Building a hybrid model of support for a new community of practice in the public sector

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Abstract

This paper considers how a local authority and an academic institution worked collaboratively to develop an academic programme to meet specific corporate needs. The programme has helped to establish a community of practice among 'para-information professionals' that we believe is capable of adding value to organisational performance. The paper considers how this new community can be sustained and nurtured, using a hybrid or blended learning environment that combines face to face and on-line elements.

Key words: community of practice, hybrid model, social capital, para-information, Public Services Information Management, King Alfred's

Introduction

A number of authors (Nahapiet and Ghoshal 1998; Healey 2001; Lesser and Storck 2001) have highlighted the importance of communities of practice to the development of social capital and organisational performance. Brown and Duguid (2000) have identified that work, learning and innovation are inter-related and often take place in non-canonical activities undertaken in communities of practice. Stata (1989) has pointed out that organisational learning occurs through shared insights, knowledge, and mental models built on past knowledge and experience. Others have suggested that informal communities of practice offer more fruitful ground for learning and generating new knowledge than formal corporate structures.

Much of the literature emphasises the importance of nurturing such communities within formal organisational structures. McDermott (2001) has identified factors critical to building communities of practice. Several authors (Healey 2001; Lesser and Storck 2001; Nixon 2001) have offered models for building and harnessing social capital in different types of organisation.

We have previously argued (Haslam and Hart 2002) that the generic applicability of these frameworks makes them available to practice-based learning in the public as well as private sector. To illustrate this, we have outlined the way in which a local authority and higher education institution developed an academic programme collaboratively, to meet specific corporate needs. During the initial year of the programme, it became evident that the group of para-information professionals for whom it had been developed were exhibiting many of the characteristics of a community of practice.

This paper considers how the course team used a blended learning environment - one that combines face to face and on-line elements - to achieve this. As the programme enters its second year, the partners are looking closely at how far this hybrid environment can be developed to nurture the putative community of practice beyond the life of the programme.

Theoretical perspectives on communities of practice

There is a high degree of consensus about the characteristics of communities of practice and their potential contribution to the development of social capital. Most definitions take a socio-constructivist perspective, placing human action and interaction at the heart of learning, and are underpinned by theories of situated experience and learning (Lave and Wenger 1991; Wenger 1998). Such theories emphasise that learning takes place in a social context, and that the development of cognitive and other skills is shaped by the organisation of the learning experience (Rogoff and Lave, 1984). Wenger's work on social learning (Wenger 1998) suggests that active participation in the practices of communities and the construction of identities in relation to them are key components of learning. Lave and Wenger (1991) emphasise that participants in this form of learning share understanding about what they are doing and what it means to their lives and communities.

Wenger (1998) defines communities of practice as groups of people who share information, insight, experience and tools about an area of common interest. McDermott (2001) points out that communities usually focus on a professional discipline, a skill, or a topic. Lesser and Storck (2001) emphasise notions of professional or occupational commitment, rather than

interest and highlight the role of communities in generating social capital in organisations. Nahapiet and Ghoshal (1998) contend that communities develop tacit knowledge through sustained interaction that may be invisible with reference to individuals. Scardamalia and Bereiter (1994) and Rourke, Anderson *et. al.* (1999) extend the concept to on-line communities of practice engaged in the collaborative construction of knowledge.

An increasing body of literature is concerned with the interface between communities of practice, social capital and knowledge management. Healey (2001) contends that the knowledge economy is made up of industries and firms that rely, now more than ever, on knowledge and networks, but that tacit knowledge can be converted into explicit knowledge only with great difficulty.

The common characteristics of communities of practice seem reasonably clear:

- They evolve from informal rather than espoused practices
- They exhibit high levels of trust and collaboration
- They are responsible for their own destiny
- Members gain a sense of identity from belonging to them and recognise that continual learning is required to keep their knowledge and skills up to date
- Common interests and challenges provide the basis for regular sharing and learning

Case Study

Meeting the needs of a community of local authority information workers

Our case study focuses on a community of practice that has emerged from a professional development programme established for local authority information specialists. The programme is the Certificate in Public Services Information Management (**PSIM**), which was run for the first time during the 2001- 2 academic year.

PSIM is a part-time, in-service course run for Hampshire County Council by King Alfred's College of Higher Education. Hampshire is a large county council with over 30,000 full and part-time employees. In the last few years, it has responded successfully to a range of Government initiatives and has twice been awarded a Charter Mark for the successful provision of its information services.

