
Zsuzsanna HORVATH

Modus operandi of Communities of Practice

Introduction

The changes in technology and the advancements of the World Wide Web have resulted in a different way in which people interact, and locate, and share information. Virtual communities connect people from different geographic regions and allow for the exchange of ideas among a broader range of professionals (Martin-Niemi & Greatbanks, 2010; Byington, 2011). Despite its relatively recent conception as an academic and social concept the term, Community of Practice (COP), has gained significant importance in the academic community particularly in the field of education. COPs are the practical manifestations and realisations of situational learning (Lave & Wenger, 1991).

This paper will present the types of COPs (virtual and face-to-face), pointing out the characteristics of both. It will discuss the advantages and disadvantages and propose a merged model drawing on the advantages of both. Special attention will be laid on the issue of 'trust', as a building block of the successful cooperation between the members of the COPs.

Characteristics of COP's

The rationale for creating a Community of Practice (COP) is the common goal to engage in a cooperation, most often in view of sharing or creating knowledge. It is embedded in a community and its founders are individuals normally of the same profession or activity (Cox, 2005). The term itself is a coinage and was brought to life by Jean Lave and Etienne Wenger (1991) as means of exploring the notion of situated learning within a particular domain of social practice. While the traditional form of COPs involved members meeting in person, the widespread use of technology in recent years has resulted in the increase of virtual communities of practice (Ardichvili, 2008; Bagozzi & Dholakia, 2002).

In its performance, success and efficiency are contingent upon three characteristics: mutual engagement, joint enterprise, and shared repertoire (Wenger, 2000). The modus operandi of the community varies depending on the setting, the physical distance and the aim for which the members got together at the first place: they can choose between face-to-face or online interaction. Although there has been significant support for the hybrid model where face-to-face interaction supplements online knowledge creation activities, many COPs operate in a strictly virtual manner and allow members to interact at their convenience, free of restraints such as time and location (Sousa, Lamas & Dias, 2011; Johnson, 2001; Wegener & Leimeister, 2012). Exchange of communication in a predominantly written form can result in rich interaction (Wasko & Faraj, 2000).

The considerable distinctive feature of online COPs is that members come together in a supportive environment to share best practices, engage in critical reflection and share and create knowledge through relationships "rooted in shared values and nurtured by cohesiveness and trust" (CPSquare-The Community of Practice on community practices). This makes them different from other online groups or gatherings where the main interest is the co-creation of experience, for example. Social media and network tools support online interactions and provide a means to bring people together, but online communities of practice can only be successful when there is trust among members (Sousa et al., 2011; Leimeister, Ebner, & Krcmar, 2005).

It is purported that 'collaboration' is the most suitable type of interaction for the purposes of COPs. Friend and Cook (2013) describe interpersonal collaboration as interaction between two or more

people, who are working towards achieving a mutual goal through sharing resources and shared responsibility (Friend & Cook, 2013). While the benefits of collaboration in online COPs are numerous, there are also some noted barriers precipitated by the absence of non-verbal cues (Swan & Shih, 2005). The aspects of building trust in the online COPs will be examined in detail in the following sections.

Building Trust in Online Communities of Practice

It seems that the most significant element of the success of the online COPs is trust (Hsu et al., 2007). Low participation (Beenen et al., 2004). Ardichvili, Page and Wentling (2003) is generally caused by fear of criticism or lack of confidence in the importance or accuracy of their contributions, more often manifest in pure online communities than hybrid or face-to-face communities (Wegner & Leimeister 2012). Building trust is therefore a crucial element in COP development, but this can be challenging in online collaborative spaces which rely on primarily written communication, such as discussion boards, blogs and wikis. Cultivating trust in an online community is a time-consuming and dynamic process. Hsu, Ju, Yen and Chang (2007) assert that building and sustaining trust can be done in different stages. They propose three types of trust: status-based trust, information-based trust and identification-based trust.

