Chapter 1
What Is a Community of Practice?

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Abstract Communities of practice are voluntary groups of people who, sharing a common concern or a passion, come together to explore these concerns and ideas and share and grow their practice. This chapter develops a theoretical framework for the idea of a community of practice. It investigates the reasons why this form of social learning, as described by Bandura, is particularly relevant to the higher education sector in the light of contemporary change and upheaval in society and the university world and an increasing emphasis on a scholarship of learning and teaching. The history and defining features of a community of practice, as developed by Wenger is explained as well as the more recent thought on landscapes of practice by the Wenger-Trayner partnership. Three particular examples from varied situations, including a virtual community of practice, are discussed to illustrate some of the key features of communities of practice. The chapter concludes with encouragement for higher educational institutions to champion the establishment of these communities.

Keywords Community of practice · Higher education · Sociocultural theory · Landscapes of practice · Scholarship of teaching and learning · Identity · Online learning

1.1 Introduction

It is part of our human nature to gather and, when a group of people does so, with a common concern or problem to solve or ideas to share, a community of practice is formed (Wenger 2002). The idea of a Community of Practice (CoP) is essentially a

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J. McDonald and A. Cater-Steel (eds.), *Communities of Practice*,
DOI 10.1007/978-981-10-2879-3_1

very old and well-practiced concept, which has become increasingly well known, through the research and publications of Lave and Wenger (1991).[1] Wenger, in a recent interview, explains that he first became interested in a social theory of learning because of the difficulty of cognitive approaches to account for how adults make sense of their world (Omivar 2014). Through the use of anthropological data on apprenticeships in a number of different communities such as the Yucatec midwives in an American Indian community and the Vai and Gola tailors from West Africa, Lave and Wenger (1991) concluded that learning did not primarily occur with the transmission of facts in the master/apprentice relationship. Rather, learning was best facilitated within a community of apprentices and more experienced workers:

> We propose to consider learning not as a process of socially shared cognition that results, in the end, in the internalization of knowledge by individuals, but as a process of becoming a member of a sustained community (Lave and Wenger 1991, p. 65).

The concept of a community of practice has its theoretical roots in the psychology of socialization, which will be considered shortly. Its application covers a wide range of fields, including business, industry, health and education. The popularity of this idea has continued to grow and be developed with the Wenger-Trayner[2] partnership, both of whom are now globally recognized scholars and trainers.

Yet despite its momentum, the uptake of CoPs within higher education (HE) institutions has been surprisingly limited. Whilst a number of such institutions have trialled CoPs such as the University of Southern Queensland (USQ) and the University of South Australia (UniSA), the practice has not significantly spread in the twenty years since it was first promulgated. Bouchamma and Michaud (2011) suggest that although academics have generally been exposed to ideas about improving their methodology, many have lacked the support of a CoP to help them implement these ideas to improve their quality of teaching and learning.

A glimpse at HE will generally show that academics are often isolated in their practice and individualism, rather than collaboration, is the norm. McDonald (2012) suggests that for too long teaching has been a very private affair, conducted behind closed lecture room doors, whilst promotion continues to be traditionally based on research rather than teaching.

[1]These are representative of the key dates of Wenger and Wenger-Trayner's publications, but are not inclusive of all their textual and electronic output.

[2]Etienne Wenger has partnered with Bev Trayner, a learning consultant specializing in social learning systems.

However, the growing movement towards a Scholarship of Teaching and Learning (SoTL)[3] in HE, involving dedicated research into the practice of teaching in order to understand how students learn and to critically reflect on this, fits more comfortably with the concept of a CoP. As a seminal voice in this debate, Boyle (1990), concludes that if a vision of scholarship can be developed in HE institutions, “a true community of scholarship will emerge, one that is not only more collaborative, but more creative, too” (p. 80).

Exposing academics to new knowledge has traditionally been done through formal professional development activities, such as seminars and conferences, often with large numbers of attendees. Whilst there is still clearly value in these forms of learning, it tends to be a top/down approach, with internal or external ‘experts’ presenting to a relatively passive and unengaged audience. Research by the Australian Institute for Teaching and School Leadership (AITSL) (2011) indicated that there is growing dissatisfaction with this sort of professional development, conceived of as something that one ‘does’, or that is ‘provided’, or is ‘done to’ teachers. Current findings point to the need for professional development to be closely tied to the context of teaching and the capacities of teachers. Fullan (2007) goes so far as to suggest that traditional professional development, with its generalised ideas, has run its term and that “student learning depends on teachers learning all the time” (p. 35). Whilst he admits that institutions are not set up for teachers to engage in “continuous and sustained learning”, the role of CoPs, is going at least part of the way to providing a regular, localised and supportive environment for engendering this sort of change in professional development, cannot be ignored.

This disparity between theory and practice and the urgent need for more relevant forms of professional learning in HE, provide the impetus for this book. The major part of this chapter will examine the theoretical basis behind the concept of a CoP from a socio-cultural perspective and its key principles to inform those who seek to establish them within their own institutions. The second part will present a brief survey of three very different CoPs that will assist in illustrating these principles in practical settings.

[3]The scholarship of teaching goes beyond scholarly teaching and is driven by a desire to understand how students learn effectively and how teaching influences this process. Thus, it is student-focused. The scholarship of teaching has two main components. The first is the use of creativity to develop original materials … that can be used beyond the boundaries of an individual instructor. The second component, a systematic evaluation of teaching and learning, can involve both informal and traditional research on teaching and learning, or curriculum related issues. Both research approaches require in-depth understanding of the literature, critical reflection, and sharing through publication.

