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Enabling a Community of Practice: Fostering Social Learning between Designers and Design Managers at Postgraduate Level

Abstract
This paper discusses the principles and practices of a joint programme of MA Design and Design Management studies at a UK-based university that has encouraged students from different design disciplines to develop a community of practice (COP). It describes the structure of the current MA programmes and how a series of staff initiatives in response to financial and organisational necessity has led to conditions conducive for the emergence of a communities of practice.

A community of practice is defined by Wenger and Synder (1999, p.139-140) as a group of people informally bound together by shared expertise or a particular interest. Developing a COP can be a means to generate new ideas, methods and processes (Schlager, Fusco, & Schank, 2002). Building a community of practice is a vital ingredient in the development of a design professional operating in a post-disciplinary design era in which complex problems stretch across traditional disciplines and cultures (Moggridge, 2007).

The paper begins by providing a background to the growth and expansion of postgraduate education in the institution and proceeds to describe the structure and delivery of its programmes. It highlights learning opportunities created by teaching staff to facilitate the development of a community of practice. It concludes by presenting a number of challenges faced by programmes in maintaining conducive environments for COP to foster in view of proposed growth.

Keywords: community of practice, postgraduate design education, social learning

1. Introduction

> "Communities of practice are a specific kind of community. They are focused on a domain of knowledge and over time accumulate expertise in this domain. They develop shared practice by interacting around problems, solutions, and insights, and building a common store of knowledge." (Wenger, 2001, p. 1)

The theory of communities of practice (COP) emerged from work by Lave and Wenger (1991) relating to situated learning in workplace environments. COPs are not limited to the workplace, but can be found in educational or other types of social contexts. Wenger himself acknowledges that while the term 'Communities of Practice' is new, the experience is not (1998b, pg 7). For the purpose of this paper, its theories and concepts are used to frame the learning experiences of Postgraduate students at the UK's Northumbria University and to reflect on how this particular community has come about.

2. COP and Postgraduate Design Education

The concept of "community of practice" refers broadly to a social theory of learning focusing on learning as social participation. Practice develops over time through a shared negotiated engagement towards a specific goal. Taken this way, COP can be thought of as 'shared histories of learning' (Wenger, 1998b, p. 86). Learning, as Wenger suggests, does not only take place in classrooms and training sessions but through participation in an individual's communities and organisations. Members of a COP are informally bound together by shared expertise or a particular interest (Wenger & Synder, 1999, pp. 139-149). They share their experiences and knowledge in free-flowing creative ways, fostering new approaches to problems. Newcomers to a group learn from existing participants through a process of discussion, sharing, negotiation and reflection, not unlike the apprenticeship model common in design education. Through these processes, members move from being a novice to being a journeyman and finally to achieving expert status (Brown & Duguid, 1996; Lave & Wenger, 1991; Wenger, 1998b).

Fox (2000) as cited by Corlett, Bryans and Mavin (2006, p. 158) views COP as a specific version of social learning theory, arguing that its principle element is that its members learn by participating in a shared activity. Other social learning theories take social interactions into account, but only from a physiological perspective. Corlett et al (ibid) view social learning on two levels: firstly that we learn with and from others in all our social relationships and secondly that social context helps us make sense of the experiences that we encounter within it. We believe that COP is a particularly useful way to discuss design postgraduate learning, compared to a behaviourist, cognitive or constructivist approach due to its focused on shared learning.

Designers are increasingly working in a post-disciplinary era in which complex problems stretch across traditional disciplines and cultures (Moggridge, 2007). This requires an individual who is comfortable working in cross-disciplinary teams, communicating and sharing knowledge across different domains. Learning together is as important as communicating with each other.

In contrast to undergraduate design programmes, whose aim is to equip the student with practical skills in order to successfully operate within a professional environment, postgraduate education is focused on achieving personal mastery through the application of theory in their own practice, and applying skills in different contexts. It provides students with the opportunity to learn from their peers as much as from their tutors.

