Peer Support for Technology-Enhanced Learning: developing a community of learners
Sarah Cousins & Ulrike Dunne, Faculty of Education and Sport, University of Bedfordshire

Introduction
The landscape of Higher Education is changing, and within it, the technologies that are to hand are new and rapidly evolving (Salmon, 2011). University lecturers are required to navigate new platforms and learn new systems in accordance with institutional practices. These new technical developments need to be swiftly applied to existing courses and aligned to meet the diverse needs of students and match individual pedagogical approaches. This study explores academics’ resistance to change. The authors have met academics who express a sense of being overwhelmed by the pace of change. Some colleagues report that they apply new technologies more because it is a top-down requirement than through any conviction, or belief in their worth.

This paper sets out the aims, stages and outcomes of a Peer Support for Technology-Enhanced Learning project. It suggests that the process of adapting to change is significantly eased with the support of other people. As Sharpe and Oliver (2007) suggest, there are no simple solutions to match the full complexity of the task in hand. They emphasise the importance of ‘peer processes’ (p.124) that allow people to talk through, share and test out new approaches with each other. This project grew out of peer support arrangements between two colleagues, and expanded to incorporate a group of self-identified colleagues ready to engage in peer support activities and move their practice forwards, together.

The authors put forward a pattern that may be applied by other departments and institutions for adapting to change. The spiral shape, they suggest, evokes a gentle, recursive motion, allows for off-piste explorations, has a force of its own, is cumulative, grows in strength, becomes more visible, is outward facing. Such a pattern, they propose, might support faculties to develop strategies for adapting to change in the digital age.

Digital beings
The authors of this piece did not grow up in a digital world, and have become accustomed to fast change in this respect throughout their adult lives. They are, as it were, programmed to move with change because they have learned that they must. They have experienced in their minds and bodies how digital technologies have affected their lives at every stage. New devices, programs and applications have altered the way they approach their work, connected them to wider professional communities, extended the modes through which they communicate with students and other academics, and helped them to articulate their evolving pedagogical approach at every stage. They have ‘incorporated’ (Bourdieu 1997, p.136) new technologies

bodily and operationally, in their working as well as their personal lives. They express themselves digitally. Digitality has entered their beings.

The main author of this paper is the coordinator for the unit of study in question. The second author is a highly experienced and motivated E-Learning developer as well as tutor for a proportion of the trainees on the unit. The first author, as a fairly new member of staff, sought the support of the second, and both entered into the Peer Support for Technology-Enhanced Learning scheme willingly.

**The context**

The project focuses on a blended-learning, multi-situated, Level 6 (final year undergraduate) unit on a Primary teacher training programme. Trainees on this unit meet their tutors face-to-face at two lectures, two seminars and two tutorials. They also meet their tutors in virtual space accessed from different geographical and professional positions, as trainee teachers at university and in schools across a wide geographical area in different local authority jurisdictions. Trainees are required to meet national professional standards (DfE 2012), be accountable for pupils’ learning in schools, reflect on their own learning and set their own next steps on the road to gaining employment as effective primary school teachers. The aim of this heavy reliance on digital tools, in line with research by Yeung et al. (2012), is to allow trainees to ‘develop competence and confidence to use [them] for teaching and learning’ (p.868). Accordingly, tutors offer opportunities for trainees to apply new technologies in context, and as part of their formal assessment.

Many of the over one hundred trainees on the unit live in the university area, either in shared, student accommodation or in their parental homes. Some trainees return to their parental homes during this unit, particularly if their placement schools are situated nearer to their homes. As recommended by the university, e-portfolios can be ‘particularly helpful in supporting learners studying away from the campus on placements or through work-based learning’ (University of Bedfordshire 2012, p.10). Accordingly, the unit summative assessment is presented as an e-portfolio.

**Project aims**

The ultimate aim of this project is to raise trainee achievement in the Initial Teacher Education partnership. Trainee teachers need to be able to make links between their learning in different contexts, their wider reading of theories and policy developments, and their experience in schools and settings. The focus of this Peer Support for Technology-Enhanced Learning project is to develop practice amongst staff that supports trainees to gain confidence as aspiring academics and professionals and become competent teachers and positive team members in diverse educational contexts.

The underlying aim of the project is to develop and build up mechanisms for support in times of rapid change. The project is rooted in a specific, living context and maintains a focus on people. The Centre for Learning Excellence at the university states that one of the key features of good practice in using e-portfolios is that not only students, but also tutors, should understand the advantages of them (University of Bedfordshire 2011). Accordingly, the project supports tutors to engage with Technology-Enhanced Learning approaches, not for the sake of it, but to enhance the learning experience. The desired outcome is that tutors become motivated to explore different digital possibilities within units of study, in order to experience, where applicable, the advantages of adopting them.