1.2 The Socio-cultural Underpinning of Communities of Practice

Fundamental to an understanding of communities of practice is the importance of the social dimension of learning (Bandura 1977). Bandura argued that learning is a cognitive process that takes place in a social setting. Social learning theory expands on traditional behavioural theories, by placing emphasis on the important roles of various active, internal processes in the learning individual and social context of the learning situation. The work of 20th century Soviet psychologist, Vygotsky (1978),[4] is significant in this regard, his ideas having caused a paradigm shift in our understanding of human development and learning, from "ahistorical, cultural, individualistic unfoldings, to culturally historical, socially created processes" (Holzam 2009, p. 3). His unique ability to traverse the deeply rooted dualist concepts of his time that separated biology and culture, learning and development and the individual and society, allowed him to develop a form of social psychology that has inspired a quarter of a century of subsequent research.

Vygotsky saw social relations as preeminent, 'genetically' underlying all higher functions, and argued that the individual and their environment should not be viewed as distinct, separate factors that can, in some way, be added up to explain the individual's development and behaviour. Rather, each mutually shape each other in a "spiral process of growth" (Hall 1997, p. 22).

Wertsch (2009) provides a rich synthesis and critique of Vygotsky's ideas, using the terms inter and intra psychological processes to describe the way higher order thinking is developed. Inter psychological processes arise out of social interactions which, in turn, influence the intra psychological process of the person's higher order thinking. From the earliest months of a child's development, when they start to call on an adult's attention by pointing to objects, their intra psychological functioning begins to grow: "All higher mental functions are internalised social relationships" (Wertsch 2009, p. 66). Wertsch stresses that this process of internalization is not a case of external experiences being copied into an internal plane that already exists, but rather that it is the external reality that creates the internal consciousness.

This is a unique insight that goes to the heart of an understanding of the importance of community. It appears to parallel the thinking of another foundational figure in social psychology, Mead (1934), who, although coming from a quite different philosophical perspective to Vygotsky, had a remarkably similar understanding of the genesis of the mind in social processes, believing that the mind could never have come into being without a social environment to nurture it.

Vygotsky (1987) linked his ideas about the importance of social development with the notion of the Zone of Proximal Development (ZPD). The prevailing view

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[4]Lev Semyonovich Vygotsky (1896–1934) was a Soviet psychologist, and the founder of a theory of human cultural and social development. He is best known for his theories on how higher order thinking is developed in children and for proposing the concept of the Zone of Proximal Development (ZPD).

of his time was that learning depends on, and follows, the developmental stage of the child. Vygotsky broke new ground in suggesting that instruction can move ahead of development, instead of following it, stretching the child's thinking and eliciting thinking structures.

He describes the ZPD as the distance between a child's 'actual developmental level' and the higher level of 'potential development' that they might be capable of achieving. It is a sensitive space, hovering between what a person already knows, and what is within their range to know, with the help of a more knowledgeable instructor. This has implications for adult learning in HE. Adult educators are becoming increasingly aware that traditional methods of presenting information and expecting students to memorize it are no longer satisfactory. Smith and Pourchot (2013), for example, point to the importance of scaffolding[5] instruction and fostering a more social environment for adult learners.

Further, the professional development of academics is not going to necessarily work with a 'one size fits all' approach, which tends to be the approach of traditional providers. Lander (2005), for example, suggests that a balance in terms of time, place and mode must be achieved in what is offered to academics, with online options being included. The advantage of a CoP is that an academic can check in at whatever level best fits their ZPD, picking up maybe just one idea at a time that might work in their particular situation, trialling it with students, then receiving feedback on how things went from a supportive group, before trying again.

Valsiner (1987) expanded Vygotsky's theory of the ZPD and related it to teacher learning, seeing it as "a set of possibilities for development that are in the process of becoming realised as individuals negotiate their relationship with the learning environment and the people in it" (Goos and Geiger 2010, p. 501). In so doing, he developed two additional zones, the zone of free movement (ZFM) and the zone of promoted action (ZPA). The ZFM relates to the environment in which a teacher works, including the students and the expectations of the institution and the community. In HE, this would include the professional context of the university, with its strategic plan and curriculum and assessment requirements, the socio-economic background of the students, the availability of ICT resources and community expectations. Goos and Geiger's (2010) research with mathematics teachers showed that there were different degrees of flexibility in this area between veteran and early career teachers. The latter were more constrained by what they perceived as 'required' by their school or institution, limiting their ability to significantly change their pedagogy. In contrast, the more senior teachers, whilst still aware of institutional requirements, felt a greater degree of autonomy and the confidence to make changes in their environment. The ZPA relates to the "activities, objects or areas in the environment in respect of which the person's actions are promoted" (Goos and Geiger 2010, p. 501). In reality, this means how much support a teacher receives to

[5]In education, scaffolding refers to the process of breaking learning into manageable steps with the teacher modelling and then stepping back and offering support. Bruner was first to use the term in the 1960s.

engender and sustain change in their pedagogy. If there is too little support, any attempts at pedagogical change may falter. This is where a CoP can play a vital role, providing necessary social resources to encourage and challenge the person.

In the complex environment of a school or university, the ZFM and ZPA intersect with each other in a variety of ways, but ultimately the ZPA is dependent on the ZFM. In practice, a teacher can only promote what they are allowed to do (Blanton 2005).

This brings us to a key question of this chapter: What is a 'community of practice'?

1.3 What Is a Community of Practice?

Lave and Wenger (1991) first coined the term, 'Community of Practice', in their seminal text, *Situated Learning: Legitimate peripheral participation*. This focused on what they termed 'situated learning' and arose out of the work of a number of social theorists, including (Vygotsky's 1978) theories of social learning. It challenged the conventional, cognitive understanding of the time that learning is internalised knowledge transmitted from teacher to pupil: "We suggest that learning occurs through centripetal participation in the learning community of the ambient community" (Lave and Wenger 1991, p. 100). This understanding of learning as a "trajectory into a community", rather than a handing down of facts, became their central theme, the 'flagship', for the institute Wenger-Trayner set up and all that was to follow in their theorizing (Omivar 2014, p. 169).

