Open practice in support of wide-scale institutional e-Portfolio adoption

Gordon Joyes University of Nottingham, Kirstie Coolin University of Nottingham, Judith Wayte University of Nottingham

Introduction

This paper presents some aspects of the case study research of the University of Nottingham e-portfolio implementation strategy that was informed by the guidance provided within the JISC e-Portfolio Implementation Toolkit (JISC, 2012). Key features of the strategy are the carefully staged 'middle through' community of practice (CoP) approach and endorsement by senior management that uses further development of the open Toolkit itself to showcase the e-portfolio use that is developing across the 11 instances of practice within the pilot stage of the implementation process. This research also surveyed the student and tutor experience of using e-portfolios and this has revealed the diversity of engagement by students. In addition the nature of the implementation process has been researched through interviews with those leading these changes. This has revealed issues related to the identities of the practitioners who are initiating the use of e-portfolios within courses and of those who are supporting them. This data was not captured when the Toolkit was initially developed and this adds importantly to our understanding of the ways our practitioners are influencing practice locally and their potential role as change agents or champions to support wider engagement across the University – critical to the embedding stage of implementation.

Background

The e-Portfolio Implementation Toolkit study

The benefits surrounding e-Portfolio use are well documented (JISC, 2008). However implementation can present challenges particularly across whole programmes or institutions (Joyes, Gray, & Hartnell-Young, 2010). This is in part because of the varied contexts and purposes of use which means that any expertise in practice that is developed in one context is likely to only be relevant to those who are considering use in similar contexts and for similar purposes. In spite of this there are various instances of wide-scale institutional implementations of e-portfolios within Further and Higher Education in particular within those that were early adopters (for example, Queensland University of Technology, Australia; The University of Wolverhampton and Dumfries and Galloway College, UK; and Bowling Green State University and La Guardia Community College, North America). However institutional knowledge about implementation issues and strategies that support successful wide-scale cross institution implementation has remained unshared. It is for this reason that the Joint Information Systems Committee (JISC) funded from 2010 -11 the e-Portfolio Implementations (ePI) study that worked with key stakeholders involved in large-scale e-portfolio implementations within higher and further education to identify, document, analyse and understand the processes involved. The outcome was the open resource e-Portfolio Implementation Toolkit (JISC, 2012) which was developed using a pbworks wiki.

A multi-site case study research design (Bishop, 2010) was chosen to illuminate the 'why' and 'how' of implementation to understand similarities and differences (Stake, 1995) and to share this with a wider community. The unit of analysis (Yin, 2003) were the institutions themselves and in order to comprehend practice within the institution exemplars of e-portfolio practice were collected as well as the implementation journeys. The approach needed to be participatory (Reilly, 2010) as the toolkit to be developed needed to have at its centre the institutional stories of implementation rather than an outsider researcher version of these and also the research process itself was intended to be of benefit to those involved by providing an opportunity for participants to share, discuss and reflect upon practice with each other. Institutions were invited to participate through established JISC and HE and FE networks, mailing lists and direct contact. Participation was dependent upon the meeting of selection criteria, e.g., that e-portfolio use was established (not just in the planning stage), there was

evidence of a breadth of successful use, there was a willingness to share practice and documentation as well as participate in developing a case study in an online wiki that would be made public at the end of the study. Informed consent was gained and BERA (2004) ethical guidelines were followed within the study.

Eighteen participants contributed: 11 from the UK, 4 from Australia and 3 from New Zealand. The four Australian cases were chosen as representative of practice and the three New Zealand cases were selected by the New Zealand Ministry of Education who conducted a parallel study – as a result they included a 14–18 community college. Templates were developed for three wiki pages for each case study in collaboration with three pilot sites: participants were asked to complete an overview page, an 'exemplars of use' page and an implementation journey page. Small group Skype conferences, emails and phone calls were used to discuss the developing cases within the wiki to explore similarities and differences in implementation practice and journeys. From this process emerged three broad themes, i.e., drivers, tools and implementation processes, which proved useful in understanding the implementations in the case studies and for structuring the guidance the study has developed within the Toolkit in the form of answers to questions about e-portfolio implementation. These questions were:

- Why should we use e-portfolios now? (the drivers theme)
- How do we decide upon which e-portfolio tool to use? (the tools theme)
- What does good implementation look like? (the implementation process theme)

The case study analysis within this final theme led to the description of an implementation model.