The anticipated outcome of the project was that a self-selected team of university-based and school-based professionals will become change agents, or ‘stewards’ (Whitworth et al. 2012, p.2 of 16) within the Initial Teacher Education partnership and share their motivation and skills in relation to Technology-Enhanced Learning. The expectation was that, through participating in a focused Peer Support scheme, they will feel empowered to encourage others to incorporate new technologies to enhance their practice. As Marshall (2010) proposes, universities need to respond to the demands of government and students to deliver a more flexible ... education’ (p.189).

The expectation was that through the structured peer support activities the researcher-participants would have the opportunity to grow together, learn from each other, track the impact of their new approaches to technology-enhanced learning, articulate their own learning, engage in their work more consciously, prepare an academic article for publication and gain a renewed sense of achievement. Looking to the future, the expectation was that the two peer support ‘stewards’ (Whitworth et al. 2012) would, as Whitworth proposes, ‘distribute the capacity to sustain the community’s digital habitat’ (p.2). In the concluding section, the researchers lay out their pattern for building a ‘change culture’ (Marshall 2010, p.188).

**Project principles**

The project rests on the belief that it is the people in an institution who effect change from the ground, slowly and with conviction. As Cappelli and Smithies (2009) suggest, ‘a ‘top-down’ vision rarely works and instead it is the community who realise the vision and begin to set the agenda’ (p.73). Accordingly, the focus of this project was on people rather than specific technologies or commercial packages. It created opportunities for colleagues to reflect on their pedagogical approaches to e-learning, consider the practice of others, articulate the relative impact of different strategies, and plan and implement improved ways forward.

The project team adhered to the university Peer Support of Teaching guidelines and developed its own, current and context-specific approach to the process. As Sharpe and Martin (2007) suggest, developments in learning and teaching are achieved ‘through use’ (p.126), when reflections are ‘linked to action’ (p.126), and when there is an acknowledgement of ‘the influence of culture,
community and context’ (p.126). Accordingly, this approach emerges within a specific demographic context, and is designed to meet the needs of the particular trainees and professionals while adhering to government directives and sector developments.

The authors of this piece made the transition to Technology-Enhanced Learning practices (or pedagogies) without resistance. They constructed their units of study to include different digital tools, e.g. asynchronous threaded discussions, and adapted their pre-existing pedagogical approaches to incorporate evolving technologies. This project rests on the belief that trainees need exposure to and opportunities for navigation within the online environment during the face-to-face sessions. Additionally, the view is that trainee engagement in online learning is directly related to tutor engagement, such that the more comfortable a tutor is in the online environment, the more comfortable a trainee is likely to be.

The authors also learned to adjust their expectations both of the trainees and of themselves, in terms of time spent in the online environment. They have learned not to expect weekly blog entries, for example, nor for them themselves to reasonably be able to offer individual feedback to every trainee, every week. Trainees and tutors need to establish their own appropriate and manageable patterns of work. With Edmunds (2012) there is an acknowledgement that only when online tools are perceived as useful in relation to enhancing learning, support with study and gaining employment will staff and students fully engage in digital learning opportunities. The emphasis of this project, therefore, was to support staff as they adopted new technologies to enhance their pedagogical repertoires.

The authors position themselves with Levy (2006) who developed a framework for e-learning that is context specific, suited to a particular cohort of students, at a particular university, on a specific, professional course. With Levy, the authors put forward ‘a working model’ (p.239) for peer support. The Peer Support for Technology-Enhanced Learning scheme in this study is, like Levy’s framework, ‘not a fixed blueprint’ (p.239) but ‘amenable to further testing, refinement and elaboration’ (p.239) to match new contexts.

At the heart of this piece is an acknowledgement of the complexity of digital approaches. This small-scale project does not offer techniques, suggest one approach or claim to hold the key to learning. As Oliver (2013) challenges, use of technology does not necessarily lead to learning. Digital learning platforms and packages such as e-portfolios, suggests Oliver, are perhaps no more than further ‘constructed’ (p.41) learning environments, similar to classrooms or laboratories, for trainees to decode, or ‘make sense of’ (p.41). With this caution in mind, the authors avoid any ‘oversimplified’ (p.41) claims.

