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Supporting continuous improvement in teaching development through electronic teaching portfolios

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This article makes the proposal of facilitating continuous improvement in teaching development in higher education through hosting an electronic portfolio system at a professional organisation for higher education. To support this proposal the need for continuous teaching development and the strengths of the portfolio approach and of electronic portfolio systems are discussed. The suggestion of hosting the electronic portfolio system at a professional organisation is based on the ideas of the professional community that reaches beyond institutional boundaries and of the separation of professional and employment spheres. Addressing the current climate of imbalance in the recognition of achievements in research and teaching the responsibilities of institutions and the individual academics in higher education are addressed. A scenario is provided, suggesting a concrete e-portfolio system, called Mahara, to be hosted by the professional organisation HERDSA.

Keywords: teaching portfolios, electronic portfolios, professional development

Introduction

The call for contributions for the HERDSA 2008 Conference describes the need for engagement and the difficulties faced by tertiary education staff becoming involved in their communities of practice. What is raised further is the question about the roles a professional organisation like HERDSA should play. This paper aims to make contributions in the area of continuous improvement in teaching development supported through electronic teaching portfolios for academics in higher education. It addresses the issue of community of practice and suggests a role for professional organisations. The thoughts expressed in this paper have developed from the author's own experiences in tertiary teaching, which included the transition from survival mode teaching to active interest in higher education, and the work with an interest group in teaching portfolios at Massey University. Further background was set during a sabbatical with EIfEL, the European Institute for E-Learning (<http://eife-l.org/>), which included intensive research on electronic portfolio characteristics and projects, education sector policies and institutional initiatives.

Despite the dominance of research and research outputs in higher education a change towards an increased emphasis on teaching and teaching quality can be observed (Seldin 2004). One indicator for this is the number of teaching awards that are available on national and institutional levels, which have seen a surge over the last decade world-wide (Skelton 2005). Typically applications for teaching awards are made via teaching

portfolios. The New Zealand national teaching awards are an example for this practice (<http://www.nzqa.govt.nz/for-providers/awards/ttea/>).

The obligation for ongoing development and lifelong learning applies not only to students enrolled at tertiary institutions but to the same degree to the academics teaching the students. Electronic portfolios are widely recognised as tools for supporting personal and professional development. Portfolios in general can be divided into various categories, with an important distinction being made between showcase and development portfolios. An award application will be based on a showcase portfolio, presenting the abilities of an individual at a specific point of time. This article will focus on development portfolios, which, as their name indicates, assist and portrait the ongoing development of an individual. The use of electronic portfolios for facilitating development of teaching skills in higher education and the role professional organisations like HERDSA could play in hosting the portfolios will be discussed.

The following section of this article briefly reviews the generic characteristics of portfolios, of teaching portfolios and electronic portfolios. It is then discussed how portfolios can contribute to the ongoing development of teaching abilities for the individual and the professional community, and what roles professional organisations, institutions and the individual tertiary teachers need to fulfil.

Characterisation of portfolios

General characteristics

The term portfolio is used in many different ways. One important distinction can be made along the lines of purpose of a portfolio, namely for development, showcase, assessment or competences. Development portfolios or repositories support the learning and development of a learner. They contain material and artefacts related to learning, reflections and feedback. It is important that the material stored in these repositories is private to the learner. It is up to the learner to decide when and what to share. The learner needs to reflect on the material collected and on his/her development in relationship to criteria or skills. The giving and receiving of feedback are important aspects of the learning processes around development portfolios. Showcase or presentation portfolios allow the learner to present their work and development to others. These presentations contain reflection and supporting evidence. They are composed for a specific purpose and audience, for example, an assessment committee or a potential employer.

Portfolios are often linked to assessment. Type of portfolio and type of assessment have to be carefully adjusted to each other. Development portfolios are suited to a formative assessment approach. The learner documents work on a task and reflects; the assessor provides feedback that assists the learner in future development. Showcase portfolios can be linked to summative assessment. The work of the learner is assessed according to predefined criteria. In the design of the assessment approach one has to be very careful to specify clearly what is to be assessed: subject specific work, reflections, lifelong learning skills, or presentation.

