Communities of Practice and Technology Support

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INTRODUCTION

In order to operate successfully, communities of practice (CoPs) require a number of resources and facilities made readily available to them. These facilities can come in both physical and virtual forms. In this article we look at these resources and facility requirements for success, and review the possibilities for technology support (software offerings) that can provide the virtual aspects of these facilities.

BACKGROUND

Here it is argued that there are six main resources or facilities that CoPs require in order to operate. These are:

1. a space to meet;
2. a place to store ideas;
3. a memory of activities;
4. a record of members and their interests;
5. a means of communication among CoP member; and
6. ways to share tacit knowledge.

A Space to Meet

In order to fulfil its function, a CoP needs a place for members to meet on a regular basis. This might be at a pre-arranged time or on an ad hoc basis. This space needs to be easily reached by all members, private to the CoP members, and accessible by invitation only. What occurs and is said within this space should be made known only to other members of the CoP, unless they agree otherwise.

Physically this space could be a room booked out for CoP meetings as required, but technologically this could also be provided online through software that permits discussion groups, e-forums, threaded discussions, online chat-rooms for instant communication, and virtual meeting rooms.

IDEA SHARING

Communities need to be able to share the ideas that they have generated in their discussions. For instance, if they are engineers discussing a maintenance problem, a number of community members may have suggestions as to how to solve the problem. At the very least this information can be stored in members' memories; however, it might be felt appropriate to keep a record of suggestions. In a physical meeting space, this could be done by a scribe noting down the main points of the discussion in an informal manner, a formal report that can be later circulated among CoP members, or a tape or video recording of the meeting that can be stored and accessed later. If the latter, the recording could be stored on a multimedia database, as could the reports in a document archive. Virtual discussions of course are easily stored in discussion threads and best practice databases that are generated and extracted from these discussions.

Activity Memory

A memory of activities has a number of concepts in common with the storage of generated ideas. It is however a more generic concept, as activities will encompass the ideas, but will also include a record of suggestions for future activities. These activities need not be restricted to conversation. They may include guest speakers to update members on a professional matter; training, whether conducted by a CoP member or an external invitee; problem-solving forums; surveys; seminars; attendance at external events; and so on. A diary of events/activities is therefore required, both past and future,

as well as a means of recording what happens at these activities. Again, this could be provided informally or formally through a scribe or CoP facilitator (if one is attached to the community) and circulated in paper or electronic format. E-mail is the base technology that could be used to notify members of events and to circulate records of activities, but electronic shared diaries may also be useful. Databases storing content and documents, virtual presentations, webinars, and possibly also online courses may also be useful.

Member and Expertise Record

Obviously each community needs a way of identifying who is and is not a member of that community. In the times of guilds, members wore identifying badges or the equivalent of uniforms as external verifiers of their membership of a skilled band of artisans. Modern CoPs are unlikely to provide such obvious identifiers. Rather, a list of members and criteria for how to become a member of the CoP will be kept by a designated record-keeper. It may be that entry to the community only requires that a candidate express interest in order to be invited in, in which case membership records are of little value and may not be physically kept. If, however, membership is restricted according to set rules and potential entrants must pass the equivalent of an entrance test, or may need to be sponsored through a voting process, then more formal records may be required. These records can be kept physically in documents or through invitation to join a virtual community whereby, for example, passwords will only be issued to verifiable members. The virtual community will then share a directory of members. Once a record of members is kept, it is then easy to store profiles of members' expertise rather than relying on the memory that Jane is an expert on antiviral drugs and so on. Member profiles, once stored on a database, provide the community with not only a pool of searchable expertise, but also with the ability to link members with similar interests and thus enhance the social networking aspect of the community.

In addition, once expertise is stored virtually in a database, individual members can enhance their profiles by linking to their own records or reports, articles, Web pages, weblogs, and so forth that can provide additional expert content and enhance the 'library' storage of ideas.

Communication

The simplest form of communication is face-to-face conversation and a physical space this is easy and convenient. Interestingly, this type of communication can now be facilitated by technology both in a high-technology and low-technology format. The high-technology format is videoconferencing, with all its requirements for well-supported technical assistance and resources, and the low-technology version is one that can be utilised by any home PC user—the Web cam and a telephone. With broadband Internet access and Windows Messenger, it is possible to speak on a telephone (or chat through text, if that is preferred) and see the person you are talking to, albeit the image is often not clear and not necessarily synchronised to speech. When synchronous communication is required, the telephone can also be used for conferencing with several people, and online chat rooms can also be used (or even Windows Messenger on its own). E-mail, of course, will provide asynchronous communication, as can discussion threads.

Tacit Knowledge Sharing

Tacit knowledge, by its very nature, becomes information once externalised into a form that can be shared through technology. Thus tacit knowledge can only be shared when the physical space is also shared. The physical space can be supported, as described above, by telephones and camera link-ups, but essentially it is a face-to-face activity. Tacit knowledge is frequently shared through storytelling or 'How I solved the X problem'. It can also be shared through mentoring and the action of 'sitting by Nelly'. Hands-on training with an expert is often recommended for tacit knowledge acquisition.

Comment

Although it is possible to externalise tacit knowledge and record it for instance through a recorded (video and tape) Q&A session with an expert that can be then stored in a database, without synchronous interaction, those viewing the Q&A are in receipt of