The implementation model

The study captured 14 higher and further education case studies where there was evidence of wide-scale adoption. Three broad approaches were found in relation to the initiation of wide-scale e-portfolio implementation: top-down (N=7), middle-out (N=6) , and bottom-up (N=1). According to Cummings et al (2005) the middle-out approach is 'one led by middle managers, responding to demands from innovative members of the teaching staff but operating in the absence of strong and consistent leadership from either the senior executive or the academic policy-making body.'

While each implementation was a response to the particular context within that institution, all implementations followed similar stages in an experiential journey that typically took 3 or more years. The e-portfolio implementation model shown in figure 1 illustrates the process and the key implementation principles that have been found that need to be considered by practitioners and managers across each implementation stage (Joyes, Gray, & Hartnell-Young, 2010).
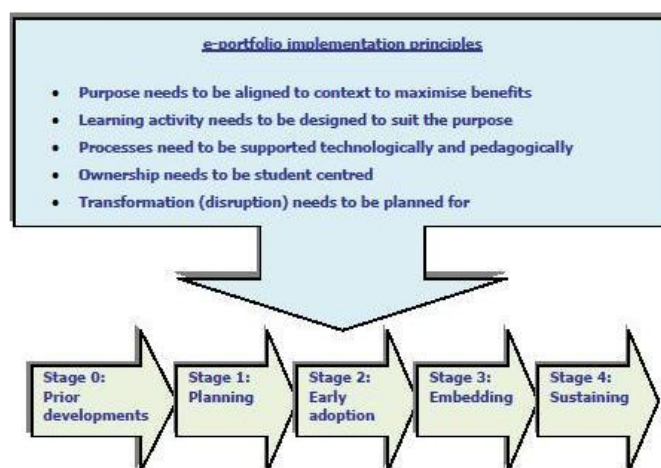

Figure 1: The e-portfolio implementation model - the key implementation principles applied across the five stages

This process was typically supported by both internal and external funding and demonstrated the importance of comprehensive stakeholder engagement from the start that includes senior management endorsement and is illustrative of the need to consider strategy for subsequent stages at the planning

stage – strategies for embedding and sustaining do not suddenly appear at stages 3 and 4. Organisational change process models in the literature, for example the ones covering change in schools by Miles et al (1987) and Fullan (1991) cited in Hopkins et al (2001), typically show overlapping phases of the change process from initiation, through implementation to institutionalisation for this reason. However as Hopkins et al (2001) point out it is important to consider individual phases in the change process as the strategies involved are different. It is for this reason that the project based terminology of planning, early adoption, embedding and sustaining, for example see Gunn (2010), JISC (2011), Young (2009), is adopted within the Toolkit.

Early adoption through pilot projects provides evidence of benefits and key information that needs to be acted upon if wide-scale use beyond the pilots is going to be successful. Embedding needs to address scalability issues, for example, technical issues such as single sign on, integration with the institutional VLE and student management systems, provision of centralised technical support and support for practitioners and students in the next waves of adoption through sharing effective practice. Sustaining involves further refinement to ensure benefits are available to meet the needs of users for as long as this is useful. In one case study this meant a university wide re-organisation of the curriculum, in others there was a requirement that course review and specifications needed to address the ways e-portfolios were to be integrated to support learning (JISC, 2012).

Method

The Toolkit was the outcome of a retrospective study and the implementation model is a generalised representation of the process that emerged from the research. The question remained as to how useful this model and the Toolkit would be for an institution beginning their own implementation journey. For example, the model alerts those involved in wide-scale implementation to the need to gain endorsement of senior managers, the importance of a central unit and a manager of the process, and of using pilots and champions and engaging with a wider range of stakeholders from the start (JISC, 2012). How would awareness of these issues benefit implementation? What would be the challenges faced? What might be learned from a study of implementation in progress? Fortuitously the University of Nottingham in 2011-12 was moving to the planning stage of what was to grow into University wide-scale implementation strategy. It is some of the findings from this ongoing single case study that are outlined in the rest of this paper.

