

Tooling up for web 2.0: together, alone

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Abstract

The New South Wales learning 2.0 training program was made available to the entire public library work force of over 2300 people in 2008 – 2009. This paper will look at the effectiveness of distance learning for the development of web 2.0 skills of relevance in library workplaces. A case study of the New South Wales public library learning 2.0 is included. The paper also explores a survey of participants nine months after they have completed the course, exploring workplace change. It will also explore how the training has impacted on the level of skill, knowledge, and confidence relating to web 2.0 tools. It will also explore how people are maintaining and developing their skills in these areas and the new services which are being developed.

Introduction

2,344 staff are employed in 363 local government public libraries and on board 22 mobile libraries throughout New South Wales. In 2007 it was apparent to Public Library Services staff at the State Library that a significant proportion of public library staff did not possess the knowledge or technical skills required to fully participate in the rapidly changing library service environment, including engagement with web 2.0 technologies, which is emerging to meet changing client expectations in an increasingly interactive online environment. Some of this information came from discussions with public library staff after they had heard Helene Blowers, then at the Public Library of Charlotte and Mecklenburg County in North Carolina, speak about web 2.0 technologies. Other information was obtained through discussions with public library staff and monitoring trends in the industry both in Australia and overseas.

The *New South Wales public library learning 2.0* program (learning 2.0)¹ was developed as an online self-paced training program to allow public library staff across New South Wales to learn more about emerging technologies on the web. The program was written by Ellen Forsyth and Mylee Joseph. It was based, with permission, on learning 2.0 programs from Orange County Library System in Florida² and King County Library System in Washington³. The original version of the program, known as *Learning 2.0* or *23 Things*, was designed by Helene Blowers for the Public Library of Charlotte and Mecklenburg County in 2005.⁴ The training program is completely built on Web 2.0 technologies that are freely available on the Internet. These sites include: Blogger, Flickr, YouTube, PBWiki & Bloglines.

New South Wales public library learning 2.0 is a twelve week online self-discovery training program designed to encourage library staff to explore new web-based technologies like blogs, wikis and podcasts. Each week is a module designed to introduce participants to web 2.0 tools. Often video clips are used to explain a tool, participants are led to examples of good practice library and museum implementations

of the tool, and then encouraged to undertake an exercise to try the tool for themselves. Wherever possible local examples of using web 2.0 tools were provided. The program went live in February 2008.

Tools covered in the course included setting up a blog using Blogger which participants used as a learning diary, anonymously recording what they discovered each week. Participants were encouraged to comment on each others blogs. Other tools included exploring Flickr, tagging and Creative Commons; RSS and RSS aggregators, Wikipedia and other wiki applications; online video including Youtube and Google video, delicious and LibraryThing, answer boards, social searching, podcasts and audio, mashups, online applications including Google Docs and social networks.

Open Access

The program was publicised to the target audience extensively through e-mail and presentations at meetings. All public library staff across the state were encouraged to participate. It was offered as a course which everyone, regardless of qualifications, roles or geographical location could participate in. There were no barriers to participation implemented by the State Library. Where barriers occurred it was due to local council IT policies restricting access to some sites (particularly YouTube and web based e-mail), speed of connections (broadband is not available everywhere), varying levels of support from library managers and interest and motivation of participants.

As all course material is accessed via the internet staff in metropolitan, rural and regional centres had equal access to the program. As no prior knowledge was required, staff with any skill level could participate and the self paced nature of the course allowed for flexibility in the workplace. The program is published by the State Library of New South Wales with a Creative Commons licence allowing it to be easily shared with other agencies. Several other libraries and other organisations have used the New South Wales course as a basis for their own.

Background

While there are more than 250 individual *23 things* or *Learning 2.0* programs⁵ either completed or currently underway in almost 700 participating libraries worldwide, there is limited information available around the evaluation and outcomes of these programs. Where information is available, it is clear that the evaluation of the success of programs has been largely measured via numbers of completions and feedback received via participants through blog entries.

