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ePortfolios: Mediating the minefield of inherent risks and tensions

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Abstract

The ePortfolio Project at the Queensland University of Technology (QUT) exemplifies an innovative and flexible harnessing of current portfolio thinking and design that has achieved substantial buy-in across the institution with over 23000 active portfolios. Robust infrastructure support, curriculum integration and training have facilitated widespread take-up, while QUT's early adoption of ePortfolio technology has enabled the concomitant development of a strong policy and systems approach to deal explicitly with legal and design responsibilities.

In the light of that experience, this paper will highlight the risks and tensions inherent in ePortfolio policy, design and implementation. In many ways, both the strengths and weaknesses of ePortfolios lie in their ability to be accessed by a wider, less secure audience – either internally (e.g. other students and staff) or externally (e.g. potential employees and referees). How do we balance the obvious requirement to safeguard students from the potential for institutionally-facilitated cyber-harm and privacy breaches, with this generation's instinctive personal and professional desires for reflections, private details, information and intellectual property to be available freely and with minimal restriction? How can we promote collaboration and freeform expression in the blog and wiki world but also manage the institutional risk that unauthorised use of student information and work so palpably carries with it? For ePortfolios to flourish and to develop and for students to remain engaged in current reflective processes, holistic guidelines and sensible boundaries are required to help safeguard personal details and journaling without overly restricting students' emotional, collaborative and creative engagement with the ePortfolio experience. This paper will discuss such issues and suggest possible ways forward.

1. Introduction: ePortfolio risks and tensions

While the paper-based portfolio has always had a place in education – to collect, store, record and exemplify learning accomplishments – the *ePortfolio* allows for far greater flexibility and manipulation of this information and to a potentially much wider audience. As use of the ePortfolio in higher education increases, it is incumbent on tertiary institutions to appraise realistically and then manage proactively the risks associated with the release into cyberspace of students' professional and personal information, not to mention their intellectual property. Little specific research has been undertaken in the area of ePortfolio privacy concerns and safeguards, but the high level of uptake of online social networking sites, blogs and wikis provides a solid basis for comparison as to how information release and reflective spaces are experienced in the public domain.

In this paper, we will review the current literature and research to examine briefly the major themes and tensions around ePortfolio student engagement. Existing literature canvassing online privacy and protection risks in the ePortfolio context will then be discussed, following which we will examine the current phenomenon of online social networking activities, including blogs and wikis, in efforts to extrapolate the current privacy and confidentiality concerns thrown up by similar online behaviour. Finally, we will consider how the risks and tensions inherent in ePortfolios have been mediated and mitigated through design controls and a robust policy framework in the diverse contexts of a large Australian university - the Queensland University of Technology, Australia (QUT) - that has achieved substantial buy-in to institution-wide ePortfolio use with over 23000 active portfolios.

2. Engagement: Balancing the tensions

Essentially, the literature promotes ePortfolio engagement as a mechanism for encouraging students to take control over their own learning by managing their work (selecting and organising artefacts as evidence of learning attainment) and reflecting on and articulating how these records demonstrate progression towards their acquisition of desirable knowledge, skills and values in the constructivist way (Kimball, 2005; Meeus et al, 2006). Meeus et al also emphasise that, for the user to become and remain engaged with their ePortfolio experience, the portfolio tool deployed should make maximum allowance for individual creativity and free-form expression; not only for the reflective process but also in terms of students' ability to compile an extensive array of information, materials and media.

Tosh et al (2005) and Young (2002) caution that the ePortfolio, however strongly endorsed by the faculty or the institution, may only be successful if the "student buys-in to the idea", though this can be encouraged by exemplifying processes and outcomes (Tosh et al, 2005 at 8). Discussion about student buy-in and commitment leads to considerations around student resistance when ePortfolios are used for assessment purposes, particularly when solely used for that purpose, with the literature identifying student perceptions of a resented

imbalance between the effort involved and the final mark obtained (Tosh et al, 2005; Barrett, 2005; McMullan, 2003; Wade et al, 2005).