Portfolios for competences combine elements of both development and showcase portfolios and are, to a certain degree, linked to assessment. In professional areas, like health services, teacher education or engineering, the accreditation of graduates and the continuing accreditation of professionals are often linked to the demonstration of competencies. Portfolios have proven to be excellent tools for this process. The candidate collects evidence, reflects on their practice and might invite feedback, all processes covered by portfolio approaches. The accreditation occurs based on the information provided in the portfolio.

Despite these variations there are several key processes included in most if not all portfolio work:

Collection	Collect artefacts related to one's learning
Selection	Select material that best displays certain characteristics
Reflection	Reflect on learning in the context of learning goals and link reflections to selected artefacts
Planning	Plan new learning steps in response to reflections
Feedback	Invite others to give feedback on any of the previous steps and take this feedback into consideration

Teaching portfolios

Anyone in a teaching role, like any academic in higher education, should be a lifelong learner. Teaching portfolios are ideal tools for supporting lifelong learning, following very similar aims as student portfolios (Stefani et al, 2007). Teaching portfolios support the planning, evaluation, reflection and sharing processes required for work on one's teaching development. They provide the evidence required to showcase teaching excellence, and fulfil a role equivalent to publications and grants for demonstrating research performance (Seldin 2004). Material in a teaching portfolio can be divided into three main categories (Seldin 2004):

- Material written by oneself, including: statement of teaching responsibilities; teaching material; teaching philosophy; reflections; planning notes; evidence of involvement in dialogue about teaching;
- Material contributed by others, including: material on student evaluation; feedback from students, colleagues and programme committees regarding one's own teaching; material documenting one's impact on the teaching community;
- Material documenting learning/teaching, including: samples of student work; data demonstrating student learning.

As with any portfolio not the volume of material but its careful selection and the related reflections are of highest importance (Seldin 2004; Stefani et al., 2007). Getting started with the development of a portfolio is a challenging undertaking (Kahn 2004). Seldin (2004) suggests to start with thinking about purpose and audience, followed by the

summarizing of teaching responsibilities, the description of teaching approaches, the selection of items and the writing of reflective statements. The work of members of the interest group on teaching portfolios at Massey University showed a variety of approaches to getting started: a big picture view in starting with the teaching philosophies; a bottom-up approach in addressing specific aspects like assessment or student engagement; a tactic of going back to existing material from a promotion application and fleshing out the items listed there; a research focus in gathering and analysing examples of existing portfolios to set one's own directions. The approach taken will depend on individual preferences, focus on long-term involvement and ongoing development vs. short-term gain and showcasing, support provided by colleagues and institutions. Unfortunately, there still is a general lack of structures and templates to assist with the development and maintenance of teaching portfolios in higher education (Stefani et al., 2007).

Electronic portfolios

The traditional portfolio consists of a folder containing paper documents. It is natural to now move to electronic or e-portfolios. Besides the general advantages of electronic systems like storage capacity and ease of organising material there are a number of additional opportunities (Kahn 2004):

- Variety of media: audio and video recordings can be included and accessed via just a few clicks, allowing for the inclusion of primary sources;
- Linking and background material: links between electronic documents facilitate non-linear browsing of material; rich background material can be easily bound into the portfolio without cluttering the main flow;
- Sharing and publishing: electronic material can be easily duplicated and distributed; this can be used for sharing in confidence or with a wider audience.

