

3. Research methodologies

3.1 Overview

The first stage of the Australian ePortfolio Project (2008) recognised a sense of isolation amongst the early adopters of ePortfolios in Australia, with a clear desire amongst stakeholders to collaborate and share resources with other practitioners and researchers. The research activities undertaken in this second stage of the Australian ePortfolio Project (AeP2) have consequently focused on determining how interest in ePortfolio practice might be sustained and supported in the longer term. Several research methodologies were used to gather the required research data that should inform potential strategies to ensure the sustainable future of ePortfolios in the Australian higher education sector (for example, through an online community of practice). Initially, the literature review was conducted to define and explore existing CoP models and to consider best practice frameworks that might guide the development of an Australian online ePortfolio CoP. The themes and issues identified in the literature are discussed more broadly in Chapter 2 of this report.

The data collection activities were designed to capture the specific requirements of the Australian ePortfolio Project and to explore the requirements for the development of a CoP, considered from the perspectives of the different stakeholder groups, including academics, learning designers, learning and teaching and ICT support staff, careers and employment services, human resources managers, academic managers and the learners themselves. The various methodologies used by the research team, guided by the relevant theoretical frameworks, are discussed in this chapter.

The main research activities encompassed a survey to elicit the key structural characteristics that might be required for an Australian ePortfolio CoP, semi-structured interviews with facilitators/leaders of existing ePortfolio communities and a series of case studies to examine a number of active ePortfolio CoPs, both nationally and internationally. A second national symposium was hosted by the research team to increase awareness of and interest in ePortfolio practice in Australia and to establish dialogue about the value of CoPs for ePortfolio practitioners. The AeP2 Symposium, which was held in early February 2009, provided a focal point to stimulate engagement in an evolving community of practice. The survey about an ePortfolio CoP was undertaken in mid February after the AeP2 Symposium, and the semi-structured interviews were conducted in May and June 2009. An industry-based pilot activity was initiated in early 2009, with an expectations survey distributed to participants in February, followed up by a progress survey in May. A post-use experience survey will be completed later in 2009, which will, however, be beyond the life of the AeP2 project itself. The series of data collection activities was completed in late June 2009, with subsequent analysis of the data to distil the findings.

3.2 Research objectives

The research proposal prepared by the project team directly addressed two principal recommendations from the first Australian ePortfolio Project (Hallam et al., 2008, pp. v–vi):

Recommendation 8

It is recommended that ePortfolio stakeholders establish a Community of Practice to share learning and experiences of quality ePortfolio practice in higher education, in order to foster scholarship and research and to provide a forum for dissemination about good practice.

Recommendation 9

It is recommended that a regular Australasian conference be convened to explore and discuss ePortfolio research and practice.

The project aims sought to consider the requirements for an Australian CoP for ePortfolio researchers and practitioners and the introduction of a second Australasian ePortfolio conference that might stimulate interest in a regular program of meetings. The overarching objectives of the research activities were to identify the key characteristics and strategies that would promote participant engagement and collaboration within a CoP.

It was anticipated that the AeP2 project would provide a stimulus for further ePortfolio research and practice initiatives in Australia and continue to encourage dialogue and collaboration across academic institutions, across discipline and professional areas, and across the education and employment sectors, both nationally and internationally.

The project sought to generate the following major outcomes:

- Develop a forum within the ALTC Exchange to support an ePortfolio community of practice.
- Develop strategies to encourage interest in and engagement with community of practice activities.
- Develop and promote resources to support the diverse stakeholders in ePortfolio practice.
- Collaborate in the establishment of a cross-sector ePortfolio community of practice.
- Host a second Australian ePortfolio Symposium (AeP2) to disseminate the findings from the Australian ePortfolio Project; to explore innovative practice in ePortfolio use in higher education; to articulate policy developments, and to stimulate discussion on international ePortfolio issues.
- Host an associated trade display as a forum for strengthening the higher education sector's understanding of the features and functionality of ePortfolio platforms.
- Develop resources to support an ePortfolio symposium model that may be adopted for future events.