Project landscape
Six years on from Levy’s research, the authors are still confronted with some trainee resistance to e-portfolios. A number of the trainees on the course in question report that they feel overwhelmed by the demands of being on placement and view e-portfolio tasks as additional activities, over and above their day to day work on placement. By 2013, an increasing amount of communication within and across groups of young people in England is effected asynchronously, in virtual spaces. Nevertheless, the challenge remains the same as in 2006. How can tutors support trainees to develop as confident and competent professionals through structured e-learning activities? How can they persuade them to use the tools they have set up or, in this case, the e-portfolio package they have purchased for them? How can they steer them to use the institutional Virtual Learning Environment (VLE)? How can they hook them into learning in these spaces? Yeung et al (2012) recommend that teacher training providers should create a ‘facilitative environment that can nurture teachers’ positive attitudes towards digital technology applications and cultivate their … competence’ (p.869). Creating such an environment, however, the authors experience, is not a straightforward matter.

One of the recurring issues appears to be one of subversion. University learning spaces, whether physical or virtual, are not trainee spaces. Trainees communicate with each other informally after the lecture, outside of the lecture hall, in common rooms or cafes, or through their preferred social media spaces. University-endorsed learning spaces are, by definition, almost always controlled, limited and delineated. As Smalley and Gannon-Leary (2011) suggest, since these spaces are ‘under institutional ownership’ (p.139), they are likely to be ‘negatively perceived’ (p.139).

Project methodology
This is an action research project. The authors developed a series of activities with the aim of improving their own understanding of effective technology-enhanced learning approaches. Trainees on the unit are required to record their progress towards meeting the Teachers’ Standards (DfE 2012) on a university-endorsed e-portfolio package (Pebble+). The two tutors wanted to develop the use of e-portfolios more widely on the course, so that trainees would develop their e-portfolios throughout their degree, refer to them in support of their applications for employment, and continue to build on them after employment, thereby sustaining the ‘community’s digital habitat’ (Smalley and Gannon-Leary 2011, p.139). Accordingly, they set out to improve their own practice through this action research project and disseminate research insights more widely within the team, faculty, institution and beyond at subsequent phases.

Peer support activities, in this context, involve cooperation and professional and discipline-specific conversations. As Denscombe (2007) points out, in action research projects, ‘practitioners are the crucial people in the research process’ (p.123). This project
adheres to Levy’s (2012) emphasis on ‘dialogic and cooperative engagement within a knowledge-building community of practice’ (p.226). It also accords with research by Colucci-Gray et al (2013) that emphasises the importance of action research in developing ‘shared values amongst colleagues’ (p.144) and as opportunities for ‘opening up dialogue’ (p.144). Compliant with institutional guidance on peer support, these planned, structured peer support activities constitute ‘a collaborative, supportive and developmental process’ (University of Bedfordshire, 2012, p.1) with an emphasis ‘on dialogue and reflection’ (p.1). It is people rather than specific technologies that are important in this context.

Conversations between the two colleagues took place online and face-to-face, as a pair and within larger groups, planned and impromptu, minuted and informal, disclosed and confidential. Within these diverse modes of communication, the researchers adhered to a structured, phased approach. The activities and reflections adopted a ‘systematic, critical and investigatory stance’ (Colucci-Gray et al 2013, p.144). As proposed by Denscombe (2007), such conscious and structured steps mark out the work as action research rather than simply reflective practice.

The action research also involved peer observations of face-to-face and online learning and teaching. The project developers observed each other lead sessions within the unit of study and share their online teaching with each other. They then met to offer feedback, discuss features of their approaches and suggest ways forward. These structured conversations served to build understanding about the issues at hand and arrive at sustainable ways forward. As Colucci-Gray et al (2013) suggest, knowledge can be ‘made with and in conversation with others’ (p.131).

The two researchers also developed a blog to reflect on developments, offer responses to entries and serve as an ongoing log of the process of peer support. The blog entries were short and either used to elicit a response from the other researcher or to quickly capture a fresh insight, not yet noted on the peer support forms or in the project paper. As the blog thread grew, it also came to represent the process element of action research.

**Project activities**
The Peer Support for Technology-Enhanced Learning project activities may be presented in four cyclical phases:

1. **The planning phase**
   In this planning phase the researchers agreed to participate in the action research. They both entered into discussions about technology-enhanced learning during planning meetings for a forthcoming unit of work and both agreed that this was an area that would benefit from an investigation. Both colleagues gave full consent to engage in the peer support process. They established a series of meetings and observations, of face-to-face and online teaching and learning, reviewed the impact of their approaches and agreed next steps. The project activities were finite, time-limited as they were by the conditions of the funding. The life of the activities, however, was more long lasting and unexpected. The project activities led to the establishment of peer support meetings, at which groups of academics gathered to discuss emerging projects, new ideas for projects, especially in relation to issues of quality, ongoing improvement and learning and teaching in Higher Education.