The methodology adopted was a participatory case study research design in which the unit of analysis (Yin, 2003) was the implementation project at the University of Nottingham consisting of nested cases, i.e., the individual stories of e-portfolio implementation . A key informant was also to be the Head of the Centre for International ePortfolio Development (CIePD) that managed the implementation process. A private area of the public e-Portfolio Implementation Toolkit wiki (that could only be seen and edited by the project participants) was used to document the implementation and develop the cases and this was sourced from individual interviews with the practitioner champions and project artefacts and documents, such as the planning documents, the project blog, CoP meetings, examples of e-portfolio use, examples of support materials etc.

Results

The University of Nottingham, UK is a research led university with a large Medical School and campuses in Malaysia and China. It has 42 schools within 5 faculties with over 43,000 students across its campuses. There are nine professional services one of which Libraries, Research and Learning Resources (LRLR, since 2013, prior to that, a part of Information Services) provides support for e-learning through its Learning Technologies Section (LTS). However expertise in e-portfolio use resided with the CIePD, a distinct Centre within LRLR that has managed the e-portfolio implementation. The initiation of the implementation process was middle-out and emergent (Cummings et al, 2005) led by the CIePD through their own interests in e-portfolio use stemming from HEFCE-funded work and in response to increasing interest in use within the University. The CIePD engaged with senior managers through the LRLR Director via the University Teaching and Learning Coordinating Group.

Stage 0: Prior developments

The ways implementation was influenced by the prior context was evidenced within all the case studies within the toolkit and Table 1 outlines the prior developments and the consequences at the University of Nottingham.

Table 1: Prior developments within the University of Nottingham and consequences

Prior developments	Consequences
Technical developments • Moodle VLE was gradually introduced by the LTS in 2011-12 for full uptake 2012-13. • The Centre for International E-Portfolio Development (CIePD) had Mahara in use for externally funded projects. • Early pilots using iWebfolio, PebblePad, WebCT and testing of other tools by Integrative Learning CETL and CIePD.	• The CIePD had the expertise to install and support pilot e-portfolio use 2012-13. • The LTS was positioned to support use longer term.
University strategy • University Grand Challenges on effective tutorial practice and enhancing assessment/feedback. • Employability. • The Learning Technology Section have engagement with the open source and open educational resources community through UNoW and Xerte.	• e-portfolios supported the Grand Challenges. • Teaching and Learning Board in favour of supporting an open source e-portfolio.
Institutional capability to lead change • The CIePD was centrally involved in the Integrative Learning CETL based at the University of Nottingham. • The CIePD led JISC/HEFCE-funded national ePortfolio-related projects from 2004. The CIePD Director and an Associate Professor from Education led the development of the e-Portfolio Implementation Toolkit for JISC 2010-12. • A researcher and an Associate Professor from Education were appointed JISC e-portfolio consultants 2008-10. • Biosciences had been involved in the JISC funded project SAMSON with the CIePD started to pilot Mahara for placements.	• There was considerable expertise within the CIePD to make the business case to the University for centralised support. • There was considerable expertise within the University to lead wide-scale e-portfolio implementation.
Legacy • ePARs (electronic Personal and Academic Records) to support personal tutorials in use in some schools. • Established paper based Portfolio use in Nursing, Medicine, Pharmacy, Education etc. • Use of Mahara was on three separate servers/different versions	• Current use indicated that there might be the need for more than one e-portfolio tool to be used. • Negative experiences with ePARs might discourage any wide-scale uptake. • Mahara if used would need a central installation and central support.
Bottom-up driven interest in use • For vocational courses to support placements replacing paper-based systems and as part of the move to support the development of employability skills for undergraduates on academic courses. • In relation to student-centred and reflective pedagogical approaches. • PebblePad established within the VET School and Nursing planning to use this in 2012-13. • Localised use of Mahara on a few courses and interest in use of an e-portfolio across a number of schools.	• There was a readiness for e-portfolios use in a range of contexts and schools were exploring tools and inquiring if there would be central University support from within Information Services .

The Centre for International E-Portfolio Development (CIePD), primarily funded through external projects, but integrated within Information Services from 2011 (and LRLR from 2013) were well placed to manage the implementation process due to their experience of leading similar projects and their established links within and outside the University. The Learning Technologies Section were fully occupied in supporting the roll out of the Moodle VLE and had the capability to support open

source and open educational resource developments, hence any pilot implementation could be led by the CIePD and potentially scaled up and integrated fully with the new VLE Moodle and other information systems.