Lave's anthropological background was influential in their choice of a range of historical and cultural examples of a particular type of learning environment—an apprenticeship—to begin to develop their theory. This included the apprenticeship of Yucatec midwives in an American Indian community, Vai and Gola tailors from West Africa, US naval Quartermasters, modern meat cutters and non-drinking alcoholics in Alcoholics Anonymous. Their analysis of these examples showed that, in contrast to school situations, direct transfer of information in a formalised way was generally not as important as the involvement in a community that facilitated learning. In at least three of the examples, there was a noticeable absence of the conventional master-apprentice relationship. Rather, newcomers in these communities were able to experience what they define as 'legitimate peripheral participation':

> Legitimate peripheral participation provides a way to speak about the relations between new comers and old-timers, and about activities, identities, artifacts and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. (Lave and Wenger 1991, p. 29)

With the Yucatec midwifes, for example, Lave and Wenger (1991) drew on the anthropological research of Jordan (1989), to show how apprenticeships happen as a part of everyday life. Mayan girls are gradually introduced to the art of midwifery

from an early age by observing their midwife mother or grandmother, hearing stories from their practice and gradually starting to take on increasingly significant roles in the practice as they get older. Similarly, the traditional Vai and Gola tailors, although experiencing a more formal introduction to their art than the new midwives, still moved from peripheral to full participation in their community, through a process of observation and increasingly significant and varied roles. There were no formal classes and, even though there was a distinct Master-apprentice relationship, where Master tailors sponsored new apprentices, the greater learning appears to occur between other old timers and their peers: "an apprentice's own master is too distant, an object of too much respect, to engage with awkward attempts at a new activity" (Lave and Wenger 1991, p. 29).

These traditional methods of learning are reflected in more contemporary examples such as the non-drinking alcoholic seeking membership in Alcoholics Anonymous, where the new members are not overtly lectured to or advised. Rather, older members act as sponsors and "with-hold advice and instruction appropriate to later stages; they hold back and wait until the newcomer becomes 'ready' to take the next step through increasing participation in the community" (Lave and Wenger 1991, p. 92). This is similar to many other contemporary organisations such as International Toastmasters or different sporting clubs that gradually induct members into their organisation through sponsorship, example and legitimate participation in increasingly complex roles.

Legitimate peripheral participation has particular importance in practice-based programs in HE institutions. Pre-service teachers and nurses, for example, need to move between distinct Communities of Practices of university and school or health service placement within the course of a year. Ensuring that they are supported to successfully negotiate the change in identity that this involves and the achievement of legitimate peripheral participation in each venue cannot be underestimated. This is developed in more detail in Wenger-Trayner's (2014) more recent writings on the landscape of practice that will be discussed later in this chapter.

1.4 Three Defining Features of Communities of Practice

Whilst Wenger and Lave's (1991) earlier work focused primarily on how a learner moves into a community, from legitimate peripheral participation to full membership, Wenger's later work in 1998, *Communities of Practice: Learning, Meaning and Identity*, gave significantly more prominence to the defining features of a CoP. Through a close study of a medical insurance claims processing office, Wenger outlined three key structural features of a community of practice: 'mutual engagement', 'joint enterprise' and 'shared repertoire'. However, his more recent writing and the Wenger-Trayner website now use the simpler terms of 'domain', 'community' and 'practice' which will be used here.

1.4.1 The Domain

The starting point of any CoP is its domain. It is what initially motivates people to gather, with a shared concern or interest—the knowledge base from which a group chooses to work. Within a HE setting, the domain might be an interest shared by teachers in facilitating learning in first year undergraduate courses or in integrating technology into lectures or tutorials across a faculty or range of faculties.

The domain is what keeps the CoP focused, and ensures its relevance over time. As a CoP develops, it may be refined and adjusted in response to the needs and interests of its members. This is essential for the sustainability of the CoP (Wenger 2012a, b). However, if interest in a domain starts to wane or it moves too far from its original conception that may well signal the end of the CoP.

A defining feature of a CoP is that membership is voluntary. This is what distinguishes a CoP from a faculty meeting or other forms of working party or group within an institution. Once mandatory requirements are introduced, the very heart of a CoP is challenged, although the exception to this is membership in online student CoPs, which have a necessary compulsory element to them.

A domain has the potential to draw together a great variety of participants who share their particular expertise. Although each group would have a facilitator, this is not necessarily the most senior member of the group—membership is essentially very egalitarian, from professors to sessional lecturers to tutors to librarians to administration staff. Over time, Wenger (1998) suggests, the members develop a level of competence through engaging with problems and trialling strategies. They become experts in their chosen domain.

1.4.2 The Community

If the domain is what establishes a CoP, it is undoubtedly the feature of community that sustains it, ensuring that members keep participating. Community is essentially about relationship and particular measures need to be set in place to ensure that this is fostered. As will be seen in the examples that follow, this might mean providing refreshments, allowing time for less formal interaction at the start or the end of proceedings, and affirming member successes on a regular basis. Wenger (1998) maintains, “Whatever it takes to make mutual engagement possible is an essential component of any practice” (p. 74).

Out of the passion that members feel for their shared domain comes their commitment to learn and share with each other. Their shared enterprise is the essence of what they are about, defined by members in the very act of doing what they do (Wenger 2006). Whilst a team or working party might work on a task, then disperse, a community continues over time, deepening its learning experience. Members grow in trust and mutual respect, with no one fearing ridicule for the questions they might ask or the experiences they might share.