Some programs have actively sought feedback via surveys at the end of the program, typically an online evaluation in the last week of the program, for example the Minnesota Multitype Libraries' *23 Things on a Stick program*.⁶ Generally surveys have focussed on the participant assessment of the program, including reactions to the program, both initially and at the end of the program, favourite and least favourite parts of the program, what was most challenging about the program, possible improvements for the program and ways web 2.0 applications could be used in the participant's library service.

There has been a move to establish clear evidence of the impact of the learning 2.0 programs on library services. Helene Blowers, the designer of the original learning 2.0 program, *23 things*⁷ initiated a survey for learning 2.0 program co-ordinators. The high level survey sought to evaluate how successful the program has been on a global level and to identify the key factors for success including issues such as; organisational support, motivation for participation, openness of participation and incentives. The survey also attempted to measure some of the broad impacts of the program rather than just the program itself, by including questions on the outcomes for staff and the development of new services as a result of the program. Blowers' survey of more than 700 course coordinators around the world was released in August 2008⁸ and the survey results were published in July 2009.⁹

Dr Michael Stephens from Dominican University in Illinois will be in Australia in late 2009 as CAVAL visiting scholar to explore ideas relating to the systematic evaluation of learning 2.0 programs.¹⁰ The terms of reference for his research project, *Measuring the Value and Effect of Learning 2.0 Programs in Libraries*, include evaluating the impact of Learning 2.0 programs in Australia and the perceived levels of openness, transparency and trust by staff in organizations that have completed the course.

Evaluation of the NSW program

The *NSW Public Library Services learning 2.0* evaluation included a range of strategies which sought to measure both satisfaction of participants with the program and the impact of the program on knowledge and use of web 2.0 tools at an individual and library service level. As with other learning 2.0 evaluations, feedback received via program and participant blogs were a key source of information for evaluating the success of the program. However, unlike most other evaluations we undertook to measure the change in skill level of participants in web 2.0 technologies over the course of the program and at nine month post program completion. Although *Mayo Clinic Libraries learning 2.0 program* have also undertaken some evaluation of the impact of their program on individual participants skill levels there is little evidence that this level of evaluation has been undertaken in a public library learning 2.0 program context.¹¹

A self assessment of skill and comfort level with various web 2.0 tools was undertaken by participants at the commencement, mid point and completion of the program. The results of these self assessments provided a clear indication of an increase in participant skill and knowledge level of the web 2.0 tools as participants progressed the program. As illustrated in Tables 3 and 4, a clear shift in skill level was indicated in all web 2.0 tools. The shift followed a consistent pattern of moving up one stage in terms of the majority of participants' skill levels. By the completion of the course at least 82% of participants indicated they were at new user level or above for all web 2.0 tools.

Evaluating the longer term outcomes was a critical consideration in determining the effectiveness of the training.

Methodology

In order to evaluate the longer term impact of the learning 2.0 program on individual participant skills and overall library services a nine month follow survey was undertaken with participants who had completed the learning 2.0 program at least 9 months prior.

The survey respondents were asked to comment on web 2.0 tools they are now using in their libraries and for what purpose were they being used, what planning and evaluation strategies around web 2.0 tools were in place and any issues that were encountered in implementing the use of web 2.0 tools in their library as well as provide details of web 2.0 current initiatives the library was currently involved. Respondents were also asked to assess their skill and comfort in the technologies and concepts explored in the learning 2.0 program 9 months after completion.

The 9 month follow up survey was sent to the 313 learning 2.0 participants who had completed the program on or before the end of May 2008. 72 of the 313 completing program participants responded to the 9 month follow up survey. Although this response rate is less 25%, 72 responses from a network of 99 public library services was considered a reasonable representation of initiatives and services across the network.

Evaluations findings

Skill and comfort level with web 2.0 technology

Surveys at the program commencement, completion and 9 month post completion requested individual participants to assess their skill and comfort level.