3. MA Design and MA Design Management Programmes at Northumbria
The MA Design (MADE) and MA Design Management (MADM) programmes are postgraduate programmes offered at Northumbria University's School of Design. They share an integrated framework in which theoretical modules are delivered to both cohorts simultaneously. The aim of the programmes is to help students develop the tacit skills needed in the work place, to have authority, to be able to argue and to negotiate and develop cultural awareness. The staff team comprised four subject leaders (3D, Fashion, Visual Communication and Design Management) with other tutors linked to delivering the theoretical modules.

The MADE programme consists mainly of students with a design background, in contrast to the MADM's students who have much wider educational and professional backgrounds, for example coming from marketing, business and manufacturing sectors as well as from design. Both groups of students bring considerable cultural diversity, as around 80% of the students are non-UK nationals. The community members in this context are therefore made up of designers and non-designers, with a range of working experiences and cultural backgrounds.

The MA framework evolved from delivering a very specific postgraduate programme (MADE) to one that now encompasses nine different specialism pathways within MADE and a new programme, MADM, introduced 3 years ago. The development of this framework has been organic, practical and reactive. The staff team did not specifically set out to create an environment conducive for a community of practice to emerge but instead focused on creating a framework reflecting the key pedagogic principles of the programme and school. The emergent practices in the programme were also shaped by collaborative opportunities with external organisations, staff's research interests and a desire to exploit the diverse educational and cultural backgrounds of the student cohort.

In line with Wenger's view on shared practice (1998b, p. 85) we did not attempt to romanticise the development of COP but objectively described and reflected the situation within the two programmes. We recognised the benefits as well as the weaknesses of a strong COP and reflected on how this has changed the learning experiences of the students.

3. Recognising an emerging COP using Wenger's three dimensions of COP
In Wenger's view, a COP can be identified through certain characteristics, described as the three dimensions of COP (Wenger, 1998a) which are:
   a. How it functions: the relationships of *mutual engagement* that binds members together into a social entity.
   b. What it is about: it is a *joint enterprise* as understood and continually renegotiated by its members.
   c. What capability it has produced: the *shared repertoire* of communal resources that have developed over time.

Wenger describes these dimensions as characteristics required for a coherent community to develop. We will briefly discuss the characteristics of these three dimensions before providing specific examples from our MA programmes in the next section. Key characteristics have been made bold to highlight their relevance to our case.

Mutual Engagement
Practice only exists if people are **engaged in actions whose meanings are negotiated with one another**. Wenger stresses that membership is not just dependent on sharing a similar social situation or being in close geographical proximity. Signing on to the MA Design and Design Management programmes, for example, does not automatically

guarantee the student a place in this community. Rather, it requires active engagement from the student with rest of the community.

Wenger is careful to point out that although the participants come together for a shared interest and purpose, the community is not necessarily homogenous. The success of a community comes from the **diversity** that each participant brings, beyond the shared interest. Identities becomes interlocked and articulated through mutual engagement but are never fused. The strength of the community is the complementary knowledge of its members, collectively contributing to the group's knowledge.

Despite the positive connotations of the term 'community', Wenger's view of COP is not necessarily tension-free. He points out that some of the most successful COPs include **conflict, tensions and disagreements**. In observing and reflecting practices amongst our students, we have been careful to record both positive and negative characteristics described by Wenger.

Joint Enterprise
Joint enterprise is a result of a collective process of negotiation that considers the complexity of mutual engagement, and through the process of this negotiation the participants define their terms of engagement, leading **to mutual ownership** and **responsibility**. Sharing a jointly negotiated enterprise means that the participants **share common dilemmas, challenges and questions**.

There is an element of **resourcefulness and ingenuity** to a COP as it involves operating under specific constraints, whether institutional, social, cultural or historical. These constraints are **context-dependent**. In the case of the MA programmes, these communities operate within the constraints of the university, the programme structure, pedagogic aims and the individual goals of its members.

The jointly negotiated enterprise is not a static object, it changes according to conditions and the development of its members. The same can be said of the **mutual accountabilit**y that arises from these negotiations, with each member having responsibility not only to the central concerns of the group but also to other members. It is used to further the practice as students develop an altruistic sense to contribute and share knowledge for the good of the group.