Stage 1: Planning

The following were the key actions undertaken during this stage:
- A Business Case was developed by the CIePD that was presented to the senior managers in the Teaching and Learning Coordinating Group which led to phase 1 internal funding being secured January 2012. The phase 1 project was incorporated into the Information Services Connected Campus Project Management programme to support Excellence in Education.
- Active recruiting of pilots including hosting a CIePD stand at Assessment in a Digital Age conference, University of Nottingham, April 2012 (although pilots were not hard to recruit as interest was largely forthcoming from CIePD contacts and 'word of mouth').
- Technical integration occurred during the summer break 2012. There were 3 separate instances of Mahara to combine. Secured support from University of London Computing Centre to work with CIePD to migrate these.
- The CIePD liaised with IT Systems to set up server infrastructure, help desk integration, Supportworks access and procedure, decision tree and 'on-call' status.
- Ongoing training of key staff, including learning technologists and staff on pilot.
- The CIePD assisted the group of new pilots with set-up ready for the new academic year. Degree of involvement varied according to wishes of practitioner. This involved support with training materials and video, face to face student sessions, technical and user support.

The Business Case written by the CIePD set out the argument for a centrally supported implementation of Mahara (PebblePad could continue to be used if supported by individual Schools) and this secured initial pilot project finance for engagement of the CIePD and an academic researcher within the Learning Sciences Research Institute, School of Education – this academic had led the development of the e-Portfolio Implementation Toolkit for JISC.

Stage 2: Early adoption Sept 2012 – Aug 2013

The following were the key actions undertaken during this stage:
- A continuation Business Case and plan was developed by the CIePD that was presented to the senior managers leading to phase 2 internal funding to support the CIePD in working with the pilot projects and for conference dissemination /networking - February 2013
- Ongoing training of key staff, including learning technologies and staff on pilots.
- Pilots flyer developed and distributed.
- Implementation of pilot projects - continue to set-up and train pilot groups.
- University of Nottingham case studies began to be developed in the Toolkit November 2012.
- CoP workshops held December 2012 and June 2013.
- Interviews with pilot project staff to review progress, identify needs and support roles as change agents/champions. Toolkit case studies developed.
- Capturing lessons learned through a user survey.
- Closer working with core Learning Technologies team to exchange specialist knowledge.
- Key stakeholders continued to be targeted.

The project started with 15 potential pilots that showed initial interest, 4 of these did not start and 1 did not complete and a further pilot joined late. The 11 pilot projects that completed or are ongoing are outlined in Table 2.

