Eportfolio Adoption and Implementation in a Multiple Campus University Environment – a Reflection on Opportunities and Challenges Emerging When Engaging Academic Staff and Students in Adoption of Eportfolio Technologies Implemented in Learning and Teaching at Australian Catholic University

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Abstract

Eportfolio is a concept and practice that provides creative opportunities using technology for profiling a person's achievements, career aspirations and contribution to learning and teaching in their academic institution and professions [1]. Our experiences at Australian Catholic University (ACU) indicated that adoption and implementation of Eportfolio technology in a multiple campus environment posed significant challenges when switching from a pilot to a university-preferred hosting service product. Staff and student artefact profiling using an Eportfolio hosting system in a decentralised university environment identified a different interpretation of the University vision, pedagogy, expected usage and support culminating in change management implementation issues. The aim of our paper is to consider and accommodate feedback from the global community to inform new approaches and methods that could be explored to streamline and improve communication, change management and adoption of new technologies in our context.

1. Introduction

The aim of our paper is to share our experience of adopting Eportfolios in a multiple campus environment and seek feedback from the global community on approaches and methods that could be explored to streamline and improve communication, change management and adoption of new technologies for our context. In order to achieve this aim it will be necessary to include a short review of relevant Eportfolio literature and outline the structure of Australian Catholic University and the work practices of a multiple campus environment. Following this, the challenge of introducing new technologies will be reflected upon in the context of lessons learned and directions the University has already embarked upon to improve change processes.

2. Literature review

Eportfolio is a concept and a practice that provides creative opportunities for profiling a person's achievements, career aspirations and contribution to learning and teaching in their academic institution or profession [1]. It evolved from paper portfolios and is used in higher education for documenting and showcasing skills, achievements, assessment outcomes and career milestones. Eportfolios have become more complex, due to technological advances throughout the mid 1990s to the present, as well as accessible, due to rapidly developing internet and Web 2.0 technologies [2] [3].

Figure 1: Academic Staff Eportfolio at ACU. Source: Fisher & Hill, 2014

For many teaching staff and students in the academic world, Eportfolios are not easy to define and adopt due to their complexity and the tendency

to be 'too personal' rather than professional [4][5]. In the primary author's academic teaching experience and in evidence from recent studies, students as well as academic staff are often 'fearful' of adopting this tool for learning, seeing it, in part, as involving too much assessment and increasing demands on teaching staff, and also raising concern on how new eLearning pedagogy and teaching styles will affect them personally [3] [5] [6].

Experiences involving 'failed adoption' of Eportfolios in a Higher Education context are rarely discussed or included in research at the operational faculty level of an institution as they highlight disruption of teaching activities or disjointed organizational processes [7]. If they are mentioned at all this is overshadowed by research detailing innovative methods of constructing Eportfolios in a student-centred context rather than examining how to increase the confidence of academic staff in adopting this technology and how to manage deficits with change processes designed to guide and enable new approaches to documenting learning [8].

3. Australian Catholic University

Australian Catholic University (ACU) opened in 1991 following the integration of four tertiary institutions in eastern Australia. The institutions had developed from the small teaching colleges established by clergy from a number of Catholic religious orders.

3.1. Structure

ACU now spans 7 campuses across four states and one territory: Queensland, New South Wales, Victoria, South Australia, and the Australian Capital Territory [9]. The larger campuses are in major cities (Sydney, Melbourne and Brisbane), with two campuses in the regional centres Ballarat and Canberra as well as the addition of a small campus in Adelaide in 2014.

Most campuses teach programs from all four university faculties: Education & Arts, Health Sciences, Law & Business, and Theology & Philosophy. Each State or Territory has their own legislation and requirements for professions in law and business, education, nursing, paramedicine and social work, making the issue of uniformity with learning tools like Eportfolios problematic.

3.2. Working in a multiple campus environment

Each campus has a unique culture, way of working and operating and a commitment to supporting the wider community and social justice. The benefits of working in a multiple campus environment include cross-campus collaboration, management of national projects and streamlined pedagogies [10]. Success is dependent on effective communication, shared understandings about curriculum development and delivery, shared understandings about pedagogies, continual evaluation and collegiate relationships both inside and outside the University [10].

Working at ACU means working 'nationally' across a few or all campuses. Meetings, collaboration, learning, teaching and research are conducted between campuses through a variety of media and information technology tools such as Adobe Connect web meetings, teleconferencing, videoconferencing and, on occasion, face-to-face interaction. Although this type of virtual working is not new in the global context, the perceptions, ideals and interpretations of strategic and corporate goals can become unclear and open to interpretation when they are not communicated clearly in an operational context [10].