Enabling technological processes and design are also seen as crucial to the promotion and up-take of an engaging, student-centred ePortfolio (as it has been in the social networking and like arenas discussed below). New and emerging technologies allow individuals, not only to upload multi-media and to record their experiences and reflections online, but also to edit and act in creative collaboration with others (Lee, 2005; Kimball, 2005; Meeus et al, 2006). Ease of functionality is particularly critical; simultaneously to promote creative approaches to portfolio processes while ensuring that the technology is neither too complex nor a barrier to portfolio use (McMullan, 2003; Tosh et al, 2005; Wickersham & Chambers, 2006; Richardson, 2005; Lee, 2005). Challis (2005, at 11) refers to the ePortfolio platform needing to be “reasonably intuitive and readily available”. Meeus et al (2006) add that rigid content and design requirements may correlate negatively with creative motivation, while Kimball neatly sums up the engagement tensions when he suggests that ePortfolio programs that subscribe to either too much standardisation or, alternately, too much flexibility “risk missing the pedagogical target” (Kimball, 2005). Clearly, as in all good learning design, the available technology needs to be carefully harnessed for the student benefit in a balanced deployment for the sole purpose of enabling the pedagogical design (and not promoted for its own technological sake).

At QUT, the ePortfolio's utility as a lifelong learning tool, that both enhances the university experience through its integration with the curriculum and enables linking to employability outcomes, has been the driver for student engagement. Evidence to date indicates that the ePortfolio adds a substantial, lively, personally transformative dimension to the student learning environment. Particularly, students report that they can see more clearly the value of individual units and their interrelationship at the whole-of-program level: they say that the ePortfolio assists them to identify their progress in developing the capabilities that employers want, while also proving central to their ability to articulate their incremental professional and personal development. Overall, students have reported feeling more confident in the direction of their studies and their choice of career, as the following comments indicate (Cochrane et al 2006):

In the Portfolio I noted down instances when I began to understand something ... such as the first time I really understood how to use core learning outcomes.
(2nd year Education student – QUT, 2005)

[I realised early] that the process was going to be as valuable as the final product. After writing just one experience, I could notice a change in my thinking. I was learning ... to identify – in all facets of my life – example of skills that employers would value.

(Post graduate Library Science student – QUT, 2004)

Even if I don't use the Portfolio for a particular application or job, at least I have had the practice and experience of sorting out what experiences and skills are

suited to what skills sets and how I can express them in a way that will be beneficial to selection criteria or in a job interview.

(Anonymous student – QUT 2006)

Principally in the tertiary context, engagement is driven by relevance. Students need to view the ePortfolio as relevant and useful to them, their discipline studies and the future world of work in order to be motivated to use it. Our experience with student portfolios has shown that such motivation can be established internally or externally: that is, students may be motivated to create a Portfolio, not only because it is required for assessment (external motivation), but also because they acknowledge its relevance for their own professional and personal development (internal motivation). An interesting, if not unsurprising, outcome has been that, generally where motivation has been primarily internal, students engage with the Portfolio more deeply and with greater enthusiasm than they do if the stimulus is primarily external. This is not to say that the two motivation types are mutually exclusive. For example, QUT Paramedics students are required to use the ePortfolio throughout their studies, however it is so comprehensively embedded within their overall program that they report clearly see its relevance as an integrated tool that can support them in their job seeking activities. On the other hand, the external driver of assessment alone is unlikely to provide sufficient motivation for a meaningful and longer-term engagement with the tool (Harper et al 2007).

3. The ePortfolio: Privacy and protection risks

While the literature on ePortfolios mentions various software applications and security solutions that seek to protect or conceal aspects of student information and work by way of password access, there is little adequate or research-led examination of how communicating and storing information online might lead more broadly to mis-use and cyber-harm. The discussion of ePortfolios and online privacy and protection in the literature generally relates to three areas – monitoring online activity, audience access to personal information, and some cursory examination of how the reflective process is affected by access and confidentiality considerations. Each of these will now briefly be discussed. We would suggest that the literature, thinking and practice in this key area is considerably under-developed and pay insufficient attention to either of the institutional or individual risk that unauthorised access to and use of student information and work so palpably carries with it.