Table 2: The pilot projects and the personnel involved

Context	Type of Use and Purpose	Personnel involved (Bold = the local champion, Italics = some initial reluctance)
English Studies: **Contemporary Performance module.** An 11 week year 3 undergraduate optional module in which students have 10 weekly visits to employers combined with some visits by employers to the University. Assessment is by portfolio and essay developed from the portfolio of digital reflections on 4 of the visits. Students can choose to use an e-portfolio and can receive feedback on work in progress. 8 out of 16 students used an e-portfolio in the pilot.	**Intra course - localised use** Feedback and Assessment	**The English Studies Co-ordinator of Teaching and Learning (Associate Professor)** A collaborating academic. An administrator - who organised the visits and supported the e-portfolio use
Centre for English Language Education (CELE). CELE runs 4 terms of pre-session English for Academic Purposes courses taking students from level 1 to 4. Students are a mixture of undergraduates and postgraduates. By the end of the pilot all 400+ students will be using an e-portfolio. The e-portfolio enables the sharing of coursework and PDP with academic and language tutors within separate weekly face-to-face tutorials that can monitor progress, support Personal Development Planning (PDP) and improve feedback.	**Course wide use** PDP, Feedback, Assessment	**An academic (designated by a Centre manager to lead the introduction of Mahara)** *A team of academic and language tutors*
Medical and Health Sciences. This replaces a paper based system used to support the portfolio appraisal meeting that is a pastoral element of the course occurring in the first two and half years. The student meets their tutor twice a semester to present evidence of their progress that prompts a professional conversation. The pilot involves 20 of the 150 students and 10 of the 70 tutors.	**Course wide use** Feedback and Assessment	**The academic lead on the course (Professor)** *10 tutors* Administrator
Education- Masters in Learning, Technology and Education. There is an online and a face to face version of this course which is for professionals involved with learning technologies. Students engage with a range of activities including PDP, keeping a journal, preparing individual assessed assignments, collaborative activities online as well as in face-to-face sessions. As part of the course they are expected to evaluate the e-portfolio tool.	**Course wide use** PDP, Feedback, Assessment, Collaboration	**The two academics leading the course (Professor and Associate Professor)**
Graduate School - Biotechnology and Biological Sciences Research Council (BBSRC) Doctoral Training Centre. To support induction and progression through a 4 year doctoral programme for 33 students. Providing a central place for students to assess their competences, receive feedback and communicate with peers and supervisors. Blog/ reflective journal entries are shared with the DTC administrators and their supervisor from the start of the course.	**Course wide use** PDP, Feedback, Assessment	**The DTC administrator** The administrator's line manager *The research supervisors*
Pharmacy undergraduate course at the University of Nottingham in the UK and Malaysia. An e-portfolio has replaced a paper based portfolio as a professional accreditation requirement. 160 Nottingham and up to 80 Malaysia students were involved together with 10 tutors.	**Course wide use** PDP, Feedback, Assessment	**Clinical Course Director (Associate Professor)** Teaching and Learning co-ordinator 40 tutors
The University of Nottingham Advantage Award- Public Engagement, Volunteering and Citizenship. The Advantage Award provides extra-curriculur modules designed to promote employability. This particular module ran four sessions with guest expert speakers.	**Extra-curricular** Reflection Assessment Community	Course Lead from the Head of Community Partnerships ePortfolio/eLearning support from Head of

Students used the e-portfolio to reflect on each session and were assessed on a 1000 word article and presentation drawn from their reflections and research interests. They could choose whether to share their reflections (8 out of 18 shared with the whole group).		CIePD
Embedding Employability in English : English Studies. This pilot was part of a Higher Education Academy (HEA) funded Embedding Employability in English project to run extra-curricular placements for undergraduates in the Autumn Semester that utilised the benefits of studying an English degree. 30 year 3 students were accepted out of 60 applicants for the pilot module. 25% chose to use an e-portfolio for their assessment.	**Extra-curricular use** Developing and evidencing employability skills, Feedback, Assessment	**The English Studies Co-ordinator of Teaching and Learning (Associate Professor)** An administrator who supported the organisation of the placements
Biosciences - Using e-portfolios to support industrial placements on Undergraduate and Masters programmes. 100 + students (mainly non-UK) complete a two month placement and use the e-portfolio to support the development of employability skills through an initial audit and reflection on their experience. Feedback is provided mainly by the placement administrator. The e-portfolio is shared with the academic tutor and the work placement mentor as part of a learning conversation/assessment.	**Extra-curricular use** Developing and evidencing employability skills, Feedback, Assessment	**The placement administrator** The academic tutors The work placement mentors
Centre for Social Work : University Teaching Development Grant funded project. This replaces a paper based placement learning process to develop and evidence professional capabilities and will involve the 80 students per year in the 3 year BA, 2 year BA and 2 year MA in Social Work. Each student is assigned an academic tutor and practice educator. The students negotiate their placement activities with the practice educator at the start and key documents / reports are completed during and at end of placement and submitted to the placement administrator.	**Extra-curricular use** PDP, Feedback, Assessment	**Director of the Centre (Professor) Senior Tutor Placement administrator** Practice educators
Professional Development programme for staff. Mahara was offered for use by a cohort of 8 Information Services administrative staff levels 1 to 3 (3 Library/library support and 5 IT staff). Each participant had a mentor with whom they engaged in learning conversations during the programme.	**Extra-curricular use** PDP, Feedback	**Senior Librarian** Volunteer Mentors (Level 4 and above)