2. **The virtual and face-to-face observation and feedback phase**
   This phase involved planned observations of teaching sessions, with opportunities for follow-up discussions, and written feedback. It also involved, by agreement, ongoing scrutiny of teaching and learning activity on the e-portfolios. The researchers set up meetings to share key points, discuss some of the issues and make suggestions. This structured approach served to transform principles into actions and imposed a motion and momentum to the project. The researchers set up periodic face-to-face meetings to discuss their respective pedagogies and support each other to learn and develop their practice. As Lave and Wenger (1991) emphasise, learning takes place in social contexts. It is not a fixed, time-limited event or abstract notion, but ‘concerns the whole person acting in the world’ (p.49).

3. **The wider dissemination of practice phase**
The researcher-participants created opportunities for colleagues in the department to meet off-campus and on-campus, explore dilemmas in relation to technology-enhanced learning, find out about other developments within the department (including the development of this project) and identify ways forward. This is in line with research by Dempster et al (2003) who found that in this age of e-learning colleagues continue to value face-to-face opportunities for support. Dempster et al noted that lecturers frequently ‘prioritise contacts, events and discussion forums over access to materials and resources’ (p.107). This approach also accords with research by Cousins and Bissar (2013) who emphasise the importance of collegiality, and the value of establishing ‘dwelling posts’ (p.11), or opportunities for colleagues to pause together within faculty space or time in order to establish a common purpose. These ‘dwelling posts’, propose Cousins and Bissar, are ‘times and spaces where tutors may rest awhile and tell or listen to ... stories about adapting to change and ... adopting new technologies’ (p.11).

The researcher-participants planned an off-campus afternoon as such a collegial ‘dwelling post’. An invitation was sent to all members of staff within the department, including the Academic Liaison Librarians, school colleagues and the Head of Learning Technology for the university. It was important to identify this as the first in a series of voluntary rather than compulsory events. The researchers did not want staff to feel any coercion or perceive the event as a top-down opportunity for further directives or policy dissemination. Instead, the event served as an opportunity for staff to come forward as a first round of
participants in the wider dissemination of the Peer Support for Technology-Enhanced Learning scheme.

The event also provided an opportunity to disseminate early insights from the research to a wider group and elicit fresh suggestions from colleagues. The researchers sought the views of colleagues in a spirit of democracy, with ‘respect’ (Denscombe 2007, p.127) for their professional and practical expertise, and to seek ‘alternative perspectives’ (p.129).

An early opportunity for mid-point dissemination, such as this one, the authors suggest, affirms the links between action research and change that ‘can have a bearing on … current practice’ (Denscombe 2007, p.127). It also conforms to Denscombe’s recommendation that researchers should ‘be open about the research aspect of their practice’ (p.129). The agenda for the day was deliberately flexible in order to allow the organisers to respond to the participants. Fifteen colleagues took time out of their busy schedules to join in professional discussions, which started over lunch. It gave those that had not met before the chance to get to know each other and provided opportunities for others to ‘catch up’. The remainder of the afternoon involved a series of directed discussions, firstly about Technology-Enhanced Learning, and then about particular research interests.

Following the away day the first author invited attendees, including those who were unavailable to attend, and all department colleagues, to an inaugural ‘Peer Support Tea’, hosted in one of the public areas of the university campus. It was encouraging to note that colleagues who were unable to attend the away day seized the opportunity to join the discussions. The event allowed colleagues to come together within faculty space and time over tea and cakes to discuss their research and projects, actual and aspirational. Some of the topics discussed included issues of quality, the impact of inspection processes, and adherence to professional standards. One pair of researchers brought a paper they developed that arose from an idea first shared at the away day.

At the next meeting, it was agreed that all should bring un-finished projects to present. The two researchers shared their progress on this project in order to elicit a collegiate response and gain additional suggestions for development. As Villiamy and Webb (1992) suggest, ‘the change process is itself facilitated if findings and understandings are shared with colleagues in route throughout a study, rather than coming as a surprise at the end’ (p.227). These meetings, then, marked an important outcome of the research process. They served as mid-way, consultation points in the change process.