3.1 The tensions of monitoring online activity

Viseu et al (2004) acknowledge that the issue of online “privacy” is ambiguous and suggests that people understand it and approach it within the context of mediating their own online practices: that is, they “[associate] it with their individual experiences and concerns, such as place of access, spam, security and personal boundaries” (at 106). Ward et al (2005) considered the factors that influence the release of personal information online and surmised that generational characteristics might be largely determinative, with the “Internet generation” being more willing and less apprehensive about providing sensitive information online than their less technologically savvy counterparts (at 37).

There are important lessons in this for educative and regulatory approaches to self-protection in the ePortfolio environment that QUT has embraced (see discussion at 5 below).

On a broader scale, the more pervasive online activities in higher education – such as email communication and research – are discussed quite fulsomely in the literature, though primarily by reference to security management and agreements to monitor online behaviour. Universal and well formulated online monitoring and surveillance policies exist in all institutions for these more common academic activities and are usually seen as sufficient to protect university staff and students, while not unnecessarily encroaching on academic freedoms (Fratt, 2006; Saxena, 2004). However, such tensions and balances around protecting student information and work *per se* are much less commonly discussed and the literature instead points to student use of alternate online tools such as blogs and wikis (see further below).

3.2 Audience access risks

The academic community's literature on ePortfolio promotion and adoption only sporadically refer explicitly to the issue of institutions and users managing ePortfolio access rights proactively and responsibly, while it rarely acknowledges the potential for mis-use of personal student information and work in the online environment. From the earliest days of QUT's ePortfolio rollout, the institution recognised and sought to address the tensions inherent in notions of private versus public access and the risks associated with these issues both for the institution's and the student community's perspectives (Harper & Kift, 2006). Gibson (2006) reminds users of ePortfolios about the "issue of audience" which requires attention in regards to levels of access (at 140). "Audience" in the ePortfolio context must be broadly construed: there is the personal aspect (the students themselves); those in the educational environment (academics, mentors, selected peers and other students); and those outside the tertiary institution (perspective employers, referees and the online world at large). Gibson suggests that design decisions in the construction of the ePortfolio should reflect these differing audiences, thereby allowing for confidentiality controls or separation of audience through "multiple portfolios" (Gibson, 2006 at 141).

Kimball (2005) grounds the issue of ePortfolio information privacy squarely in the notion of ownership: who owns the ePortfolio and the database/server in/on which it resides – the student or the institution? This issue requires careful and strategic thinking and then clear communication about its resolution, especially as regards access settings, so that all parties know precisely where they stand. In a discussion of the technical considerations around the implementation of ePortfolios, Challis (2005) also discusses issues of security and privacy which she highlights against the current institutional reality of needing to manage dynamic increases in data storage. The author says (2005, at 11):

There are ... also issues of security and related ones of certification/verification of data as well as copyright/intellectual property. Institutions, such as universities, are justifiably concerned by what visual images and so on are posted on Internet sites and privacy issues are

important considerations. In a world of hackers and litigation these are not to be dismissed lightly.

QUT's response to the vexed issue of audience access by way of a strong policy and systems approach that mediates student portfolio ownership is discussed below at 5.2.

3.3 Reflection Tensions

While reflective writing might generally be considered to be a creative and free-form genre, in the absence of scaffolded assistance and training in the ePortfolio context, QUT students found that their initial reflective processes were quite stilted and unfocussed (Harper & Kift, 2006). Consequently, dedicated training sessions have been widely deployed across QUT to provide students with the technical and reflective skills required to create meaningful and systematic Portfolio reflections on their learning experiences. Students are further assisted to contextualise their reflective practices so that entries are also useful for job-seeking activities, such as selection criteria writing (Harper et al, 2007).

