Abstract: Virtual professional communities of practice may provide important opportunities, communication, and supports for participants in the online world. Within the field of education, for teachers and faculty specifically, such communal participation may greatly benefit professional practice and student learning. Research indicates that professional virtual communities of practice can provide a rich array of assistance, expertise, and authoritative insights necessary for educators in the world of Web 2.0. These communities may foster best practices, knowledge sharing, innovation to the field, as well as assistance to those educators who lack the access to such resources and technology.

Introduction

The World Wide Web offers a wide spectrum of tools, opportunities, and professional web-based communities for educators to collaborate and connect with one another and the world. These communities in the virtual world are playing ever-important roles that enable educators to collaborate on global platforms, which transcend geographical boundaries and simultaneously increase the quality and quantity of productivity, research, and communication (Vavasseur & MacGregor, 2008). Such virtual professional communities can take many different forms and meanings for educators according to varying levels of participation, social bonding, and the intentions on behalf of its members. Respectively, these communities may be categorized as the following: community of interest, goal-oriented community of interest, learners’ community, and community of practice. A professional community of practice as noted by Correia and Davis (2008), is rooted in three elements: a shared understanding, mutual engagement, and a shared repertoire of resources.

Virtual communities of practice can specifically support and engage educators by facilitating and preserving discussions, professional knowledge and resources, as well as best practices in the field of education. Within the world of Web 2.0, educators in urban and rural environments, now more so than ever before, have the potential for establishing and sustaining virtual professional communities of practice within the world of Web 2.0. Simultaneously, however, the growth of globalization and the digital divide pose threats and hindrances to the participation of educators with limited technological resources and access (Friedman, 2006; Hodgkinson-Williams, 2008). With respect to these concerns, technology does have the capability to bridge such communal gaps from a global
perspective and collectively integrate all educators into professional, collaborative networks and communities of practice. Virtual communities of practice are now integrating Universal Design model to promote educational and inclusive strategies, technology, and partnerships within developing countries (Preiser & Ostroff, 2001). Accordingly to ensure the proliferation of communities of practice, teachers and faculty members will require ongoing training, support, and active involvement with both the new technologies and the communities that they maintain (Kienle & Ritterskamp, 2007; Lin, Lin, & Huang, 2008; Hew & Hara, 2007). Theoretical frameworks for communities of practice and knowledge sharing communities, such as connectivism (Siemens, 2004), in addition to ongoing empirical and qualitative research, can play significant roles in the design, implementations, ongoing assessment and developments of virtual communities for educators.

This paper aspires to survey and synthesize current literature with the practices, learning theories and trends within the realm of teacher and faculty-based virtual communities of practice. Questions this paper seeks to explore include the following: What are communities of practices within the context of education? What are effective technological, community-based practices for educators? How can supports evolve and foster growth for educators and their communities? Which virtual communities of practice currently exist for educators? What are the characteristics of these communities?

**Literature Review**

*Professional Virtual Communities*

Communities of practice embrace joint enterprise and function with relationships based upon mutual engagement that hold its members together as a social entity, with a shared collection of communal resources that members have developed over time (Wenger, McDermott, & Snyder). In this sense, educators are bound to their communities by their experiences, identities, and collections of understandings and resources from their practices within education. These characteristics hold true in both actual and virtual communities. In the online world, F.-r. Lin et al. (2008) note, professional virtual communities are defined by four distinct characteristics: these communities are built upon a computer mediated-space, also known as cyberspace; activities in the virtual community are enabled by information technology or information communication technology; the contents or topics of the virtual community are driven by its participants; and the virtual community relationships evolve through communication. Hodgkinson-Williams, Slay, and Sieborger (2008) cite the C4P framework for communities of practice. This model presumes that knowledge is created and distributed when intentional conversations, content, connections, and contexts (information) encapsulate a shared, communal purpose. Such conversations or communication in these communities can be both synchronous and asynchronous. This communication, regardless of its classification, is best supported when educators within these communities engage in collaborative efforts to address share and improve professional experiences, practices, and common goals.
Best Practices

Virtual professional communities of practice benefit from implementing new social strategies and performance evaluations. Correia and Davis (2008) specify the following recommendations for such communities: increase the community’s capacity to integrate new members; allow time for legitimate peripheral participation in the program teams; pay attention to changes in multiple ecologies, including the differing and interacting ecologies of students and the teaching institution(s); be aware of shifts in roles and responsibilities in teaching, learning, and administration; embrace and manage conflict instead of trying to eliminate it in online courses; and explicitly share common practices and knowledge.

Additionally, professional knowledge and knowledge management systems are critical components of professional virtual communities. Knowledge production, knowledge sharing and knowledge re-use can foster platforms, resources, and thus, connections amongst communal members (Markus, 2001). These components of knowledge management systems and knowledge sharing are often hindered and impeded by a variety of factors. The primary hindrances for sharing knowledge, as noted by Hew & Hara (2008) are access, acceptance, and utilization. The authors also note that a lack of time, experience, and knowledge contribute to barriers and an absence of motivators for educators to collectively engage themselves into professional virtual communities and related actions.