PSIM addresses the growing needs of Hampshire's front-line public service employees who work in local authority information points, dealing with a range of enquiries about services provided by the authority. They are employed in specialist libraries, information centres and a variety of information points in departments as diverse as Social Services, Fire and Rescue, and the Countryside Service.

As 'para-information professionals', they play a key role in supporting the modernising agenda established by central government. This currently includes a commitment to higher levels of customer satisfaction, outlined in the Best Value regime (Office of the Prime Minister 1998), the 'accessible services' agenda (Hants County Council 2002) and the target to deliver services to the public on-line by 2005 (Office of the e-Envoy 2001). As the first point of contact with the public, the role of these staff in generating satisfaction is hard to

over-emphasise. They are influential in shaping the public's perception of local authority services and engage with customer care issues on a daily basis.

Design of the curriculum

The PSIM curriculum follows a relatively traditional pattern but contains a number of selective innovations, which cumulatively prove significant.

The programme is built around three themes:
- Public administration
- Public sector information management
- The use of information and communications technology.

An initial aim is to help participants establish a clear understanding of the responsibilities and functions of various levels of government.

As 'de facto' managers of information, participants have strong practical experience of information management. The course seeks to deepen and extend their theoretical understanding by covering information channels and the operation of data collection and management information systems. It offers the group the opportunity to explore the ways in which organisational information strategies and communication systems support initiatives like the national agenda for e-government.

The growth of electronic information services is supported by a significant IT element. Although course members may be frequent users of email, word-processing and on-line services, the programme aims to enhance their skills and encourage greater understanding of the ways in which computing technologies can address typical problems. Engagement with the Internet and intranets is built into the course to enhance the capacity to use on-line services to provide advice to the public.

Participants construct assignments according to their specialist needs and are encouraged to influence the course by ensuring that examples and case studies address them. In a climate of frequent initiatives and rapidly-evolving technology, students are given access to timely, relevant material through site visits, visiting speakers and the use of innovative technology. The ethos of 'joined-up government' (Cunningham 1999) in the new public sector is reflected in the programme and the team ensure that knowledge gained in one part is built on in others.

Innovative elements

Two modules - *Communication in Public Sector Organisations* and *Public Sector Information Management* - provide particular support for the development of communities of practice

Communication in Public Sector Organisations explores the importance of communication to business activities and considers the wide range of media and channels used by modern public sector organisations. It aims to help course members understand how formal and informal channels, centralised and decentralised networks, and the technological and interpersonal are being integrated into strategic communication in novel ways. During the module, participants use and evaluate technology by focusing on purpose and audience, rather than skills. The importance of the social dimension is emphasised and the summative

assessment encourages the group to consider how organisational communication might be enhanced by blending the technological and interpersonal in new ways relevant to their own areas.

The module gives the group space (McDermott 2001) to reflect on their experience of formal and informal communication channels. It aims to help them uncover their tacit understanding and integrate it with theory. Their understanding includes broad experience of communication techniques appropriate to particular situations. This exemplifies the wealth of concrete knowledge that Brown and Duguid (2000) identify as undervalued in our society. Course members value the opportunity to establish a community to cope with reality as they see it, rather than as represented through abstract, canonical guidelines. Despite this, their commitment to ensuring synergies between their community of practice and organisational needs is strong. Their increasingly capacity to challenge each other in ways that produce deeper insights into important issues is certainly a significant benefit of the programme.

The companion module, *Public Sector Information Management*, includes specialised knowledge about initiatives such as accessibility of services to the community, which is at the heart of the central government's modernising agenda. Senior local government colleagues contribute to both modules and their observations are helping to shape our thinking about how far we can leverage the social capital which is becoming evident (McDermott 2001).

Building a hybrid model of support

The success of the programme in the first year, has led us to build in more explicit support for communities of practice. The literature has helped us to identify conditions likely to favour their development. In their study of seven organisations in which communities of practice were acknowledged to be creating value, Lesser and Storck (2001) identified a number of elements used to support and sustain them:

- face to face discussions to share insights
- formal training sessions and informal seminars
- experiences captured from senior practitioners
- use of outside speakers
- use of discussion lists

The PSIM programme uses a hybrid model to make these and other elements available. The model combines a rich classroom experience with collaborative learning in the workplace, mediated through a virtual learning environment. The rest of this paper identifies significant features of this hybrid environment and considers how it might be developed to support the working patterns of our target community.
Communication

Discussion is a key element of the classroom experience. It provides the vital starting point for uncovering tacit knowledge about practice. Course members have a great deal of tacit understanding about their roles and are generally keen to articulate it to their peers. This is partly through enjoyment, partly from a shared commitment to modernising the service and meeting customer needs as efficiently as possible. One of our aims for them is to help the group realise the depth of social capital they have available.

