is presumed to be tacit, then why would one focus on leveraging explicit knowledge? There are two good reasons. First, there is a general sense of immediate frustration that surrounds explicit knowledge. This frustration comes in the form of 'I just want to know what we already know'. Explicit knowledge management solutions rightfully represent low hanging fruit to the organization. The knowledge base has already been accumulated in some form. The task at hand is simply to organize it and present it in a manner that it is more readily available.

Second, when the knowledge is explicit, technology can more readily be applied to make it accessible. This is not to minimize or understate the effort involved in creating an organized explicit knowledge repository that is continuously fed and leveraged. However, it does pale in complexity

when compared with the task of organizing and managing tacit knowledge resources.

Technology plays a large role in this decision too; the majority of tools available focus on taming the corporate explicit knowledge base. Groupware and the collaborative technologies used by individuals and teams have partially addressed tacit knowledge transfer. Keep in mind, however, that most of these technologies are prejudiced by old perspectives that hold that the management of tacit knowledge can only be accomplished in the form of collaborative software tools that facilitate the exchange, and/or brokering of owners of knowledge. In reality many of these technologies can be leveraged against implicit knowledge as well. The task is to recognize and quantify what is implicit knowledge.

Many organizations would never consider mining implicit knowledge, thinking that 'know-how' cannot be documented. Another common point of resistance is linked to a general market distrust of artificial intelligence and expert systems. It is a mistake to equate implicit knowledge management with artificial intelligence or automated decision making. The goal of implicit knowledge management is to transfer knowledge so that it can be employed to enhance intelligence, not automate, emulate or replace thinking. The transfer can occur if a structured approach to interviewing is employed, and key elements of the human thought process that are believed to be tacit are elicited and codified so that they can be used as building blocks to an automated or semi-automated module. Such a module could then be made accessible to guide subsequent thinking and execution in similar business situations.

Tacit vs implicit knowledge

Implicit knowledge management employs tools, techniques and methodologies that capture these seemingly elusive thought processes and make them more generally available to the organization. Thus, the thought processes used by your best thinkers become a leverageable asset for the organization. To accomplish this, you need the ability to dissect your 'expert's' explanation of the component steps to executing a process. This process is both science and art. Most importantly it is essential that you don't begin with previously formed assumptions, or let opinions cloud the data collection process. If you can keep an open mind, process logic or expertise can eventually be codified into a series of related modules.

Think of preparing breakfast as a process. Preparing coffee would be viewed as a single sub-process. Tasks within this sub-process would include directives such as get a coffee filter; place the filter into the coffee maker's

filter-holder; fill with sufficient coffee grounds for the desired number of cups; obtain a sufficient amount of cold water for the desired number of cups of coffee; and so on. You would then link support and guidance details to these steps. Guidance may include suggestion to use unbleached filters. Additional explanation would capture the reasoning behind that decision, that is, unbleached filters do not transfer excessive acidity to the coffee.

Much of the success of implicit knowledge mining resides in the ability of the interviewer to elicit the right level of detail from the expert, and not to immediately assume that the reasoning behind certain approaches or tasks is not discernable. Often, it is necessary to guide an expert through their own thought process, through the steps used to arrive at conclusions that the 'expert' believes (and has gotten others to believe) are tacit or instinctive behavior. Using the example above, an expert may reveal only after being specifically asked where he gets his coffee, that he uses only 'quality' coffee beans from a 'quality' coffee store. At this point, the interviewer would query the expert on how he determines whether a store or a bean is one of 'quality'. Even some of the more abstract thought processes can be mined, if there is patience and there are guidelines to help dissect what is being said.

This is not to say that all tacit knowledge can be transfigured into implicit knowledge. There will always be bodies of know-how and experience that remain tacit. Also tacit knowledge is not an effective way to achieve alignment between personal and organizational values. (Storytelling and mentoring are better ways to achieve value alignment.) The goal of implicit knowledge management is to determine how much of the tacit knowledge in your organization defies any form of codification, and to mine that which does not.

Getting explicit about implicit

Once an organization is willing to accept that some of its tacit knowledge can be captured, it can initiate the process of identifying and documenting the portion labeled 'implicit'. This process is advanced by structured methodologies that employ interviewing techniques and a schema for capturing thought processes. One such methodology that I am familiar with is known as Knowledge Harvesting. Developed by Larry Todd Wilson, this methodology has been successfully deployed at organizations such as BP Amoco, Buckman Laboratories, Abbott Labs and the Dow Chemical Company. (You can read more about the Knowledge Harvesting methodology at www.knowledgeharvesting.com.)

About the author

Carl Frappaolo is the Vice President Market Intelligence for AIIM International. With over 25 years of experience working with a broad array of business solutions including

knowledge, innovation and content management, he is well versed in the practical business aspects and technical aspects of implementing large scale applications. He has

consulted with a variety of organizations spanning multiple industries including: AT&T, Xerox, Pfizer, RR Donnelly, Merck, Lockheed Martin, The US GSA, Northwestern Mutual Life, American Family Insurance Group, Union Pacific Railroad, Guardian, ING, Las Vegas Valley Water Authority, Johnson and Johnson, Glaxo SmithKline, American Express, Apple Computer, First Union Bank, The State of Washington, The Clorox Company, The City of San Diego, Bausch and Lomb, Air France, Towers Perrin, Nabisco and The World Bank.

Prior to joining AIIM, he founded Delphi Group, where he led the firm's consulting and market research practice until its acquisition in 2003. He is the creator of several methodologies specifically designed to address the needs

of knowledge management. He sits on the board of the Electronic Document Systems Foundation (EDSf). In 2000 he was bestowed the *Distinguished Service Award* by AIIM.

He has authored over 300 studies and has been cited and published in leading industry periodicals including, *Forbes*, *The Wall Street Journal*, *BYTE*, *Knowledge Management Magazine*, and *InformationWeek*. He is the author of four books: *Electronic Document Management Systems: A Portable Consultant* (McGraw-Hill, 1995); *Smart Things to Know About Knowledge Management*, (Capstone, 1999); *ExecExpress Knowledge Management*, (Capstone/Wiley, 2002), and *Knowledge Management a primer on the business and technical aspects of knowledge management* (Capstone/Wiley, 2006.)