Wenger (2002) stresses that, although participants need to connect on a regular basis, they don't necessarily have to meet every day or even every week for a CoP to flourish. Interaction between gatherings can be fostered by the use of available technologies and social media which allow for online discussions and reflection.

Virtual communities of practice (VCoPs) operate on the same principles of mutual trust and connection, although building these principles into a program is clearly more difficult in an online environment. A growing body of research has focused on 'social presence' as online learning has become ubiquitous. Bates (2014) refers to this as the degree to which individuals feel comfortable to engage with each socially. Whilst online participants obviously cannot be physically present to each other, research indicates that activities that stimulate a sense of community through the use of Web 2.0 technologies such as chat rooms and forums, and time taken at the start of the course to introduce participants is crucial for the success of programs (Bates 2014). These type of strategies will be illustrated in the third of the examples that appears later in this chapter.

Besides social presence issues, Bourhis et al. (2005) highlight problems such as low level IT skills of the academic or the students or the limited experiences of community of some participants. They see the solution lying in developing and supporting skilled leaders, who can build up trust and encourage participation in a variety of ways. As will be seen in one of the examples that follows, the leader of a VCoP needs to work as what (Wenger 2012a) calls a 'broker', bridging the gap between two very different communities, that of the university and the diverse world of online students.

1.4.3 Practice

As a CoP develops, sharing fellowship and histories of learning, the third defining feature, 'practice', begins to emerge. The investment of time in attending regular gatherings, and of self that comes from a genuine sharing of experiences and successes and failures inevitably leads to a CoP developing a particular, individual practice and collective identity. Participants develop "a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice" (Wenger 2012a, p. 2). Whereas the domain has drawn participants together, and community has sustained their fellowship and learning, it is practice that crystallizes these experiences and shared knowledge.

A strong practice allows a CoP to deal with challenges as they arise and can lead to the development of what Wenger (1998) calls, 'reification'. In effect, reification is the observable output from the community, what it shares with the wider community. Reification could include the creation and distribution of stories of individual and community successes to capture best practices, opportunities for sponsored projects or encouraging the publication of articles about the community

and its projects (Cambridge 2005). This is best illustrated in the first of the practical examples, where the success of one CoP led to the rise of many other similar CoPs and the extensive spread of the educational resources they created. Output from a community embodies its history and its perspectives on the world and begins to give it a profile in the wider academic community. Feedback from the wider community can also help a CoP to move forward and achieve great clarity about its purpose.

These three defining features of domain, community and practice are clearly linked and work together to create a dynamic learning community. A well-defined domain helps to generate the key issues and tasks that the community will steward. Within this shared context, as personal stories and experiences are shared, mutual trust and respect is generated. Further, through connecting people who might not otherwise interact with each other, new and stimulating learning can occur which may help participants to improve their classroom practice. More experienced participants have opportunities to mentor and coach younger members, whilst younger members can gain confidence in realising they are not the only ones grappling with particular problems.

Alternatively, if any one feature is out of balance, the overall functioning of the CoP can be threatened. If, for example, the domain is too broad or ill defined, the participants might not have enough in common to generate the engagement needed (community) or create meaningful practice. People may sign up but not contribute or honour their commitments. Further, if there is a clearly defined domain, but limited active involvement of participants or hierarchical leadership, the CoP could easily slip into being a traditional meeting. Wenger (2012a, b), although supporting the idea of leadership in a CoP, also points out the problem of too much dependence on a co-ordinator or central leader, which can make the group vulnerable if the person leaves, whilst also decreasing the diversity of perspectives in the group. Finally, there can problems if a group has a clearly defined domain and active community involvement but the practice is not in balance. Too much reification, where communities focus excessively on documentation, can damage the community's fellowship and genuine engagement with each other (Wenger 2012a, b). Alternatively, if there is not enough documentation and output, the community ultimately becoming stale and unappealing to participants.

Over time, a community creates its own history of learning and an experience of competence amongst its members. This competence includes:

1. Understanding what matters, what the enterprise of the community is and how it gives rise to a perspective on the world.
2. Being able (and allowed) to engage productively with others in the community.
3. Using appropriatedly the repertoire of resources that the community has accumulated through its history of learning (Wenger 2012a, b, p. 2).

1.5 Further Developments

Wenger's earlier writing and research essentially considered CoPs in terms of legitimate peripheral participation in a relatively unstructured social environment, where participants shared a field of practice. There was no explicit suggestion, at this stage, that there was either any formal leadership in the group, nor any talk of boundaries or how a CoP might relate to other CoPs in a participant's professional life. However, Wenger's later writings (1998, 2000, 2002, 2006, 2012a, b) and Wenger-Trayner's writings and website (2014),[6] move beyond this. In these later works, they suggested that there might be advantages to organisations where they find ways to harness this situated learning process in a semi-structured way, whilst still maintaining the essential features of domain, community and practice (McDonald 2012). Key terms such as identity, meaning, boundaries, brokers, and most recently, a landscape of practice, are introduced. These ideas have important implications for HE.

1.5.1 Identity and Competence

Although the idea of identity was implicit in Lave and Wenger's (1991) earliest seminal work, it was not until Wenger's publication of *Communities of Practice: Learning, Meaning and Identity* (1998) that he explicitly discussed the important role CoPs play in developing a person's identity. Wenger (1998) defines identity as a negotiated experience within a community, where "we define who who we are by the ways we experience ourselves through participation" (p. 145). Over time, this identity is strengthened and affirmed as a 'learning trajectory' taking us from where we have been to where we are now. As will be seen in some of the examples that follow, a person's professional identity is boosted through experiencing success in their own teaching and learning context as a result of their involvement in a CoP. This may lead participants to take on greater challenges, such as leadership roles, with increased confidence.

