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In what ways does policy on academic integrity, copyright and privacy need to respond in order to accommodate assessment with Web 2.0 tools?

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Abstract

Increasingly social web technologies, such as blogging and micro-blogging, audio and video podcasting, photo/video, social bookmarking, social networking, wiki writing or virtual worlds are being used as forms of authoring or content creation to support students' learning in higher education. As Web 2.0 teaching practice is characterised by open access to information and collaborative networks there are both familiar and novel challenges for policy-makers in higher education institutions. The Government 2.0 Taskforce heralded legislative and practice changes necessary because of Web 2.0. We reflect on the qualitative feedback received from innovative higher education practitioners using Web 2.0 to assess student work. This indicates a need for information policy review to accommodate the cultural shift towards information exchange and communication across traditional institutional boundaries. Issues involved when implementing Web 2.0 assessments are identified to highlight requisite areas for policy improvement in higher education, in particular for academic integrity, copyright and privacy policies

Keywords

Academic Integrity, Copyright, Privacy, Web 2.0 Assessment.

INTRODUCTION

Web 2.0 use in higher education contexts has the potential to create learning and teaching activities that are underpinned by collaborative relationships and open access to information. Academic-student and student-student communication can create shared narratives that incorporate multimedia as well as digitised text. Open access to Public Sector Information (PSI) generates a permissive approach to information management generally, characterised by transparency and collaboration between individuals with common interests across organisational boundaries (Government 2.0 Taskforce, 2009). Communication between students and industry or government employees or people with community-based expertise is possible and in order to be encouraged, must be supported. Current Government policies are being challenged by this transparency and the necessary requisite open access to PSI, and this in turn is affecting the policies adopted by higher education institutions in relation to academic integrity, copyright and privacy.

Web 2.0 empowers people and organisations to transform data by 'mashing it up' and combining it with other data so that it can become useful in new ways. Information is co-authored as collaborators comment, edit, summarise, rate and tag Web content. Communications may be owned by the individual in an open space like Wikipedia or shared with selected friends via social networking sites such as Facebook or MySpace. Examples of Web 2.0 include Web-based communities, hosted services, Web applications, social-networking sites, video-sharing sites, wikis, blogs, mashups and folksonomies. "A Web 2.0 site allows its users to interact with other users or to change Website content, in contrast to non-interactive Websites where users are limited to the passive viewing of information that is provided to them." (Wikipedia, 2009, November 10)

Higher Education institutions are being challenged by this information freely available on the internet, being integrated with work from the social-networking communities, and then submitted as assignment solutions which are often not referenced as they are sometimes being considered as general knowledge.

Web 2.0 and Open Access and Collaboration

Web 2.0 platforms like blogs, wikis and social networking sites such as Wikipedia, Google, Facebook, Twitter and Flickr are available without charge to those who can access Internet services. The functionality of Web 2.0 applications is central to individual adoption which promotes open access to information, collaboration and perhaps even increases serendipity.

In this context, serendipity refers to tripping across an excellent solution to a problem, by chance. It may be that students collaborating on Facebook about their recent activities find a useful solution to their business assignment. Fitzgerald (2004) points out that serendipity often plays an important role in the design of useful products. The accidental invention of the Post-it note provides a key example, as research with the original intention of developing an improved adhesive, discovered a temporary one. This weaker adhesive was eventually deployed on a post-it note and diverted into a ubiquitous office communication aid which is now being mass-produced by the 3M Corporation.

As public sector information becomes more easily accessible, the opportunity for students and community based experts to make previously unnoticed connections between seemingly disparate pieces of information increases. In the Government Web 2.0 (2009) report Professor John Quiggin states that the number of discoveries and innovations is directly proportional to the number of people with access to information and the number of times they can access the network. Network systems that support "emergence" and communities of practice are characterised by their capacity to harness the 'wisdom of crowds' as "... a large group of people can create a collective work whose value far exceeds that provided by any of the individual participants" (O'Reilly and Battelle, 2009, p. 2).