As only 72 of the 313 participants who completed the end of program survey completed the follow up survey it is difficult to track overall changes in skill and comfort level from the completion of the program to 9 months post completion. It is difficult to compare the overall skill and comfort level of 307 respondents with the overall skills and comfort level of a self selected group of 72 of these respondents. For example if it is assumed that those participants who completed the 9 month follow up survey are more likely to have continued use of the 9 month following completion of the program it would be that this group of respondents would indicate a higher level of skill and comfort.

However, as illustrated in Table 1 and 2, despite these issues around comparability of data, it is surprising to note that upon analysis there appeared to be little or no movement of skill level in terms of skill and comfort in using web 2.0 tools overall and again little movement in the skill and comfort level in using specific web 2.0 tools. In fact pattern of skill and comfort in using different tools remained almost identical between completion of the program and 9 months later. For example digital pictures, Wikis and online videos web 2.0 tools participants assessed with a high level of comfort and skills at the completion of the program and this remained the case 9 months following the program. It would be easy to assume that the change or lack of change in level of skill and comfort would correlated with the level of change in usage. However given the general increase in usage and lack of change in comfort and skill this does not appear to be the case.

Generally, skills and comfort levels obtained as part of the program appear to have been maintained at the same level nine months after completing the program.

Table 1. Completion of program survey: self assessment of skill and comfort

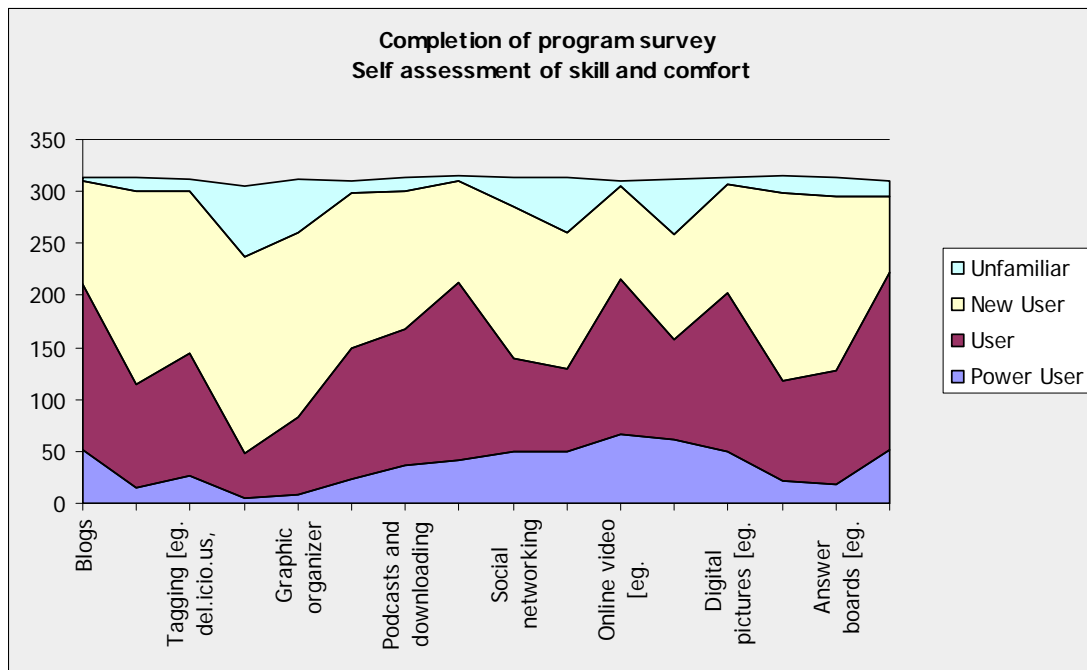
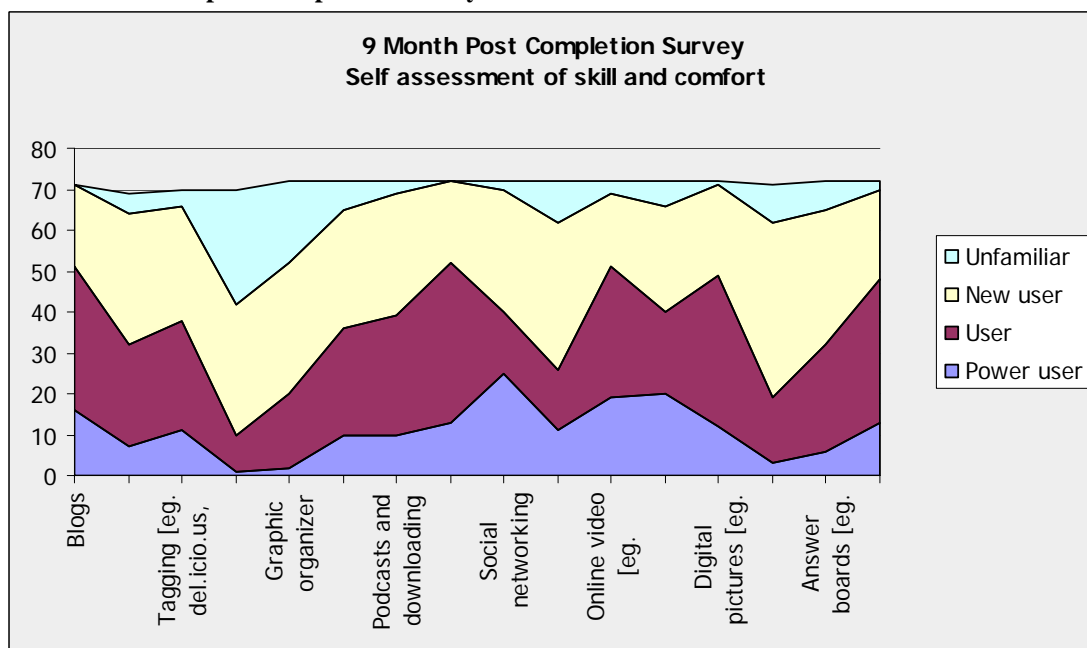