The inherent value of the project lay in the opportunities to further develop the relationships already established with stakeholders across the school, vocational, business and professional sectors, as well as with international ePortfolio communities.

3.3 Ethical considerations

The Australian ePortfolio Project research activities were approved by the Research Ethics Unit of the Office of Research and Commercialisation at Queensland University of Technology (QUT) and undertaken in accordance with the National Statement on Ethical Conduct in Human Research (NHMRC, 2007). The full ethical clearance granted to the project covers all data collection activities both at QUT and across the diverse locations in Australia and was arranged as an extension of the ethical clearance attained in 2007 and 2008 for the first stage of the Australian ePortfolio Project.

All research participants agreed to take part in the data collection activities on a voluntary basis. Participants were informed that the data collected would be treated confidentially, with anonymity fully assured. They were aware that, at any stage of the activities, they could withdraw as a participant without any negative impact on themselves personally or on any institution they were associated with. Research participants were informed that the full report would be freely available from the project website upon conclusion of the project. The semi-structured interviews were all recorded and subsequently summarised. During the project, the tapes were stored electronically. Upon completion of the project, all electronic files will be deleted. All identifying characteristics were removed from the data collected from the surveys and interviews. Special ethical clearance was sought and granted for the project case studies (as the communities of practice were identifiable), with the permission for use to be given by the subject of each case study.

3.4 Community of practice survey

The survey was developed to identify the key structural characteristics required for the establishment and development of an Australian online ePortfolio community of practice. Specifically, the survey sought to:

- Collect data on the current level of awareness of online professional networking opportunities amongst a select group of ePortfolio users.
- Examine the current perspectives of ePortfolio communities of practice.
- Characterise the key conditions, types of users and uses for an ePortfolio community of practice.

The survey instrument included a definition for respondents to consider in the context of an emergent community of practice. Ultimately, the community could be viewed as a group of people:

... who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge or expertise in this area by interacting on an ongoing basis.

(Wenger et al., 2002, p. 4)

The discussion of the establishment of an online ePortfolio CoP had been a key topic of the AeP2 symposium in February 2009. In the week following the symposium, delegates were emailed to invite them to complete an online survey about their expectations and requirements around the establishment of a CoP. In addition to emailing symposium delegates, the project team emailed those individuals who had been involved with the project team throughout the life of both stages of AeP (2007–2009). This direct sampling approach included a broad selection of ePortfolio practitioners and researchers across different education sectors and within business and professional organisations. A total of 850 individuals were contacted with the invitation to participate in the survey.

As with the first stage of the AeP project, time constraints and the geographical location of respondents called for an online survey that was both cost effective and considered the importance of a high response rate. The Tailored Design Method (TDM) with an emphasis on Social Exchange Theory assisted in the consideration of an appropriate method of design whereby respondents would be likely to respond if they perceived there was a positive outcome or reward for themselves (Dillman, 2007). The project team recognised the importance of the project as an opportunity to sustain the momentum of Stage One of the AeP project, while stakeholders responding to the survey would arguably see the value in contributing to the development of a national ePortfolio CoP.

The online survey used the commercial tool SurveyMonkey (www.surveymonkey.com) allowing for a wide scope of question and response formats (multi-choice, Likert scale ratings, drop down menu selections and open narrative responses). Denscombe (2007) indicates that the response rate to an internet survey may be increased by the visual appeal, formatting and ease of use of the survey; the project team ensured that the questionnaire design adhered to this criteria. An introductory project information page, statement of consent and guidelines preceded the survey questions. The provision of full identifying details (name, email and position) was optional in this survey.

As the research team hoped to align responses with the key themes in the literature around CoPs, as well as to determine the nature of current activity associated with ePortfolio practice in Australia, the survey questions were targeted for the collection of specific data. Questions sought to identify the characteristics required for the development of an online community of practice to support ePortfolio users and covered the following areas:

- respondents' current use of social and/or professional networking sites
- respondents' current levels of participation in communities of practice
- respondents' interest in the geographical and contextual (discipline, sector, technological, policy, pedagogical) focus of a community of practice
- respondents' structural preferences (organic, managed) for communities of practice
- the key uses and perceived value of communities of practice to members
- general criteria for membership of a community of practice.