Communities of practice build solutions based on the sharing, co-creating, co-editing and co-construction of information (Gunawardena et al, 2009). Educators are being encouraged to build communities of practice beyond the classroom, and Web 2.0 can contribute to this as well by accessing the wisdom of the crowds (Surowiecki, 2005; Hallam, 2008).

Contemporary students actively integrate technology into their lives to meet competing demands on their time, and changing expectations of formal institutions (Radcliffe, 2002, p.5). Web 2.0 connects students and academics in distributed physical spaces and enables activities that support collaborative learning in open systems (Milne, 2009). Activities enable knowledge to be constructed by students, not by a teacher's direct instruction (Richardson et al, 2009). This student centred learning approach develops students as collaborators in the learning process. Ginn and Ellis (2007) suggest that ICT may help develop skills such as 'modern communication and collaboration methods if they are used well. The immediate access Web 2.0 provides to an increasing amount of knowledge, both in the disciplinary and future professional areas of students; supports opportunities for authentic, personalised, problem-orientated learning' (Ginn and Ellis, 2007, p.54; Elliot, 2008).

Innovation with Web 2.0 can make the assessment environment more authentic, personalised, engaging or problem-oriented (Elliott, 2008). The flexibility associated with Web 2.0 demands a reduction of traditional classroom teaching which was dependent on routine patterns of thinking and behaving. This reduction is important as "... By re-enacting such pedagogical habits, we make a culture of teaching and learning that parallels a predictable and regular social world" It can be argued that in a Web 2.0 environment a predictable and regular social world no longer exists. (McWilliam, 2005). Hence the intrinsic characteristics of Web 2.0 tools enable collaboration and open access to information which in turn supports quality teaching environments.

Government Policy Changes Heralded

Easy information transfer between individuals and communities of practice has implications for the relationship between governments and citizens. Web 2.0 provides the opportunity to increase citizen engagement and collaboration in policy-making. In the United States, New Zealand, Japan, Poland, South Africa, South Korea, Taiwan and Thailand key government documents are already in the public domain.

In Australia the Federal Government has adopted the Creative Commons (CC) international standard for permissions so that PSI can be available by default (Government 2.0, 2009). The Australian Government 2.0 report (2009) describes policy shifts towards easier access to information for re-use by non-government groups and citizens in Australia, New Zealand, United Kingdom and the USA. The Organisation of Economic Cooperation and Development (OECD) Council recommends strategies for improved access and more effective reuse of public sector information (Government 2.0, 2009). The State Governments too are making many documents publicly available under CC agreements, and encouraging their access via sponsoring projects involving the data. These changes in Government attitudes towards the release of public data and individual privacy are enabling public access to large databases of very recent information. The particular projects have been sponsored with a view to helping in future governmental planning, among other things.

Questions are arising about the extent of the impact of these governmental changes on higher education policies. Will higher education institutions be required or prepared to alter their current policies on academic integrity, privacy and copyright, in particular, to align with the heralded changes in government policies?

Higher Education Policies – Academic Integrity and Privacy

University academic integrity policies have been designed to inform students and staff about academic misconduct and plagiarism. Associated disciplinary processes are designed to ensure that students submit work which is entirely their own and correctly reference other work (Hamilton and Richardson, 2007). Historically the term, 'academic integrity', had a wider, more general meaning and referred to soundness of moral principle, uprightness, honesty or sincerity (Nillsen, 2005). Now it may be taken to mean: "...honesty and responsibility in scholarship through respecting the work of others whilst having the freedom to build new insights, new knowledge and ideas...." (Academic Integrity at RMIT web page).