Table 2. 9 month post Completion Survey: self assessment of skill and comfort

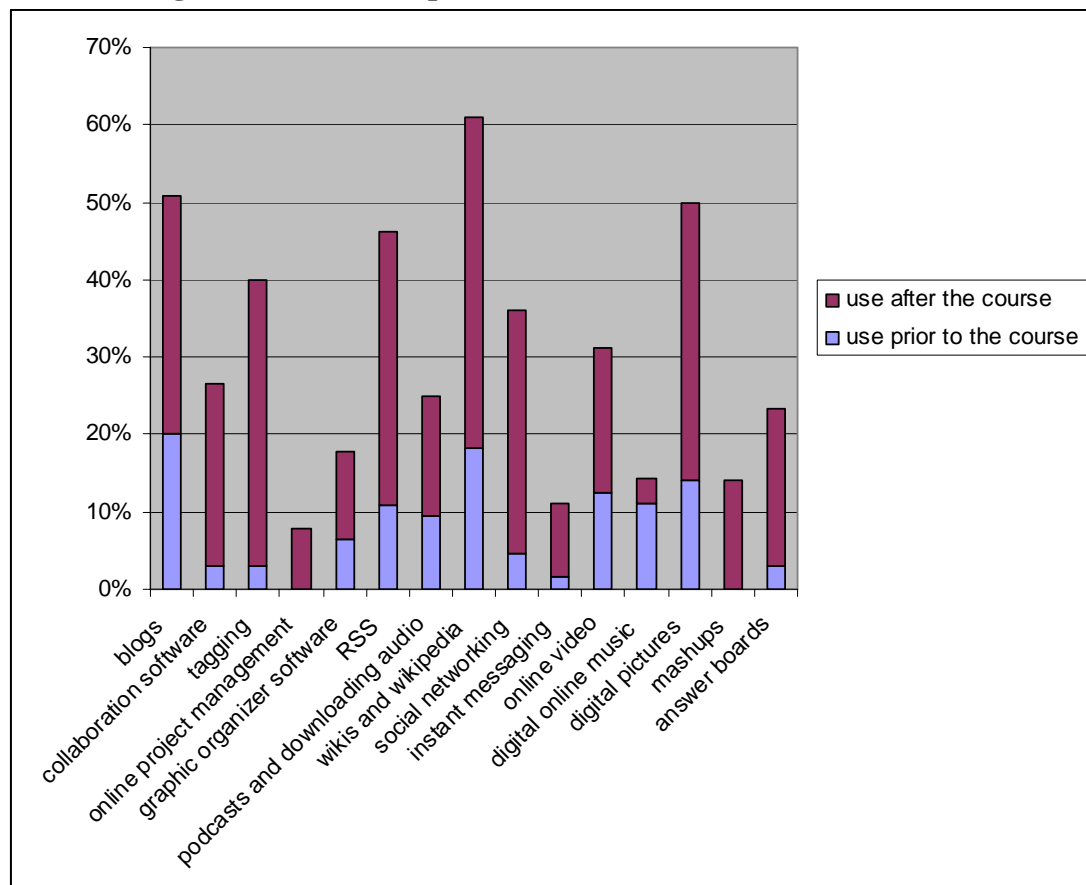


Usage

Every area except digital online music showed an increase in sustained use as a result of the course. Collaboration software was used eight times more, tagging over ten times more, RSS three times more, social networking increased by six times, mashups by fourteen times and answer boards by over six times. Even the smallest of these increases shows a big change in work practices.

Wikis were used twice as much as they had been, and they had the largest rate of use of any of the web 2.0 tools amongst the participants.

Table 3. Usage of web 2.0 tools prior to the course, and after the course.



32.3% of the survey respondents said their libraries were not using any web 2.0 tools, despite having people at the library who had participated in the learning 2.0 course. This may indicate constraints in any of three spheres: staff, policy and technology access:

- Staff may experience resistance from senior staff to new tools, there may not be a ‘champion’ to push the use of new tools within the organisation, there may not be a tipping point of sufficient staff who have completed the course, staff may not be motivated to explore further and develop tools for library use.
- Policy constraints may include council policies around public comment and engagement with social media tools which may constrain staff effort, staff may have limited autonomy to introduce new tools.
- Access to technology may be limited via the lack of broadband access in the library, IT firewalls and blocks on certain sites

Of the libraries who are using web 2.0 tools, 46.2% of the libraries are using them for service promotion, 36.9% are using the tools for knowledge sharing for staff only, while 41.5% are using these tools to share knowledge with the public.

Planning

The survey showed limited planning is undertaken for implementation of web 2.0 tools. 50% of the libraries had not done any strategic planning about their use of web 2.0 tools, but consider options as they arise. This lack of planning may deliver good outcomes initially, but it can also threaten the sustainability of library services and communication offered via web 2.0 tools if inadequate planning delivers a shortfall of resources or competing priorities and tools.