There is a wide range of tools that can be used for portfolio purposes. This includes specialised e-portfolio systems but as well general purpose tools that can be used for collection and reflection. It is difficult to clearly categorise portfolio related tools as they can be used in many different ways and have overlapping feature sets. The following shows one possible grouping:

- Institutional e-portfolio Systems: The use of e-portfolios in an institutional context usually requires the setup of a shared environment and some form of control of access rights. Institutional e-portfolio systems have a learner management component similar to learning management systems (or are integrated into learning management systems). The institution is in control of setting up user access rights. There are usually different levels of access rights for students and instructors and students might be grouped around course structures. Most institutional e-portfolio systems will grant learners the right to classify data as private and to decide when to share which documents and reflections with other learners or with instructors. The systems have tools to support the general steps of collecting, selecting, reflecting and sharing. They combine support for both development and showcase tasks.
- Web 2.0 or Semantic Web Tools: Reflection is at the centre of lifelong, life-wide and self-directed learning, the learning paradigm e-portfolio systems support. While reflection is an individual process, the results of reflection are often shared with

others. The process of sharing with others is also at the core of Web 2.0, which offers tools to share text, images, sound and video. Common Web 2.0 tools are wikis, blogs, discussion forums, chat systems, and sites for the sharing of photos and video recordings. Distinguishing features from earlier web tools are that everyone with access to the World Wide Web can publish information and establish communication with others, without the need for special knowledge, access privileges or software. One needs to distinguish between the software that forms the Web 2.0 tools and the installation of this software in an institutional or commercial space. The commercial space provides internet users with world-wide open access. Based on their success in the 'open' World Wide Web Web 2.0 tools have been integrated into learning management systems and have as such become part of the systems landscape of educational institutions.

- General Purpose Tools: Many, if not all general purpose tools can be used in some form to assist the lifelong learning processes. This can happen self-directed by the individual learner, in an institutional setting or in combination.
 - File systems: for creating a repository of artefacts and storage of reflection, feedback and planning documents;
 - Word processing tools: for learning content, for writing reflections, feedback, planning notes or any other information; commenting features for collaborative work and providing contextualised feedback;
 - PDF annotation: for commenting on collaborative work and providing contextualised feedback;
 - Email systems: for communicating with others involved in the learning process and for exchange of documents;
 - Presentation tools: to create presentations and showcase portfolios;
 - Web authoring/hosting software: to create showcase portfolios and to make these available to a wider audience;
 - Audio/video recording and editing tools: to capture evidence and to record reflections;
 - Google Docs: like generic word processing, spreadsheet and presentation tools but with inbuilt functionality for collaboration and shared editing;
 - Google Pages: for web authoring and hosting accessible to everyone.

There cannot be a general recommendation on which tool or set of tools to use, as this depends on too many parameters. The most important criteria in the selection should be the educational purpose and fit. Other criteria focus on the accessibility of the tools by all involved and their long-term availability, the ease of use and the level of support guaranteed, or the IT knowledge of the prospective users. An extensive overview on e-portfolio tools can be found at Helen Barrett's website (<http://electronicportfolios.org/>)

Mahara (<http://www.mahara.org/>) is one example for an institutional e-portfolio system. It is an open source development that has arisen from a collaborative project led by Massey University, funded by the New Zealand Tertiary Education Commission. Mahara provides all the features to be expected from an institutional e-portfolios system (learner profile, repository of documents, space for reflection (implemented via blogs), user controlled sharing of selected material, facilitation of feedback provision, showcasing, and so on) and does so with an easy-to-use and innovative interface. One of the

challenges faced by an institutional e-portfolio system is the degree of structure and support built into the system – too little fails to guide the user, too much restrains the user and is counterproductive to the lifelong learning message. Mahara seems to have struck a nice balance.

Proposal for the use of electronic teaching portfolios

The previous section has argued for the value of electronic teaching portfolios for supporting academics in higher education in their ongoing development as teachers. This section makes a proposal for implementing this theory in practice.