Universities consider authorship of work to include ideas presented in, written, graphic and visual form, including electronic data, and oral presentations. Breaches of 'academic integrity' policy occur when the origin of the material used is not appropriately cited". The advent of Web 2.0 increases the difficulty of ensuring that students are provided with information about what constitutes authorship and ownership of written text. The moral rights given to authors in the Copyright Act 1968 are: 1) Right of attribution; 2) Right of integrity and 3) Right against false attribution. (Academic Integrity at RMIT web page)

The challenge for academics using Web 2.0 tools is to design a learning environment for the student which educates the students about academic integrity and discourages breaches of 'academic integrity' policy. This requires a student-centred approach as 'While well-prepared lectures surely have a place, teaching, at its best, means not only transmitting knowledge, but transforming and extending it as well.' (Boyer, 1997, p. 16)

Web 2.0 tools often enable activities other than lectures. The collaborative nature of Web 2.0 tools promotes students' writing short pieces of text whilst engaging in "a communal and continuous process" to build final artifacts (Penrose and Geisler, 1994, p. 517). Authorship may or may not be a singular activity but uniquely authored components are required from each student, as well as, a capacity to interact with other students (Hamilton et al, 2007; Hallam, 2008; Wenger, 1998). Good practice in this environment requires facilitation rather than direction. (Woodhouse, 2002). Collaborators build academic-student and student-student relationships as they read and write the text. As Thompson (2008, p.360) has posited, social web technologies themselves author their own identity and ownership.

Universities must abide by government legislation in relation to privacy. How the use of Web 2.0 tools, such as Facebook, will impact on student guidelines for good conduct is unclear. As Web 2.0 increases the flow of personal information across the globe, the diffusion of one's personal identity across fractured spaces raises both privacy and identity policy issues for higher education (Zimmer, 2008).

Universities' academic policies need to address many aspects of Web 2.0, such as the identification, ownership, safety, recording, privacy and preservation of student work in Web 2.0 environments. Using Web 2.0 for learning and teaching may also have an impact for good or ill on the integrity and reputation of the field of study or the university where it is used (Ehlers, 2009) depending on how these policy matters are addressed. Academic practices need to address three key issues – copyright, academic integrity and privacy. In this paper, we discuss the impact of issues raised by academics using Web 2.0 tools to assess student work on academic integrity and privacy.

RESEARCH METHODOLOGY

The Australian Learning and Teaching Council (ALTC) funded our project entitled 'Web 2.0 authoring tools in higher education learning and teaching: New directions for assessment and academic integrity' in 2009. This project aims to fill gaps in our knowledge and paint a detailed picture of when, why and how innovative academics are using the affordances of Web 2.0 in higher education. This research is providing a foundation for developing an understanding of the parameters of good practice among academics interested in assessing student Web 2.0 activities in learning and teaching. Among other things, as a part of this study, participants were asked about current academic integrity policies and guidelines for student practice at their Universities.

We invited academics at Australian universities to complete an anonymous online survey and further to that, to participate in an optional semi-structured phone interview during the period of August to October 2009. We advertised the survey in national learning and teaching forums. In addition, a number of academics who had recently published conference and journal papers about their experiences of using social web technologies in their teaching were contacted directly. Respondents were invited from all Universities. The subset of staff targeted was those currently using Web 2.0 to assess more than 10% of the assessment for one subject delivery. The interview participants were largely self-selected from the voluntary survey respondents. Pilot project participants were drawn from the pool of voluntary interview participants.

Survey respondents answered a total of 44 questions covering the way they designed their assessment tasks. The questions asked required responses that described the marking process, student results, assessment policy and procedure considerations, and background information about the subject. Participants replied to a series of statements about their assessment in relation to major academic integrity and privacy policy issues. These were distilled from a review of Australian universities' publicly available assessment policy and procedure documents.

There were 64 respondents, of whom 53 completed all or most questions. Five items on the survey asked academics about policies and the ease and effectiveness of implementation of assessment tasks using Web 2.0. Amongst other things, the online survey contained questions about the following items which are analysed further in this paper:

- Whether guidelines on conduct and safeguards against inappropriate conduct in the use of IT facilities and services are in place
- Whether this assignment encourages academic honesty and integrity
- Whether students' moral right and copyright over the work they produce are protected
- Whether students whose work shows evidence of cheating or misconduct are formally disciplined and
- Whether students' identity and privacy in online environments are safeguarded.

Respondents were asked to select their answers from a five point Likert scale ranging from Strongly Disagree (SD), Disagree (D), to Neither Agree Nor Disagree (NAND), Agree (A) and Strongly Agree (SA) plus a sixth option of Not Sure (NS).