Planning can also play a key role in ensuring there is wide spread understanding within the organisation of where the web 2.0 tools fit in to the broader library strategy. It is too early to determine with any certainty the correct interpretation of these statistics.

The lack of planning may indicate a lack of organisational recognition or support for web 2.0 initiatives, or it may mean that there is an informal environment where things ‘just happen’, or it may indicate that the library is in an experimental phase trialling tools for suitability and acceptance with target client groups. Even in a trial phase some planning, which does not have to be elaborate, time consuming or too structured, may yield better outcomes if it allows the organisation to utilise the skills which staff have. The lack of planning also makes it unlikely that adequate evaluation has been planned, reducing capacity to prove the effectiveness of web 2.0 implementations in a consistent way.

Policies

Only 1.9% of the libraries indicated they have policies about staff use of web 2.0 tools. This could indicate that existing work policies cover web 2.0 tools adequately, but it may mean that more consideration is needed in this area. The lack of policies could leave staff without support in some situations, for example if resources are hacked, if inappropriate public comments are published, if privacy or copyright cannot be sufficiently addressed. 32.7% of the libraries indicate they are developing policies, protocols or strategies for use of web 2.0 tools. This leaves more than 60% of NSW public libraries, responding to the survey, with no specific policies, protocols or strategies for the use of web 2.0 tools in place. This percentage may indicate that high numbers of libraries have still not embraced these tools and are not sure how to integrate web 2.0 tools in their information and service delivery.