Virtual professional communities face other issues of concern as well (Lin et al., 2008). Role ambiguity often inhibits community members from fully recognizing the expertise of peer members, and often, when interacting within virtual contexts, individuals do not know what roles to play or accept. Additionally, miscommunication can often arise and alter perceptions or the intent of others. The wide variety of virtual communication tools can often hinder and alter direct communication. Other impeding factors may include scattered and diversified foci, an absence of psychological obligation, and fear of criticism.

These factors are indeed relevant; however, the advent and provision of adequate leadership can facilitate appropriate standards and trust, necessary for group actions and communication to function and flourish (Jameson, Ferrell, Kelly, Walker, & Ryan, 2006). Traditional authoritative leadership, as Jameson et al. acknowledge, is based on a pyramidal hierarchy, regularly led by a single individual or authority. This model of leadership can often pose conflicts and threats towards professional groups or communities of practice. Quite often communities of practice can benefit from coordinated leadership from multiple individuals and experts, who may serve as moderators within their virtual communities. Accordingly, these moderators may help their communities identify preferred communication practices and processes. This practice in turn, can help facilitate a greater group focus and cohesion.

These issues also pose potential opportunities for educators to rise as knowledge-leaders and community coordinators. Such individuals may also help bridge the gaps between those educators with accessibility and those without. Efforts towards empathy and
inclusion will only benefit these communities of practice. Consequently, the community learning and leadership will continually be enriched by these efforts as well. A supportive community of practice can help to sustain the slow, stepwise process that eventually leads to a fundamental transformation in teaching practice (Vasseur & MacGregor, 2008). The global community of educators can offer a collection of holistic perspectives, which integrate professional, academic and pedagogical knowledge, professional development, and resources (Friedman, 2006). Knowledge sharing and creation by educators can and should play critical roles in identifying professional standards and practices that are relevant to instructional design, implementation, and evaluation. Collectively, educators and designers of instruction may create and utilize their own virtual communities of practice to communicate, research, and develop innovations in their current, shared practices as professionals, within the context of the global community of educators, within K-12 and higher education settings.

**Implications for Practice**

The Flat Classroom Project ([http://flatclassroomproject.wikispaces.com/](http://flatclassroomproject.wikispaces.com/)) is a virtual community created by K-12 educators, initially as an educational experiment that originally connected students from Bangladesh to a class in Georgia. It has since enabled students and educators to facilitate presentations and exchange pedagogical practices seamlessly and effectively. This community project was so successful that it continues to flourish and has grown to encompass over fifty different school sites world-wide. These communal actions continue to empower the educators involved to develop educational experiences and resources actions that transcend geographical and traditional academic boundaries (Friedman, 2007).

On the social networking sight Ning ([http://www.ning.com](http://www.ning.com)), the Flat Classroom Project has a strong and growing presence. Additional professional virtual communities on Ning, such as Teaching Every Student in the Digital Age – Universal Design and Workplace Learning 2.0 – from the Centre for Learning & Performance Technologies have significant implications and potential for knowledge management and knowledge sharing practices for educators in K-12 and higher education settings. Within theses virtual communities of practice, educators may exchange discussions via chat, bulletin boards and forums, as well, as resources such as documents, video, and images. Such opportunities can support the professional knowledge-sharing communities and practice for supporting learners with disabilities, who are speaking English as a second language, and for integrating new and future technologies within their instruction. Sub-groups within such large virtual communities of practice may be further created to address specific educational and technological trends, issues, and topics to address related to instruction and instructional design.

On a smaller scale, in March of 2000 in Taiwan, a teachers’ professional community website, SCTNet, was established to promote knowledge sharing, and consequently, supports and creative solutions for its teachers. The site provides teachers the opportunities to share professional expertise, generalized practices and values, as well as a bridge to connect with other stakeholders, such as parents and service providers. Since
its inception, the site has collected over 4,500 pieces of work and resources for its members. Additionally, as of December 2005, its membership has flourished to include over 110,000 participants and more than 1,500 special interest groups (Lin et al., 2008).

Conclusion

The rapid growth and comprehensive, holistic scope of professional virtual communities for educators, such as the SCTNet and those available offered through Ning demonstrate the power of professional virtual communities in the context of education. Similar and offshoots of these communities, when fostered by appropriate technological and flexible administrative supports, may effectively and efficiently sustain such communities and benefit all stakeholders involved. When these specialized, virtual communities collaboratively create, manage, and share knowledge, both instructional design, and consequently, instruction are directly and indirectly enriched. Further research should incorporate qualitative assessments, in order to investigate ongoing trends and issues related virtual professional communities and knowledge management for educators in the global, academic community.
References