Status-based trust

This type of trust, normally the first to be assessed by individuals before joining the COP, can be conceived as the inventory of gains in terms of social capital further converted to economic gains. Gains include higher social status (compared to the status where the participant stood prior to joining the COP, increased knowledge, improved capabilities and decreased costs, resulting from the acquisition of more efficient methods of conducting business (Hsu et al., 2007).

Information-based trust

Information-based trust is based on a feeling of security in regard to “privacy and technology mechanisms” (Hsu et al., 2007, p. 160). It does not concern relationships with other members but rather the system itself and its ability to make members feel safe. Ardichvili (2008) claims that members’ trust prior to joining the community, the mental image that they develop about perceived risks, benefits and disadvantages will definitely shape their intentions to join. Once member of the COP, their interactions and willingness to take part in knowledge-sharing interactions will depend on their sustained assessments of these components, risks, benefits and concerns. Concerns perilous to the sustained participation include perceived risk of the online community using personal information for other purposes or sharing contributions without permission. COPs can avoid such scenarios arising by developing, implementing and observing clearly articulated standards for sharing knowledge and privacy rules which in turn can reduce anxiety or unwillingness to contribute (Ardichvili et al., 2006). These policies and guidelines can be posted on the community website, along with induction materials and compulsory participation agreement to the rules of engagement. Byington (2011).

Identification-based trust

This particular type of trust-building involves participants getting acquainted with each other through repeated social interactions facilitating the understanding of how each and every member of the COP will behave. This is the final and perhaps most crucial stage of trust building as it can pose a serious challenge for members who have never met in person (Hsu et al., 2007). The challenging nature of this particular type of trust-building lies in the fact in the asynchronous nature of online computer technology, which, on the other hand is extremely beneficial in collaboration opportunities that may not occur in face-to-face interaction. Postmes, Spears & Lea (2002) argue that members are more

likely to develop relationships if they have opportunities to learn personal information about each other through the use of profiles containing personal details such as photos, professional experience and background. Including social networking information can help build bonds, as people are more trusting of those who know they have a shared acquaintance among their in-group members. A supportive online environment can be created through the use of first names, greetings, and positive feedback (Flatley, 2005). As the community is creating its shared repertoire and mutual engagement, members can begin responses with expressions of agreement such as “I agree with you” to offer support, while the use of the pronoun “we” can further develop the inclusiveness of the community (Clark, 2009). Infusing the group with individual portions of enthusiasm is also germane to trust, especially in the group’s early life.

Resulting from the build-up of trust: Competence-based trust.

Through the expression of thought, opinion and feeling in responses, storytelling and narrative, members can get to know each other and in turn strengthen the bonds of trust. It is suggested that higher trust also leads to sharing knowledge of higher quality (Chiu, Hsu & Wang, 2006).

While engaging in frequent and rich communication, members should also pay attention to the community’s established norms of communication articulated in posted community guidelines or informally developed over time, as well as common “netiquette”, which includes rules for general cyberspace behaviour (Clouder et al., 2011). Members who follow the community’s norms and common-sense etiquette for online communication may instil a higher sense of “competence-based trust”, which is based on the feeling that someone is capable and worth learning from (Hsu et al., 2007).

Elements of behaviour or attitude that are detrimental to the build-up of this type of trust is the direct attack on people’s contributions, displays of egoism and exhibitionism, which can easily scare off members. On the other hand, disagreement, often concealed or repressed in face-to-face communication can be brought to surface with a greater ease and without offence because comments can be framed in a non-offensive manner Clouder et al. (2011). They found that disagreements, which were found to be infrequent, were often prefaced with acknowledgement or partial agreement, followed by “but” and qualifications such as “I think”. Frequently, as it has been noted, the use of supportive language and communication, beyond its supportive function of building relationships and trust, is not necessarily constructive or honest (Johnson, 2001).

It is the role of the COP facilitator to install and disseminate trust in the group by individually gaining the trust of each of the members and by identifying individual skills and aligning tasks with their interests and knowledge, while also setting clear objectives and recognizing achievement. Lin, Hung & Chen (2009) suggest that knowledge-sharing activities should not be introduced until after the creation of a culture of positive and supportive interaction. When setting challenges for individuals, the facilitator needs to carefully select language which will inspire and motivate the members, based on his knowledge of the members’ perspectives. The facilitator can also improve trust relationships by sharing personal experiences (Lin et al., 2009).