As participants further immerse themselves in a CoP, they build a level of competence through participating in shared decision-making and engaging creatively with problems as they arise (Wenger 1998). The construction of artifacts, such as resources for others to use, further testifies to this competence. The examples that follow show that as a CoP builds up the competence of its members, greater attention is received from higher authorities in the institution or in the public arena through publication and presentations.

There are different challenges to identity depending on the time a person has spent in a community. Newcomers are challenged to find a place in and forge a new identity within a new set of circumstances. There is a certain level of vulnerability

[6]This can be accessed at http://wenger-trayner.com/.

involved in this, as a person tries to find continuities between their past experiences elsewhere and their new experiences here. Old timers, on the other hand, may have a strong sense of identity within a particular CoP, but need to be challenged to be open to new possibilities that might arise: “they may want to invest themselves in the future, not so much to continue it, as to give it new wings” (Wenger 1998, p. 157).

1.5.2 Boundaries

An unavoidable but necessary consequence of a CoP as it develops over a period time, is that it develops a shared history and a particular way of doing things. A particular jargon or shared vocabulary can often develop and a focus on particular issues. This is what is known as a boundary of practice. It becomes very comfortable for those who belong to the CoP but not so easy for outsiders: “Participants form close relationships and develop idioscyncratic ways of engaging with one another, which outsiders cannot easily enter” (Wenger 1998, p. 113).

A boundary of practice is particularly necessary in VCoPs. Wenger et al. (2009) developed the concept of tech stewards in relation to online communities, whose role is to assist the VCoP to determine how broad its boundaries will be, how private and secure, and provide platforms to assist the community in determining their domain. The tech steward’s choice of technology allows a community to sustain mutual engagement, confident that the technology will not fail them. It allows them to learn from each other, overcoming the isolation that members might feel. Over time, tech stewards assist the community in developing a practice, providing a digital space for the sharing of stories and other forms of reification. They become, in effect, brokers, as Wenger et al. (2009) goes on to describe.

1.5.3 Brokers

Brokers work at the boundaries of communities. They “are able to make new connections, enable co-ordination and—if they are good brokers—open up new possibilities for meaning” (Wenger 1998, p. 109). This is a complex process and requires the particular skills of chosen members, who must be prepared to forgo a certain degree of comfort in reaching out beyond their own community. There are two important processes associated with brokering. The first is being able to establish a climate of trust, which is important in all CoPs, but particularly so when participants come from quite different backgrounds. The second is being able to draw together different types of information and provide a shared focus to guide discussion and align and interpret experiences (Wenger-Trayner 2014).

The concept of brokering is evident in practice-based courses, where there is a particular role for facilitators to assist students in developing distinct, dynamic identities in the contrasting communities they are involved in. This might include helping them to reflect on the different competencies they need in each community. As will be seen below, as life becomes more complex and a person needs to be involved with a range of communities, the role of a broker becomes increasingly important.

1.5.4 Landscapes of Practice

Wenger-Trayner's more recent thinking focuses on the varied social landscape of communities that many of us belong to. A recent publication, *Learning in Landscapes of Practice* (2014), explores this issue from the perspective of what it means to live and work across the boundaries of a range of different practices that make up a professional landscape. In the HE landscape, this could include involvement in communities related to teaching, research and supervision as well as those related to professional associations and online communities. In terms of younger staff particularly, this could mean moving between different places of employment five or move times during their working career. From the perspective of students in practice-based courses, such as education or the health sciences, a landscape of practice could relate to simulaneous involvement in two separate, though related, communities. Because each of these practices have their own histories, moving between each of them mean negotiating one's identity and the boundaries of each community (Wenger-Trayner 2014).

A person entering a new community is faced with the difficult task of negotiating which aspects of their identity that they have brought with them from previous communities will be acceptable in this new community. This can be a complex and potentially emotionally fraught experience. Feelings of apprehension and confusion can arise as people find themselves moving from a situation where they felt secure and saw themselves as competent, to a situation where they might experience a sense of failure or incompetence. Shifts in the emotional investment of the new members occurs, as they experience acceptance and gradual confirmation of the provisional self they have projected (Wenger-Trayner 2014).

As mentioned earlier, a key outcome of belonging to a CoP is developing a sense of competence related to the knowledge defined and negotiated within the community. Wenger-Trayner (2014) suggests that the comparable dimension in a landscape of practice is knowledgeability: a person's ability to relate to a multiplicity of practices across a landscape of practices.

The metaphor of a landscape ensures that we pay attention to boundaries, to our multimembership in different communities and to the challenges we face as our personal trajectories take us through multiple communities (Wenger-Trayner 2014). It is a concept that they will undoubtedly continue to feature in their writings, reflecting a more nuanced understanding of contemporary society.

1.6 Practical Examples

In order understand how the theory of CoPs is enacted, three practical examples will be described. The first considers a longstanding community that, although not called a CoP at the time, certainly demonstrates a number of the key features of this. The Project for Enhancing Effective Learning (PEEL) began more than 30 years ago in a working class high school in Victoria (Australia) and highlights the value of academic/school teacher interaction. The second example examines a CoP that began operating at the University of Southern Queensland (USQ) in 2006. The final example comes from Umeå University in northern Sweden and looks at how a VCoP has been used to overcome the isolation of online students.

