

Developing engagement in Ultralab's online communities of enquiry

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This paper provides an account of the development of online communities at Ultralab for students engaged on masters-level programmes, doctoral research and continuing professional learning. It considers the ways in which the engagement of learners, and their consequent participation, is seen to be dependent on several factors—the learners' perception of purpose, their sense of identity and trust, framing of learning activities, interventions from learning facilitators and tutors, and the information architecture of the learning space. The notion of engagement in this online community in higher education (HE) is explored. The term 'community of enquiry' is used to indicate the key purpose of the community—that of practitioner-based enquiry, or research.

Introduction

Ultralab is part of Anglia Polytechnic University (APU) and has been running online projects from pilot phase through to large-scale implementation using online learning communities for over 10 years. This has encompassed both formal and non-formal learning for adults and children. In this paper we consider the research findings from the projects and the implications for online learning communities in higher education (HE) through our experience of developing Ultralab Learning—an online community of enquiry. Our action research uses a variety of data drawn from discussions, surveys and reflective accounts, and co-authored works documenting experiences.

In doing so we:

- discuss the notion of an online community of enquiry and its relationship to online learning communities;
- contextualise the development of Ultralab Learning in the range of online projects undertaken, with particular reference to HE;

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- identify key findings from research into these projects, and analyse the key factors that may be used to provide leverage for online communities to become effective learning communities in HE;
- describe a model for online learning communities in HE.

Online community, learning and enquiry

The development and availability of online tools for communication has led to a concomitant rise in the concept of an online community (Harasim, 1993). By this may be meant a community of people that communicate, and in some senses ‘meet’, exclusively online. Alternatively it might mean a community that communicates, or meets, face-to-face, and which uses online technologies to extend its communication modes. Whichever definition is adopted the salient feature is the notion of ‘community’—a group of people with shared interests and the use of information and communication technologies. The range of cases that could be considered to be an online community is thus a broad one.

For the purposes of this paper we are considering a subset of this range. Namely the case of a community, or group, of learners who come together with facilitators and/or tutors to share resources and participate in discussions exclusively, or predominately, online. This narrowing down of the range is done to focus the findings being reported and to allow the conclusions to be seen to apply to specific cases, rather than a general field. It also reflects the type of community that Ultralab has developed in the projects that it has undertaken.

Further, we are considering communities of practitioners, the majority of whom are school teachers, who are engaged in research-based enquiry leading to masters-level awards. These are learning communities, with the specific focus of enquiry and for us these practitioners are part of a community of enquiry. A further narrowing of the focus of this paper comes from our considering only the experience of the community developed by Ultralab, identifying key findings that may be applied to HE in general.

We put learning at the heart of the community’s purpose. Learning about the process of enquiry and learning about the individual’s and group’s findings from their enquiries. For Eraut (2002) this causes some problems with the definition of community as being something in which members must participate before they can learn, as he views professional learning as something that can largely take place in isolation from others. While having some sympathy with this viewpoint, we are looking here at ways in which learners may engage in community in what could broadly speaking be identified as a social constructivist approach to learning. Without their participation, identifiable and demonstrable, it will be difficult to discuss such engagement. If members of a community are not participating in it, then are they really members of the community?

In a traditional context, it is clear that people may be considered to be members of their local community without taking an active part. In a purely online community we argue that membership requires more than the passive reading of other people’s posts and discussions. While this is a valid method of learning, a more active contribution is required for true membership of the community, and it is this that forms the heart of this paper.

Given this definition of online community as being an online space that provides for overt communication between a group of people (the embodiment of the community), we now turn to the concept of a learning community.

Trivially, any group of learners that congregates to learn together could be considered a learning community. In our work we have been considering such communities, or groups, that congregate primarily online. In doing so they interact via electronic means, share resources and content, and interact with their tutors or learning facilitators. This clearly puts our discussion in the field of e-learning.

Salmon (2002) identifies four possible models for the future development of e-learning:

- content as the basis for learning;
- learning objects;
- m-learning;
- learning through community.

By definition, the first two models (content and learning objects) offer a resource-hungry approach. The need to identify suitable content, to make it available to learners and to break it into learning objects places the online teacher, tutor or facilitator at the centre of learning. It disempowers the learner. The time required to source the content and to keep it up to date is disproportionate to the learning gains.

