

BRAIDED LEARNING: DEVELOPMENTS IN AN ONLINE COMMUNITY OF PRACTICE

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ABSTRACT

This paper explores Braided Learning, an emergent theory of learning observed in the online communication within a mature professional ‘community of practice’ (CoP) (Wenger 1992, 2002, 2004). The focus of the study is the online practice of the international MirandaNet Fellowship, established in 1992. Evidence of the Wenger approach to learning in the history of MirandaNet is contrasted and compared with the linear 5 step-model that Salmon developed in tutoring online courses at the Open University (2000, 2002). In the paper, an example of a multi-authored text from the Mirandalink, the internal listserv, is investigated to provide evidence of new kinds of collaborative learning. One key skill that is found amongst members is the e-facilitation of collaborative learning. The conclusions indicate that over time online engagement can provide professionals with a thriving community. A sixth step in professional learning is revealed when the CoP members reinterpreted jointly owned online texts for use in influencing local, national and international agendas.

KEYWORDS

Community of practice, online courses, action research, practice-based research, learning theory, teaching practice.

1. INTRODUCTION

When human learning is located within a socio-cultural environment and learners construct their own knowledge and understanding the process is often described as social interactionism. These notions began with Vygotsky and continue with Wenger’s ideas about communities of practice (CoPs). In many current models of Continuous Professional Development teachers work as individuals to learn about national ICT curriculum, management or examination policies and schemes of work. In a ‘community of practice’ (CoP), on the other hand, the constructs of the individual are integrated with the constructs of the group. Learning is thus characterized as a process of participation and engagement in shared activities involving the acquisition, and ultimately the transformation, of both the organizing conceptual theories and the patterns of discourse used by particular communities that are seeking to learn collaboratively (Resnick, 1997). Students thereby progress from ‘legitimate peripheral participation’ to gradually assuming a more central role as actors and competent participants in their communities of practice over time (Lave, 1991).

The first time that the phrase ‘community of practice’ was used to pinpoint this phenomenon was by Wenger in 1992. Wenger identifies the components of a CoP as meaning, practice, identity and community, which are social processes. ‘Meaning’ refers to the way in which human beings talk individually and collectively about their changing experiences of life and the world in order to understand, and even to transform, what is happening. ‘Practice’ is the composite term for ways of talking about shared historical and social resources, frameworks and perspectives that can sustain mutual engagement in action. ‘Identity’

defines a way of talking about how learning changes and who the participants are. Identity also creates personal histories of becoming in the context of the community in question (Wenger, 1998). Wenger presents seven principles which define CoP activities: designing for evolution, opening a dialogue between inside and outside institutions, inviting different levels of participation, developing both public and private community spaces, focusing on value, combining familiarity with excitement, creating a rhythm for the community. The members of MirandaNet foster this kind of activity in varying proportions that qualifies it as a CoP.

In addition MirandaNet can now claim the kind of online presence that Wenger began to explore in 2002. In *Cultivating Communities of Practice* he relates these seven principles to the particular challenges of distributed communities relying on digital technology for some of their cohesion (Wenger, 2002; Wenger, 2004). Wenger identifies CoPs within a business as vital to adaptive knowledge-intensive organisations that seek to be truly global.

Wenger has acknowledged that new technologies such as the Internet have helped to extend the reach of human interactions beyond the geographical limitations of traditional local communities. On the other hand he points out that the increase in flow of information does not obviate the need for community. In fact, it expands the possibilities for community and calls for new kinds of communities based on shared practice. As an example he points towards development agencies that now see their role as conveners of such communities, rather than as providers of knowledge. Most of all in the context of digital technologies, Wenger emphasizes the knowledge building among practitioners that is facilitated by online access of all the members.