Key issues and implications

The e-portfolio purposes and implications for sharing practice

There are evident commonalities in the purposes within the 11 pilots, see table 2, with Personal Development Planning being a part of many of the pilots as is some form of assessment. 4 of the pilots, i.e., the Graduate School, Pharmacy, Medicine and Social Work, are concerned with gathering evidence related to competences and 4 others, i.e., the 2 English Studies courses, the Advantage Award module and Biosciences are involved with developing and evidencing employability skills through placements. However the contexts are quite different as are the planned activities and the ways these are organised. This provides one indication of why implementation can be problematic as even similar practice elsewhere within the University or another institution is likely to need considerable adaptation as the same courses offered within different institutions differ greatly. The Toolkit cases therefore can only be a starting point in providing ideas of approaches used. This points out the importance of the central unit, in this case the CIePD, in supporting understanding of how best to implement e-portfolios in each context and of the CoP in providing a forum for exploring issues and supporting problem solving. However the Mahara processes used that underpin the many different activities are identical, for example, creating a profile, a page, a journal etc. and a set of

generic resources are now being developed for the embedding stage of the implementation process. These will be shared within the e-Portfolio Implementation Toolkit.

Interestingly provision of feedback is common to all pilots and many involve learning or professional conversations as part of this process. This is something that seems little researched within the e-portfolio context and we would suggest this would be a fruitful new area to explore, for example, what are effective approaches to the learning conversation? What are the purposes of the learning conversation, is it to simply enhance performance or is it intended to be developmental (Brockbank and McGill, 2012)? Is the process a mentoring or coaching one? Who owns this process?

Student engagement

A survey of students and practitioner use was carried out mid-way through the pilot (116 responses) and this revealed that although students were engaging with the e-portfolio they were tending to only carry out the activities expected on their courses even though there was potential for them to use the e-portfolio in other ways. This also revealed a significant minority of students (19%) who perceived themselves as enthusiastic users and engaging well with the activities. This was supported by the interviews with some of the practitioners who could point to exemplary use and this has been captured within the case studies within the Toolkit. In fact on one course students created screencasts to share with their peers how they were using the e-portfolio, on another, students were encourage to share exemplar pages with their peers. There was a tendency for practitioners to be anxious about this lack of initial enthusiastic engagement, but there was evidence in this and the original Toolkit study that use becomes more valued over time by students where e-portfolio activities were well designed, effective pedagogic support was provided, regular use was an expectation and importantly exemplars of effective engagement were shared. Students themselves can champion e-portfolio use and their voice is more authentic than that of an administrator, academic or tutor. In effect the real value of e-portfolio use for learning can only be understood by someone who has used one effectively over a reasonable period of time. Showcase exemplars of e-portfolio use, video narratives explaining the benefits, screencasts of students explaining how to use the e-portfolio, buddying experienced users with new or less experienced ones are strategies that are being considered by practitioners to support engagement.

Stakeholder engagement:

The intention was to reflect the wide-ranging uses of e-portfolio and to cover key strategic aspects in the pilots. These were: tutoring; Advantage Award; assessment and feedback; career-related / employability; professional development. This range of use touches on many areas of the University and the team (including practitioner champions) has met with or presented to representatives from the Careers and Employability Service, Alumni Relations, Senior Tutor Network, Student Operations, Community Partnerships, Widening Participation, Students Union, VLE Board, Information Services as well as participating in University teaching and learning events. This is supported by articles published on the University's Talking of Teaching and Learning Technologies blogs. On-going dissemination of e-portfolio use is a key factor in maintaining the momentum of the implementation and also in ensuring that the wide-ranging potential benefits of institutional e-portfolio use are communicated.

The role of champions

The CIePD team had the critical role of the 'management' champion for the e-portfolio implementation (Cummings, 2005). The local practitioner champions were a diverse group of practitioners, i.e., administrators, academics and tutors, and in some case whole teams became the champions. In spite of their role successful champions had responsibility for a course or aspects of this, tended to have an interest in the use of technologies to support learning and in some instances held or had held a leadership role in teaching and learning in their schools. Two of the champions had secured funding for their pilots (one internally and one externally). It is important to note that the local practitioner champions within each pilot could make progress with the implementation incrementally because e-portfolio practice was emergent and perceived as first order or incremental

(Ackerman, 1997) , e.g., a move from paper based to digital or to more authentic assessment, rather than second order or transformational change. However all pilots involved some changes in practice for all participants and the implementation needed carefully managing at the local level, this involved working with both students and staff some of whom became 'new champions'. For example, the Biosciences champion, an administrator, found that approaching staff individually to 'sell the benefits' as part of a discussion of their role in providing feedback in Mahara was successful in gaining their engagement and in affecting their perceptions of the value of Mahara, i.e., experience of actual use revealed the efficiency gains as well as learning benefits. In fact a move to using Mahara to support the tutorial system across the school has started as a consequence of this positive reaction to Mahara by key academics who now understand the wider potential of the tool.