4. Eportfolios as technology learning and teaching tools at ACU

To establish a context for this paper it is important to mention the different purposes that Eportfolios serve in the learning and teaching environment at ACU. There are many different types of Eportfolios used for a variety of purposes in this multiple campus higher education environment. Eportfolios have typically been used for three purposes at ACU:

Documentation of artefacts or materials directed by the lecturer. Students learn to compile evidence for accreditation purposes and submit their collection for assessment through a series of templates [4] [12] [17].

These Eportfolios are structured according to particular learning outcomes or graduate attributes and are used in teacher education as well as nursing and paramedicine at ACU, typically in students' first year of undergraduate study. While these two disciplines utilise strong pedagogies in their practice and professions there is a tendency for ACU students and staff, even the early adopters, to be 'driven by the technology' when using Eportfolios as a learning and teaching tool rather than developing systematic approaches to pedagogy to support portfolio creation.

Integrated learning or developmental learning. This occurs when students create work, reflect upon what they have produced and engage in 'social pedagogy' [4] [12], including giving and receiving feedback, gathering experience through collaboration in groups, and practicing in their professional discipline.

Students tend to be exposed to this more complex Eportfolio in their middle part of their degree program at ACU.

A capstone exercise. This project consolidates and measures learning by including artefacts, evidence and integrated learning to demonstrate

achievement of final accreditation course outcomes for employment purposes [11]. It usually occurs in the final year of students' degrees in teacher education as well as nursing and paramedicine at ACU.

5. Challenges of an Eportfolio pilot

The Eportfolio Project emerged from the professional accreditation issues in teacher education, as well as in health sciences, which influenced the way Eportfolio was implemented into the Learning Management System (LMS).

Enthusiastic early adopters of technology, who were not teaching academics, drove an Eportfolio pilot using the program Desire to Learn (D2L). These staff had some knowledge, and presented a persuasive case to the Executive, but they lacked experience and understanding of the impact of introducing new eLearning tools upon academic learning and teaching activities and of integrating the platform into the LMS. Without consistent, well-documented, transparent change processes and guidelines, they unknowingly hindered adoption of the new technology, which resulted in a myriad of technical issues in using Eportfolios to do with aspects such as: participants/groups, formats of files and exporting data. These challenges created resistance by some academic staff and students rather than promoted uptake.

The initial pilot Eportfolio hosting system of D2L was trialled in two faculties at ACU from 2010. The primary author was then working as a teaching and research lecturer in the School of Education in Canberra, Australia, and, as part of the pilot, was required to utilise D2L to host an introductory assessment in a Bachelor of Primary Education unit. There was pressure on staff to learn how to use this technology with minimal time for preparation, and significant resistance from students. Students were under pressure to integrate technology and pedagogy in their first year of professional experience in a school environment, and were distracted by the need to learn how to use the Eportfolio technology for presentation and content, instead of learning the pedagogical task of how to engage in reflective practice. This experience for both staff and students might have been expected: in recent literature on Eportfolio adoption, a focus on technology has been identified as a factor that may be a barrier to learning methods of applying pedagogies such as reflective practice, constructivist learning and consideration of curriculum redesign [5].

In 2012, a new LMS was implemented, and the integration of D2L with this new Moodle platform was challenging. When the primary author assumed responsibility for the Eportfolio Project in 2012 the number of information technology change requests for D2L was so great that it prevented any progress on the actual integration or evaluation of the pilot project, and suggested that D2L was in fact incompatible with the new LMS, in practical terms. Barriers to change processes and to evaluation of the D2L pilot were due mainly to assigning responsibility to temporary contract information technology staff who, when they ceased to be employed, did not have adequate time to hand over; and failing to document the progression of the project due to a lack of direction and poor communication. The transition posed challenges in administration, teacher access to student assessment and difficulties migrating data files.

The responsibility for the Eportfolio Project was transferred from the early adopters to the Learning and Teaching Centre (LTC), owners of the new LMS. Given the failure of a workable integration of D2L into the new LMS, the LTC then considered a different Eportfolio application, the open source hosting service Mahara, because of its integration with the LMS, and its proven performance in similar contexts.

