Communities of Practice, a Social Discipline of Learning: Nurturing a Physical and

Virtual Social Learning Environment

Abstract

Communities of Practice are powerful way of thinking about and exploring the social discipline of learning. Rigorous models for informational and cognitive aspects of learning are well defined, but social dimensions of learning are not so well explored nor are the practices involved in establishing an appropriate learning environment. A workshop conducted by Etienne Wenger was specifically structured to model the practices to establish a social learning 'space' and provided an opportunity for participants in the professional disciplines of health, social care, education and business to engage in social learning. The workshop enabled a telling and recording of people's own learning stories, through individual and group face-to-face encounters and further non-face-to-face communication encounters (within the workshop group and the world) through a range synchronous and asynchronous electronic media, video, wikispace[1], blog and twitter. This is a powerful process by which to explore the development of professional practices in a Work Integrated Learning or Practice Based Learning context and illustrates the manner in which transitions or boundary encounters arise and are navigated as individuals explore the 'landscape of professional practice'.

Introduction

The 'Learning in the Landscape of Practice' workshop was conducted by the Centre for Practice-based Professional Learning Centre (PBPL CETL) at the Open University, Milton Keynes, UK, and provided the opportunity for discourse in a physical and virtual learning environment. The workshop facilitated by Etienne Wenger explored professional learning in a

'landscape of practice' and involved participants a wide range of areas such as regulatory bodies, employers, practitioners and academics from the professional areas of health, social care, education and business. This paper explores the workshop from the participant perspective and reflects on the implications for work integrated learning more widely.

Much of Wenger's work is around the exploration of the foundation of a learning theory and arises from the common observation that humans are social beings. In particular, whether this perspective can give rise to a social discipline of learning. Of critical importance is the recognition that human knowledge is composed of a vast array of practices and it is the communal involvement in developing, sharing, refining and determining the importance and relevance of these practices that is often neglected as a key element in the learning itself. Coupled with this community engagement are the boundary encounters that arise as a person attempts to transform their skill and knowledge base from 'novice' to 'expert' proficiency (Lave and Wenger, 1991). In their terms learning involves the progression from 'legitimate peripheral participation to central, expert participation in that practice'. Consequently, this professional and social journey transforms both our participation and our identity and ultimately the community of practice itself. Many professions consider their body of knowledge as the 'curriculum' to be acquired by an individual in order to be acknowledged as a practitioner in that profession. Typically, the required learning is focused upon the 'teaching' and the 'classroom' and the rest is the application of the skill and knowledge attained from life experience often not recognised as contributing to being a professional in that particular discipline. Indeed, there a wide range of generic skills and life experiences, including learning from transitional progression through boundary encounters that have enabled the individual to demonstrate capacity and capability to progress through the professional aspects required.

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[1] The workshop wiki can be accessed at: http://oulop09.wikispaces.com/

What is not generally acknowledged is that a profession's identity and knowledge base has been accumulated and packaged into a definable body of knowledge and identity only through the collective interactions and discourse of the social learning between the members of the profession. Wenger (2009) contends that the learning is not primarily an acquisition of a 'curriculum' but is a negotiation of identity with respect the landscape of practice, with a complex interplay of communities and boundaries. Consequently teaching is not merely the transmission of a 'curriculum' but more an invitation to a journey of self.

The processes and outcomes of socio-cognitive and social interactive approaches such as professional discourse are widely noted and the following examples serve to exemplify the types of outcomes arising from the particular community of practice and how social learning helps maintain or modify a professional identity, includes informal learning and highlights the knowledge transfer between 'novice' and 'expert' as an iterative process. Flowerdew (2000, p128) highlights research into academic literacy and acknowledges an increased emphasis of discourse communities in determining generic competences of young scholars. In particular the relevance of the '*discourse community stresses the participatory, negotiable nature of learning and the fact that learning is not always based on overt teaching*'. Brender (2005, p336) demonstrates how professional identity can be re-enforced through discourse:

> *'Often, these other discourse communities focused on financial and legal matters while the nurses chose instead to write a discourse consistent with their professional identity,based on prioritizing the interests of their patients above financial motives and legal concerns'.*

Discourse involves not only interaction between 'novice' and 'expert' but also alteration of practices owing to modification rather than acceptance of the status quo. For instance, in the

engineering profession discourse communities have been evident for some time, and, as observed by Rist (1994, cited by Winsor, 1996, p41), this discourse is demonstrated by engineering interns engaging with their profession:

> *'Socialization is not a one-way process in which apprentices subject themselves to the new discourse. It is more an active construction, a discourse invented over and over again by individuals balancing the roles offered by the discourse they perceive …'*