While the survey invited academics to document their experiences in relation to one assignment, we also engaged in more in-depth dialogue about lecturers' use of social web technologies in their teaching through follow-up interviews with 22 participants. Interviewees were asked semi-structured questions by telephone, about details of their assessment and teaching practices. They described their perspectives on the use of Web 2.0 for assessment and discussed the need for academic integrity, copyright and privacy policy reform. Among other things the interviewer asked the following questions: "We are trying to get an understanding of issues relating to academic standards, practices and reporting when using Web 2.0 technologies in assessment...

- Can you tell me more about the process of marking this assignment?
- Have any issues arisen with this assignment in terms of student copyright and/or plagiarism?
- Have there been any issues relating to student privacy and identity online?
- What happens to students' work after the assignment is completed (e.g., is it publicly available on the web)?
- Do you have any other comments about factors relating to academic standards, practices and reporting when running assignments like this one?

In the study questions relating to the implementation of policies were embedded in the survey, round-table discussion and meetings with a reference group. As Web 2.0 is a collaborative tool questions were asked about

student ownership of work, the allocation of marks, originality, attribution and privacy issues. This paper reports on a subset of all the data collected relating to the capacity of current higher education 'academic integrity', copyright and privacy policies to encompass the technology-driven changes required for quality assessment practice. It was difficult at the time of the study to identify academics using Web 2.0 to assess student work. This impacted on the quantum of survey and interview respondents and reduced the coverage of Web 2.0 tools in the pilot projects. A large proportion of the participants were using wikis and blogs.

FINDINGS

Higher Education Policy Impact

In order to present a more complete picture of how the spectrum Web 2.0 technologies are impacting on academic integrity and privacy in higher education learning and teaching, we describe selected findings from the study. The organising principle used was the existing higher education policies for academic integrity, copyright and privacy in a major metropolitan University and the associated government reforms (Government 2.0 Taskforce, 2009; Academic Integrity at RMIT web page). We provide comments from interviews and openended survey responses that directly asked academics about practices relating to the policy areas to illustrate the key benefits and challenges these 'early adopter' lecturers faced in implementing higher education policy in their Web 2.0 assessment environment. We found that academics largely supported the use of Web 2.0 tools to augment traditional teaching practices. Also multiple responses were possible to many of the survey questions.

We found that some universities' current policies do not yet address the implications of using the social web to assess student learning. Some of the issues raised may pertain to assessment generally, but most pertain to Web 2.0 assessment in particular. Examples of issues which pertain to both are:

- Assessment load for many Web 2.0 projects (eg blogs), unlike conventional undergraduate assessments, the duration can often be a whole semester.
- Group work while the procedures in traditional and Web 2.0 assessments may have much in common, some will be rather different.
- Feedback receiving feedback on submitted work before the next assessment is due may not be applicable to Web 2.0.
- Giving assignment information to students for Web 2.0 currently, dissemination may be more informal than in conventional assignments.

Examples of issues relating purely to Web 2.0 include:

- Feedback on in-semester assessment tasks the feedback may take quite different forms from those used in conventional assignments.
- Assessment and results record keeping and security document storage and security is likely to be completely different from conventional assignments.

Survey Data Analysis

The 60 responses to a question about the type of Web 2.0 assignments showed that wiki writing (53.3%) and blogging (51.7%) were the predominant technologies used in higher education learning and teaching. Social networking (28.3%), podcasting audio or video (26.7%), virtual world activities (20.0%) and social bookmarking (18.3%) were also well represented. Table 1 illustrates the extent to which the academics were confident that they were managing their assessments appropriately in relation to the appropriate conduct of student's online, academic integrity, student's moral rights and implementation of discipline procedures.

Table 1. Reported academic perspectives describing the alignment of policy and practice.

