Social media and Web 2.0: Teacher-librarians, risk and inequity

By Dr Mandy Lupton

Introduction

In this article I examine the perceptions of social media and Web 2.0 that influence the pedagogical practices of teacher-librarians. I argue that for many teacher-librarians, use of social media is seen as risky. This perception is exacerbated by the blocking of a range of social media, Web 2.0 and cloud computing tools by Australian state education departments. I show that teacher-librarians in some private schools are not subject to the same blocking practices and thus have more expansive views on the pedagogical affordances of social media and Web 2.0.

For the purposes of this paper, I use the term 'social media' to encompass a range of Web 2.0 internet tools and services which allow people to create and/or share information. Social media tools are underpinned by the affordances of Web 2.0. These tools enable people to create content as opposed to consuming it (as in Web 1.0). The social aspect refers to the way that people can interact, for example through editing/manipulating content, commenting, 'liking', curating and forwarding. Davies and Merchant (2009, p. 5) summarise key characteristics of Web 2.0 as:

1. Presence – creation of online identities using profiles and avatars
2. Modification - personalisation and interoperatibility (e.g. embed YouTube video in WordPress blog)
3. User-generated content - 'producers as well as consumers'
4. Social participation – e.g. rating, ranking, commenting, tagging

The term 'social media' seems to have superseded the term 'Web 2.0' in many discipline areas, however in teacher-librarianship the most prevalent term seems to be 'Web 2.0'. It should be noted that 'social networking' is a term generally used for services such as Facebook, MySpace, Google+, LinkedIn and Twitter, where one creates a profile and builds a number of 'connections', 'followers' or 'friends' (Lenhart, Purcell, Smith, & Zickuhr, 2010). Social networking is a subset of social media. It is possible that the perceptions of risk are different in relation to how people see the distinctions between 'Web 2.0', 'social media' and 'social networking'.

The pedagogical benefits of using social media are numerous. Social media allows students to become part of digital communities where they can collaborate and share their work with the world. As someone who creates and shares content online I know the thrill of discovering that my blog has been visited and commented on by people from all over the world, that my dance performance has been viewed on YouTube, that I have gained followers to my music recordings on SoundCloud, that my friends 'like' and comment on my Facebook posts, that I have been retweeted.

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It has often been argued that teachers should engage contemporary technologies that are used in an advanced, technological society. But many teachers seem a little afraid to use social media in their teaching. Australian state education departments certainly seem afraid, as they block most social media and cloud based tools and services. This situation is not confined to the school sector - upon discovering that I use Facebook groups for my university classes even my university colleagues have asked whether I am 'allowed' to use Facebook in my teaching.

In this paper I examine teacher-librarians' perceptions of using social media and Web 2.0 in teaching and learning. First, I examine the perception of risk in relation to social media and schools.

Risk, social media and schools

As the real-world information environment has become more complex in the shift from Web 1.0 to Web 2.0, in many jurisdictions the school information environment has remained severely restricted. These restrictions are seen in the form of internet blocking, or 'over-blocking' (Hope, in press). Hope (in press, p. p. 2) defines internet "over-blocking" in schools as "the unreasonable limitation of students' educational experience, arising from insular, distorted or exaggerated responses of individuals, institutions or technologies". As I see it, there are two primary reasons for over-blocking, the first being a moral panic over students using the internet freely, and the second, a lack of bandwidth in schools.

Moral panics, children and the internet

The moral panics over the risks associated with students using the internet freely have changed over time. In the late 1990s I became a member of an education listserv run by Jamie McKenzie, the prominent US educator who is a strong advocate of inquiry learning. I was bemused to find that the predominantly US membership of the list were obsessed with children accessing pornography on the web and the discussion was almost entirely about these concerns. Web Quests were hailed as the answer to children using internet sources and filtering applications such as Net Nanny were seen as the answer to protecting children. Students were allowed only to use vetted sites, and were not allowed to freely search the web.

As we moved into the new century the moral panic was over children being groomed by pedophiles on internet chat sites (Hope, 2010, in press). Today the panic is over cyber bullying, digital footprints, digital reputations, internet addiction and privacy (Byron, 2008; O'Keeffe, Clarke-Pearson, & Council on Communications and Media, 2011).

