

NETWORKED LEARNING CONFERENCE 2002

SYMPOSIUM PROPOSAL:

e-learning groups and communities of practice

Symposium Organised by David McConnell, University of Sheffield

Six papers from the following authors are to be presented in the
Symposium

1. Professor David McConnell

School of Education
University of Sheffield

2. Dr. Martin Beer et al

School of Computing & Management Sciences,
Sheffield Hallam University

3. Ms Maria K. Zenios

Lancaster University

4. Dr Rachel Harris et al

Scottish Centre for Research into On-Line Learning and Assessment
University of Glasgow

5. Ms Di Shore et al

Open University

6. Dr. Frans Ronteltap

Learning Lab
Universiteit Maastricht

INTRODUCTION TO THE SYMPOSIUM

Many e-learning (or networked learning) events and courses are designed to encourage the development of groups and communities as the basis for effective learning. E-learning practitioners appear to believe that community is a key factor in the development and maintenance of quality e-learning.

The purpose of this Symposium is to provide an opportunity for the presenters and participants to engage in discussion and debate on the importance – theoretically and practically – of designing e-learning events and courses which aspire to bring learners together as “community”.

The presentations in this Symposium engage with the idea of community from various different but related perspectives. This will become clear as each presentation unfolds. This diversity of meanings has implications for the practise of e-learning as well as the understanding of community in e-learning environments. This will be explored in the Symposium.

The six abstracts follow here.

1. Title: Negotiation, Identity and Knowledge in E-Learning Communities

David McConnell
University of Sheffield

In this paper I wish to illustrate how groups of e-learners in formal, accredited learning contexts develop as a community, and the way in which members of the group negotiate identity and knowledge.

In looking at negotiation, identity and knowledge, we move from looking at the group as the object of analysis, to looking at the individual within the social environment of the group.

What is identity? Wenger (Wenger, 1998 Ch 6) suggests that we experience identity in practice: it is a lived experience in a specific community. We develop identity by looking at who we are in relation to the community in which we are practising members. Practically, this occurs through participation in the work of the community.

The process of becoming accountable to the work and purposes of the group has been described by Wenger (1998, p152) as a display of competence, involving three dimensions:

5. *mutual engagement*: in which we develop expectations about how to interact, how to treat each other and how to work together.
6. *accountability to the enterprise*: the enterprise helps define how we see the world of the community. We develop a shared understanding of it, its culture and how to participate in its values and activities. We know what we are *there* for.
7. *a process of negotiating a repertoire*: through constant membership of the community we begin to understand its practices, interpret them and develop a repertoire of practice that is recognisable to members of the community. We make use of what has happened in the community as a way of achieving this.

According to Wenger, these three dimensions are necessary components of identity formation within the community of learners and lead to the development of competence.

Meaning needs to be negotiated through dialogue and discussion. In communities of practice "meaning making" is negotiated through the processes, relations, products and experiences of the community (Wenger, 1998).

In the paper, I will show how this takes place throughout the life of e-groups, and will indicate how negotiation is a central process which can take many forms. In particular, I will show how the group negotiates around:

- meaning eg of their enterprise, of their identity
- the focus of the problem
- who should work on what
- time-scales for producing the final product
- processes for communicating and working together

I will show how the identity of the members of the group *with the group*, and the development of their own individual identity within the group, occurs through these complex forms of negotiation.

REFERENCE

Wenger, E. (1998). *Communities of practice: learning, meaning and identity*. Cambridge, Cambridge University Press.

2. TITLE: Developing Communities of Interest in a European Internet School

AUTHORS: Sharon Green (1), Gillian Armit (2), Martin Beer (4), Andrew Sixsmith (3), Johanna van Bruggen (5), Ramon Daniels(5), Ludo Ghyselen(6), Jan Sandqvist (7) & Frances Slack (4)

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Abstract In common with other health professionals, occupational therapists are required to work collaboratively in addressing client needs. Resolution of such needs may sometimes be facilitated by high level assistive technology, the application of which varies widely across Europe. The new exploratory Occupational Therapy Internet School (OTIS) united these major themes, as it supported a European collaborative approach to assistive technology learning for occupational therapists and students in Belgium, the Netherlands, Sweden and the UK (Armitt et al, 2001). OTIS adopted a problem based learning style, in which students communicated online, their peers, tutors, patients and experts, in order to propose solutions to carefully designed case studies. The supporting Internet environment is based on the Virtual Campus metaphor and has been specifically developed to promote collaboration and a problem solving approach. A fundamental part of this model was to use Virtual Rooms (Ginsberg et al., 1998) to contain different components of the course materials. In this way it was expected that members of different groups would meet while reviewing the materials, and discuss their interests. It was also possible for both staff and students to book specific meeting rooms for more formal invited meetings, which could be open, so that anyone could attend, or closed, in which case only invited participants could participate.