Presentations

Like many programmes, PSIM requires participants to undertake assessed presentations. In last year's programme, the most successful topics were those that allowed the group to share narratives about practice and descriptions of daily activities (Brown and Duguid 2000). By encouraging them to concentrate on real world activities, we realised that we were providing an excellent platform for sharing practice at greater depth.

Although the presentations were originally designed to rehearse communication principles they have now been offer an explicit opportunity for course members to make each other aware of the expertise available through the peer network to which they belong. We hope this will uncover potential synergies and allow the group to explore innovations that will help their front-line services during a period of rapid change. On a theoretical level, it should also emphasise the strengths inherent in non-canonical or dynamic aspects of organisational communication.

Use of the King Alfred's Virtual Learning Environment

The technological element of the hybrid support we offer is provided by the King Alfred's Virtual Learning Environment. The VLE is designed to support collaborative work and learning outside the classroom (Harasim *et. al.*, 1995; McConnell 2000; Anderson and Rourke 2001; Campos *et. al.* 2001;). It enables us to use computer-mediated communication to complement face to face discussion and further consideration of issues raised in class. It quickly established itself as an important communication medium for the initial cohort. It also offered concrete experience of a model capable of supporting collaborative activity by a community of practitioners in the workplace.

Before the programme, none of the initial cohort had used a virtual learning environment, though its component applications (email, databases, PowerPoint presentations etc) may have been familiar. One or two were members of discussion lists but nobody had undertaken computer-supported collaborative work. To ensure that every member of the group experienced the VLE, contributions were initially assessed and moderated by the tutor. By the end of the module, contributions had grown significantly and were largely being managed autonomously.

The VLE offers an accessible way of networking the community's know-how outside the formal, organisational infrastructure. It allows members to think about how they might use technology to support collaborative work and build social capital (Lesser and Storck 2001). It also illustrates the way familiar technologies can be integrated to provide a technological environment for supporting learning, work and innovation (Brown and Duguid 2000).

The first year of the programme offered us the opportunity to test out how far we could use the VLE to anchor assignments in real world activities. If such assignments are to help communities harness their social capital, they must be collaborative. We decided to explore the ways in which a community of information professionals might develop the knowledge base required to contribute proactively to consultations and pilot projects – and ultimately to useful developments.

During the second semester, the group attended two guest lectures given by senior local authority information strategists. Following this, they were asked to consider how they could contribute more actively to the electronic services initiatives being discussed by the county. The arrival of a central government consultation paper on electronic government (e-Gov@local, 2002) provided a 'real world' opportunity to rehearse a number of issues. The dissemination process was illuminating. Despite the fact that the government were striving to consult those who deliver the services, none of the group knew of the consultation and were not in a position to contribute or bid for funds to support developmental opportunities in particular areas. This illustrated the way traditional organisational forms sometimes inhibit the involvement of the very groups who might contribute effectively on the ground.

We realise that this typical organisational pattern has to change if communities of practice are to play a part in shaping effective interventions. At the moment, groups like 'para-information professionals' rarely have the opportunity to do so. Like other communities of practice, they have a limited track record of contributing to formal interventions and often lie outside the organisational map. Perhaps just as significantly, unlike their professional colleagues, they rarely seem to have the opportunity to work on interesting projects with interesting people.

In the coming year, we intend to make a representative activity like this the subject of at least one assignment. We are keen to build in work on live consultations and bids, wherever possible and are exploring how far the VLE can support the rapid dissemination of consultation documents and networking of expertise necessary to underpin it. If we are unable to achieve this, we will attempt to support the growth of the community by asking members to undertake simulated activity in relevant collaborative groupings.

Most of the innovations since the course began have been based on familiar educational structures. Others have been adapted from the experience of supporting practitioners in other disciplines, such as medicine and education. They illustrate how a curriculum can be adapted in small but significant ways to support the growth of communities of practice.