These moral panics are seen frequently in the media, but they are also pervasive in education. For example, in late 2012 I noted a discussion on the OZTL listserv where teacher-librarians discussed the use of content sharing sites such as Photo Peach and YouTube. One Australian teacher-librarian used the term 'child protection' in relation to restricting student use of these sites. The term 'child protection' is a loaded term. Who amongst us would not want to protect children? In Australia, the term is used officially in relation to protecting children from neglect and abuse. But to use it in relation to restricting access to web sites is extreme. There is something else at work here.

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A less alarming risk is that students waste time using the internet. Many schools have an internet use policy that states that academic use of computers takes priority over recreational use. Staff are concerned about using school resources for accessing content seen as "little educational value" (Hope, 2010, p. 692). Gaming is seen by many schools as non-educational even though games such as Minecraft have educational benefits such as collaboration and complex problem-solving (Banks & Potts, 2010). The concern over recreational use of computers is in contrast to the clear mandate for school libraries in promoting reading for pleasure. Reading for pleasure is seen as a worthy activity, whereas gaming for pleasure is not. There is also a concern over teachers' recreational use of the web with education departments blocking recreational sites used by teachers such as online shopping and Facebook. This is not confined to education departments, as many non-education government departments, businesses and corporations apply the same blocks.

The 'child protection' aspect of risk is obviously more serious than the risk of students and teachers wasting time. It has been documented that we are becoming more risk adverse in relation to children. This is known as 'bubble wrapping' (Malone, 2007). It has resulted in fewer children walking to school and being allowed the freedom to roam the neighbourhood as many of us enjoyed in our childhood. Malone (2007, p. 523) argues that this could compromise resilience in children. In relation to restricting the mobility of children she points out that:

> *The irony is that by restricting children's movements many parents are actually adding to children's anxiety and lack of competence in assessing environmental hazards, therefore putting them in more danger should they find themselves alone in the environment.*

In a contemporary technologised society, students have the internet as their neighbourhood. Being restricted to the internet equivalent of the 'walled garden' (Malone, 2007) of their backyard means that students are not empowered to assess hazards. It is only by playing in the open internet that students will learn about the internet. As Davies and Merchant (2009, p. 112) argue:

> *Educating children and young people in internet safety is likely to be far more effective if real experience is provided rather than the alternative of applying blocks, filters and other controls – or even avoiding online activity altogether on account of its perceived danger. After all, we do not discourage swimming because of the danger of drowning; rather we alert children to danger and provide them with the knowledge, skills and behaviours that will enable them to experience the benefits.*

The Byron Review from the UK (Byron, 2008) extends the swimming analogy in relation to managing online risks. Byron outlines the controls at a public pool for swimmers of different ages, for example the baby pool, shallow end, deep end, water wings, lifeguards, fences, signs and rules about parental monitoring for children under a certain age (Byron, 2008). As children develop, rather than create blanket blocks for all students, a scaffolded and sequenced online environment would gradually provide students with more freedom and allow them the opportunity to experience managed risks. As Byron argues, risk taking is an important part of development.

> *Concerns about risks to children and young people have lead some to argue that we live in a 'risk adverse culture' which, while aiming to protect children from risks, increases their vulnerabilities by denying them opportunities to develop risk identification, assessment and management skills that can help children and young people keep themselves safe.*
>
> *Risk taking is part of child development – part of our drive to learn and to succeed. Particularly in adolescence, risk taking is not only a developmental imperative but also a lifestyle choice: it is driven by developments taking place in the brain and it is an important part of identity construction* (Byron, 2008, p. 20 original emphasis).

Over-blocking creates a situation where students are restricted from learning about the joys and risks involved in constructing digital identities and participating in digital communities (Harlen, Bruce, & Lupton, 2012). Their participation necessarily becomes a non-school activity. The concepts of collective wisdom and crowd sourcing are the foundation of social media communities. The literacies that are needed to engage in these communities can only be learned through participating. For instance, re-mixing, mash-ups and fan fiction not only rely on sourcing material from the internet, but also rely on the internet to share and get feedback on the final product (Merchant, 2009). If students are restricted from creating digital identities and participating in digital communities under supervision at school, then it follows that they may not have learned to manage the risks in such communities (Davis & James, 2013).