The literature affirms that the reflective process is an integral aspect of ePortfolio engagement (Grant et al, 2006; Young, 2002; Joyce, 2005; Pinsky and Fryer-Edwards, 2004). Students utilising ePortfolios in Tosh's collaborative study between UK and Canadian universities identified that lack of functionality to regulate portfolio access shaped the content and nature of their reflective work. Echoing Kimball, Tosh's students commented that their ability to create different views for different groups was important and fundamental to their treating the portfolio as their own (Tosh, 2005 at 14). Joyce (2005) similarly cites lack of confidentiality as a barrier to the use of ePortfolios, particularly in the case of nursing students posting their personal reflections of difficult cases. The QUT ePortfolio allows for tailored employer and other views (e.g. for job application purposes) and this functionality is also highlighted in training and resources (and see further below at 5.2).

4. Lessons from the social networking phenomenon

In the absence of extensive and authoritative ePortfolio data and information, the online experience of social networking sites provides some useful comparisons for a contemporary discussion of ePortfolio use and privacy issues. Wikipedia describes "social networking" as referring to "a category of Internet applications to help connect friends, business partners, or other individuals together using a variety of tools" (Wikipedia, 2006). Forms of online social networking include processes (such as blogging and wikis) and websites (such as MySpace, Friendster, Facebook, *etc*) where individuals can create online profiles and share information (Gross et al, 2005; Lee, 2005).

This relatively new, but exceptionally popular, phenomenon in Internet usage can be usefully explored in the context of ePortfolios for correlations as to how users engage creatively with the technology platforms available to them to post and manipulate information and other media when they communicate their views and experiences to others in the online environment. In this part, we will

examine several examples of social networking activities in order to extrapolate the current privacy, confidentiality and cyber-harm concerns thrown up by these cyber presences, where online environments analogous to ePortfolio engagement are commonly replicated. We argue that the lessons learnt from the social networking phenomenon are transferable to the ePortfolio context and should inform the mediation of the inherent risks and tensions of the ePortfolio minefield.

4.1 Social networking sites

Bell and Howell (2006) believe social networking sites have:

... grown tremendously in popularity because they allow people to informally network with others with similar interests. They also allow users to provide a tremendous amount of personal information – from diary entries, to photographs, to the joining of groups.

Social networking sites and portals have allowed users to create web spaces and maintain a network of friends and associates for social and/or business purposes (O'Murchu et al, 2004). As central repositories for dedicated collections of information, these portals allow individuals to aggregate content and data to create profiles in business, social and community related areas (O'Murchu et al, 2004, Bell & Howell 2006, Williams & Jacobs 2004), in ways similar to ePortfolio engagement.

Gross et al (2005, at 72) view the relationship between social networking sites and privacy as being “multi-faceted” and found in a study of more than 4000 Carnegie Mellon University that users of the popular Facebook site actually created their own risks, depending on the amount and type of information they made available. The student users seemed relatively unconcerned about the associated privacy and cyber-harm implications of their willing “information revelations”; seemingly undisturbed by even serious ramifications such as identity theft and fraud, online and offline stalking, embarrassment, blackmail and various cyber security issues such as the creation of digital dossiers of behaviour (Gross et al, 2005; O'Murchu et al, 2004; Viseu et al, 2004). Generational characteristics are obviously relevant in this context (Ward et al, 2005), as discussed above at 3.1.

4.2 Wikis

The wiki is viewed as a more open and collaborative content formation tool (Richardson, 2005; Brown, 2006; Lee, 2005). Richardson defines a “wiki” as a web site that can be edited by anyone, therefore denoting a collaborative effort (Richardson, 2005). The most prominent example of a wiki is ‘Wikipedia.org’ – an online encyclopaedia that is created, shaped, developed and continually edited by anonymous contributors (Richardson, 2005).

Wikipedia itself is a useful case study in the ePortfolio context. While Wikipedia was created as an exercise in the “democratisation of knowledge”, it was initially infiltrated by spurious entries and often encounters various and passionate opinion differences amongst contributors (Brown, 2006 at 47): “[t]here are no technological safeguards against a user putting bogus

information into the site or vandalizing an entry; the community of people using the wiki keeps the information accurate by policing itself" (Richardson, 2005 at 25). Even knowing these risks, many modern educationalists view the wiki as a valuable online collaborative learning tool and knowledge building arena, with recorded increases in the number of wikis being constructed by students and teachers wanting to share information and resources (Lee, 2005; Richardson, 2005). Comparable to the ePortfolio experience, what is less clear is that appropriate education/training, design controls and policy frameworks are being developed to safeguard the use and users of this tool in the educational environment. QUT's provision of support services – a dedicated web site, marketing materials, reference guides, workshops, tutorials, tutor guidance, multimedia presentations, and a Portfolio email helpdesk – eases the potential for risk of mis-use in the ePortfolio context in these areas (Emmett et al, 2006).