Indeed, the conceptual framework of discourse communities is useful in linking two powerful notions of discourse and community. Importantly, Kirk (1992, p42) considers discourse to be

> *'… larger than language, because it embraces all forms of communicating rather than simply the verbal or written word. It refers to all meaning making activity, whether this be intentional, conscious, unconscious, explicit, tacit or reflexive'.*

Importantly, Kirk (1992) views discourse as not only what is said verbally, what is written and what is done but also what is not said, not written nor done. In recognising the multiplicities and complexities of social processes in the creation of meaning the process of discourse actually contributes to the definition, focus and use of knowledge. Indeed, consequentially, owing to the meaning-making processes, and who influences them, discourse does not only reflect the manner in which participants perceive and understand the world, but also reflects the conflicts of interests and power play. Ultimately, as Durning (1995) highlights, decision-making is conceptualised as a *'system of competing discourse coalitions and their struggles to 'control shared meanings''*. Thus the process of discourse actually frames the meaning-making processes. So much so that the common knowledge and the identity of the community, its

coherence and sense of common purpose, is defined through its language, actions, practices and objectives as set by the discourse community. The workshop provided the opportunity for a multifaceted physical and virtual learning environment and fitted well with Wenger's (1998) 'community of practice' as being:

> *'Every group that shares interest on a website is called a community today,but communities of practice are a specific kind of community. Theyare focused on a domain of knowledge and over time accumulate expertisein this domain. They develop their shared practice by interacting around*
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> *problems, solutions, and insights, and building a common store of knowledge'.*

In line with the online learning environment established in the Wenger workshop, Van den Hooff et al (2005) outline the technological facilitation of knowledge sharing in communities of practice. In particular, Van den Hooff et al (2005, p3) describe how information and communication technology (ICT) contribute to instituting a common store of knowledge in a community of practice. They support the argument that communities of practice create social capital and how this collective knowledge positively influences both 'knowledge donating (communicating to others what one's personal intellectual capital is)' and 'knowledge collecting (consulting others in order to get them to share their intellectual capita)' (Van den Hooff et al, 2005, p4). Significantly these are active, social, processes whether one is actively communicating to others what one knows, or actively consulting others so as to learn what they know.

Interestingly, Van den Hooff et al (2005, p1) contends the ICT environment facilitates two 'public goods', namely *communality (a collective store of information) and connectivity (the ability to reach other members of a community)'*. This was certainly our experience of the workshop learning environment. Pertinent to this facilitation is that the '*collective use of ICT is necessary, and perceived ease of use, perceived usefulness and experience with the technology are identified as factors that influence such use*' (Van den Hooff et al, 2005, p1). Our experiences of issues relating to differing levels of digital literacy and willingness to engage with the technology, expanded upon later, acknowledge this assertion.

Learning Environs - The 'Learning in the Landscape of Practice' Workshop

Establishing Community and Aspects on Discourse

Wenger adopted a number of approaches in facilitating the workshop. The social learning mechanisms used to generate and extend discourse of life and professional experiences and interchanges on the strategies adopted to navigate boundary encounters included dramatic interactions, open discussion (formal and informal), *ad hoc* discussion, communication in the virtual environment (wikispace, blog, twitter) and to some extent Socratic Dialogue. As a consequence of individual contribution and collective thoughts and actions the participants as 'learners' acquired 'knowledge' through their involvement with the knowledge shared and created. Characteristically, through these interactions 'knowledge is thus a process, not a

product' Flowerdew (2000, p131). For focusing the discourse, two recording group formations were established. Participants conducted face-to-face discussions as a collective group of participants as a forum and also within these two groups. One grouping, 'The Keepers', was designated to explore the aspects of stewardship and the following categories were designated by Wenger, as the workshop facilitator, resulting in groups of equal sizes, with varying levels of digital literacy:

1. Keepers of Output2.   Keepers of the Framework3. Keepers of the Inquiry4. Keepers of Voices

In particular the aim of the 'Learning in the Landscape of Practice' workshop was to develop stories that illustrate learning in the landscape and at the boundaries of practice; that make this particular theoretical perspective productive in practice. In the context of the workshop the 'keepers' are designated as 'The Keepers of the Output' – how are we telling the stories? 'The Keepers of the Enquiry' – are we addressing the important questions, 'The Keepers of the Voices'– how can we make sure that all voices are heard? And, 'The Keepers of the Framework' - is the model serving its purpose?