Over-blocking also discriminates against students from low socioeconomic backgrounds. It is generally accepted that students who have access to the internet via their home computer and/or smart phone can access the sites that are blocked at school. But if the student is from a low socioeconomic family, they may only be able to access the internet at school or at a public library. Byron argues that as children from low socioeconomic backgrounds have less experience with the internet, they are more vulnerable in terms of risks (Byron, 2008, p. 8).

In researching this issue, Robinson found that middle-class students who are able to roam freely on the internet adopted a 'playful' or 'exploratory' approach. She argued that 'this playful habitus allows these individuals to derive the benefits that accompany open-ended roaming and browsing' such as developing their information-seeking skills (Robinson, 2009, p. 491). By contrast, she found that low socioeconomic students adopted a task-oriented, waste avoidance approach due to their limited time on the internet. She argued that this approach 'ultimately does them [students] a disservice, making it harder for them to develop more sophisticated information-seeking skills' (Robinson, 2009, p. 491).

The second reason for internet over-blocking - lack of bandwidth - is not related to risk. Restrictions on recreational use of the internet are a reality when resources are limited. Along with the moral panics outlined above, such restrictions are at the basis of over-blocking in state schools. Some government education departments have resorted to 'timed access' (Queensland Department of Education, 2012), where particular sites are blocked during school time to free up the network for academic use.

What are the risks in using social media and Web 2.0?
Along with the moral panics mentioned above there are a number of risks to adults and children using social media, cloud-based services and Web 2.0 tools:

- access to inappropriate content - e.g. pornography and other sexual material, websites promoting drugs and hate sites.
- privacy – by registering with these services one must provide a name and email address and sometimes access to other information such as Facebook friends and email contacts
- hacking – it is common for Twitter and Facebook accounts to be hacked. Many people use the same email address and password in multiple services which leaves them vulnerable to multiple hacking attacks
- giving over content to a third party – using cloud-based storage such as DropBox and Evernote entails storing information and data with a third party. This opens the user to possible content theft, hacking or loss of content
- network security – some services may contain security flaws that may leave the network vulnerable to hacking and attacks
- tracking - many websites and services are designed to track our behaviour and gather personal data in order to customise our experience
- inconvenience - unsolicited mail from the services, ad-free services introducing ads and free services becoming fee-for-service.

These risks are reflected in the Queensland Department of Education, Training and Employment (Queensland Department of Education, 2012) criteria for a 'state-wide block'.

- inappropriate content
- pose a potential security risk, for example spyware or malware
- host insecure instant messaging or peer-to-peer sessions
- be related to scams or identity theft
- store personal information off the department's network
- decrease bandwidth in your school

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The websites blocked by the Queensland Department of Education, Training and Employment include some of the top rated technologies for learning. The Centre for Learning and Performance Technologies (Hart, 2012) publishes the top 100 learning tools from a yearly survey. Of the top ten technologies in the 2012 list (*Twitter*, *YouTube*, *GoogleDocs/Drive*, Google Search, *WordPress*, *Dropbox*, *Skype*, PowerPoint, *Facebook* and Wikipedia), seven (those in italics) are blocked in Queensland state schools for student use, with YouTube being available for teachers, but not students. It is assumed that YouTube and Skype are blocked because of bandwidth, that YouTube, WordPress and Twitter are blocked because of the risk of accessing inappropriate content and that Google Docs and Dropbox are blocked because they are cloud services that store information off the department's network. It is clearly less troublesome for education departments to restrict access than it is to manage the risks from allowing access, even though these technologies are used ubiquitously in the wider community.

The problem with over-blocking is that it does not allow teachers and students to learn to use a real-life web environment, thus both teachers and students can suffer a lack of confidence in using social media and/or suffer a disconnect between the web access they have at home versus the restricted access they have at school. Teachers can find in doing preparation at home they have found relevant websites for use with students, only to discover these sites are blocked at school. Students are frustrated with encountering the dreaded screen of disappointment (advising the site is blocked) when searching and browsing. And there is the risk mentioned above in regard to discrimination against low socioeconomic students.