4.3 Blogs

A "blog" is generally defined as a user-generated web-space where personal reflections are added in a journal-type style entries (Wikipedia, 2006; Williams & Jacobs, 2004 at 4). The literature on blogs therefore points to a more creative and expressive approach to reflection and information sharing in the "blogosphere". Williams and Jacobs (2004 at 2) claim that blogs have achieved much higher levels of participation and popularity than wikis and that their success is primarily due to their "scope for interactivity". Richardson (2005) adds that students may use blogs to journal their individual experiences, while some teachers utilise blogging to create resource portals (for example, creating online reflective portfolios to share on the web). Lee (2005) notes that while blogs lend themselves to several learning applications, their real strength lies in allowing students to be expressive and creative. In this latter respect in particular, the similarities between blogs and ePortfolios are salient.

From a privacy perspective, the blogosphere raises issues of both confidentiality and liability (Viegas, 2005). A survey conducted by the Massachusetts Institute of Technology of bloggers' subjective sense of privacy (Viegas, 2005) suggests that blog authors generally do not know their audiences, have little control over who accesses their sites, and make uninformed assumptions about whom their readers are. As a consequence, privacy-related issues, from embarrassment to termination of employment, are becoming more frequent. Of particular relevance in the ePortfolio context, Viegas reminds bloggers that potential employers can and do search for the names of perspective employees before making appointment decisions and that bloggers' personal thoughts and interests, available to anyone who surfs the Internet, provide employers with rich sources of hiring information. Viegas concludes (2005, <http://jcmc.indiana.edu/vol10/issue3/viegas.html#conclusion>):

Even though authors in this study know they are liable for the materials they write online, it seems that most have not yet realized the potential for misuse of information in this data-persistent, heavily searchable environment.

Finally, while these types of social spaces can act as seemingly innocuous social meeting places – virtual hang-outs – and repositories for reflective

practice, an increasing body of research is recording real concerns in online environments related to virtual- or cyber-bullying (Campbell, 2005; Stone, 2006), which can attract both civil and criminal legal consequences. Institutions would do well to be especially cognisant of these risks and to manage them proactively.

4.4 Facebook.com – a higher education experience case study

Facebook is a social networking site that was developed initially for Harvard, Stanford and Ivy League college students in America but has since expanded to all US academic institutions (Jadhav & Graber, 2006). Although a 'members-only' site, Facebook originally created an innovative and leadership position for itself with extensive privacy controls and access restricted to students only. However, the efficacy of these privacy controls has diminished as membership has increased and as Facebook has attempted to compete with other sites by, for example, adding tagging features to track users' movements and make them visible to other users (Heing, 2006; Fong, 2006; Herrup, 2006): according to media articles, there was a recent substantial backlash to a redesign of the site in September 2006, which was described by some users as being "stalkerish" (Heing, 2006)). But even within the confines of the academic networks, where Facebook resides, privacy problems have arisen; including, for example, death threats posted and, most recently, a student's Facebook page detailing an intimate relationship with a fellow student accompanied by explicit pictures, all posted without restrictions (Heing, 2006; Herrup, 2006; Jadhav & Graber, 2006; Fong, 2006). Such instances demonstrate the very real potential for cyber-harm to be perpetrated even in seemingly closed and protected online networks.