Institutional E-Portfolio systems for teaching development hosted by professional organisations

At the core of this proposal are the suggestions of ongoing development supported by a portfolio, use of an institutional e-portfolio system and hosting by a professional organisation. Promotion of student learning requires good teaching which in turn necessitates ongoing engagement and reflection. Good or, in extension scholarly teaching includes review and extension of material and practices, elicitation of feedback from students and colleagues, engagement in dialogue on teaching and learning, reviewing and applying the relevant literature (McKinney 2007). A portfolio system with focus on development facilitates these tasks. Such a system provides long-term storage for the rich set of documents of various formats collected. It allows for labelling and sorting of these documents for later selection based on careful consideration of purpose. It makes it possible to capture reflections and link these closely to relevant material. It facilitates sharing of selected material with a selected audience for the purpose of elicitation of feedback. It enables the showcasing of selected material to an open or selected audience for purposes of general demonstration of best practice or specific promotion and award applications.

The use of an institutional e-portfolio system as compared to semantic web tools or generic software is recommended for several reasons. An institutional e-portfolio system provides a central storage facility that can be accessed from everywhere. Material is protected against unauthorised access and the institution provides backup. The users of the system form a community which is controlled by the institution, providing a platform of shared interest and some level of protection for the individual. Within this community the individual user can form their own groups for communicating on specific topics or creating a circle of trust. Institutional e-portfolio systems have been purpose-built and, as such, provide specialised features. Without specific technical knowledge the user can create websites or presentations for showcasing.

Conventionally, an institutional e-portfolio system is hosted by an institution like a university. This proposal argues for shifting this home to a professional organisation. Herman et al. (2008) name strengths (central storage, access, security) and weaknesses (focus on institutional needs, no sense of ownership for the individual, contrary of lifelong learning needs) of institutional e-portfolio systems. The proposal to shift the installation to a professional organisation hopes to retain the advantages but to eliminate the problems. Many tertiary teachers will change employers and therefore institutional

affiliation over the course of their working life, yet most will remain in the teaching profession. Aligning their portfolio with a professional teaching organisation mirrors this lifelong involvement. The relationship of an academic with their institution has many facets, including aspects like job security and promotion, and is not restricted to the academic pursuit of excellence. Striving for improvements in teaching requires openness about shortcomings and mistakes without fear of criticism (Macdonald 2006), something that might be difficult to achieve with a system hosted by one's employer. The role of the professional community for new ideas and support, especially for newer lecturers, is widely acknowledged (Barlow and Antoniou 2007; Dall'Alba 2005; Viskovic 2006). A supportive environment, fully engaged in teaching and learning matters in one's immediate environment would certainly be ideal, yet is unfortunately not the norm. An e-portfolio system hosted by a professional organisation would provide opportunities: to engage with others in comparable teaching situations; to be exposed to practices from other institutions; to find others with the same specific interests. The scenario presented in Figure 1 illustrates how an installation of the Mahara e-portfolio system hosted by the professional organisation HERDSA could serve the higher education community.

Role of the individual tertiary teacher

Many factors will have to be addressed to help the proposal made in this article to success. Among these are the roles of individual tertiary teachers and of institutions. Teaching is a core activity in any tertiary institution and every tertiary teacher should be engaged in ongoing development in teaching. As an excuse for not participating individuals often state the lack of recognition and the dominance of research performance, a view largely shared in the literature (Skelton 2007; Frame et al, 2006). While this imbalance certainly needs to be addressed on sector level some of the blame lies with individuals. Often promotion committees have little factual information about teaching performance (Stefani et al, 2007). There are academics who regard themselves as excellent teachers and complain about lack of recognition and promotion. Anecdotal evidence shows that a number of these academics fail to present their scholarly engagement in teaching and learning in appropriate ways. There is no evidence of engagement in dialogue on teaching with colleagues in their immediate environment. Applications, for example, for teaching awards, lack reflection and thoughtful analysis. If these colleagues would intensively engage in activities of scholarly teaching some evidence would be visible – in work on evaluating courses with students, in asking colleagues to provide feedback, or in discussing teaching matters over coffee. The responsibility of an excellent teacher includes contributing to the community of practice (Viskovic 2006) and, if moving towards scholarship of teaching and learning, requires systematic study, public sharing and review (McKinney 2007). It is the opinion of the author that part of the responsibility in increasing the recognition of teaching lies with the individual academic.