A study of MirandaNet practice presents some evidence of this phenomenon as a strong online learning element appears amongst e-mature professionals. The new practice was first identified when MirandaNet was invited to help the General Teaching Council of England train e-facilitators to moderate national debates between teachers. Members of MirandaNet mentored the trainee e-facilitators in the GTC and shared the e-facilitation of the forums. The professionals from each of these CoPs worked collaboratively online over time, returning continually for group confirmation of success or the need for adjustment. In this case the formal, external accreditation was not central to the members' aims, even though they all successfully completed the course. The practice-based need for community building was a greater motivator than the academic award. The knowledge gained from this e-facilitation pilot was fed back into the knowledge base and into the practice of both CoPs. This is a different practice from Wenger's notion of a CoP, which is an internal arrangement in a business to gain advantage over other businesses.

What distinguishes the online activity in this CoP pilot from conventional debate between course members is that the course or module was not only part of a long-term process of individual ICT CPD, but also a factor in the learning of the group and progress of their practice. The participants all became expert leaders and mentors in the evolution of the CoPs at the end of the module.

The MirandaNet online facilities not only offer opportunities for teachers to talk to each other in a formal ICT CPD programme, but they also provide the means to exchange information and build knowledge by publishing their case studies in the MN e-journal. This process is very different from conventional coursework submission requirements.

2. BRAIDED LEARNING AND ACTIVE PROFESSIONALS

A further type of learning is emerging as CoPs become e-mature. This is collaborative, community-focused and voluntary, in contrast to focusing on the learning progress of individual learners towards accreditation on a course.

The theory of Braided Learning has emerged from the observation of online learning in MirandaNet. This community of professionals has matured in digital competence. Their history over a decade reveals a three dimensional process of learning and practice which entails coming to understand and participate in a creative, progressive 'braiding' of text, opinions, and ideas. These processes reveal how learning by professionals, for the purpose of strengthening both the profession and individual understanding, unfolds in the online context. This has been observed in on situations where CoP members become active professionals on their learning programme and develop shared evidence at local national and international levels (Cuthell, 2002). This process links with Sachs' presentation of the active professional (2003).

There are three identifiable stages in the process that professionals in MirandaNet adopt and practice in their professional, online, learning. In the first stage the community engages in creating a braided text online that supports diversity and change of opinions. Some members act as e-facilitators or braiders who help to shape the argument, provide interim summaries and change the direction of the discussion (Holmes, 2001; Preston, 2002; Cuthell, 2005). These are stored along with forum discussions and teachers case studies in the MirandaNet Braided E-journal (Preston, 2000 - 2006). In the second stage, braiders demonstrate meta-learning by constructing braided artefacts, which re-interpret the online debate in different styles for different audiences, e.g. newsletters for their local communities and reports for their school senior management team. In the third stage, accomplished fellows take the initiative to set up working parties to explore a subject in more depth. At this point the participants become active professionals, using collaborative knowledge to build new theories and policies that will impact their profession in the longer term (Haythornthwaite, 2007 in press; Preston, 2007 in press).

At this level the knowledge building demonstrates a high level of voluntary and informal Continuing Professional Development (CPD) activity where members decide what they need to know and publish information freely for others online. This activity is not motivated by the need to gain an accreditation or meet a deadline for an assignment and is not orchestrated by a tutor. The topics for sharing emerge spontaneously from the membership when a current subject enthuses them. By choosing their subjects, the teachers' identity begins to form as active professionals (Sachs, 2003) who are building their own ICT CPD agendas and influence educational policy by publishing evidence.

This kind of online voluntary and spontaneous activity accords with Wenger's distinction between a course of training and the development of a learning architecture within a CoP. His point is that the primary purpose is of a CoP is:

not to design and deliver courses, but rather to develop the learning potential of an organisation. Towards this end a learning architecture combines an infrastructure of engagement, imagination and alignment in learning p.150 (Wenger, 1998).