Students were divided into four tutorial groups of mixed nationalities, each group solving a different case study. The course was designed to promote specialist skills in occupational therapy, while also developing generic core skills. Embedded within this latter skill set is the essential ability to communicate effectively and collaborate with a wide range of clients and allied professionals. In the case of OTIS, the course sought to stimulate synchronous communication and collaboration within international student groups, and also with 'patients' (tutors role-playing patients) and experts such as health care specialists or representatives of companies marketing assistive technology devices.

Recent evaluations of both a qualitative and quantitative nature were undertaken during the OTIS pilot course. The data gathered indicate that the course and its associated technologies has provoked some strong reactions. For some students their active learning has been facilitated and learning objectives achieved. Other students however have struggled to understand and achieve the necessary course outcomes. Students who are not self-directed learners at course commencement appear to experience the greatest difficulties.

To understand why there was such a difference both within and between groups, it was necessary to obtain some reasonably objective analysis of the level of learning achieved by each student for each of the intended learning outcomes. Transcripts of communication sessions showed that in-depth discussions about possible solutions to the case studies were taking place, as well as revealing a variety of tutor styles. The SOLO taxonomy (Biggs & Collis, 1982, 1989) was used to undertake a more detailed analysis of the transcripts (Armitt et al, 2002). This course confirms earlier work, which shows that students who have never met each other do not spontaneously collaborate in peer groups (Chambers, 2000).

Additional areas are also revealed as worthy of further exploration. These include a number of practical problems which can hinder the learning process within an international context. For example students can quickly fall behind if confronted with additional hurdles such as language misunderstandings, timetabling complexities across time zones and term dates which are out of line with local arrangements. This had an effect on the level of ad hoc meetings where students rarely 'met' students from other countries online except in pre-planned meetings. While this was partly explained by the relatively sparse population of the virtual world, in that there was only one group working on each case study, and they had already organised a full set of formal meetings, there was also the problem of individual schools booking laboratories at set times, and there being little time for private study.

Despite the difficulties which must be addressed in realising courses such as OTIS, e-learning provides a means of bringing together geographically-separated students to work towards a common purpose. As such, e-learning is a powerful adjunct to traditional course delivery whenever there is a learning imperative for students to experience direct international discussion and exchange of ideas concerning best practice.

References

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- Armitt, G., Slack, F., Green, S., and Beer, M., "The Development of Deep Learning During a Synchronous Collaborative On-line Course" to be presented at CSCL 2002 at Boulder, Colorado, January 2002.
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- Ginsberg A, Hodge P, Lindstrom T, Sampieri B & Shiau D (1998) "The Little Web Schoolhouse" Using Virtual Rooms to Create a Multimedia Distance Learning Environment, *ACM Multimedia 98*, September 13-16, 1998, Bristol, UK, pp89-98.

3. TITLE OF PAPER: The potential for the use of Computer-Mediated Communication (CMC) in teacher professional development

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INSTITUTION: Lancaster University

SESSION TYPE: Symposium on E-Learning CoP

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NUMBER OF WORDS (abstract): 253

FIVE KEY WORDS: computer-mediated communication; e-conferencing; teacher education; professional development; e-conference moderation.

Abstract

Studies of CMC have shown that it has many innovatory features that can contribute to professional education, however, its full potential in teacher education might yet be unrealised. This paper explores the use of CMC in teacher professional development within a sociocultural framework. Three hypotheses are posed: a) that the form of CMC within educational contexts is influenced by key context factors, b) that teacher development can be stimulated through developing reflection within communities of practice and c) that the role of the e-conference moderator is crucial in sustaining successful e-conferences. These hypotheses are explored through a case study investigation of an initial teacher education course students' use of e-conferencing. The course is a part-time distance learning programme and it incorporates the use of e-conferencing as a tool for providing support for the students. The results of the study indicate that the form of CMC within educational contexts is crucially influenced by three key context factors: a) the way in which e-conferencing is organised within the context of a formal course, b) the organisation of e-conferences around different subject domains and c) the length of engagement of the participants in e-conferencing. Within successful e-conferences, teachers' professional development can be stimulated in new ways, in particular through developing communities of practice and creating forms of reflection. Furthermore, the findings suggest that the role of the conference moderator is crucial in stimulating effective e-conferences through structuring the learning resources of the community of practice. On the basis of these data, conclusions are then drawn as to promoting teacher development through CMC.

4. Title of proposal: Retrofitting theory to practice - a reflection on the development of an e-learning community

Theme: Symposium on e-learning groups and communities of practice

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Abstract:

This paper relates to a project that worked to establish the Virtual Learning Space (VLS). The intent of the VLS is to provide a collaborative online environment where communities of interest can meet to share experience and understanding of C&IT in relation to learning and teaching. The philosophy underpinning the project was, and is, based on collaboration. The development of the VLS therefore included using focus groups, paper and email questionnaires, online discussion and brainstorming sessions. In other words, methodologies that aimed to engage the potential target audience in the project, as well as aligning the development of the environment with their particular needs.