Shared Repertoire
The final characteristic of a successful COP is its members having a range of activities, relations and objects that are shared and understood. This includes not only the resources used in the discourse (for example **words, phrases, gestures, symbols, actions and concepts**) but also includes the manner in which they are delivered and expressed. Each member of the community brings their own understanding and interpretation of these resources. The historical development of this shared repertoire may bring with it issues of ambiguity for new members, but this should be seen as an opportunity for the production of new meanings.

4. Practices that Enable a Community of Practice
In this section we discuss our practices and conditions that have encouraged a postgraduate COP to emerge.

Encouraging active engagement and negotiation
To encourage familiarisation and initial engagement a social trip is arranged at the beginning of the programme as the first step towards community building. Additionally, all introductory activities within modules are designed to provide opportunities for

students to share their experiences, skills and influences in order to encourage individual identities to emerge. This is important as identities and practices are closely linked together (Wenger, 1998b, p. 149) in that a practice is developed through how a person negotiates ways of being a member in a particular context.

Having a dedicated room for the postgraduate students to 'claim as their own' is considered to be a very important part of community building. Currently, the postgraduate students share a studio space functioning as a teaching, studio and discussion space. While it has been advantageous for the students to have a dedicated postgraduate space, a difficulty lies in the fact that it is an open studio without an easy option to divide the space. The growth of students from 40 to 80 over the last 2 years has strained physical resources. The trend observed in other postgraduate programmes is a continued reduction in physical space with increasing student numbers. This would impact the development of shared learning and COP. The psychological aspect of having an owned space, even when shared, helps the group build a communal repertoire represented through physical objects, for example brainstorming notes, boards and ideas.

Throughout semesters one and two, students are engaged with group projects alongside their personal project. Students from the nine different design pathways and design management are placed together in mixed groups, constructed to provide each team with a balance of design managers and designers. This collaborative working encourages social learning and peer support. We underpin this with a module in Reflective Practice that enables individuals to understand their individual practices and encourage group reflection. We believe reflection is not only a conversation with oneself but also a conversation with others that bring forth insights.

Diversity and identity
Students recognise the advantages of having a diverse membership to the community. This was evident in discussions surrounding the theme of the year-end exhibition. Students wanted to celebrate this diversity and recognised the role it plays in shaping their individual learning.

Each student's identity within the postgraduate community is layered and fluid. They can belong to several communities of practice. They may feel part of the larger postgraduate community (comprising both programmes), but at the same time they are members of their own subject specialist group within Design or Design Management. The group projects also create opportunities for them to engage with a smaller group of peers over a shorter period framed by a specific goal.

Being a member of different communities of practice is not alien to us. Wenger points out that we are used to moving in and out of different communities in our daily life (Wenger, 1998b, pp. 6-7). We must consider the importance of identity and that in order for any student to bring their own expertise to the community, they have to be confident in their own identity, expertise and skills. The students must firstly develop their own knowledge area using the community to support this learning, before using their personal mastery to contribute towards the community. We use Reflective Practice as a research method to enable this personal mastery to develop, supported by a range of theoretical modules such as Creative Thinking, Contemporary Influences and Cross-Cultural Communication.

While we believe that having a diverse group of students has been beneficial to the community, it has also created conflict and tension. Group work has brought up issues of communication problems between students that would otherwise be overlooked.

Students have had to learn teamwork and develop strategies to overcome conflict within teams through negotiation. As tutors, we have to be mindful of potential problems arising from collaborative work and ensure we respond quickly.

Joint enterprise and mutual accountability
A characteristic of a community of practice is the emergence of behaviour or actions that suggest shared ownership and responsibility of problems, dilemmas and challenges. A key concern for students is the availability of dedicated workspace. This has been an ongoing problem for staff due to the physical constraints of available space. Rather than simply highlighting the problem, students have been proactive in deriving possible solutions for staff to present back to the school's executives. This constant dialogue between staff and student is a conscious decision by staff to encourage students to take ownership of their learning and their learning conditions. The development of the programme thus becomes a joint enterprise between staff and students.