The project manager attempted to establish detailed project plans, measures and evaluation of the project and encountered resistance from the early adopters, who had assumed that the pilot D2L Eportfolio hosting system would be continued. This caused barriers to the introduction of the Mahara Eportfolio hosting system in 2012. The implementation of a new university-wide Eportfolio hosting system can be an expensive exercise in human and financial resources as it can result in high staff turnover due to frustration with inconsistent processes as well as perceived overloading of students and teachers, leading to resistance and a belief that the system was broken. Despite Eportfolios becoming easier to construct and populate with digital materials it was evident there was a lack of understanding by staff of the concepts and potential usage of this tool for learning, teaching and career profiling in a higher education context.

6. Reasons why change was unsuccessful

When the primary author assumed responsibility for this national Eportfolio project it became evident that while there was an Information Technology change process operating there was no clearly defined change process for academic staff and students with regards to the adoption of new technologies. Without policy or adequate measures, milestones and feedback about this project, it was proving to be a challenge to progress and implement.

6.1. No university wide change strategy to guide staff

Prior to mid 2012 there was no clear change strategy policy or guidelines on the use of Eportfolios at ACU. The absence of these guides for staff contributed to their reluctance to adopt the

Mahara Eportfolio hosting system as they were unsure of what was required of them. This documentation would have provided a clear direction for academics to access support, adopt and use a university wide Eportfolio System for personal and educational activities. Communication of a clear Eportfolio strategy was further complicated by the diverse institutional cultures that exist in a multiple campus environment and that some academics were fearful of engaging in unknown territory [4] [17].

While most faculties had their own strategies and guides for developing and using Eportfolios to support their teaching and assessment activities, linked predominantly to professional accreditation, a lack of an overall University wide Change Strategy and related policy made it challenging for the Eportfolio project manager. It was difficult to engage staff across schools and faculties as her role was perceived by faculties as 'outside' the schools rather than working in partnership across the University [17]. Capacity building across the University was also stifled somewhat until more streamlined communications were introduced.

6.2 Reasons why engagement of academics in adoption of the eportfolio was challenging

Academics wanted to know how the new Eportfolio hosting system would impact them personally and how they would manage this task [8]. New technologies were changing faster than academics had time to consider how they might use them in their teaching, learning and personal profiling.

Resistance or failure of academics to engage in new technology may have been easy to identify through informal and formal communication, but complex to determine the cause due to conflicting priorities from university administration and faculties. Most academics do not want to be viewed as resistant to change if they are unable to adopt new technologies as it could negatively impact on their careers or how they are viewed publically in their discipline. They do not wish to be 'under surveillance' when adopting teaching strategies that help them transform learning as indicated in a recent study of Associate Deans of Learning and Teaching (ADLTs) views across six Australian law schools [13]. Adopting a new, 'imposed' Eportfolio hosting system challenged their work practices, ability to learn technology, resolve system failures quickly [10] and embed pedagogy.

6.3 Multiple purpose evidence

Evidence required for multiple purposes can make the issue of designing, developing and establishing an Eportfolio with embedded pedagogy, for a specific rather than multiple purposes problematic as academics as well as students feel

overwhelmed by the process or do not trust in 'fad technologies'[14]. The process of creating an Eportfolio in a hosting system often 'takes over' while pedagogy can be an afterthought. Queensland University of Technology developed a series of Concepts Guides for Eportfolios. The Concepts Guide for Employers and Professional bodies [16] clearly outlines the requirements for academic staff performance review, career development and customising Eportfolios for different purposes.

These Guides were adapted in consultation with the Centre for Recording Achievement in the United Kingdom and the Joint Information Systems Committee (JISC) in 2008. These support materials may provide some ideas for improving engagement of staff in the Australian context. However, the authors' observations from 2010 to the present highlight a gap in the supporting guidelines already used at other universities.

There was little or no support for academic staff to learn 'how to' prepare to profile their artefact evidence into movable chunks that served multiple purposes before they put it into the Mahara Eportfolio hosting system. It is important to continue to address this issue to empower and engage staff in adoption of Eportfolio as a learning, teaching and career development tool, At ACU when Pedagogy for Portfolios conducted in 2012 evaluations and observations during workshops showed that even the most experienced teaching academics lacked support in this area causing frustration, fear and reluctance in some staff. This experience identified an important future direction for Academic Development at ACU.
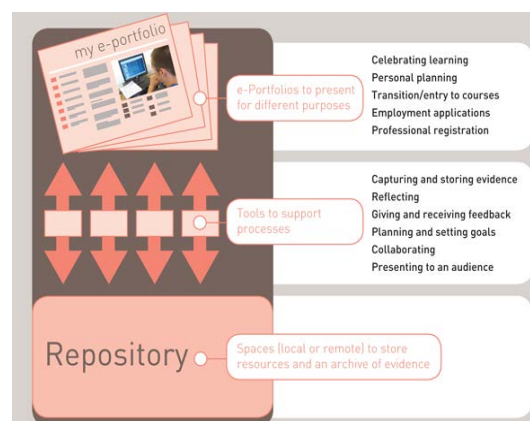