These issues are reflected in the barriers to using Web 2.0 in teaching and learning as identified by the Australian report Web 2.0 blocking in schools (Hendrick & 2009, p. 2):

- teacher lack of knowledge and confidence in Web 2.0
- lack of safe places to gain experience with using Web 2.0 tools in teaching
- concerns about cyber-safety and cyber-bullying
- professional risk of allowing students access to popular social networking sites
- limited bandwidth for effective delivery of rich Web 2.0 media
- inflexibility of school site blocking systems
- inability to provide access to educationally-relevant content from blocked sites.

How, then, do schools manage the risks? A UK report on E-Safety and Web 2.0 (Sharples, Graber, Harrison, & Logan, 2008, pp. 6-7) found four approaches to Web 2.0 use in schools:

Walled garden – Schools provide protected and moderated Web 2.0 activities for learning, through a school or educational network with Web 2.0 facilities but not access to public Web 2.0 sites. Schools educate children in how to take responsibility and manage risk on the public web.

Empower and manage – Schools allow children access to public Web 2.0 sites. Children are educated and helped in school to use Web 2.0 activities for responsible and creative learning. Children's web activity is monitored and action is taken against threatening or unsafe online behaviour.

Lock down – Schools prevent children's access in school to Web 2.0 sites. They provide children with education on safe use of the internet.

Open access – Schools allow children access to public Web 2.0 sites. The emphasis in school is on developing creative learning through Web 2.0 activity and on trusting children to exercise self-control and social awareness.

It is no surprise that the Strategic ICT Advisory Service (Hendrick, 2009) found that Australian state education departments had a 'walled garden' approach whereas some independent schools adopted an 'empower and manage' approach. These findings have been borne out in my own study, and I argue that they have created a digital divide between government schools and private schools. In the next section I report on the results of a pilot study into teacher-librarians' perceptions of using of Web 2.0 and social media in teaching and learning.

Methodology

The participants of the pilot study were twelve teacher-librarians employed in government (N=5) and private (N=5) schools in Queensland, Australia. The schools ranged in size from approximately 500 to 1800 students with a diversity of year groups represented (e.g. P-7, P-12, 8-12, 10-12).

Semi-structured interviews of 20-30 minutes were undertaken with the participants. Nine participants were interviewed individually, and three from one school were interviewed together in a focus group. Participants were asked:

Could you tell me what is social media and what is Web 2.0?
Can you tell me about a time when using social media and Web 2.0 went well?
Can you tell me about a time when using social media and Web 2.0 went badly?

The interviews were audio recorded and transcribed. The transcripts were initially analysed by examining the relationship between the teacher-librarian's perception of social media and Web 2.0, and their description of their practices with students. Subsequently, similarities and differences in the experiences of the group were compared and contrasted. Early in the analysis it became clear that there was a distinction between the experiences of teacher-librarians according to their sector (i.e government or private). The findings section below explores this difference.

The limitations of the research are due to the small scale nature of the study. For instance, two of the participants were unable to answer most of the questions as their primary role was of library manager and they had limited contact with classes. Furthermore, the interviews with the government teacher-librarians necessarily provided limited responses, due to lack of suitable bandwidth and restrictive blocking practices at their school. The conclusions drawn in relation to the distinction between government and private schools relate only to the findings of this study, and should not necessarily be generalised across the whole sector. However, it is worth noting that previous research has found similar results (Hendrick, 2009).

In the section below I have illustrated the experience of the teacher-librarians with quotations identifying their sector. I have used 'GS' for government school, 'IS' for independent school, 'ICS' for independent order-based catholic school, and 'CS' for catholic school.