3. BRAIDED LEARNING STAGES

Stage One: Braided Text

The first evidence of Braided Learning is the appearance of *braided text*. A debates can be started by any member on any subject relevant to the group. In these braided digital exchanges, members interweave their comments, judgments and evidence to create shared insights, which have influence on current professional thinking, formally or informally. (Whilst text is the primary medium of exchange in MirandaNet – it provides a means that is accessible to as many users as possible – it is possible that, in the future, communities may see braiding occurring through the use other than written text.)

This dynamic process of braiding depends on trust between the participants, plus humour and passion; it builds over years with knowledge of past exchanges that cannot be communicated easily to the outsider. This kind of online closed publication can support contradictions and disagreements. Conflicts are not necessarily smoothed over or resolved in the pursuit of greater understanding. Nor is the style homogenised, as it might be in a more public presentation. Individual approaches can be recognised which is not possible in official publications or reports.

This stage of building a collaborative online text is a form of learning by collaborative knowledge building. Members learn by participating in this jointly owned braided text, and by observing the process. There is evidence of learning when particular participants post about their increase in knowledge on the topic or about a change of opinion as a result of the online debate. The validity of the text depends on the full membership of the e-community having immediate input to the debate online.

Braiding, in the form of posting evidence of learning, is of key importance to this CoP. Without posting about learning, i.e., without reflection on what has been gained from online discussion, the texts remain undistinguished and no more collaborative than a question and answer forum. Braiding is important as more

than an image; weaving individual threads of text together makes a stronger knowledge fabric, one that represents, and creates the representation of the community as a whole.

Learning to Braid Text

In MirandaNet braiding is promoted by senior Fellows, who contribute to the process. They run courses for learner-braiders in order to enrich the group discussion. Others volunteer for this role either because they have the confidence as senior members or they have a natural talent for understanding how braiding is done and when the skill is needed. Braiders may show their meta-learning by changing the direction of the debate or bringing it back to the subject; they may summarise the debate at various stages to remind the participants what has happened or draw out the conclusions signaling the end of the period of online collaborative knowledge construction. These braiders also encourage reluctant discussants to explore their theme further, calm the agitated and revitalise areas of discussion by clever questions that suggest they know less than they actually do - all good teaching techniques. The difference is that the braider cannot see the participants and must, therefore, be more sensitive to other clues. The braiding helps to clarify aspects of the e-community vision on a particular topic and increase a sense of participation and ownership.

Stage Two: Braided Artefacts

The second stage of braided learning is associated with Salmon's fifth stage of Development. In this stage braiders reinterpret text for a variety of purposes, creating a *braided artefact*. MirandaNet braiders create these texts for those outside their CoP, reaching a wide range of audiences depending on the circumstances of the braider. Such artefacts are also often summarised for the MirandaNet online newsletter and archive, which means they also reach and act as example for the CoP members as well.

Stage Three: Influencing and Making Policy

There is a third stage of learning in which the braiders, individually or in groups, learn to use the braided artefacts that express the meta-thinking of the group to have influence over the policies which affect them professionally locally, nationally and internationally. The speed of creation and the international outreach of MirandaNet braided artefacts have group authority that is enhanced by the reach of digital technologies, and the permanence of the online archives. Some artefacts have been used as the basis of an article in the educational technologies section of a national newspaper. For example, a synthesis of a debate about the reasons for a sudden reduction in the numbers of regional advisers in digital technology in England was reported in the UK Guardian newspaper. Other artefacts have been used by teachers in reports written to influence the decisions of senior managers. For example, an ICT coordinator summarised the advice he was given about social software on school networks to inform the head teacher who was threatening to close access to these network services. Another artefact was sent to the government in response to a request for contributions to a consultative document on e-learning (Department for Education and Skills (UK), 2003). Since members come from 43 countries these patterns are repeated internationally.