Another area in which we are encouraging this to happen is in the organisation of the students' year-end exhibition. The students are tasked with organising and implementing the exhibition with staff acting as facilitators. Students are encouraged to take ownership of the exhibition and to exhibit as a community rather than as individuals, which is the more usual model of undergraduate exhibitions. We are trialling this approach because in the last few years the MA staff had to undertake the management of the exhibition due to a lack of student interest. Unsurprisingly this did not produce the desired result in portraying the strong and coherent identity of our postgraduate programme.

History & ambiguity (shared repertoire)
Having a shared repertoire of words, phrases, gestures, symbols, actions and concepts is an important aspect of a strong COP. Due to the diversity of the cohort, creating a shared repertoire of resources is an important step towards enabling social learning. We have a number of approaches to facilitate this. Group projects provide an opportunity for students from non-design backgrounds to immerse themselves in a design project that will introduce them to the concepts, vocabularies and processes of design. At the same time, existing students are able to mentor newer students beginning their learning journey, resulting in the overlap of expertise levels akin to a real-world scenario.

Developing a shared repertoire not only revolves around what we deliver but also around the learning experiences of the programmes. Having a good understanding of how the programme is run, its structure, staff expectations and assessment strategies are integral parts of the postgraduate experience. We take advantage of having two student intakes, one cohort starting in September and another starting in January. The theoretical modules are attended by both sets of cohorts enabling the existing cohort to act as unofficial mentors to the new intake, inducting them into the postgraduate community. Additionally, group projects provide a way for us to mix existing and new students into the programme in a structured manner. We observed that in general the new cohort settles in quickly and proceeds to mix freely with the existing cohort within weeks.

5. Benefits
One of the major benefits to the community is the diversity of the students' prior experiences and their differing aspirations. Design managers and non-design graduates work with designers from different disciplines. Non-designers benefit through learning by immersion in design projects and in the community as a whole. The tacit nature and behaviour of designers and the learning environment of the Design School plays a big

part in their learning, almost as an assimilation or secondary learning process. This is a powerful experience in a supportive community.

One of the most unexpected side effects of the community is the shaping of the disciplines themselves. It has helped to consolidate the programmes' stance, identity and principles collectively. The Design Management programme has developed a softer, innovative problem solving approach. In the MA Design programme, the benefit of designers working with other designers outside their domain as well as with design managers has provided them with a unique learning environment close to real-world experiences.

6. Challenges
Pitfalls, risk and control
The educational environment is changing rapidly. Cuts in HEFCE (Higher Education Funding Council for England) funding and government restrictions on undergraduate numbers, have resulted in many universities identifying postgraduate level as one of the few areas able to sustain growth. The traditional overseas market, historically attracting mainly business students to the UK, is now providing new markets for Design. This points to a sudden increase in student numbers at postgraduate level for many design schools and universities are recognising potential for increased income. The projected increase in postgraduate student numbers, (at Northumbria we are targeting a 50% increase in five years) will present one of the biggest challenges for the communities of practice now developing. *Anticipating this growth, how do we maintain the flexible approach that will encourage and implement the re-configuration of new programmes? Are we able to accommodate 160 students without fragmenting the experience? What is the optimum size for a community to flourish?*

Control and change
We do not have control over a community of practice and can only provide a culture for it to grow and flourish. The community will transform with its members and as different relationships are made. The external environment will change, with availability of resources and new constraints impacting on the groups. Staff will develop and bring new knowledge. It can be argued that the unpredictability of the postgraduate environment presents a major opportunity for innovation in pedagogy. *If we aspire to be responsive to these changes, how will this bottom-up approach impact on the larger institution and the rigidity of regulations?*

Assessment
This increased recognition of peer learning as opposed to teaching will impact not only on teaching and learning practices but also on assessment. Traditional methods of quantifying individual learning outcomes become obsolete when trying to understand and value the learning acquired by being part of a group. One of the biggest challenges will be re-thinking our attitude to learning and assessment.

7. Next steps
We have detailed a number of challenges that we have to face in the near future. Our task will be to develop flexible and nimble strategies to address these challenges without being overly precious about our existing communities. Future studies would develop our understanding of how knowledge is shared and transferred between students by documenting and analysing their interactions.

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