M-learning, delivering learning to mobile devices, is, as yet, a less developed option with the potential to be part of a learning community model. Information on a cross-European project may be found on the Ultralab website at <http://www.ultralab.net/projects/>.

In line with Salmon's analysis, our view is that it is the community model that seems to offer the most potential as a vehicle for professional learning in the immediate future. Learners on our programmes are professionals—serving teachers and school leaders. We follow Eraut (1994) in believing that their learning comes from making their professional experience-based knowledge explicit. We do this through providing opportunity for interacting, scaffolding (Vygotsky, 1978) and reflecting on their knowledge-in-action (Schön, 1983; Eraut, 1994).

The use of online community also provides a means of addressing Knowles' (1984) model of successful andragogical learning. This model states that adults learn best when learning is:

- based on solving problems not assimilating content;
- negotiated with learners, so that their expectations and needs are met;
- relevant to their immediate context, in their professional lives;
- experiential.

We link these key ideas to a model of tutoring based upon creating, and 'facilitation' of, an environment where professional learning is enabled and supported.

In designing our online community spaces, we do not eschew content altogether. Rather we provide stimulus and starter references, to allow the development of participative online discussions. The discussions are central to the learning, and the summaries of earlier cohorts or topics are used as resources for future groups. If the knowledge is to be found in the experience and reflection-on-action of the learners, then these summaries, which make that knowledge explicit, are as valuable as any from third-party writers.

Thus far we have identified the concept of online community and how it may be used to provide opportunities for learning. These principles underpin the work of Ultralab over the last 12 years or so. In the next section we consider this work and, in particular, that undertaken in the use of online learning communities in the HE sector.

Development of Ultralab learning: an online community of enquiry

Ultralab's online modules were developed from 1996 and are offered as part of the University's MA in Education. Fully online, they are aimed at serving teachers and tutors. In 2001, new modules were developed called Online Learning, Tutoring, and Facilitation (OLTAF) and Online Learning and Learners.

OLTAF puts online teachers enrolled on the programme in the position of online learners. In doing so, we explicitly ask those enrolled on the course to reflect on how it feels to learn in this environment and how they perceive the impact of the learning on their role.

One participant reported,

One of my first learning points has been to feel the pressure of having to make contributions in order to support the community. My response to this is to try to concentrate on the key points in discussion and support the insights of others. It will be interesting to explore the notion of community for learning as a learner without also being the tutor. (Module Team, 2002)

The online modules are assessed in the traditional manner of assignments handed in at the end of the module. For one of these assignments, learners are required to submit an annotated portfolio. This consists of snippets from the module and their own practice, with reflections on the effectiveness of tutoring, styles of learning, space design and evidence of learning. The other assignment is an action enquiry report.

We complement our MA modules with school-based activity such as the West Essex Action Research (WEAR) project, in which project teams in six schools planned a piece of practitioner research to develop teaching and learning. Discussions are conducted online about each phase of the research and enable practitioners across different schools to exchange ideas. The community is also a means of keeping in touch and on course over the period of the project.

In 2001, the online space used for these modules was rationalised and an online community, Ultralab Learning: an online community of enquiry, was established. Those enrolled on MA modules or other programmes such as WEAR are all members of this community. The space provides

- an overarching area, used for induction, social and general discussions;
- a space for learning materials and resources (a 'cybrary');
- module-based discussion areas.

Students are thus members of two communities—the broad Ultralab Learning and that relating to their specific module or project (see Figure 1).

When a student has completed a module they remain members of the Ultralab Learning community and, if appropriate, are registered in another community for their next module. Thus the community of people is permanent and, along with those established for masters-level professional learning with the National College for School Leadership (NCSL) (see Figure 1) provide the context for our findings.