4.5 Lessons from social networking for ePortfolios

In brief summary of this part, tertiary institutions promoting ePortfolio use can learn some valuable lessons for policy, training and systems approaches out of the vast social networking experience. Particularly, the obligation to raise institutional users' awareness around privacy and cyber-harm issues, where users seem particularly uniformed (and not necessarily very concerned) about who constitutes the audience(s) for the material they post (including that potential employers might do so) is a pressing concern. In the face of generational *lassie-faire*, default access settings might need to be determined as a matter of protective risk-management, while an ability to regulate content postings would also seem desirable. In this latter regard in particular, institutions cannot afford to be ignorant of the very real potential for cyber-harm to be perpetrated against their students through information release and access (even by other students or staff in closed networks).

5. The QUT ePortfolio: policy, design and implementation

5.1 An intentional approach

In 2002, QUT took the decision that it would develop and provide an institution-wide, web-based ePortfolio tool, with the aim of enhancing the total university experience for all students, whatever their program (or combined programs) of study. The broad vision for this ePortfolio tool was to make available to students a space where they could record, catalogue, retrieve and showcase

learning, reflections and artefacts, within both curricula and extra-curricula contexts. It was envisaged that students' engagement with their ePortfolio would lead them to emerge from their course experience with more than "merely" an academic history, and that they would feel more confident about their acquisition of employability skills as they transitioned into the world of work.

Early on in the ePortfolio Project, QUT made deliberate decisions, heavily influenced by a consideration of the various risks and tensions raised in the discussion above, about the nature, scope, design and policy of its ePortfolio solution. This methodology has proved an important contributor to the QUT ePortfolio's success and uptake across the institution, while refinement of the design controls and policy framework has continued as the Project has progressed and approaches have matured.

The QUT ePortfolio Project built on earlier approaches to student capability profiling (Cochrane et al, 2006) and was usefully informed by the myriad of ePortfolio designs deployed internationally. At the forefront of our thinking was the imperative that, above all, it meet student needs. Against this background, a number of guiding principles emerged (McCowan et al, 2005), key amongst which were that the ePortfolio

- be a customised system (Barrett and Wilkerson, 2004),
- be student-centred, student-managed, and student-owned,
- be integrated with the curriculum,
- be flexible enough to cater for all three portfolio styles – structural, learning, and showcase (Greenberg, 2004); and
- cater for (all of) learning and teaching, employment, and industry-specific needs.

These guiding principles align closely with the University's strategic vision for both deploying ICT in diverse learning environments and equipping graduates with the knowledge, skills and attitudes appropriate for a rapidly changing, globalised world (Cochrane et al, 2006). In keeping with the University's mission and its commitment to lifelong learning, in later refinements QUT has been able to provide lifelong access to their ePortfolios for Alumni. This has been a further important accretion to Portfolio uptake and has allowed QUT to continue to support and engage with graduates, as active Alumni and frequently as returning students.

5.2 A strong policy and process approach

A further specification for the ePortfolio Project from its inception was that it produce concomitant design processes and controls, dedicated use policies and a package of scaffolded education and training initiatives. As discussed above, many online environments have faced access, privacy, cyber-harm and confidentiality issues. It would have been foolhardy in the extreme for us to deploy an ePortfolio approach – one in which students are provided with a flexible, institution-wide electronic system adaptable to an infinite variety of purposes and where they are given responsibility for their own work – without building in controls and structures to provide for appropriate responses to any foreseeable issues that might arise. Having said this, as Kimball (2005) touches

on, the viability of the ePortfolio approach depended on striking the right balance between designing a controlled and safe online system and the need to enact, as authentically as possible, the guiding principles that underpinned our Portfolio approach. We were striving for as much functionality and flexibility as possible, but within a framework that assured students were safeguarded appropriately and that institutional risk was realistically managed.