Survey respondents were also asked for a range of demographic information related to their ePortfolio engagement (including employment sector and their role in the organisation).

Survey data was examined using QlikView data analysis software (www.qliktech.com). The survey findings are discussed in detail in Chapters 5 and 6 of this report.

3.5 Semi-structured interviews

The project team determined that it would be valuable to capture the views of selected individuals who were directly involved in ePortfolio CoPs through a series of semi-structured interviews. As a data collection method, the semi-structured interview allowed for some degree of flexibility around the topic of interest, with the interviewee potentially in a position to speak from experience and to elaborate on specific points of interest (Denscombe, 2007). It was also anticipated that some of these interviews would result in the development of case studies that would present examples of good practice in existing online ePortfolio CoPs. The research activities undertaken during the first stage of the Australian ePortfolio Project had enabled members of the research team to gain firsthand knowledge of several CoPs, particularly in the UK and US, while several new ePortfolio CoPs had since emerged in Australia and New Zealand (see Appendix 2).

Seventeen online ePortfolio CoPs were identified across the USA, the UK, the Netherlands, New Zealand and Australia, with the key administrators or facilitators each sent an email inviting them to participate in an interview about the CoP they were associated with. Telephone or Skype interviews were proposed as the communication channels, given the geographical location of the interviewees. Skype software (www.skype.com) allows voice calls to be made over the internet at little or no cost and can facilitate video communication. A total of 14 out of the 17 CoP facilitators contacted agreed to be interviewed, all via Skype, with all interviews averaging 20 to 40 minutes in length. All interviews were recorded to ensure the accuracy of the summaries; interviewees were made aware that recordings were being made as part of the research process.

Prior to the scheduled interview, respondents were asked to complete a brief online questionnaire (again, with SurveyMonkey) to collect relevant demographic details and structural information about their CoP. One question from the Australian survey was included in order to compare the expectations about CoP use on the part of the AeP2 survey respondents with the uses that were deemed significant by the facilitators of existing ePortfolio CoPs. Specific responses gathered in the pre-interview survey could then be expanded upon in the actual interview itself.

The semi-structured interviews were conducted during May and early June 2009. Prior to each interview, the key questions and discussion points were provided by email. These questions focused on the critical success factors and the major challenges for ePortfolio CoPs. The questions sought to:

- provide information about the purpose or long-term goal of the CoP
- identify success factors in the development of the CoP
- identify the barriers or challenges in the development of the CoP
- compare the value of an organic community with a structured, managed community
- determine how CoPs might be sustained over a period of time.

An abridged summary was prepared from each interview to focus on the specific discussion points and questions. Tape-based analysis (Kreuger, 1994) was then used to review and synthesise the interview data. This approach to summary analysis was appropriate given the tight timelines for the project, yet it also allowed for key points to be summarised together.

3.6 Case studies

Environmental scoping around current ePortfolio CoP activity (principally online via websites, e-lists, blogs and wikis) and the information collected in the semi-structured interviews allowed for the preparation of 14 case studies. The initial draft of each case study was forwarded to the leader or facilitator of the CoP for review, to ensure that the information presented was factually accurate.

These case studies provided the project with diverse perspectives around ePortfolio CoPs, particularly in terms of their representation of the different stages of the CoP lifecycle, to enable a critical comparison between the state of play for CoPs in other countries and in Australia. The research team acknowledges that the case studies represent a 'point in time' and that, post-interviews, further developments might have occurred.

3.7 Summary

The research methods utilised in this project enabled specific data to be collected from a range of stakeholders. The research process allowed the project team to consider the issues that were directly pertinent to the development and sustainability of a community of practice, particularly within the immediate context of ePortfolio practice in the Australian higher education sector. The following chapters present and discuss the research findings.