Key findings from the use of online communities for masters-level learning

Having worked in online communities with learners on masters-level programmes for over seven years, we have seen the design, purpose and focus of these communities go through several

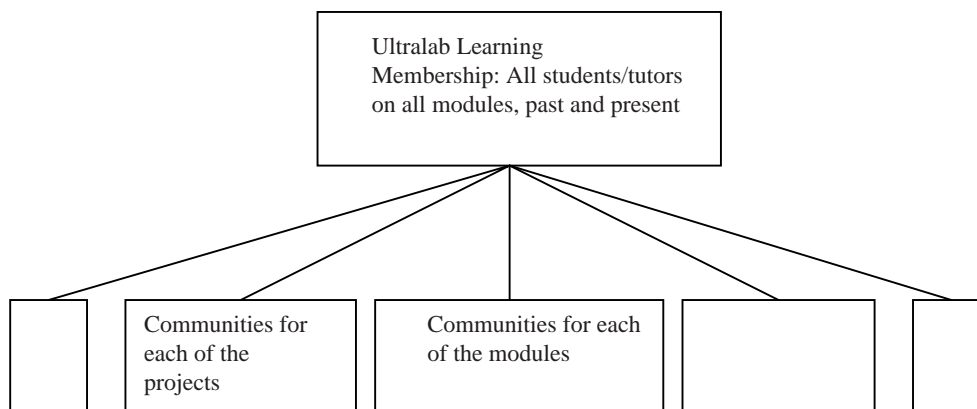


Figure 1. The online community model for MA-level modules and school-based projects

iterations. These changes have informed the use of online community for subsequent projects, such as Ultraversity.

In this section we present the key findings that led to those changes and describe some of the changes themselves. In doing so, while focusing explicitly on the masters-level communities, we are drawing out key findings for the use of online community in the HE sector in general.

Induction process for online learners

Time needs to be given to induction, with specific activities designed to negotiate expectations, provide guidance to the online space and resolve technical problems. We support this with synchronous online activities—phone conferences or online ‘chats’. This is an additional strategy to our normal use of asynchronous activities.

Exploring the nature of online community learning and self-directed enquiry also forms the basis of induction activities. Yet the induction period is also one of introductions and forming social connections through conversations such as describing interests and individual work contexts.

Encouraging participation by also using the online environment as an area for social interaction

When engaged in any continuing professional development activity, teachers often report that the social interaction and networking is as important as the formal sessions (Terrell, 2002). To engage learners in online community, tutors have provided opportunities for social interaction. These allow for the informal networks developed at induction to continue and provide an online equivalent of the learning circle face-to-face meetings arranged by candidates. The metaphor of a social space is used, with the name ‘The Shack’ referring back to the bar at the old Brentwood campus of the university!

Support for community discussion through reminder emails, telephone and synchronous activities

The online space can be an isolating one, with comments made asynchronously and by individual remote learners. Learners appreciate tutors who support the community through other channels of communication. This, they argue, reminds them of their focus and priorities, engages their attention and encourages them to spend some time on their research learning and development. The prime channel of communication should be the many-to-many community space, however, if overload on tutors is to be avoided.

Modelling behaviour and presence

Where online teachers are overtly engaged in conversations, providing feedback, setting focuses, acting as either facilitator or expert, candidates are more likely to respond. Where the tutor is not overtly engaged, candidates are likely to focus on the barrenness of online space. It is also apparent that where a tutor or guest contributor provides lengthy answers, this will invoke similarly lengthy future contributions. There is a fine line here between the desire for brevity for readability, and the need for in-depth responses for deep professional learning.

Informal versus formal professional learning spaces

'The Shack' is used as an induction space, and so all are encouraged to contribute there initially. When analysing these contributions it is clear that some students feel that this is as natural a place to discuss their learning as the more formal module space.

The orientation time was useful, but I can see a need to balance the 'playing' and 'wanting to get on' according to different needs and experience. Welcoming comments in the Shack are good icebreakers. (Module Team, 2002)

Formative versus summative learning

There is a tension between the formative nature of learning exhibited during the conversations and the MA requirement for a summative report to be submitted at the end of the module. The structure of the modules relies heavily on the use of asynchronous discussions. Some students feel that they are repeating work by having to write an assignment at the end, and their main reason for enrolling on the module is for pragmatic practice-related learning, which they perceive as disjointed from the demands of the academic masters-level criteria. One student, illustrating the view of some others, commented:

In honesty ... I'm not really concerned about the assessed outcome of the unit. I'm working this course as a stand alone to experience online learning and to learn about its methodology. Hopefully this will help me to tutor on NPQH [National Professional Qualification for Headship] more effectively. (Module Team, 2002)

This attitude often results in students failing to submit work to the deadline or standard required as they have gained more from taking part in the course than from the demands of the formal assessment.