Other groupings arose as points of interest nominated by the participants themselves, and group membership was determined by individual interest, so groups varied in size from 2 to 10 members, with varying levels of digital literacy:

1. Child Minders and Inspectors2.   Failures and Learning in Crossing Boundaries3. Helping Students Cross Boundaries4.   Inter-personal Communication5. Research and Practice in Education6.   Parenting – Different Perspectives in Education7.   Reshaping your Landscape and Professional Identity 8.   Learning for

Work, Learning for Life 9.   Whose Voice is it Anyway?10.   Inhabiting

Incompatible Community of Practices

There were communities within communities, small sized and large, such that the workshop

represented a 'society' of interactions across and within communities through physical and

virtual media mechanisms. The key facet being the manner in which the notion of 'community'

connects to discourse. This connectivity is evident in that it refers to a localised time, space and

membership as the context to enable the expression and production of discourse. Pertinently, as

is well expressed by Ovens (2002, p506), 'community gives to discourse a human 'face' and

recognises that discourses are expressed through human interaction'.

Techno-Environs: Wireless, Wikispace, Blog, Twitter and Search Engines In order for an

appropriate speed of interaction and response and to document share, reference and also to

participate, critique and comment on activities and work presented by participants a range of

media strategies were adopted. These were successful in facilitating discussion, recording and

an immediacy of response and spontaneity of thought that nurtured a coherent flow of

discourse. Initially the interactive access in the virtual space was limited to workshop attendees

(besides twitter which was open access all the way through the workshop). A range of media

were adopted, with elements ranging from non-electronic face-to-face to electronic (wikispace,

blog, twitter, search engine, video, laptop/data-projector). The majority of the community

operated as a collective together at the venue but the use of twitter enabled a restricted

distributed community to be engaged during the workshop.

A wikispace was established as a central repository for the sharing of documents, comments

(via blogs or twitter or comment boxes (synchronous and asynchronous forms)) and videos in

order to create a freely accessible collective of data, information and commentary (comment, critique and suggestion). In this way, the wikispace's stimulative quality served an important function as a catalyst for discourse. Owing to the electronic nature of the wikispace, it was accessible throughout the workshop (during and outside the time for formal sessions). The shared documents could be browsed or updated at any time. Furthermore through the ability to blog, the aspects for discussion it stimulated and/or solutions or suggestions to problems could be posted/recorded at any time also. The wikispace is now 'live' to anyone who wishes to comment and add to the workshop outputs: a distributed community established with blog and twitter capabilities to enable further stimulus and engagement.

Operating within the ICT environment has its challenges. Fundamentally, in the manner in which this workshop was conducted, the '*collective use of ICT is necessary, and perceived ease of use, perceived usefulness and experience with the technology are identified as factors that influence such use*' (Van den Hooff et al, 2005, p1). It was observed participants had varying levels of digital literacy. Where digital literacy is defined as being proficient in the use of a range of digital information technologies; world wide web, wikispace, blog and twitter. The cohort ranged in digital literacy - skill and knowledge - from the uninitiated to expert level. Some participants expressed concern with regards their knowledge of the different electronic media (in particular wikispace, blog and twitter). Others were comfortable in expressing their 'ignorance', wanting to move from a position of legitimate peripherality, and expressed the wish to have specific opportunities to 'shadow' those that had knowledge and experience in order to learn and understand. In providing a positive and supportive learning environment, so that more experienced electronic media people could share their knowledge and experience,

there was no 'abuse' of knowledge differential. This is an important aspect, as O'Donnell and Tobbell (2007, p326) warn:

> *'Legitimate peripherality entails complex power relations. When peripherality is a position from which an individual can move forwards toward fuller participation, it is an empowered position. When peripherality is a position from which an individual is prevented from fuller participation, it is disempowering'.*

Some participants expressed concern that work produced by them was going to be made public on a freely accessible environment – public domain – that may result in their professional integrity being questioned. The reason being the form of the formulation and recording of ideas was not being undertaken as a formal academic work drawing on references, having time to reflect and edit completely within their sphere of knowledge and expertise. Some participants felt that they did not want to compromise their academic credibility and integrity. By observation, the divide of comfort-ability with the use of multiple and diverse electronic media could not be fully characterised by a 'Baby Boomers generation and Generation X' type of dichotomy. The workshop was an excellent learning environment that supported and enhanced the ability to engage in discourse. This was possible by allowing free exchange of ideas in a wireless supported electronic environment. In particular, the use of search engines and twitter provided the ability for great immediacy and for continuous thought flow in discussions, as features could be quickly checked without losing the line of argument/thought and resources could be brought to hand very quickly. The use of the blog and the wikispace gave provision for recording and communicating through these media again in an asynchronous and synchronous manner and widened access to the membership of the community by extending