1.6.1 The Project for Enhancing Effective Learning (PEEL)

The learning community that is known as PEEL was begun by Ian and Julie Mitchell in 1985 as a joint venture between a Victorian State High School and Monash University. It arose out of a concern about the prevalence of passive, unreflective, dependent student learning in schools, even in apparently successful lessons. Mitchell's own research on conceptual change in the teaching of science, which strengthened his views on constructivism[7] as an important means of understanding learning, and his contact with John Baird from Monash University, whose doctoral thesis, *Improving learning through enhanced metacognition* (Baird 1986), addressed similar issues, formed the context for the formation of this community. The group initially consisted of a small number of teachers who agreed to work with John and conduct action research with their classes. Interestingly, in line with the formation of a CoP, the community arose at a 'grass roots' level rather than as an institutional initiative. In addition, although Baird's research formed the background for this community, it was "a collaborative action research project where ownership of all aspects, including research design, was shared by all participants" (Mitchell and Mitchell 2007, p. 22).

Thus, the desire to improve student learning through the use of metacognition strategies became the domain for this somewhat unusual group of high school teachers and academics. It led to the group formulating four key goals that guided their work:

1. To foster effective, independent learning through training for enhanced metacognition.
2. To change teacher attitudes and behaviours to ones that promote such learning.

[7]Constructivism is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. Learners are the makers of meaning and knowledge. Constructivist teaching fosters critical thinking, and creates motivated and independent learners.

3. To investigate processes of teacher and student change as participants engage in action research.
4. To identify factors that influence successful implementation of a programme that aims to improve the quality of students' learning (Mitchell and Mitchell 2007, p. 20).

The small group of teachers, John Baird and several other academics from Monash University began meeting on a weekly basis during school hours, with the occasional addition of a full day's meeting. Their action research consisted of the teachers, with the support of the academics, trialling different meta-cognitive learning strategies in their classrooms and sharing their results within the community. Initially, the chosen classroom strategies proved to be more difficult to implement than anticipated. It is not easy to change teaching strategies that have been developed over many years. However, after 3 months of painful failure, the teachers began to experience success. They became "interdependent innovators, problematising and reflecting on their practice, sharing concerns, creating new teaching ideas, and sharing failures and successes" (Mitchell and Mitchell 2007, p. 22). This illustrates the importance of the community in a CoP. An individual might tend to give up after repeated failures in the classroom; however, with the support and suggestions of a community, the teachers gained the confidence to keep trying and eventually achieved success.

The academic staff were not directly involved in trialling teaching strategies, but took on the role of mentors in the community, providing advice and mirroring back to the teachers what they were doing. This is one of the key roles that (Wenger 2002) envisaged in a maturing community. As mentors, they were able to utilise their more developed skills of analysis and their greater familiarity with the research project, to help the teachers make sense of their experiences in the classroom and challenge them to look more deeply into them, whilst ensuring they stayed close to the research objectives.

It was also evident, in retrospect, that Mitchell took on the role of a broker in a landscape of practice, having the advantage of links to Monash University and John Baird, as well as being a teacher at the school. Teachers and academics, although sharing a common background in education, are seen as having different sort of skills and in 1986, teachers were sometimes suspicious and untrusting of academics. They were certainly unused to the process of active research and, indeed, of working in a sustained way with other teachers from different subject areas on broad learning issues. The CoP gave the teachers a new experience of their own professionalism and the possibilities that action research offers and they were pleasantly surprised by how valuable the group was for them. They appreciated how the academics listened to them, in ways that they had not previously experienced (Mitchell and Mitchell 2007).

Mitchell's research background also assisted him in helping the teachers align their teaching practice with the research objectives and understand the world from which the academics were coming. To a lesser extent, the teachers also needed to understand each others' worlds, as they each came from five different subject areas.

The ideas they developed, consequently, had to be generic, applicable to Science as well as Literature, to Physical Education as well Mathematics. Interestingly, Baird had conducted earlier research with a different school where the teachers involved had no opportunity to discuss their ideas or share their practice. There was significantly more progress made with this community where teachers met regularly and could “bounce ideas off each other” (Mitchell and Mitchell 2007, p. 22).

The regularity of these CoP meetings and the active role the teachers played in bringing back problems and challenges from their classroom created significant bonding in the group as well as developing their confidence and creativity:

> Collaborative action research helped the group develop synergy. They became innovators who fed off each other’s ideas and built up creative practice. (Mitchell and Mitchell 2007, p. 25)

Such bonding is indicative of what can occur in a CoP after a sustained period of engagement with a particular domain. It was so strong in this PEEL group, that at the end of the 2 year research period, the teachers and their students did not want to stop. The competence and professional identity that had developed in the members of the group led to their ideas spreading, so that, as well continuing as a group themselves, they inspired many other communities to begin in other schools in Australia (both primary and secondary) and then overseas in countries such as Denmark, Sweden, Great Britain, Canada, New Zealand, and, most recently, China. Their reification included written reflections on their experience of the CoP, combined into a database of over 1400 articles, publication of the generic teaching strategies and graphic organisers they had developed, and books that are well accepted in schools. A widely dispersed newsletter (now a journal, know as PEEL SEEDS) still circulates some 30 years later. Conference presentations, meetings and consultation with other schools also followed. There is now a very large PEEL community connected by a domain of wanting to improve student learning. This high quantity of reification and public acclaim reflects the quality of the practice that was developed in that initial group.