Assessing contributions

Addressing the above, we have considered the accreditation of comments in the discussions. We have looked at models used elsewhere (e.g. Open University IET, Stirling) in which marks are awarded for the contributions of students during the asynchronous conversations. We have a problem with this being a driver for participation as we feel it would distort the authenticity of comments, with students contributing purely to gain marks. Developing this model, however, we have an assessment of student portfolio, supplementing the action enquiry report. In here, we are assessing students' reflections on the conversations so they can be central 'actors' in the discussions or 'peripheral performers' but are still able to demonstrate learning from the conversations.

Impact of software and design

Some students cite the CMC software as a barrier to participation (Module Team, 2002). One group of students were averse to its use and preferred to focus on the technicalities of the environment rather than the interaction with others. To minimise this effect we have redesigned the interface to provide less need for navigation, providing more structure within the module. We have found that we have reduced the number of negative comments about the software by having:

- a limited number of places to contribute;
- a limited number of units per module (five, as compared to up to 11 in earlier modules);
- only one or two units live at any one time, with only one conversation per unit;
- static pages with navigation to conversations remaining unchanged throughout the module.

Learning space design

Some learners will read all the resources made available to them before they feel able to contribute to discussions, even stating that they are not prepared to discuss anything before they have learned about it. It is also a question of planning, some students wish to be able to see not just the resources but the learning activities from the outset so that they can plan their time.

We see a tension here with the need to keep students focused on the same topics to encourage discourse and to go through the learning process and not jumping straight to the assessment activities. Individual preferences for learning styles play a part here as no doubt does past experience and expectations of what constitutes learning. Stephenson (2001) accepts that this should be both expected and worked with. There is need to consider learners' preferred learning styles. Those who report a more assimilative style will tend to read the resources before contributing. This needs to be acknowledged in course design.

We have found that providing fewer resources at the beginning of a conversation, and focusing the discussion on students' own practice, reduces the effect of this time-delay. We have also built reading weeks into the programme, and made the conversations and activities more time-limited. Our experiences concur with those reported by Owen (1999) in that the use of conversations alone is not enough. Resources, activities and the recording of learning in portfolios must support students' learning.

Collaboration and community

Thorpe (2002) speaks of the 'rhetoric of collaboration' and points to the large claims made by some online enthusiasts. In our conferences sharing through debate is evident, resources are exchanged, issues discussed. However, synchronous discussions are by their nature not conducive to shared contribution, as members can post at any time and frequently work as individuals. To counter this we have introduced activities that force students to work offline in pairs or larger groups (action learning sets) to come up with findings that they then post for others to comment on.

The online experience of 'time'

It seems to us that time in an online learning programme exhibits some unusual behaviours, at least in the minds of participants. In the MA modules, as in NPQH, we have experimented with having few or many units and conversations open at once. On the one hand, the asynchronous nature of the space allows time to be slipped and for students to contribute whenever they wish. This should be liberating, and is a theme that appears in evaluation comments from learners.

One commented on this freedom:

I have welcomed the opportunity to continue my own professional development within my own time without geographical constraints. (Module Team, 2002)

On the other hand, time slippage has meant that students typically look to deadlines to complete activities and without them, fail to participate. It is as if with no structure to time, students find it difficult to structure their learning. We have moved to a set of time-limited activities with a clearly defined pathway through them. This has been criticised by some students who look to e-learning to provide open paths:

Time restraints on discussions have been the greatest barrier to the action enquiry module, being ready to contribute to a discussion, only to find it ending two days earlier. It would help if all discussions were open until completion of the module. (Module Team, 2002)

Previous models of having all conversations open at any one time have resulted in little or no interaction, however, as the presence of learners in any one conversation is diluted.

Conclusions for a model of learning and teaching

We are engaged in developing a model of learning and teaching that comes from the interaction of traditional learning, the theories of communities of practice, activity theory, and of situated professional learning and the use of technology. This is a model designed for learning that is manifested by the developing professional practice of the learners. Much of the knowledge and understanding is tacit, and a key objective is to make this knowledge explicit, sharing learners' reflections on it and its application to their professional role. There is a balance here between the knowledge acquired through participants' previous experience, new knowledge and understanding through reflection in- and on-action, and the selection and use of appropriate propositional knowledge as a tool for reflection and analysis. In some instances, the propositional

knowledge comes from the inclusion of external experts in dialogues adding another dynamic to that of the community of learners.