Abrams, Cross, Lesser and Levin (2003) provide additional cues of behaviours nurturing identification-based trust in COPs or other knowledge-sharing networks with the objective of situational learning:

Be consistent between word and deed. The alignment of trust and action helps create a feeling of trust. If a community member promises to follow up on a question or provide additional information but does not, it is natural to question his/her interests and commitment.

Ensure frequent and rich communication. More frequent interaction provides more opportunity to develop a shared vision and language, which in turn builds trust. Postings alone do not constitute an online community of practice; it is the active participation through the use of search tools, asking questions, giving advice and requests for clarification that creates a dynamic community of knowledge sharing and creation (Ardichvili et al., 2003). When members post questions or comments, it is important for responses or advice to be given, resources to be provided, or other types of acknowledgement to be made.

The nature and quality of content of the interactions among the members of COPs is dependent on the purpose established at the formation. A common understanding based on transparent communication, void of fallacies and misunderstandings is needed as virtual COPs may span over organizations, regions or continents. Equally important is a common understanding and sharing of values among the members as COPs can span over diverse regions or countries. In this case, members must find mechanisms to clarify messages to avoid misunderstandings due to cross-cultural language barriers or different understanding of technical jargon.

The quality and “richness” of contributions is also important for relationship building and the creation of knowledge. Daft and Lengel (1986, p. 560) define richness as “the ability of information to change understanding within a time interval”. Communication transactions are considered to be rich if they “clarify ambiguous issues to change understanding in a timely manner” (p. 560). Daft and Lengel (1986) argue that face-to-face is the richest form of communication because it allows for expression of content using body language, tone, and voice in addition to spoken language, while Jarvenpaa and Leidner (1999) assert that computer-mediated communication is just as effective as face-to-face communication but has a slower rate of transfer. This slower rate of transfer can in fact be an advantage in that the asynchronous mode eliminates the face-to-face cues such as voice and visible reactions to show approval or disapproval and gives members more time to process messages and respond in a thoughtful and reflective manner (Allard et al., 2007).

For the efficient functioning of the online COPs it is useful to design and introduce a Netiquette (rules of online communication). Netiquette includes rules for politeness and courtesy but can also cover other expectations for writing style and technique. For example, the type of community building tool will determine the length of the posting; discussion-oriented groups will tend to have longer threads and more involvement. The language used will depend on the interactive technology tool; for example, blogs generally include posts written using conversational language (Flatley, 2011). Each post should be given a clear and specific title and topic tags to facilitate the search process, especially when the COP has a particularly large membership (Wasko & Faraj, 2000). Whenever possible, links to articles referenced should be provided to make it easier for those reading. This can increase the “shared repertoire” produced by members (Garavan et al., 2007). Participants who follow the general norms established of the community of practice will be perceived as more competent and trustworthy.

Virtual vs. face-to-face COPs

Now that we have seen the most important features of the modus operandi of online or virtual COPs, a few words of caution can be said about their weaknesses. Virtual COPs (vCOPs) massively rely on sustained access to quality technology making it such an exciting prospect for use for example within secondary schools, where educators can engage their students and facilitate their learning through collaborative and accessible learning environments. However, this fantastic opportunity may not prevail in settings where access to technology is not available or sustained, as a chain reaction of weakening engagement, one of the most fundamental and driving elements of the COPs success, will be generated by the feeble level of acceptance of the technology and the vCOP (Nistor et al., 2015).

Virtual COPs in the classroom enhance students' technological literacy, an important skill in the *digital age* (Davis & Goodman, 2014). This particular skill is a key competency of global employability in the furthering of career development of students. Of course, to make vCOPs happen, students must be in the position to access technology.