4. The reflective phase

In this phase, the researchers reflected on the activities of the action research and developed a visual pattern for adapting to change (see Figure 1). Writing was understood as an important part of the reflective process, as noted in an entry in the reflective blog (see Figure 2). The action of writing itself serves as a vehicle for learning and supported the development of ideas. Accordingly the authors conceived of their peer support endeavours as ‘writing into’ rather than ‘writing up’ the project (Pelias 2011). With Pelias, they experience the composition process as a learning opportunity, and a means of analysis, or making sense of the project phases, activities, reflections.
The pattern proposed is a spiral one. Adapting to change begins with a small, single step, travelled along by two, then more colleagues. Schein (1995), in his study of Kurt Lewin’s Change Theory, suggests that people experience anxiety in times of change, especially if they have to learn new practices or change their ways. According to Schein, people get anxious if their habitual practices lose currency, and frequently adopt ‘defensive avoidance of the disconfirming information’ (p.2). Accordingly, and as proposed by Bacal (2013), it is important to anticipate and plan strategies for managing change. In times of rapid change, the authors propose, colleagues may gain courage in pairs and step off the usual route, go on more circuitous ones, slowly, in a continuous movement, develop an expanding pattern that gains momentum, builds support and develops outwards as it travels forwards.

Project currency
Trainees engage with online learning to diverse extents along a continuum of engagement, from the minimum required to pass a unit to more broadly, as independent learners. Their social and business interactions are likely to be transacted in non-university virtual and physical spaces. Perhaps, the authors consider, tutors will always need to consciously steer their trainees towards pre-organised, self-motivated learning spaces. Accordingly, they suggest, Peer Support for Technology-Enhanced Learning is as important now as it was at the turn of the millennium, and will continue to be important as long as trainees persist in making a clear distinction between their social spaces and those used for more formal teaching purposes and finding spaces where they can communicate subversively, or away from the university panoptic gaze. Peer Support for Technology-Enhanced Learning scheme, propose the authors, is likely to continue to hold currency.

Project discussions
This project represents a conscious pedagogy by an emerging group of self-selected people interested in how they develop their work in Higher Education. In simple terms, this project involved two academics developing a conversation and then opening it up more widely within the faculty. These two researcher-participants articulated their pedagogies in relation to a blended learning unit, offered each other support, suggested targets for development and reflected on their learning.

It was important to develop this project in a conscious manner, with cyclical actions of planning, note-making, observing, giving and receiving feedback, engaging in conversations, developing practice, opening up the conversations more broadly, planning. As Belenky et al (1986) propose, ‘in order for reflection to occur, the oral and written form of language must pass back and forth between persons who both speak and listen or read and write – sharing, expanding, and reflecting on each other’s experiences’ (p.26). This conversation in different forms and with its back and forth motion is, we suggest, key to strengthening communities of learners. Such a community, suggest the project tutors, may come to understand the importance of developing a conscious pedagogy and building up a supportive culture in the face of ongoing change.

Importantly, in the context of this research, these group opportunities for support were acknowledged as relevant and significant. They were planned and valued. Peer Support Teas became a recognised activity in the faculty, with invitations going out to all colleagues. For this simple approach to change to be effective, the authors propose that there be a wider institutional commitment to it.

Project recommendations
Change is not easy to take on. It is not simply a question of doing something new or of applying a particular theory to practice. As Bennett and Oliver (2011) propose, we need to create opportunities ‘to develop theory, question it, even reject it if necessary’ (p.187) on
the road to deepening our understanding of the issues. In this context of facing the unknown, this small-scale action research project does not arrive at a to-do list. Instead, it simply recommends that other institutions might benefit from referring to such a spiral pattern for change, or creating their own, context-specific one to support the process.

The spiral pattern signals a slow, cumulative, energetic, process-driven approach to change, where the first step is simply to identify a willing colleague and establish a peer support scheme. The second step is to create regular opportunities to share ideas and establish learning and teaching projects. This approach is underpinned by the belief that talking and writing, in a backwards and forwards movement and with an open disposition, are positive features for adapting to change. The next step is to broaden out the ideas, go down tangential routes, always returning to the spiral change. As the spiral grows, so do the magnetic connections between the energy points, thereby holding the shape together. At repeated intervals it is crucial to write down findings, present work-in-progress to small groups of colleagues and at faculty, national and international conferences. At the next stage it is important to publish the findings. In these spirally ways, change emerges on the landscape through people and is sustained by people, till it establishes its own strength, energy, sway, motion in the faculty and beyond.

References


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