

# Virtual Communities of Practice for Health Care Professionals

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## INTRODUCTION

Wenger is typically credited with the development of the metaphor of communities of practice where “learning requires an atmosphere of openness and the key is to build an atmosphere of collective inquiry” (Wenger, 1998). However, the focus of creating a sense of belonging as well as the formulation of knowledge as a social process is not as new. Rather, it can be found in the form of a learning community. Senge (1990) introduced this concept of the learning organization to explain strategies to enhance the capacity of members to consistently collaborate on mutual goals.

With the increased use of the Internet over the past decade, health professionals are examining how to effectively use this medium to support collaboration and learning, while improving patient care (Casebeer, Bennett, Kristofco, Carillo, and Center (2002).

It is therefore understandable that Continuing Medical Education (CME) on the Internet has grown exponentially over the last several years. Curran and Fleet (2005) describe that in order for physicians to be able to adapt to the demands and changes of an ever-evolving technical world, they must think about “the new dimension and innovative opportunities that the Internet affords for doctors to access CME in the 21<sup>st</sup> century” (Curran & Fleet, 2005). Online professional learning opportunities offer more flexibility than traditional face-to-face CME and are able to overcome barriers to learning like travel and irregular work hours. As a result, the Communities of Practice concept was taken to the Web and the term Virtual Communities of Practice (VCoP) appeared in the medical literature (Dube, Bourhis, & Jacob, 2006).

The first virtual communities in medicine involved patients, and focused on providing a space for mutual support, along with news on innovative treatments and helpful resources (Demiris, 2006; Nagy et al., 2006).

Virtual communities for professionals, or virtual communities of practice (VCoP), were recently generated based on similar needs (Nagy et al., 2006). According to Bates and

Robert (2002), VCoP are vitally important for health care professionals and organizations, as they spread best practices and change practice (as cited in Sandars & Heller, 2006).

Unfortunately, there is limited literature that examines VCoP for health care professionals (Moule, 2006). This article will review existing literature to determine the requirements for establishing and maintaining an effective VCoP within the health care context, in support of continuing professional development. Specifically, the article will focus on the benefits of a VCoPs, the characteristics of successful VCoPs and examples of existing VCoPs with a focus on health professionals.

## BACKGROUND

Communities of Practice (CoP) are groups “of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an on-going basis” (Wenger, McDermott, & Snyder, 2002, p. 4). Generally, such communities seem to be an innovative way to share and manage knowledge and sustain innovation (Wenger et al., 2002).

Virtual Communities of Practice (VCoP), without excluding face-to-face meetings, rely primarily on information and communication technologies (ICT) to connect their members. A VCoP may use a large array of traditional media (phone teleconference, fax, etc.) and more or less sophisticated technological tools, such as e-mail, videoconference, newsgroups, online meeting space, or a Website Intranet to establish a common virtual collaborative space (Demiris, 2006; Dube et al., 2006).

Virtual communities in health care refer to the group of people (and the social structure they create), who communicate via ICT for the purpose of collectively conducting activities related to health care and education. Such activities may include: discussions around problems, cases, best practices, management of diseases, or treatments, collaboration around patient care or research projects, sharing of docu-

ments and resources on topics of interest, consulting with experts, or generating new ideas and innovation (Demiris, 2006; Endsley, Kirkegaard, & Linares, 2005).

## Dimensions of a Community of Practice

The following three dimensions are essential to a community of practice: 1) mutual engagement, 2) joint enterprise, and 3) shared repertoire (Wenger et al., 2002).

- **Mutual engagement** involves regular interaction among participants within the community, including both informal communication (i.e., e-mail), or more formal structured communication (i.e., monthly Web meetings) (Wenger et al., 2002).
- **Joint enterprise** refers to the process that maintains the community. This includes negotiating the endeavors of the community (Wenger et al., 2002).
- **Shared repertoire** includes the ways, routines, and even language developed by the community (Wenger et al., 2002). Shared repertoire implies longevity, as such successful communities cannot flourish in a few months (Moule, 2006).

## Benefits of a VCoP for Health Care Professionals

“Practitioners reflect on and learn from their practice in ways that incorporate both tacit (implicit) and explicit (codified) knowledge” (Doak & Assimakopoulos, 2007; Rynes & Bartunek, 2001 (as cited in Bartunek, Trullen, Bonet, & Sauquet, 2003)). While explicit knowledge can be found in books, journal articles, or other formal learning events, tacit (implicit) knowledge comprises a range of conceptual and sensory information and images that are difficult to articulate in words, but rather can be demonstrated or imitated (Polanyi, 1967). Tacit knowledge may therefore include intuition, perspectives, beliefs, values, and culture. As such, tacit knowledge can only be gained through individual experience and by collective participation in communities of practice (Bartunek et al., 2003). Some research indicates that tacit knowledge is better diffused within an organization whose structure and work environment promote face-to-face interaction and employee sharing at close physical proximity (Busch, 2006). Nevertheless, tacit knowledge can also be shared via a VCoP through metaphors, analogies, and stories of practice, a form of knowledge transmission that builds on contextual cues (Bartunek et al., 2003).

One of the major benefits of a VCoP is the ability of a diverse group of health care professionals to communicate and collaborate quickly across institutions and geographical locations (Demiris, 2006; Endsley et al., 2005; Robinson & Cottrell, 2005).

This exchange of knowledge within a VCoP leads to the creation of new knowledge and change in practice (Robinson & Cottrell, 2005). Nonmedical literature further supports that communities of practice can result in increased productivity and innovation (Sandars & Heller, 2006).

## Characteristics of a Successful Virtual Community for Health Professionals

The literature around virtual Communities of Practice for Health Professionals was examined to determine common traits and characteristics of successful communities. As such, the following list of characteristics was developed.

### Community Coordinator or Moderator

According to the literature, a high degree of structured management is critical for the success of a virtual community of practice. One way to achieve this is through online moderating of the group (Salmon, 2000) (as cited in Sandars & Heller, 2006).

The community coordinator helps the community identify important issues, focus on relevant topics, develop and maintain relationships, and develop its practice, including lessons learned and best practices. They may not be leading experts in their field as their role is not to “give all the answers” but to link people and guide members to appropriate resources (Endsley et al., 2005; Wenger et al., 2002).

### Active Participants and Lurkers

Regardless of the size of the community, in order for it to be successful it needs to have both active participants and “lurkers.” Active participants will ensure that there is regular interaction among members, making the community vibrant and energetic. These members provide intellectual and social leadership (Dube et al., 2006). Lurkers are members of the community who do not contribute regularly. However, lurkers may constitute up to two thirds of their community and their knowledge and resources are still important (Endsley et al., 2005; Wenger et al., 2002).

### Trust and Opportunity for Socialization

Virtual communities of practice can be as effective as groups that have face-to-face meetings, provided there is the development of trust (Hildreth, Kimble, & Wright, 2000 (as cited in Sandars & Heller, 2006, p. 343)).

However, when participants cross boundaries and are from different professions and organizations, it is difficult to develop a level of trust and to buy into the idea of knowledge sharing (Wenger et al., 2002). In such cases, more effort needs to be made to break organizational silos

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