PEEL was a very successful CoP, one that was, in many ways, ahead of its time. It was influential in encouraging teachers to reflect on their learning and support each other, in an otherwise, individualistic profession. Its impact, not only on the teachers themselves, but on the students, who began to consider themselves co-reseachers, cannot be underestimated. Reflecting the identity that can be fostered in a CoP, a number of the initial group of teachers have gone on to do higher degrees, produced classroom text books and taken on senior positions in other schools. Loughran (1999) believes the success of PEEL was due to its process and output being intelligible, plausible and fruitful. It was intelligible in that it came from the work of ordinary teachers, in ordinary classrooms, with a genuine passion for enhancing students’ thinking skills. This is at the heart of what a CoP is about, bringing ordinary people together to create a shared history of learning. Secondly, it was plausible, in that the learning problems PEEL highlighted were ones shared by most other classrooms at that time, and, indeed, largely still today. Finally, it was fruitful “because, although it was demanding, examples of real gains in student

learning were apparent" (Loughran 1999, p. 284). This model of professional development continues to inform professional development research. Thanks to the dream, passion and commitment of this small blended group of educators, a whole generation of teachers and students have experienced a better way to learn and seen how a CoP could effectively operate between a university and a school.

1.6.2 The Faculty of Arts Community of Practice

At USQ, the Faculty of Arts Teaching and Learning CoP began operating in 2006 and operated for almost 6 years. Its domain consisted of the teachers of first year courses offered by the Faculty of Arts. Clearly, a CoP that went for such a length of time, whilst beginning as a group of loosely connected academics, over time created significant personal and professional connections. These can ultimately become very tight nodes of inter-personal relationships (Wenger 1998). The vision of the Arts CoP was to improve the first year experiences for students in the Faculty of Arts and to empower academics to become more student-focused in their teaching practice, at a time when the student community was becoming increasingly diverse. Communal engagement for the group came through the discussion of issues related to assessment, the Faculty Learning and Teaching plan, student diversity and the student-learning journey. Their practice took various forms over the years, such as supporting academics with resources and strategies, instigating professional development for members of the Faculty and trialling new strategies in their own program.[8]

The Arts CoP met monthly for a 2 h session. The group consisted of a faculty-based facilitator, a facilitator from the Learning and Teaching Support Unit, and between six and nine regular attendees (Lawrence 2008). Features of their time together included typical community building activities of food and fellowship and celebrations of success, domain knowledge such as a member or an invited speaker giving input, and time to share practice related to the domain topic. The importance of sharing food and fellowship cannot be downplayed. This is where the bonds of community that Wenger (1998) refers to are developed and strengthened.

Important practical considerations for the group when it was first set up included membership—who would join and how many would be an ideal size for the group; workload—how much time and work commitment could be expected from busy members of the group; how often and at what time of day to meet and how to communicate between meetings; where to meet and how to manage budgeting, such as for food and drinks at meetings. More formal ongoing considerations for the group included their identified outcomes and how they aligned with USQ priorities.

[8]More details about this and other CoPs currently operating at the University of Southern Queensland can be found at http://www.usq.edu.au/cops/communities.

A quote from one of the members of this CoP gives an insight into how it was valued at the USQ:

> The good thing was to meet in an informal setting with staff. It's good to hear other people's ideas; yes, and I also think getting to know what is happening in other disciplines is useful because we're quite isolated in our discipline and quite often we don't know what is going on in other disciplines. (Lawrence 2008, p. 8, Interview 2)

The CoP was successful in instigating a change of practice in many participants. This included participants incorporating more academic skills and literacies in their units, making substantive changes to their assessment strategies and taking steps to create a more welcoming environment for their students. There was also clearly particular value for newer lecturers and tutors in being part of a welcoming and informative group of this nature, accelerating their sense of belonging in the university.

Although, as with any CoP, there were areas for improvement, such as a need for greater focus and structure in gatherings and better opportunities to more widely disseminate their practice, this was a very successful community, which would appear to have had a significant effect within the faculty and, arguably, the university generally, in terms of modelling to other faculties what can be achieved. There are now over 22 CoPs across the campuses at USQ, covering a variety of learning and supervisory areas. The Vice Chancellor of USQ, Professor William Lovegrove, in an interview with Dr Jacquie McDonald, the instigator of the project, reflects:

> The way I see them is, it's really staff with a real interest in given areas coming together to share experiences, I guess, and develop knowledge help to drive their particular initiatives in areas that they're quite passionate about. That's how I understand them … and I think they're really useful because it's people who do the work, helping to drive the work rather than people who sit a level or two above trying to outline how it could be done. It's people really doing it. (McDonald 2011)

The fact that this CoP had a 'champion' in the senior echelons of the university is a significant plus for the group. A champion is identified as a senior manager who believes strongly that a CoP should be a primary mechanism for managing knowledge in an institution. Although they are not being personally involved in the group, they fully support development by providing guidance, funds, visibility and legitimacy in the wider community. There is a fine balance between maintaining the 'grassroots', non-hierarchical nature of a CoP, whilst at the same time harnessing the goodwill of the executive leadership of the institution. USQ appears to have achieved this balance.

1.6.3 Creating Online Community: A VCoP

The final example comes from Umeå University, a small, multi-campus university situated in a somewhat remote part of northern Sweden. This example differs from

the previous two in that it involves students working with a leader, as opposed to teachers working with other teachers, and it took placed in a fully online environment. Although participation in this VCoP was clearly not voluntary, other salient features of a VCoP were evident making it useful to consider.

Umeå University, as a consequence of its location, has a long history of, and much experience with distance education with an estimated 45 % of students choosing to study in this mode (Deutschmann 2014). The challenge for this VCoP was to create a collaborative environment for online learning, a form of learning which, as was mentioned earlier, has inherent problems. The New York Times, for example, reported that the attrition rate for online courses is 90 %, even in smaller courses, and that while solely online courses are fine for highly skilled and motivated students, struggling students need much more personal contact to succeed (New York Times 2013). Deutschmann (2014) concurs, seeing a close correlation between the feelings of isolation that students can feel and unfinished courses, whilst (Gaytan's 2013) research found that the second highest rated factor affecting student retention in online courses was the quality of faculty and student interaction.