the discourse beyond the physical boundaries of the workshop walls. In Van den Hooff et al's terms (2005, p4) knowledge donating (communicating to others what one's personal intellectual capital is) and knowledge collecting (consulting others in order to get them to share their intellectual capital) occurred in both the temporal period of the workshop conduction and then continued in the period when public domain access was provided in order to allow greater active, social, communication and interaction. A significant consequence is that both the community and the discourse were extended, not limited, by the ICT environment even though participants ranged from 'novice' to 'expert' in their ability to use the technology. To some, what might be interpreted as a limiting factor, self-imposed by individuals, was whether individuals, once critiquing and 'benchmarking' their digital literacy against other more experienced participants, were prepared to take up the learning opportunities available in the technological environ to up-skill their digital literacy.

Indeed, a key characteristic of a community of practice is that participation is

> *'… not unidirectional. It involves a good deal of give and take on the part of its members because engagement in a community shapes the experience of individuals who, in turn, help to negotiate new forms of community by virtue of the diversity of their interactions within it'*.

However, as an active participant in a social interaction of discourse, ultimately, it is a learner's decision as to whether they engage or not. As a subtlety, inaction or non-participation, in discourse still means the individual is contributing, as Kirk (1992) highlights, discourse is not only what is said verbally, what is written and what is done but also what is not said, written nor done.

Landscapes of Practice and Communities of Practice in Practice

The learning environment emphasised in the 'Learning in the Landscape of Practice' workshop is adopted and demonstrated through the CQUniversity postgraduate Maintenance Management Program.

The theoretical frameworks underpinning the delivery of this suite of Work Integrated Learning programs, conducted in Blended Learning mode, derives from a range of learning environment aspects including Communities of Practice (Lave and Wenger (1991), Wenger (1998)), Situated Learning (Brown, Duguid and Collins (1989, p32-42)) and Authentic Assessment (Newmann and Wehlage (1993, p8-12)). In Australia, Blended Learning (Garrison and Vaughan (2008), Littlejohn and Pegler (2007), Graham (2006, pp. 3-21) and Garrison and Kanuka (2004, p95-105)) has established itself as part of the learning landscape in higher education for both on-campus students and students studying in distance mode. CQUniversity postgraduate Maintenance Management students study through distance mode and students access their study materials, engage and interact with academic staff, industry practitioners and their peers through the ICT environment supported by individual Moodle© websites for each of the courses that make up the programs.

A two day face-to-face residential school for each of the courses is conducted during the term of course offer. Attendance at residential schools is not compulsory. However outcomes of discussions of concepts covered in study materials, clarification of assessment items, topical issues and aspects are communicated to all students via on-line discussion and postings through the Moodle© websites. Consequently, no student is disadvantaged by not attending. CQUniversity postgraduate Maintenance Management students, are industry practitioners, and

within their workplaces operate in high levels of managerial and leadership roles and responsibilities. Their mode distance education engagement is categorised as being urban, rural, regional or remote. They are continuously being contacted to interact with their workplace and solve problems that arise while at residential school. Owing to their ongoing responsibilities and, in particular, the added difficulty for remote students, who may need to travel extremely large geographical distances – and cannot quickly return to their work sites when issues arise – we have adopted a non-compulsory strategy for residential schools with the added ability for sharing and accessing information through an on-line community of practice.

As per Wenger's model (1998) of communities of practice, in particular, in the case of the CQUniversity postgraduate Maintenance Management programs, this focus on the workplace has provided a basis for powerful informal and formal learning facilitated through a community engagement process.

Lave and Wenger (1991) observed communities of practice appear to undergo a more natural development in workplaces in comparison to academics operating in the higher education work environment. The reason being that academics are often teaching independently with little opportunity for such communities to develop spontaneously owing to time constraints and a lack of ongoing purpose once the specific learning needs of their course are fulfilled. The CQUniversity postgraduate Maintenance Management programs Blended Learning environment has helped to provide a resolution to this issue of sustaining community engagement. Academics are operating in teaching teams – full-time academics co-ordinating courses with an industry practitioner delivering the course – and all are involved in residential schools, coursework and assessment item development. Ongoing discussions and interactions

occur with the full-time academics co-ordinating courses with industry practitioners delivering

courses and the wider group of industry stakeholders that ensures a community of practice is

established to provide the framework for academic quality assurance and content currency and

relevance of topics and study materials delivered.

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