Figure 2: Understanding how e-portfolios work – Impact of e-portfolios on learning (source: Hartnell, Young et al. 2007)

6.4 Documentation needed to become streamlined to reduce duplication and encourage learning and development of pedagogy supporting Eportfolio technology

Recent studies conducted by Deakin University indicated that actual administration responsibilities academics were expected to adopt duplicated processes. As a result they reported being too 'time poor' to engage with new technology, indicating that it is not unique to working in a multiple campus environment at ACU [14].However, it was common at other universities according to some university studies published in 2014 and through communication across universities globally at conferences and forums.

Conflicting priorities in a university between administration and faculty often reflect two competing institutional goals and put additional pressure on academics to complete documentation at the same time as learning new technology for teaching. Academic accountability goals: faculty deans, heads of school requiring documentation for professional accreditation, course co-ordination and student management versus the Administration accountability side of the university including Human Resources, requiring additional, often perceived by academics as duplicated paperwork can make compilation and maintenance of an Eportfolio unclear and frustrating. [15].As a first step to provide guidance for staff it was necessary to introduce an Eportfolio Policy and Procedures with a view to assisting members of the community and encouraging adoption of Mahara. Queensland University of Technology [5] [17] and the University of New England, Australia had established simple Eportfolio Policies and Guidelines that were considered as solid models of good practice as they were concise and clearly articulated the purpose of Eportfolios and their connection with work and study.

7. The transition to Mahara Eportfolio

The eLearning staff in the Learning and Teaching Centre worked on the technical integration with the LMS. The migration of data into Mahara from D2L required significant work to determine methods of data extraction (especially as data had to be retained for compliance reasons).

'Pedagogy for Eportfolio' workshops were conducted by the Project Manager in early 2012 for academic staff to help them develop and craft their own learning experiences and evidence for promotion, probation, teaching and research.

In addition, technical user guides and webinars for the new Eportfolio system were implemented for students and staff, although it has been a challenge to encourage staff to use these resources.

8. Issues emerging/lessons learned

Lesson 1 – The University Executive needs to articulate a clear unified vision of the technical opportunities and limitations related to learning and teaching;

Lesson 2 – Academic staff need to improve the way they communicate across campuses. Consistent record-keeping is needed, and, via a Community of Practice, strong working relationships exploring success and failure need to be supported by revised policies and guidelines;

Lesson 3 – A variety of methods should be used to measure and evaluate progress in implementation and to share successes and failures as part of the learning process/journey;

Lesson 4 – Professional development is required to support teachers in the transition from a teacher-directed to a more student-centred (self-regulated) learning approach [6]. The evidence for this was drawn from a survey of University students from a number of universities in south-eastern Australia, including ACU, to determine the perceived benefits and challenges of technology at university.

9. Future directions

While this paper was being written, Australian Catholic University has undertaken a staff survey and review of learning, teaching, communication strategies and service provision. In recent months recommendations for efficiency in these areas have been introduced.

Direction 1 - Executive considers designation of a national project manager with nominated faculty liaison academics reporting on Eportfolio issues at local level to enable more thorough reporting to the University Learning and Teaching Committee and streamlining of services;

Direction 2 – A Community of Practice to be developed on each campus to increase engagement, promote collaboration, integration and sharing of ideas with the global community and improve use of technology to enhance learning. This would encourage course wide adoption and implementation at ACU [17] [4] Supporting materials to be developed to assist staff manage multiple purpose Eportfolios.

Direction 3 – Feedback has continued to be sought from the global community at conferences in online discussions and between universities. What is the experience for implementation of technology in a multiple campus environment? What have people done? How they achieved success and change in adoption of technology behaviors? [17]

10. Conclusion

Introducing technology, namely Mahara Eportfolio, into a multiple campus environment at ACU was a complex task due to a failed adoption of a pilot product, challenges with communication and collaboration, duplication of administration and the lack of a flexible change process. This experience has been a catalyst to effect change in the organisation mainly in project management, the roles of organisational units and improving communication, professional development and service provision. At ACU we are grateful for feedback received from the global community and colleagues who have been able to add their insight.

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