# A Social Informatics Framework for Sustaining Virtual Communities of Practice

**Umar Ruhi**
*Wilfrid Laurier University, Canada*

## INTRODUCTION: NASCENT PHENOMENON OF VIRTUAL COMMUNITIES OF PRACTICE

Reminiscent of the present-day Web vogue and the emergence of a myriad of e-enabled business models, virtual communities of practice are fast emerging as the next logical extension of traditional communities of practice. Virtual communities of practice exemplify the components of most contemporary communities of practice, which incorporate elements of physical social interactions, in combination with distributed virtual connections. These communities utilize technology applications to better manage their routine pursuits. More specifically, information and communication technologies (ICTs) are being used to facilitate the operations of a community of practice by providing tools for managing content (explicit knowledge) and a means for sharing expertise (tacit knowledge) through cooperation, coordination, and collaboration. The enabling technologies for institutionalizing a virtual community of practice range from simple user tools such as e-mail, teleconferencing, and groupware, to the more complex software applications, including group decision support systems (GDSSs) and corporate portals.

## BACKGROUND: DRIVERS AND BARRIERS FOR VIRTUAL COMMUNITIES OF PRACTICE

Virtual communities proffer an inclusive embodiment of a technology platform that aims to provide an effective mechanism for enhancing the capabilities of traditional communities of practice. There are various benefits to institutionalizing communities of practice through the utilization of information and communication technologies. One of the main advantages of virtual communities is their ability to use networked technology, especially the Internet to establish links and form relationships across geographical barriers and time zones (Palloff & Pratt, 1999). Researchers and practitioners also recognize aspects of scalability and flexibility as important features of virtual communities enabled through Web-based applications. Squire and Johnson (2000) note that boundaries for virtual communities are relatively more "fluid" as compared to traditional communities, and this allows greater individual control over involvement in the community and its respective activities.

Based on the above-mentioned positive attributes of technology, an aspiring organization might be tempted to believe that an appropriate choice of information and communication technologies may be the sole basis for the success of a virtual community. However, several researchers and practitioners contend otherwise. The limitations of current technology in establishing communities of practice have been identified by various researchers (Haythornthwaite, Kazmer, Robins & Shoemaker, 2000; LeBaron, Pulkkinen, & Sconllin, 2000). Squire and Johnson (2000) affirm that among other things, Web-based environments run the risk of becoming impersonal without frequent contact between the participants. Some authors also cite the factors of trust and safety being major impediments in establishing a purely virtual community of practice. Although it is easier to establish trust in face-to-face interactions, communities that have their basis on the online medium exclusively often preclude that element (Palloff & Pratt, 1999). Palloff and Pratt also regard virtual communities to be more conducive to introvert members and hence believe that these communities may create a misbalance in the type of participation they pleat.

It is with these issues in the backdrop that a Social Informatics Framework is proposed as a

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useful lens for analysis of best practices in institutionalizing virtual communities of practice. As elaborated in the sections that follow, the framework allows for an all-encompassing treatise of cultural, organizational, and technical facets of virtual communities of practice.

## VIRTUAL COMMUNITIES OF PRACTICE WITHIN A SOCIAL INFORMATICS FRAMEWORK

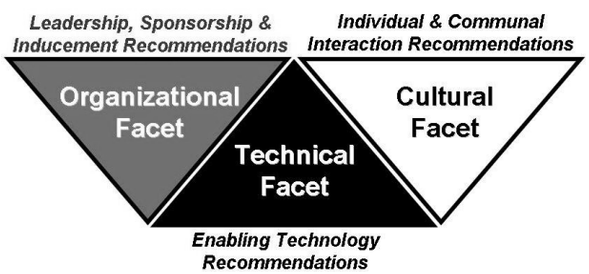
In order to achieve equilibrium between the use of technology and other organizational initiatives for institutionalizing virtual communities of practice, this article employs a social informatics framework to explicate a number of business recommendations. The field of social informatics yields best to this article's discussion since, by its very definition, the field entails an interdisciplinary study of the design, uses, and consequences of information technologies that takes into account their interaction with organizational and cultural contexts (Kling, 1999; Kling, Rosenbaum & Hert, 1998). Over the pervious 25 years, the body of research in social informatics has focused on socio-technical premises around the use of various technologies including the Internet, intranets, electronic forums, digital libraries, and electronic journals (Kling, 1996). As such, social informatics applies to a variety of ICTs, and it is logically instinctive to utilize relevant concepts from this discipline to theorize the multifaceted recommendations for establishing virtual communities of practice within organizations. Moreover, proffering the various recommendations for virtual communities constitutes a normative orientation in social informatics, whereby the discussion of best practices builds upon lessons learned from institutionalizing traditional communities of practices in the past. Figure 1 summarizes the general ideas of the social informatics framework by hinging virtual communities of practice as a technical facet within organizational and cultural viewpoints. In the past, such an orientation has been used by other socio-technical researchers (Kling, Crawford, Rosenbaum, Sawyer & Weisband, 2000).

From a technical standpoint, virtual communities offer an enabling platform for supporting knowledge management initiatives and organizational learning objectives within a firm's operational context. However, it should be realized that the deployment of virtual communities for such tasks requires organizational backing in the form of sponsorship and leadership initiatives, and also requires active and effective participation from core and peripheral community members. Researchers in the past have utilized similar approaches in discussing the critical success factors for traditional community-building initiatives within organizations (McDermott, 2001).

## PHASED RECOMMENDATIONS FOR INSTITUTIONALIZING VIRTUAL COMMUNITIES OF PRACTICE

Any community of practice evolves overtime—it moves through various stages of development characterized by different kinds of prevailing activities and levels of interaction among the members. Hence, it is only natural to discuss specific recommendations for each stage in a community's evolution. In order to put forth the recommendations for commu-

*Figure 1. Summary of the social informatics framework for virtual communities of practice (adapted from Pacey, 1983)*



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