COPs have come to existence with the design and introduction of face-to-face COPs (f2fCOPs), which are the physical *bricks and mortar* COPs. In academic research, there is much discussion about their prevalence and advantages over vCOPs. Among other weaknesses of vCOPs, the lack of non-verbal cues and social immediacy, often leading to disinhibition amongst members of online communities can be mentioned. Disinhibition can be benign (self-actualisation of fears or emotions otherwise hidden from society) or toxic (offensive language, insensitive criticisms or bullying) (List et al., 2015). In addition to disinhibition the lack of immediacy in online COPs when compared with f2f COPs is a major challenge to the value of vCOPs which rely on, "ongoing participation of... members" (Cheung, Lee, & Lee, 2013, p. 1358), to achieve results. Without ongoing participation, which is driven by the social and non-verbal aspects of f2f COPs, vCOPs often fade into obscurity becoming what Phang, Kankanhalli and Sabherwal (2009) refer to as "cyber ghost towns" (p. 722), referring to the absence of COP members and the lack of their activities. It is suggested that as an ultimate solution, it is the combination of face-to-face and virtual communication (interface) that the efficiency of COPs can be vastly improved both in terms of knowledge sharing and learning, and in terms of accessibility and engagement within collaborative yet social learning environments

Merged models of vCOPs and f2f COPs

It is at the interface between online vCOPs and face-to-face COPs that students receive the best of both worlds. Ellis et al. (2014) proposes a face-to-face residency in conjunction with online collaborative learning environments to ensure the physical and electronic environment of participants is suited to their individual learning needs. This type of compound model offers positive results. A face-to-face residency in learning environments allows students to engage in challenging activities which build social collaboration, trust and collegiality within the community of practice, the classroom and with the teacher both virtually and physically. A different means of establishing this interface between virtual and face-to-face COPs is suggested by Fitzpatrick (2014) where the use of a class blog is to develop a shared domain of interest amongst music teachers and their classes. The approach taken by Fitzpatrick (2014) builds on the ideas presented by Wenger (2011) that individuals in a COP, whether it be virtual or face-to-face, "must share interest in a particular phenomenon or experience... at the center of their purposeful engagements with one another" (p. 97). The interface between vCOP and f2f COP is where this shared interest can blossom into a fully active and engaged COP, one where the possibility of becoming a cyber ghost town is heavily mitigated by a continued and refreshing engagement in a shared goal (Phang et al., 2009).

One of the established interfaces of vCOPs as integrally linked to f2f COPs is cited by Forbes and Skamp (2014). Upon investigation of a program called *MyScience* and its implementation within Australian schools, they came to the conclusion that learning as a form of participation is integral to the success of new teaching methods and pedagogies within the classroom. These findings support and reinforce the need for face-to-face interactions within vCOPs to ensure student engagement. It has become clear that it is not enough simply to have students blogging, they need to engage with the real world to ensure they do not develop toxic disinhibitions, miss critical non-verbal signals, and remain actively engaged in their learning as participants. The hypothesis that face-to-face learning can be efficiently complemented by virtual alternatives is further supported by McConnell, Parker, Eberhardt, Koehler and Lundeberg (2013), suggesting that teachers themselves preferred face-to-face learning within their own professional development, but equally benefited from the accessibility of online COPs. Based on the above findings, it can be postulated that teaching using a combined

approach, by creating an interface for student learning somewhere between the vCOP and the f2f COP is a model that has definite advantages. The test of the viability of the merged models lies in the future applications in educational settings.

Conclusion

A thriving community of practice consists of meaningful knowledge exchange and ongoing collaboration for the purpose of personal or professional growth. This paper has outlined how the reliance on written communication in virtual communities can act as a barrier but also an enabler in the process of building trust among COP members. While the advantages of both models are obvious, there are some drawbacks that can hinder their efficient and efficacious implementation. To overcome the drawbacks, the paper introduces a merged model drawing on the advantages of both, suggesting that the widespread use of the model will be contingent on positive tests of viability in various educational settings.