Moreover, some uses suggest that braiders are not just influencing policy, but are also creating new theories and policies. For instance, working groups are sometimes convened as a result of a braided artefact composed by a member who wants to take the topic further. These working groups then raise funding to explore the subject more thoroughly in research projects. They build face-to-face events into the funding whenever this is viable because collaboration at this level online requires high levels of group understanding and trust. Although young learners may be able to strike up this kind of relationship entirely online, MirandaNet professionals find they still need some social interaction to underpin collaborative theorising. At this point the professionals begin to create policy and theory through their evidence, rather than merely influencing the policies developed by others. At this third and final stage the braiders emerge as active professionals, taking charge of their professional destiny.

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4. IMPLEMENTING BRAIDED LEARNING

What is essential

There are a number of ways that the process Braided Learning can be implemented and developed through an online community of practice. Whatever method is chosen, however, the key factor is the presence of at least one e-facilitator who takes responsibility to support the discussion. Sometimes a light touch is all that is required: acknowledging links between different contributions, for example, or recognizing the quality of a point made by a contributor. At times more direct intervention is required, by communicating off-list to a contributor who has dropped out of the conversation, or by intervening off-list when members become too subjective in their exchanges. Examples of the development of Braided Learning can be seen on the MirandaNet site (www.mirandanet.ac.uk), especially in the Discussion Forums.

Listserv or discussion forum?

A simple listserv for a Community of Practice has much to recommend it in terms of immediacy of access and simplicity (Cuthell, 2002). The appearance of a message in one's in-box keeps all of the members in touch with the debate, even if they do not contribute actively to the braided text. The limitation of the listserv, however, is that it can remain a collection of disparate threads. Here the e-facilitator assumes a critical role. Responsibility for the production of the braided text, the artefact, must be taken by one or more individuals, with the completed text either distributed to, or available for, the group.

Facilitated discussion forums

The use of an online discussion forum leads to a text that is visible as it is constructed. The facilitator can post messages to the forum as part of the conversation, or contact members off-list to move the process forward. Not only that, but the facilitator should be able to move and edit posts to maintain the fluency and integrity of the text as it is constructed. The disadvantage of an online discussion forum is that it is pull technology: it requires contributors to go to the forum and log on, unlike an email, which is pushed to each contributor. The use of email notification of new postings on a forum to members can obviate this problem, however.

Collaborative discussion forum

A rather different type of discussion forum develops as participants become more e-mature. All members have the same access privileges: they can edit, move or delete posts, and discuss the shape and form of the collaborative document as it is produced. This process is often observed as a working group reaches the final stages of its project. Key members make the majority of posting and contribute much of the text and the resources: other members, however, act as critical friends during the process, and make their own contributions. This can be observed in the Visual Learning working group in MirandaNet.

Dialogic forum

In this type of Braided Learning two or more participants post their considered responses to a series of questions or conversational points. Each point, or question, elicits a number of contributions, and other members of the community can contribute their own points. The forum builds in the same way as a book, with the threads of the forum forming chapters of the final braided text. Links to other forums, texts and resources are embedded within each of the elements of the threads. Examples of this can be seen in the Visual Learning forum on MirandaNet, where Dai Thomas and Lawrence Williams explore the possibilities of international online exchange projects between China, Taiwan and the UK, and Christina Preston and Michael Smith discuss Visual Learning and its implications for teaching and learning.

5. CONCLUSION

Braided learning is experienced differently by different learners depending whether the member is an observer, a contributor, an e-facilitator, a re-interpreter of the braided text – or one of a group of reinterpreters who are publishing new knowledge for the ECoP and taking action on what they have learnt. The next stage of research might be to investigate the learning of those who watch from the sidelines. The fact that they have joined the ECoP at all, and remain member, suggests that they are not passive learners, but keen to become involved with the professional learning of others and be part of a knowledge construction process. However, there is no evidence of their learning online, as there would be if they were debating in a classroom or required to submit proof of learning for an exam. The motivation for standing on the sidelines, often called ‘lurking’, might provide further understanding of how online learning differs from traditional learning in more subtle ways.

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