Deutschmann (2014) suggests that the reason for this unsatisfactory situation is that many lecturers have not been trained in how to run online courses. As a consequence, they tend to use the same strategies they would use in traditional courses, seeing their main role as content providers, "merely offering ready-made educational material to be downloaded, after which the individual is left to pursue his or her studies in relative isolation" (p. 1). The other reason, he adds, is that in a normal classroom, social interaction between students can be generally taken for granted—but this factor is lacking in online courses unless it is intentionally built in. The role of the leader of a VCoP becomes one of providing a framework for community building so that the academic and social worlds of the student can be integrated.

Another reason for creating community in online courses, Deutschmann (2014) suggests, goes back to the principles of social learning discussed earlier. Students learn more effectively when they can co-create knowledge through a learning community:

> Online learning is thus being transformed form 'silent solitary acts to lively, meaning-making events rich in discussion' where learning takes place with others in a social context. (Deutschmann 2014, p. 2)

Deutschmann (2014), who, in effect, was the leader of this VCoP, describes how, over a period of 6 years, the online courses in English language that he was involved with, experimented with social learning. One example from this period will help to demonstrate how the features of a VCoP were evident. This involved an English Grammar class that Deutschmann chose to structure using Johnson's

(1990) Key Element Model[9] as a starting point, elements of which include interdependence, interaction, accountability, social skills and self-evaluation.

The first activities that Deutschmann describes were 'warm up' tasks that primarily aimed at creating contact in an informal, fun way, but with links to the particular academic subject. For example, the Grammar students were asked to write humorous, short anecdotes from their schools days and different teachers they'd had. These were then posted to an online discussion board for others to read and comment on. This is similar, metaphorically, to fellowship activities, such as sharing food and drink, described earlier, that help to break down barriers and build community.

As the course progressed, Deutschmann set activities that included both an individual element and a group element, the latter of which involved students reading and discussing each other's work. He aimed to create opportunities for students to collaborate, whilst at the same time maintaining individual accountability. Students had the chance to give and receive feedback in a constructive manner (Deutschmann 2014).

The task for the Grammar students was to use the definite, indefinitive or zero articles in a number of sentences. The examples were made deliberately ambiguous to encourage discussion. Once each student had completed the task individually, they posted into a small group (of 4) discussion page. Each small group filled up as students submitted their work, adding an element of accountability to the task (Deutschmann 2014). The students then critiqued each other's work. Again we can see evidence of a VCoP, as with the shared domain of the subject they are studying and the developing bonds of community in place, students can then move into deeper social learning in defending their ideas and critiquing those of others.

Other types of group tasks that Deutschmann (2014) describes include PowerPoint presentations produced by several students, problem-based tasks and discussion seminars, where different issues were raised using real time audio and Skype.

Before leaving this example, it is worth pointing out several other VCoP features that are evident in Deutschmann's programs generally. He tried, for example, to ensure in particular programs, that mentors were involved to assist students who

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[9]The Key Element Model aims produce the following elements in students:

- Positive interdependence: Students organize themselves by assuming roles which facilitate their collaboration.
- Promotive interaction: Students take responsibility for the group's learning by sharing knowledge as well as questioning and challenging each other.
- Individual accountability: Each student is held responsible for taking an active part in the group's activities, completing his/her own designated tasks, and helping other students in their learning.
- Social skills: Students use leadership skills, including making decisions, developing consensus, building trust, and managing conflicts.
- Self-evaluation: Students assess individual and collective participation to ensure productive collaboration.

were new to the university environment. Deutschmann also discussed in depth the role of the teacher as e-moderator, whose range of tasks included, not just providing information and evaluating assessment tasks but setting up communication channels, reassuring students and helping to build a community despite the challenge of distance and lack of physical presence. In many ways, the e-moderator is the one whose planning and approach will determine the success or failure of the online learning environment. This reflects (Wenger-Trayner's 2014) more recent thinking on landscapes of practice. In many ways, the teacher/e-moderator is a broker, working at the boundaries of the university community and the diverse communities from which the online students are drawn. Their role in establishing an atmosphere of trust and helping students engage with a new and unfamiliar environment is indispensable.

Although Deutschmann (2014) is hesitant to say that they have found all the answers to online learning, overall Umeå University would appear to offer a helpful perspective on ways of creating a VCoP. With the number of students in online courses continuing to grow, further research is needed into how this learning experience can be made even more engaging and effective for students.

1.7 Conclusion

In this chapter, CoPs have been presented as a way to provide an effective approach for dealing with the challenges facing higher education in the current environment of upheaval and change. They are recommended as a practical way of developing a scholarship of teaching and learning at a grassroots level, involving shared member concerns and interests from a wide range of participants. It is clearly very difficult as an individual to adapt to new circumstances and bring about change in an institution. But with the support of a CoP, in an environment where successes and failures are shared and new ideas workshopped, academics can develop their practice and be empowered to make lasting changes in their teaching. Over time, this involvement creates an "institutional memory regarding teaching and learning innovations" (McDonald and Star 2007, p. 117). In addition, CoPs can support younger academics and help them overcome the isolation that many other academics may feel in their professional lives. They are also, as we have seen, of particular value to online communities.

In other chapters, you will have the chance to read in more detail about a large range of other successful efforts to establish CoPs and VCops in a variety of HE settings. The challenge for those who wish to tap into this idea is to think broadly about the issues that confront your institution, seek out a champion who might support and encourage your initiative and recruit members who share an interest and concern in that domain. There are expanding avenues of support for those who decide to take up this challenge. No matter how small your beginning, know that you have begun on an exciting pathway to enhancing learning at your institution.

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