The project has progressed such that initial implementation, evaluation and second stage implementation have been completed. The VLS is now an active collection of almost 1700 individuals who share experiences within an online or e-learning community. Having undertaken this development process, it is worth reflecting on how theory has moved forward to address the issues that have arisen during the project. The work of authors such as Wenger (1998) in relation to communities of practice, as well as more development oriented approaches that have considered how one might design and support communities online (Preece, 2000) are of particular interest.

Wenger describes three dimensions of practice as community – joint enterprise, mutual engagement and shared repertoire. This paper will report on how these dimensions relate to the communities of practice within this particular learning community. Although the VLS is perhaps better described as an online space that incorporates many evolving communities of practice. Some of these are almost transient, perhaps because they focus on particular

topics, and members move on as discussions draw to a close. An initial review with the theory, suggests that to be a true community of practice, the VLS may need to place more emphasis on joint enterprise. This brings in questions of negotiation and mutual accountability. The latter clearly relating to responsibility and ownership within the community.

Preece focuses specifically on online communities or e-groups, and cites four key elements – shared purpose; people, who interact socially; policies, which guide people’s interactions; and computer systems, which should “support social interaction and facilitate a sense of togetherness”. The first three relate directly to Wenger’s three dimensions, which is interesting as Preece refers to communities that might not consider themselves to be communities of practice. Finally, the addition of computer systems means that communities can move online. This is essentially the whole reason for the existence of the VLS – it provides a space where people can exchange experience that would not otherwise be possible.

This paper will therefore question what we mean by community, particularly in the online context. Illustrations from a growing e-learning community will link to the theory, and also attempt to use it to guide future developments

The VLS: <http://itlearningspace-scot.ac.uk/>

References:

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Wenger, E (1998) *Communities of Practice. Learning, meaning and identity.* Cambridge University Press ISBN: 0521430178

5.TITLE OF PAPER:Reflecting on practice in e-learning circles

AUTHORS: Diana Shore Richard Winter

INSTITUTION: The Open University Anglia Polytechnic University

SESSION TYPE: Symposium on e-learning groups and communities of practice

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NUMBER OF WORDS: 214

FIVE KEY WORDS: reflective practice; e-learning circles; synchronous audio conferencing

This research and development project, internally funded by the Open University, develops a design for Reflecting on practice in e-learning circles and pilots and evaluates it with undergraduate students studying human services practice-related courses at a distance. The e-learning circle is a discursive forum supported through synchronous audio conferencing and file sharing. This combination of media provides the means for tutors and students to write and reflect on their practice within their learning community.

The work is designed to facilitate exploration of practice and reflexivity through reading, discussing and writing fictional stories. Participants read and reflect on a story that a previous participant of a learning circle has written and passed on for a later group to use. The story may be contextualised by examining the writer's original reflections on their story. Each group member is then given guidance through a booklet on writing their own fictional reflective story and a week later the group reconvenes to read and reflect on the stories the group has written. The participants read each story in turn and while the writer remains silent, the group reflects on what the story means to them.

6.TITLE: POLARIS: One tool for different scenario's in collaborative learning

AUTHORS: C.F.M. Ronteltap

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SESSION TYPE: symposium

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NUMBER OF WORDS: 388

FIVE KEY WORDS: collaborative learning tool – design – evaluation

POLARIS: One tool for different scenario's in collaborative learning

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The University of Maastricht (UM) uses problem based learning (PBL) as the main approach in all curricula. Although every day educational practice varies, a few basic elements are present in all faculties of the UM. Students start learning with the analysis of problem. In brainstorm sessions in small groups students try to find out what knowledge they need in order to solve the problem that is under discussion. This discussion is wrapped up with the specification of a set of learning issues that will trigger self directed learning in the following days until the next meeting is planned.

When some years ago the discussion started about the benefits of investments for ICT use in education, the decision was made to use a principled approach (Koschmann, 1994) in finding out what to do. Underlying principles of PBL were converted into a list of statements that was distributed among staff and students in a survey study. One of the findings in this study was a clear demand for more collaboration facilities than the scheduled meetings of two hours twice a week. A prototype of POLARIS, a tool for asynchronous collaborative learning was tested at small scale, with success.

In the next phase of the project we worked on a second WWW version of the tool. In this phase we started the development of a tool that covers different didactical scenarios: regular PBL, projects, group assignments, team learning, etc. Three leading questions were the basis of the analysis of these scenario's:

1. What drives collaboration?
2. What are students doing when they collaborate?
3. What produces learning during interactions?

The results of this analysis in different curricula, and a parallel study of literature about developments in collaborative learning resulted in a model that was used in the design and evaluation of POLARIS2. The model has three layers:

- Learning *environment*
- Learning *behaviour*
- Learning *mechanisms*.

In the symposium in Sheffield we will discuss the design of the tool, demonstrate it and discuss the first results.

(Koschmann, T. D., A. C. Myers, et al. (1993). Using technology to assist in realizing effective learning and instruction: A principled approach to the use of computers in collaborative learning. Journal of the Learning Sciences 3(3): 227-264.)