The solution implemented is a two pronged approach, which we have been satisfied over three years of operation has worked effectively to resolve complaints and issues of use and privacy. The first prong ensures that appropriate technical solutions are in place. In this regard, all content posted and actions taken with the ePortfolio system are recorded. These “history” tables are secured, and only accessible if required by a limited number of authorised staff. The second prong ensures that students understand their responsibilities, both to themselves and to others, as they interact with ICTs at QUT. Students agree to *Information Facilities Rules* upon entry to QUT and are reminded of their obligations at the time they begin building their ePortfolio. They also agree to a *Terms of Use Policy* when viewing the ePortfolios of others. The *Policy* is readily available to students and staff (QUT MoPP, n.d) and QUT has a dedicated and experienced team available at all times to handle the resolution of any issues as they arise. An important and defining characteristic about the use of this policy is that, in exercising it, QUT has the ability to respond in a way that is proportionate to the scale of the breach: specifically, the student is contacted and counselled, during which session the issue is clearly explained to them, as well as the proposed resolution of the breach they have made. The ability to remove an ePortfolio from public view or to remove access to update an ePortfolio also exists, and is designed for use where a breach may be extreme and require immediate action. This considerably mitigates the potential for any long-term vandalising of ePortfolio content and/or for inappropriate postings to be made, as have occurred in the social networking arenas, without our being able to deal with such instances effectively and efficiently.

It is in this way, after careful planning and strategic thinking, that the critical “buy-in” issue of “who owns the ePortfolio” – the student or the institution – has been resolved. The solution has been that, while the university provides the enabling technology for students to build their ePortfolios with maximum functionality and flexibility, the data and the content is very much owned by the student. This is in keeping with the guiding principles that the ePortfolio should be student-centred, student-managed, and student-owned. The individual student is provided with the ability to control what content they enter, whom they allow to see that content (including how much of it and when), and whether and at what time data is removed from their ePortfolio. Finally, as a matter of protective risk-management, knowing what we do about the generational characteristics of the majority of our students, the policy decision has been taken to have a default setting of “no release of content”: students are required to make their own decisions about what to release and to whom, and then actively to tell the ePortfolio system that this is their choice. Coupled with a strong educative program that exemplifies processes and outcomes (Tosh et al, 2005) and scaffolds reflective processes (McCowan et al, 2005; Cochrane et al,

2006), these unambiguous and coherent messages about responsibilities and risks regarding access and online behaviour, have served the institution well in its ePortfolio rollout.

5.3 *Enthusiastic take-up with minimal risk*

QUT's ePortfolio is used successfully across the institution in many contexts – in curriculum (and including for assessment), with research students, in extra-curricular programmes, with Alumni, and in partnership with a large Brisbane Secondary School. Substantial student buy-in has been achieved with currently more than 23,000 active ePortfolios in existence. During pervasive use over the course of three years, there have been only two (2) cases where the institution has been required to utilise the policies that protect students from inappropriate use. In each of these instances, it was the nature of the content that had been made public that made the student vulnerable to potential risk, rather than the student using the tool for malicious purposes, that was the cause for concern. In both cases, the policy and processes described above enabled the effective handling of the issues raised. As a result, both students were counselled and given the opportunity to edit and re-release their ePortfolio views. This is a record of which we are institutionally very proud.

5. Conclusion

In this paper, we have highlighted the risks and tensions inherent in ePortfolio policy, design, engagement, and implementation. Particularly, we have examined the very real and potential risks and tensions around ePortfolio privacy, access, confidentiality and cyber-harm that exist when students' personal and professional information, together with their intellectual property, are released into even the closed network of an institution's educational environment. As our literature review has shown, ePortfolio research and writing to date has not rigorously attempted to tackle the reality of the ePortfolio minefield in this regard, rather being content to provide a useful catalogue of activity without analysing how we might best mediate and mitigate the duty of care we owe our students in these new online environments. For that reason, we have drawn on the experience of social networking activities, including blogs and wikis, to elucidate our appraisal of the issues involved with a view to highlighting realistic risk-management imperatives in this context.

In order for students to remain engaged in the ePortfolio process, it is necessary both to promote and to encourage creative and uninhibited reflection and expression while safeguarding students from institutionally-facilitated cyber-harm. The strong design controls and intentional policy framework we have implemented at QUT, in conjunction with the dedicated education, training and scaffolding we deliver to students to facilitate their up-take of this powerful tool, we think provides a useful model for other institutions looking to harness the ePortfolio experience for their students' ultimate learning benefit. Institutionally, we feel satisfied that we have identified and confronted in an appropriately balanced way the inherent risks and tensions of the ePortfolio minefield.

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