Resources

- Abrams, L.C., Cross, R., Lesser, E. & Levin, D.Z. (2003). Nurturing interpersonal trust in knowledge-sharing networks. *Academy of Management Executive*, 17 (4), 64-77. doi: 10.5465/AME.2003.11851845
- Allard, C.C., Goldblatt, P.F., Kemball, J.I., Kendrick, S.A., Millen, J. & Smith, D.M. (2007). Becoming a reflective community of practice. *Reflective Practice: International and Multidisciplinary Perspectives*, 8 (3), 299-314. doi: 10.1080/14623940701424801
- Ardichvili, A. (2008). Learning and knowledge sharing in virtual communities of practice: Motivators, barriers, and enablers. *Advances in Developing Human Resources*, 10 (4), 541-554. doi: 10.1177/1523422308319536
- Ardichvili, A., Page, V. & Wentling, T. (2003). Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of Knowledge Management*, 7 (1), 64-77. doi:10.1108/13673270310463626
- Bagozzi, R.P. & Dholakia, U.M (2002). Intentional social interaction in virtual communities. *Journal of Interactive Marketing*, 16 (2), 2-12. doi: 10.1002/dir.10006
- Beenen, G., Ling, K., Wang, X., Chang, K., Frankowski, D., Resnick, P., et al. (2004). *Using social psychology to motivate contributions to online communities*. Paper presented at the ACM conference on Computer Supported Cooperative Work, Nov. 6-12, Chicago. Retrieved from <http://repository.cmu.edu/cgi/viewcontent.cgi?article=1087&context=hcii>
- Byington, T. (2011). Communities of practice: using blogs to increase collaboration. *Intervention in School and Clinic*, 46 (5), 280-291. doi: 10.1177/1053451210395384
- Chiu, C.M., Hsu, M.H. & Wang, E.T.G. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42, 1872-1888. doi: 10.1016/j.dss.2006.04.001
- Clark, M. (2009). The discursive construction of interpersonal relations in an online community of practice. *Journal of Pragmatics*, 41, 2333-2344. doi: 10.1016/j.pragma.2009.04.001
- Clouder, D.L., Goodman, S., Bluteau, P., Jackson, A., Davies, B. & Merriman (2011). An investigation of "agreement" in the context of interprofessional discussion online: A "netiquette" of interperprofessional learning. *Journal of Interprofessional Care*, 25 (2), 112-118. doi: 10.3109/13561820.2010.500445
- Cox, A. (2005). What are communities of practice? A comparative review of four seminal works. *Journal of Information Science*, 31 (6), 527-540. doi: 10.1177/0165551505057016
- *CPsquare-The Community of Practice on community practices: Our vision*. Retrieved January 11, 2018 from <http://cpsquare.org/vision/>
- Daft, R.L. & Lengel, R.H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32 (5), 554-571. doi: 10.1287/mnsc.32.5.554