Teacher-librarians' perceptions of using social media and Web 2.0 for learning and teaching

The study revealed that many teacher-librarians saw social media and Web 2.0 differently. Social media was generally regarded as social networking such as Facebook (i.e. 'Those Facebook type things' TLGS), whereas Web 2.0 was generally regarded as a range of tools and apps:

- Using tools to do things faster and easier. (TLIS)
- Tools that help support their learning and make it more efficient. (TLGS)
- Little apps. (TLGS)
- Tools that are out there free. (TLGS)

The following quotation incorporates the tools aspect with the idea of sharing information. It reveals the main issue found in this study that of limited access in government schools:

The tools that you can use on the world wide web to get your information out there. So basically, it's just getting out there and sharing your information, which is what everyone does on the internet. How we would actually use it here is really a bit more confined, because we're with Education Queensland. So we can't actually do a lot, except do searches and things like that (TLGS) [my emphasis].

The digital divide between state schools and private schools emerged in answers to all the questions. For instance, as government school teacher-librarians were in a limited web environment, they restricted their use of social media and Web 2.0 to basic tools and

apps such as WallWisher, Wordle and BibMe. Government primary school teacher-librarians also tended to use unsophisticated click and drag style apps such as those used for creating avatars (i.e. Build Your Wild Self). By contrast, private school teacher-librarians experimented with a range of social media including Facebook, Twitter, Google Docs and Goodreads.

All participants saw social media and Web 2.0 as educationally useful for sources of information, content creation (as an alternative to traditional texts and genres), promotion of reading (e.g. book review blogs, book discussions), promotion and communication with parents and students (e.g. Facebook for excursions) and collaborative work (e.g. wiki). A combination of tools and services on the open web and inside the school intranet or learning management system were used for different purposes. For instance, blogs and wikis within the school were used to display writing to the school but not on the open web.

> *There is a fear about writing for the world. A lot of them [students] don't show good judgement around those things, about what they put out there. It's sort of an intermediate step where they're putting it out there to the school, but not to the world* (focus group - CIS).

The open web had other benefits such as using Goodreads, a well-known social media service for book reviews and recommendations.

> *Goodreads with the Year 8s has been fantastic…We've had students to the counter who have said 'Have you got such and such a book, Mrs X recommended it to me'. And I'm sitting there going 'I've never seen that kid before in my life.' I said 'Did I? When did I recommend that?' She said 'On Goodreads'. One of my girls in book club got on there and researched a whole heap of books to tell everybody to read over the holidays. It's been a really good one* (focus group - CIS).

Teacher-librarians in the private schools used popular social media such as Twitter. One private school teacher-librarian was planning to experiment with using Twitter in a controlled environment.

> *I'd like to start with Twitter, because it's a little bit more controllable until they have learned their boundaries and their responsibility. Because they could tweet us and we only re-tweet the appropriate things. So there's less exposure, less risk* (TLCS).

Some private schools experimented with allowing access to Facebook but found it too distracting for students. They acknowledged that students were still able to access Facebook via their smartphone connection.

> *Facebook is blocked. Too distracting. When we first got the laptops the students said it was too distracting…The kids have got their phones, so rather than have it on their device where they're trying to learn, quite a number of them they say it's too distracting and they're glad it's not there, which is surprising and quite good!* (focus group - ICS).

The distracting and time-wasting aspect of Facebook was mentioned by another Catholic school teacher-librarian. Due to the school's policy of normalising social media, Facebook was initially allowed. However, staff complained about students wasting time.

> *There was a big to-do at one of the staff meetings with some of the teachers going "I'm over this. Kids are on Facebook during school time. During my class they're on Facebook. We need to block it."* (TLCS).

The school responded by blocking Facebook, however, due to a new surveillance tool being installed across the school, there were plans to unblock it.

> *When the kids open up their laptop or their device, the teacher says, because every device has a LAN School, 'Got to channel whatever', and the teacher can see his or her laptop, what every kid is on. So now that teachers have got that level of supervision, they are going to be more comfortable…Now they feel that they can at least monitor their students so that it's not the big shut it down fear anymore…And you know what? When you normalise it, it's not as much fun either is it? It's just behaviour* (TLCS)

Government school teacher-librarians mentioned that they are not allowed to use any tool where the student is required to register and login, as this would provide personal information such as an email address to a third party. Therefore, they used only those basic tools and apps that did not require registering, or where the teacher only needed to register. This restriction effectively meant that most social media could not be used, as registering is usually a required step to create a user name or profile which allows the user to engage in the social aspect or cloud storage offered by the service.