At this point, it could be argued that the outcomes have so far been what one might expect from a group of professionals experiencing a prolonged opportunity to share, learn and innovate for the first time. To build on them, we are planning a further range of developments. These will be supported by the hybrid environment and will be considered in the next section.

Planning the next phase of development

In this paper, we have considered how a community of practice was uncovered in a group of 'para-information professionals' enrolled on an academic programme. We believe that the hybrid learning environment that supports the programme has made an important contribution to the formation of the community. To help it grow, face-to-face and virtual aspects of the environment need to be further developed. This will require collaboration between all partners. Discussions have begun to take place about the possibility of making the Virtual Learning Environment available to Hampshire County Council.

All parties believe this potentially influential practitioner group should be sustained and nurtured. To help achieve this, we have identified three targets for action research. The first is to look closely at the behavioural changes that have taken place in the target group since they began the programme and determine how they might be sustained. The second is to

investigate how far the community can be broadened. The third is to explore the ways in which technology might support it.

If we are to expand the group, challenges exist about density and inter-connectedness. New course members will expect to join. If Hampshire County Council decides to extend the community to everybody in an information-providing role across the county, size will quickly become an issue. Estimates suggest that there could be up to a thousand potential members, yet the literature indicates that communities of practice should have a maximum size of around fifty. Many practitioners would argue for smaller groupings, which are appealing, but potentially artificial in this case.

Technology offers a means of scaling up. Virtual communities often tend to be larger and a substantial body of literature suggests that technology can provide effective support (Harasim *et. al.* 1995; Salmon 1999; McConnell 2000; Stewart 2001; Campos *et. al.* 2001).

However, the King Alfred's Virtual Learning Environment is now three years old and, if it is to play a key role, it will have to be enhanced to take account of the fact that communities of practice evolve from informal, rather than espoused practices. McDermott (2001) discusses examples of companies who have built systems which shadow, or at least follow, sequences of work. Web sites are then used to give access to tools which make the knowledge of the community available at each stage. Sharp (1997) and Lesser and Storck (2001) regard discussion databases and managed repositories as the likely core of any system which captures and makes available tacit understanding. There are dangers in this approach, not least in eliciting knowledge effectively. Healey (2001) points out that tacit knowledge is complex and bearers of it generally know more than they can tell, and tell more than they can write.

McDermott (2001) is aware of the risks, pointing out that there is so much technology for collaboration and information sharing that it is tempting to focus on functionality, rather than the social aspects of information technology. He counsels against adopting solutions from other domains, and stresses that using typical knowledge management methods to leverage tacit knowledge often results in information junkyards and empty libraries.

If we are to enhance our capabilities as e-Moderators (Salmon, 1999), we have to develop greater pedagogical understanding. Our use of on-line activity, in particular, needs to become more sophisticated. Campos *et. al.* (2001) have provided pedagogical guidelines for electronic conferencing, which we are currently exploring. Others, such as Anderson, Rourke *et. al.* (2001) have undertaken interesting work on the notion of *teaching presence* in on-line environments. This may help the teaching team gain a clearer understanding of the ways in which interventions can influence the learning outcomes of a programme. Perhaps as significantly, a consideration of *moderating presence* might help the community gain an insight into the skills needed by the senior members of the community who may be responsible for sustaining collaborative learning beyond the life of the programme.

We recognise that technology will not be able to offer universal solutions and we also need to identify appropriate structures for face-to- face support. Transferring problem-solving strategies, for instance, is notoriously difficult. Lave and Wenger (1991) point out that, for a solution to be reusable it must be viewed in context to appreciate the reasoning behind it and the collaborative activities that led to its construction. If we are to engender learning through

actual practices and help the community find solutions to organisational problems, de-contextualisation has to be avoided (Brown and Duguid 2000).

Using technology to empower the community without inhibiting learning or undermining normal working patterns offers a considerable challenge. Maintaining spontaneity and avoiding organisational disruption is essential, so any learning platform must integrate with existing systems. Stewart (1996) points out that communities of practice are not created in top-down fashion and their 'healthy autonomy' needs to be preserved if spontaneous learning and innovation are to be encouraged. His warning that formal structures are potentially inhibiting must be reflected in the technology.

Technology is an important element of a hybrid or blended learning environment. Our aim must be to ensure that it supplements face to face interaction in meaningful ways. We must remember that human sociability is a key determinant of the success of any community of practice, and that the extension of trust relationships aids the effective functioning of the networks they encompass.

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