Policy areas	SD	D	NAN D	A	SA	NS	% (A and SA)
Guidelines on appropriate conduct and safeguards against inappropriate conduct in use of IT facilities and services are in place	0	2	8	32	42	18	88%
This assignment encourages academic honesty and integrity	2	5	7	33	33	20	83%
Students' moral right and copyright in work they produce are protected	.3	2	7	30	32	27	87%
Students whose work shows evidence of cheating or misconduct are formally disciplined	0	2	10	28	32	28	83%
Students' identity and privacy in online environments safeguarded	3	10	17	32	18	20	63%

Most respondents (72%) identified their role as that of the subject coordinator, i.e. as having overall responsibility for learning, teaching and assessment in the unit of study. Web 2.0 assignments were designed for all year levels in 35 undergraduate degrees and 16 postgraduate coursework degrees. Almost half of the 45 responses to the field of study question said the assignment was part of a course in Humanities or Social Sciences, with a third from each of Education and Information Technology; others mentioned were Health and Medicine (17.8%), Management and Commerce (13.3%), Creative Arts and Natural and Physical Sciences (6.7% each), Architecture, Engineering and Law (2.2% each).

There were noteworthy levels of non-alignment or uncertainty with respect to safeguarding students' identity and privacy online as 63% of academic respondents 'agreed' and 'strongly agreed' that student's identity and privacy were safeguarded in the Web 2.0 environment. This was substantially lower than the responses for all of the other policy implementation items. Also more than 10% of the academics respondents either 'strongly disagreed' or 'disagreed' that the student's identity and privacy was safeguarded. Whilst there is no specific privacy policy other instruments, such as, the electronic communication policy implicitly require protection of personal identity and privacy (Academic Integrity at RMIT web page).

Academic Integrity

During the interview academics were asked to reflect on how their Web 2.0 assessment tasks encouraged academic honesty and integrity. The theme of academic integrity runs through all of the examples and information in our resources. Each participant has answered our questions in their own way. As one participant noted:

• "Plagiarism is not a problem. Initially students referenced everything they found because they knew the evidence needed to be traced and explained. Later they adapted it and their development can be traced through the wiki, so the wiki in effect provides the information/evidence/proof required to show where the information came from and how the conclusions were reached."

However, there were other academics who described the fear of copying assessment. This was expressed by colleagues and students when work was visible during Web 2.0 shared information or artefact construction activities (I11, I13, I16, I18, I19). Despite being enthusiastic about blogs as learning tools, several academics were reluctant to implement blogging assignments. A participants commented about his colleagues:

- "I understood that as people copying, cutting and pasting from their post into their post and I was trying to explain that but I wondered by copying whether they actually meant people will learn from their ideas and get a better result because they've learned from my ideas"
- "In spite of training and emphasising that copying and pasting from web pages is not acceptable it still happens"

However, academics were aware of the technologies, such as, Turnitin and Google that enabled fast and easy identification of plagiarism. Taking it a step further, some academics used the ease of copying text on the Internet to teach students about plagiarism. One of the interviewees noted:

• "They tended to draw from the site a little too much, ie copied what's been said on the site they've been reviewing. But not really a problem in that it was a good way of picking up and correcting the issue and the Univ policies allow us to get them to, in the first instance in a 'light' level form of plagiarism, to get them to resubmit with a relatively light penalty. So it was a good assignment for picking it up and teaching them about it and moving on."

The policies and practices for disciplining academic misconduct were also deemed effective by most of the academics. The learning and assessment design evidenced a preventative method used by the academics to reduce breaches of academic integrity policy, as one respondent phrased it:

• "I still think efficient assessment design and valuing students' opinions and setting assignments that ask for their opinions not for them to repeat stuff they've got from elsewhere is the best way of getting around plagiarism"

The collaborative nature of Web 2.0 tools and ensuring that peers had access to contributions was also used to deter plagiarism. In many cases, students were required to review and comment on their peer's work. The fact that students viewed all contributions in a public forum was seen to discourage incidents of plagiarism. Staff also found it easy to identify incidents of copying as individual student voices emerged irrespective of any requirement for identification.

• "By the time I found out, the group had sorted it, because they're all reading each other's and particularly the high distinction ones, they know exactly what's going on and they saw it and the group sorted it out and then they all came to me with it and the individual and we talked about it and we all fixed it. So it was a really nice way to deal with plagiarism."