A primary government school teacher-librarian used the term 'child protection' when describing the issues associated with using Web 2.0.

> *It takes an awful lot of setting up, because we've got to have child protection in place and all that kind of thing . . . but the way we're doing it here is using the Learning Place, which is the Ed Queensland we one get, the one that they set up for us* (TLGS).

Government school teacher-librarians described using basic tools and apps (those that didn't require registration/log-in) as fun (e.g. creating avatars), efficient (e.g. using bibliographic tools) and student-centred (e.g. asking anonymous questions on virtual post-it notes).

> *Because it's [WallWisher] anonymous they could very bravely put up questions that they thought without somebody going. "Well I don't think you're quite right there"* (TLGS).

The private school teacher-librarians did not seem to have restrictions on students registering for services. At one school they encouraged students to use their Google login for a range of services and tools.

> *All our kids have Google accounts. Lots of Web 2.0 tools allow then to use their Google login. They nearly all default to that now because we've been pushing it. Sign up with your Google account. Particularly they've found and we're finding that if you use different accounts and different passwords, it all gets – password management is a real issue* (focus-group – ICS).

Private school teacher-librarians commented that it was important to normalise social media with teachers and students.

> *Kids don't come to school to dumb down . . . we don't really need to introduce social media to the children because they already know how to use it. Our task has been to normalise it* (TLCS).

> *And the other thing we're trying to say is how can you teach in the world unless you walk in that world? You've got to understand those tools. So our push at the moment has been developing a positive digital footprint and using these tools as positive tools for learning* (focus group - ICS).

In summary, there was a significant difference between the ways in which government school and private school teacher-librarians in the study perceived and used social media and Web 2.0. Government schools tended to use simple apps, while private schools had a range of tools and services at their disposal including cloud services such as Google Docs. Both groups used the blogs and wiki tools in their respective learning management systems.

Discussion

The findings of this study reveal that differing information environments in government schools and private schools constitutes a digital divide between the 'walled garden' (government schools) and 'empower and manage' (private schools) approaches. It was not clear whether the 'walled garden' approach was created due to lack of bandwidth, or concerns over risk, or both issues. If we create an artificial, gated information environment at school, then we are not empowering students to operate in a real-world information environment. A real-world information environment is characterised by mobile technologies and social networking and is dependent on cloud-based services that sync between devices. Many students and teachers already use these services and tools on their mobile devices and at home. The private schools in this study recognised this and employed a strategy of normalising social media and Web 2.0.

If we create an artificial, gated information environment at school, then we are not empowering students to operate in a real-world information environment.

It is possible that state education departments are using a 'walled garden' because they are not willing or able to provide the bandwidth and/or staff professional development to allow an "empower and manage" approach. In doing so, they are compromising the education of a significant percentage of Australian children and further disadvantaging children from low socioeconomic backgrounds. In limiting students' access to information, an information-rich and information-poor divide is created. This is clear that there are differences in sophistication between the uses of social media and Web 2.0 in the government and private sectors, which must surely have implications for educational outcomes. As Hope (in press, p. 1) argues, over-blocking 'undermines digital literacy, raises questions about the future role of schools, exacerbates information poverty and limits the potential for democratic engagement'.

Conclusion

I would argue that just like the way we allow our children to take risks in swimming, access to social media and Web 2.0 should be scaffolded and supported. This means allowing different degrees of freedom according to skill and developmental stage. This type of scaffolding is everyday work for teacher-librarians, whose responsibility it is to assess and manage age-and-development appropriate resources to support the curriculum and recreational pursuits. In allowing students to take supervised risks at school we empower them to manage their risks in a real-world environment.

This pilot study has raised a number of questions for future research. It opens the way for a larger study into the use of social media and Web 2.0 across educational systems in Australia, and in investigating teacher-librarians' perceptions of the risks and benefits of using social media and Web 2.0. It also raises questions about state education department policy in relation to social media, Web 2.0 and cloud computing. Most importantly, it exposes the perpetuation of inequity in Australian education.

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