Conclusions

The intention in applying the implementation model and guidance within the e-Portfolio Implementation Toolkit was to try to ensure the implementation process was effective but also to research the implementation in process. Interestingly being informed by the outcomes of a JISC project added credibility for senior managers to the implementation strategy as presented in the Business Case by the CIePD. The Toolkit guidance points to the key issues for effective implementation and this study has provided some further insights into the complexities within the early adoption stage in which pilot use is supported and during which the capacity to embed e-portfolio use more widely needs to be developed. These are now discussed.

Engagement with a wide range of stakeholders is an ongoing process and opportunities for conversation with Careers, Alumni, Student Union, senior managers, can occur sometimes in quite unplanned for ways. For example, Careers became more engaged through approaches made by one of our practitioner champions in relation to their development of e-portfolios for placements in industry. Senior managers' awareness of the e-portfolio pilots has been raised in a variety of ways some directly through approval of the two business cases to ensure implementation was suitably resourced, but others less directly, for example, through the Talking of Teaching blog which has three examples of e-portfolio use authored by our practitioner champions , an application for internal Teaching and Learning funding by a School, interest shown by Heads of School and awareness of conference presentations by some of the champions and the CIePD - two of these conferences HEA and ALT-C were held at the University of Nottingham where senior and middle managers were present. The University of Nottingham case study of implementation in the Toolkit made public in Sept 2013 serves as another reminder to Senior Managers of the important work they have endorsed.

The early adoption process has revealed the importance of our practitioner champions and the need to support them in developing their understanding of themselves as not only change agents locally, but of the value they have in supporting change more widely across the University. There are two key issues here, one relates to the 'status' of our practitioner champions in a research led University many of whom are administrators or academics/tutors who have a focus on Teaching and Learning. The CoP events have been central to raising awareness of the valuable contribution to practice each champion has made within the University and how this can be shared. These have been lively and discursive events: a chance to exchange practice, showcase exemplar student work and to work through challenges. The CoP has been supported by a group within the Mahara e-portolio containing a growing bank of training resources and links to e-portfolio work and research outside of the University. The contributions to the University of Nottingham case study in the Toolkit have also served to raise perceptions of the importance of sharing their developing practice and of their value to the wider community. Notably one of our champions is a co-author of this paper and at least one other has presented at a national conference. Supporting applications for our Dearing Award for excellence in teaching and learning by our champions is a planned future action. The second issue relates to the multiple purposes and contexts for use that e-portfolios have. An e-portfolio CoP though essential for the pilot projects to support the champions is not going to be useful during the embedding stage to support the chosen purposes for e-portfolio use by the wider community. It seems professional development events need to focus on key teaching and learning issues such as effective practice in assessment, feedback, tutorial support, supporting placements etc. Our e-portfolio champions can then

share their experiences alongside others in contexts where the teaching and learning purpose is the focus, not the e-portfolio tool. This is the approach being planned for the embedding stage at the University of Nottingham.

Finally the research has raised some issues related to evaluation and the value of the CoP. There is a tendency to want to judge performance in any implementation, i.e., how many users, how engaged they are, but this can be quite disappointing early on in implementation. Appreciative Inquiry might be potentially a more useful approach to evaluation of practice where strengths are revealed and built on, i.e., a focus on those students and staff who are engaging and showcasing this. Note that benefits are only experienced by engagers – hence the need for a level of compulsarity and onging use, support and feedback. Staff may be resistant and it is students and practitioners as champions that tip the balance. 'Change involves learning to do something new, and interaction is the primary basis for social learning'(Fullan 2007:97). It seems the potential value of the CoP during the early adoption stage is that it provides mutual support and raises the status of each other's efforts, part of the Appreciative Inquiry process.

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Author(s)

Dr Gordon Joyes, Mrs Kirstie Coolin and Ms Judith Wayte

University of Nottingham, UK
gordon.joyes@nottingham.ac.uk