Two respondents mentioned that students were loath to contribute unless the activity was part of an assessment task and even then they would wait until the last minute to upload their short weekly assessment text to prevent their peers from building on their contribution in the competitive environment. These fears were evident even when no evidence of wrong doing was available.

Academics did not mention Web 2.0 driven academic integrity issues without describing their prevention strategies in place. Web 2.0 changes the nature of acceptable copying. Re-use of digital material and building on other contributions, interacting and commenting on blogs or writing collaboratively on a wiki create a climate in which some forms of copying are acceptable. Students were required to read peer comments and ideas and add to them in a positive constructive manner. Authoring was not understood to be a singular process. In other cases academics noted a more organic process of student communication and which may be associated with a sense of community (Hallam, 2008, Wenger, 1998). Innovative Web 2.0 learning environments indicate a need to review institutional explanations of academic misconduct (Kennedy et al, 2009).

Lecturers were generally positive about the impact on academic integrity incidents and learning. In order to alleviate the fear of copying, some academics informed students of the software available to check text, ensured that students were aware that their peers would be viewing their contributions and assumed a facilitation role with the collaborative online teams. Some students also monitored copying in a class culture where all were informed of the capacity of Web 2.0 to support collaboration and the higher education policy and guidelines for 'academic integrity'.

The technology and assessment processes implemented afforded protection for students' work. Academics sometimes limited accessibility of student work at different stages of assessment. In one case the academic monitored the work until it had all been marked. In a second case the groups could view each other's work within the group but not that of fellow students outside their group.

Protection of students' moral rights and copyright in work they produce

Where blogs or wikis could be viewed by the public new copying and misuse of student work issues arose. Academics felt it was important to teach neophyte students how to protect their work. They were aware of issues and pragmatically created systems to prevent them. For example, academics developed strategies whereby students provided permission to publish their work and required collaborators permission.

• "The people interviewed are identified, unless they ask not to be and they sign a form that says 'I understand this is being published publicly and the information is not for research purposes it's for career guidance."

In some cases the technology assisted with the protection of student's work from public access as they were the creators and owned the images. Where Flickr was being used the images were created in a way that prevented successful copying and where Blogs were being shared by assessment teams the technology prevented intergroup copying.

• "I tell them that they can put a copyright or watermark on their photos but on the Web I make sure that they downsize and that is part of their learning so they have to be small on Flickr."

Academics facilitating Wikis had to closely monitor activity to prevent students deleting or changing other contributions. Issues were identified by academics using Wikis as one student has the ability to delete another student's work. An additional issue identified related to University ownership of Wiki and Blog contributions when the site was hosted in-house. University Copyright policies and guidelines require review to address the lack of clarity around ownership of text that is collaboratively created by students for assessment purposes.

• "I won't be using the University Wikis for my assignments and I won't be using it for collaboration with colleagues either if it means that the IP goes that way ... we should be exploring creative commons and that kind of stuff, so this is an issue where those kinds of things about collaboration and IP really run contrary to where the university sees things as going."

Higher education policies require reviews to set standards that operationalise student copyright, multi-authoring and information re-use Web 2.0 practices. The rights and responsibilities of institutions, individual students, and other interested parties regarding the ownership of externally hosted content need description. The default access to government information was illustrated by the adoption of Creative Commons which demands changes to internal-to-external relationships, as well as, standards for acceptable use of information as a secondary source. Academics did not mention Intellectual Property explicitly and certainly did not see it as a problem for students.

Safeguarding of students' identity and privacy in online environments

Kennedy et al (2009) highlighted the need for Universities to respond to technology driven open access to student work with policies designed to protect the identity and privacy of novices working in their professional domain. Academics interviewed that had identified privacy issues due to open access to student work had also developed strategies that enabled student privacy. Pseudonyms were available on demand but were not required by the students who felt pride and ownership of their work once it was published in the public domain.

• "I think claims for privacy online are often over estimated. The best policy is to tell students that anything you put up there online could be read by anybody, anytime, anywhere and not just now but years down the track. ... I certainly do what I can to protect, as I say I wouldn't publish critical comments on their blogs, so I protect their privacy to that extent. But I think if we're telling students 'you can say whatever you like because you're using a pseudonym,' I feel we're giving them misinformation. If it's up there online it's not private."