HERDSA has installed Mahara and has provided tutorial material on how to use the system and on how to work with teaching portfolios. HERDSA has made a commitment to making Mahara available long-term. Any member of HERDSA can create a user account, committing themselves to adhere to a code of conduct specified by HERDSA.

Joe Bloggs uses Mahara to maintain a teaching portfolio with development focus:

- He has setup a personal profile others can access to learn about Joe's professional interests.
- He uses Mahara as a repository for his personal teaching documents and reflections, knowing that his material stays private to himself, secure and available long-term.
- Using Mahara's discussion tools Joe has found several other academics who have a current interest in group assessment. The group discusses experiences and ideas.
- Joe implements some new ideas, collects evidence and makes the material available to the group via Mahara, following the easy-to-use built-in authoring tool. After encouraging feedback from the group Joe releases this material for general access to the HERDSA Mahara user community.
- With another group of academics who teach in the same specialist area Joe discusses teaching techniques for their discipline, learning about approaches in other institutions and countries.
- At a higher education conference Joe reflects on some new ideas. While still at the conference he logs into Mahara and writes a new blog entry.
- Joe moves to a new position at a different institution. His teaching portfolio hosted by HERDSA is not affected by this move.

Figure 1: A scenario of hosting the e-portfolio system Mahara at HERDSA

Role of the institution

To promote teaching institutions need to address the imbalance between recognition of teaching and research performance. While the introduction of teaching award schemes is certainly welcome research shows that receiving such an award has not only positive effects. Skelton (2005) reports on positive impact for promotion and self-esteem but as well on negative comments from colleagues. Surveys reported by McKinney (2007) show that the vast majority of academics engaged in scholarship of teaching and learning rate the impact of this engagement on their careers as neutral or even negative. While the recognition of teaching performance seems to be improving (Thair et al, 2006; McKinney 2007) still much more needs to be done on institutional level.

Besides rewarding the outcomes, institutions need to play a strong role in ongoing support for engagement in scholarly teaching. Most organisations provide assistance on a central level with staff development programmes, ranging from seminars and workshops to certificates programmes and other formal qualifications. While this support is valuable Viskovic (2006) argues for a refocusing of attention from central generic activities

towards informal collaborative learning in work groups and facilitation of communities of practice. This recommendation aligns well with the concepts of teaching portfolios.

As mentioned earlier starting a teaching portfolio is not an easy task. Coping with an electronic system is one aspect but something that can be relatively easily supported with good tutorials and courses. The bigger challenge lies in conceptual support, in knowing what material to include, how to collect material or how to write reflections. Facilitating strong communities of practice will assist with these issues. Good institutional support needs to be provided in several other areas:

- Clear guidelines of ethics: What procedures need to be followed to protect student and staff interests and privacy while still allowing for effective collection of feedback?
- Performing evaluations: What mechanisms are available and supported in terms of policies and manpower to elicit feedback from students and graduates?
- Collecting of evidence: What support is provided for the collection of evidence like the recording of lectures?

Conclusion

As always, just installing a computer system will not be sufficient by itself. What is required is the active support by all involved, tertiary teachers, institutions and professional organisations. Yet, hosting an institutional e-portfolio system at a professional higher education organisation will be a big step into the right direction, facilitating lifelong learning, addressing the higher education community at large and separating professional from employment issues.

Many different types of computer systems are available that support various aspects of portfolio work. The selection of a system should be guided by the principle of using the least complicated system suitable for the job. The most essential feature of an e-portfolio system to support a distributed community of scholarly teachers is the ability to share and discuss teaching experiences, supported by evidence, in a trusted and self-selected environment. Mahara is a system ideally suited to this proposal. Mahara is open source, pleasant to use, and focused on reflection and sharing.

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