There is also a balance between the formal and informal learning. This is very marked in face-to-face situations, and needs to be reflected online. The use of the Shack allows for informal interaction. We are constantly looking to develop self-directed and collaborative learning, but this needs to be nurtured—it does not happen on its own.

Notions of community, the components of the learning programme and the role of the tutor, or facilitator underpin our model. These three come together to shape the learning experience and influence the design of the programme and the online space in which it takes place. In this concluding section, we look at each of these in turn and summarise our approach.

The community aspects of our online learning programmes are used to overcome isolation and to develop social learning. Through their use, learners are encouraged to reflect on their experiences and the tacit knowledge they have developed. Within the community there is a common domain, that of professional educators, and through active participation, this reflection is taken further as each learner analyses and critiques the individual and shared understandings of the group. There are also the dimensions of identity and personality, crucial to online environments. Through induction and synchronous events the role and persona that people exhibit online is explicitly discussed to try to overcome the issues of only receiving partial information about fellow learners through text-based communication.

The components of an online programme are as listed above—discussions, activities, resources and knowledge. In designing our programmes we are conscious of the balance between the immediacy time demands of synchronous events. We provide some synchronous opportunities but they are generally only popular with a few learners. The bulk of the activities and discussions are asynchronous, with contribution being possible at any time. We do have a tight timeline for activities though, so that the group is kept on-track and together. Previous experience with open-ended deadlines or having many discussions running in parallel have not been successful. Learners have become frustrated by the lack of activity in the particular discussion they are engaged in if others are engaged elsewhere. Time is a difficult concept online. For those who are engaged it can run very slowly and they can make many contributions in a short period. For others time can seem to move very quickly and, if they have not contributed for a while, they can lose the thread of the discussions very easily.

We provide resources in the form of an electronic library ('cybrary'), but are careful not to overstock this as a large proportion of learners prefer to read all resources before contributing. This emphasis on reading results in a stagnation of discussion. Included in these resources is the summary of the discussions from previous cohorts, thus developing the shared knowledge. In this use of computer-mediated conferencing we are distinguishing our programmes from the traditional distance learning models, but the resource-based nature of these latter still has a role and is valued by many students.

The role of the online tutor is key in balancing the demands of time, drawing out the personalities to involve all members of the group, structuring and designing the online space, and meeting individuals' needs and styles. Expectations are shared at the beginning of each programme and the tutor needs to support the online community activities and discussions with telephone and email communications, sometimes referred to as 'back channel'. We encourage tutors to have a weekly or fortnightly communication with all students, to be overt when they are in

community and to model behaviour. If a tutor has the habit of always contributing, challenging and following up comments made then learners are more likely to follow suit.

Notes on contributors

Pete Bradshaw works for Ultralab at Anglia Polytechnic University in Chelmsford and from home in Milton Keynes. He has been involved in ICT in education for over 20 years as teacher, advisory teacher, lecturer, researcher and consultant. A member of the team that developed the Ultraversity degree, he has a particular interest in online community and online presence. He currently leads the postgraduate programmes at Ultralab and previously worked on online elements of NCSL programmes. From September 2005, he will be an ICT in Education lecturer at Nottingham Trent University.

Stephen Powell has worked for Ultralab for the past six years. In his role, Stephen has worked on a number of online projects that utilise the Web and online communities to research learning and technology. Currently, Stephen is the project leader for the Ultraversity project, an online, workplace, research degree for undergraduate students. This project currently has over 300 full-time students and is supported by a staff of 15 academics, three technical support staff/software developers, and two finance and student liaison officers. Prior to Ultralab, Stephen taught in state secondary schools for six years as a Geography specialist, Humanities generalist, ICT enthusiast and Special Educational Needs Coordinator and for five of these years was at Brooke Weston City Technology College.

Ian Terrell is Director of the Midwheeb Partnership for the Professional Development of Teachers based at Middlesex University, where he leads postgraduate research and development programmes in schools and LEAs. He was previously Director of Research at Ultralab, a research and development unit at Anglia Polytechnic University, researching into new technology and learning primarily leading the research work in the field of online learning communities. He moved from this role after being Head of Continuing Professional Development at APU. He is co-author of *Learning to lead* and *Development planning and school improvement for middle management*, as well as many journal articles and conference papers.

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