Academics also managed access to student work by restricting access to the assessment team, class group and University. Students were sometimes given the choice about the level of access provided but usually did not restrict access due to a concern for their privacy.

• "Like with MySpace or Facebook, they have a choice of making their page private or public".

Student's identity often became obvious to their peers and the academic facilitator irrespective of the provision of personal details. Students and staff also expressed an acceptance of their online identity crafted either for social or academic purposes.

• "there's a lot that goes into them finding their different voices, how to share appropriately, how to write with authority. A lot of them say but I'm just a student. Some will always write, even at the end, I'm just a student, I've got no point of view"

Many of the interview respondents described assessment tasks that involved making student work visible either within, the class, team completing the assessment, or in the public domain. In two cases students work was available to the general public; in other assessments open publishing was an inherent part of task and choice of technologies used. On one occasion the academic observed that publishing work on the Web provided students with a sense of pride and ownership. The real audience enabled by the emerging technology can create a more authentic learning experience (Kennedy et al, 2009, Elliot 2008).

Open access to student work either within the University or in the public domain requires a review of copyright and privacy policies within higher education. In some cases the technology may allow student choice. However, the territory where an academic requires students to identify themselves publicly and students refuse has not

been investigated in relation to policy. Academics have created strategies to enable privacy in some instances but regard it as relatively unimportant in other situations.

Guidelines on appropriate conduct and safeguards against inappropriate conduct in the use of IT facilities and services

Ethical and professional communication standards were important to the academics interviewed. Punitive measures, such as, banning the students and blocking access to information were used to ensure students used appropriate language and respectful behaviour towards their peers. The technology was used to enforce University standards for appropriate conduct.

• "Students can be blocked for poor behaviour and then they cannot access lecture notes, assignment notes and support. University rules allow staff to block students from the site."

Some academics agreed that Web 2.0 had the potential to make students vulnerable to attack but used the technologies and teaching practices to prevent poor behaviour. Another academic claimed to have trained the students to behave appropriately and monitored student sites to ensure professional ethical standards were adhered to by all.

- "I spend time on the ethics of publishing publicly. What's defamation, what's copying, what's appropriate, what's not. And that they build up their own standards as well and they can start to be critical of other blogs they go to"
- "Refusal to provide an option for anonymity was another strategy employed to restrict poor behaviour".

CONCLUSIONS

Historically institutions have responded to issues such as privacy, copyright and academic integrity by providing students and staff with policies, incident reporting guidelines and information that clearly define the problem and identify the associated disciplinary processes. Many universities also have clear assessment policies.

A closer look at the descriptions of the assignments that some of our respondents have provided has shown that, in many cases, their students are being given the option of using different types of social web technologies to support their activities. In these cases, the focus of the assignment has been the assessment task itself and not the technology that was used to support students' assessment tasks.

In collaborative assessment tasks the improvement of the individual student's communication skills has been the primary aim, whilst reducing the occurrence of academic integrity issues has been an unintended by-product. Participants who selected "other" in response to our question about academic integrity specified "commenting on each other's blog entries," "collaborative mind mapping," "online discussions," and "audio slide-casting" as important attributes of the Web 2.0 technologies which they have been trying to assess.

The academics in our study are aware of the new issues arising from Web 2.0 use in the learning and teaching environment. Measures adopted to discourage cheating are perceived to be sophisticated and effective. Many of the academics surveyed closely monitor their students' work and design their assessment to prevent 'academic integrity' incidents. It is clearly important for individuals and institutions who wish to innovate with Web 2.0 to ensure that this is done in ways that preserve academic integrity, while being engaging, effective and efficient for both students and staff.

In relation to copyright, the project academics were effective in training and implementing measures to prevent illegal behaviours of their students. However, the adoption of Creative Commons has pushed the higher education culture along with governments to enable open access to information. Higher education policy that describes students' intellectual property rights represents a gap in policy. Both the public sector and Universities need to further investigate and create new descriptions of expected values and behaviours to enable testing of current policy implementation.

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