- Ellis, J., Arnone, M., Levinson, N., & Cogburn, D. L. (2014). Evaluating the Role of Face-to Face Residencies in Cross-National, Accessible Cyberlearning (pp. 62–71). IEEE. <http://doi.org/10.1109/HICSS.2014.17>
- Fitzpatrick, K. R. (2014). Blogging through the music student teaching experience: Developing virtual communities of practice. *Research Studies in Music Education*, 36(1), 91–105.
- Flatley, M.E. (2005). Blogging for enhanced teaching and learning. *Business Communication Quarterly*, 68 (1), 77-80.
- Friend, M., and Cook, L., (2013). *Interactions: Collaboration Skills for School Professionals*, Pearson, 7th Edition.
- Garavan, T.N., Carbery, R. & Murphy, E. (2007). Managing intentionally created communities of practice for knowledge sourcing across organisational boundaries: insights on the role of the CoP manager. *The Learning Organization*, 14 (1), 34-49. doi: 10.1108/09696470710718339
- Hsu, M.H., Ju, T.L., Yen, C.H. & Chang, C.M. (2007). Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies*, 65 (2), 153-169. doi: 10.1016/j.ijhcs.2006.09.003
- Jarvenpaa, S.L. & Leidner, D.E. (1999). Communication and trust in global virtual teams. *Organization Science*, 10 (6), 791-815. Retrieved from <http://www.jstor.org/stable/2640242>
- Johnson, C.M. (2001). A survey of current research on online communities of practice. *The Internet and Higher Education*, 4, 45-60. doi: 10.1016/S1096-7516(01)00047-1
- Lave, Jean, and Etienne Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Leimeister, J.M., Ebner, W. & Krcmar, H. (2005). Design, implementation and evaluation of trust-supporting components in virtual communities for patients. *Journal of Management Information Systems (JMIS)*, 21 (4), 101-135. Retrieved from <http://www.jmis-web.org/articles/605>
- Lin, M.J., Hung, S.W. & Chen, C.J. (2009). Fostering the determinants of knowledge sharing in professional communities. *Computers in Human Behavior*, 25 (4), 929-939. doi: 10.1016/j.chb.2009.03.008
- Martin-Niemi, F. & Greatbanks, R. (2010). The *ba* of blogs: Enabling conditions for knowledge conversation in blog communities. *VINE*, 40 (1) 7-23. doi: 10.1108/03055721011024892
- McConnell, T. J., Parker, J. M., Eberhardt, J., Koehler, M. J., & Lundeberg, M. A. (2013). Virtual Professional Learning Communities: Teachers' Perceptions of Virtual Versus Face-to-Face Professional Development. *Journal of Science Education and Technology*, 22(3), 267–277. <http://doi.org/10.1007/s10956-012-9391-y>
- Nistor, N., Daxecker, I., Stanciu, D., & Diekamp, O. (2015). Sense of community in academic communities of practice: predictors and effects. *Higher Education*, 69(2), 257–273. <http://doi.org/10.1007/s10734-014-9773-6>
- Pan, S.L. & Leidner, D.E. (2003). Bridging communities with information technology in pursuit of global knowledge sharing. *The Journal of Strategic Information Systems*, 12 (1), 71-78. doi: 10.1016/S0963-8687(02)00023-9
- Phang, Kankanhalli, A., & Sabherwal, R. (2009). Usability and Sociability in Online Communities: A Comparative Study of Knowledge Seeking and Contribution. *Journal of the Association for Information Systems*, 10(10), 721–747.
- Postmes, T., Spears, R. & Lea, M. (2002). Intergroup differentiation in computer-mediated communication: Effects of depersonalization. *Group Dynamics: Theory, Research, and Practice*, 6 (1), 3-16. doi: 10.1037/1089-2699.6.1.3
- Sousa, S.C., Lamas, D. & Dias, P. (2011). The interrelation between communities, trust and their online social patterns. In *2011 IEEE International Conference on Dependable, Autonomic and Secure Computing*, 980-986. doi: 10.1109/DASC.2011.162

-
- Swan, K., & Shih, L.F. (2005). On the nature and development of social presence in online course discussions. *Journal of Asynchronous Learning Networks*, 9, 115-136. Retrieved from [http://www.academia.edu/399290/On the Nature and Development of Social Presence in Online Discussions](http://www.academia.edu/399290/On_the_Nature_and_Development_of_Social_Presence_in_Online_Discussions)
 - Wasko, M.M. & Faraj, S. (2000). "It is what one does": why people participate and help others in electronic communities of practice. *Journal of Strategic Information Systems*, 9 (1-2), 155-173. doi: 10.1016/S0963-8687(00)00045-7
 - Wegener, R. & Leimeister, J.M. (2012). Virtual learning communities: success factors and challenges. *International Journal of Technology Enhanced Learning (IJTEL)*, 4 (5/6), 383-397. doi: 10.1504/IJTEL.2012.051814
 - Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7 (2), 225-246. doi: 10.1177/135050840072002
 - Yuki, M., Maddux, W.M., Brewer, M.B. & Takemura, K. (2005). Cross-cultural differences in relationship- and group-based trust. *Personality and Social Psychology Bulletin*, 31 (1), 48-62. doi: 10.1177/0146167204271305.