Evaluation

Despite the importance of evaluating services and tools generally to ensure quality and the most effective use of resources, 57.4% of libraries did not have any formal mechanism for evaluating their web 2.0 initiatives. This may highlight a trend to not evaluate web 2.0 tools with the same rigour as other library tools and services are evaluated, alternatively, it may indicate that libraries are not using evaluation in a regular or systematic way across all aspects of their service delivery, or staff may lack awareness of tools that could make evaluation straightforward and meaningful.

Interestingly, many web 2.0 tools have excellent built in statistics (such as Flickr pro accounts). There are also free web based analysis tools such as Google analytics which are very useful for blog, wiki and website statistics. Many wikis also have

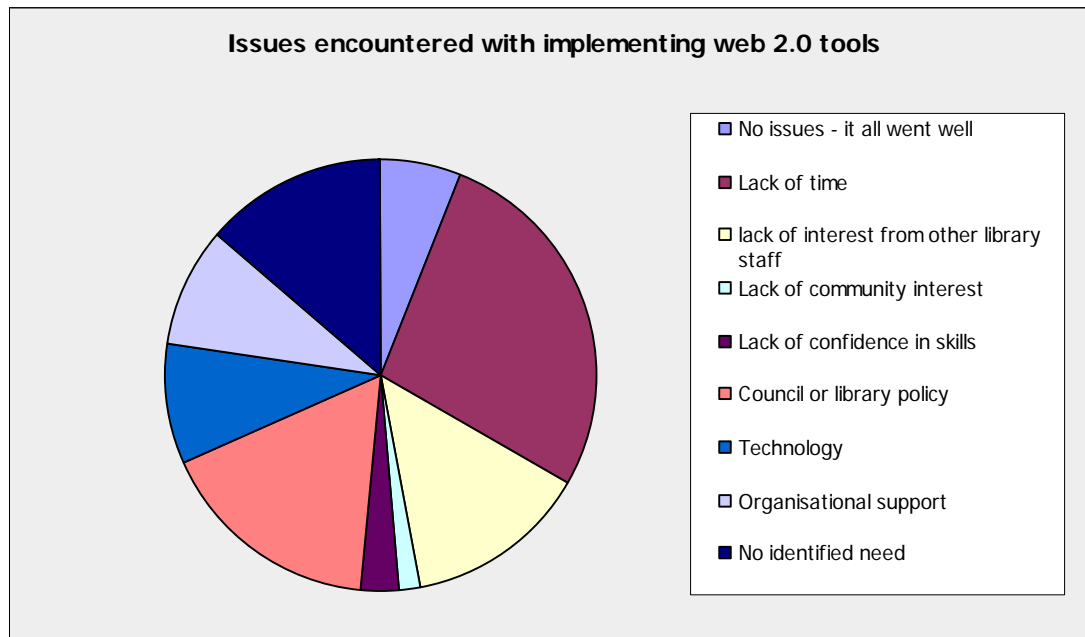
useful built in statistics as well, so there is no shortage of data which is available. It is interesting that many people have identified evaluation strategies for their library's use of web 2.0 tools.

Without evaluation it is impossible to judge the effectiveness of the web 2.0 usage, and it limits the ability of staff to demonstrate the usefulness of the tool to the funding organisation. No library mentioned that they were evaluating or measuring web 2.0 based comments about their library or council. This can be easily done using Google alerts and is an excellent way to find out what people are saying about your organisation so that you can participate in the community discussion.

Popular methods of evaluation amongst the remaining libraries included the use of comments (29.6% of libraries), site visits (25.9% of libraries), client feedback (37%), posts (24.1%) and views (24.1%). 1.9% of libraries were using location of referrals amongst their evaluation tools. These methods could be easily used by the other libraries.. This highlights a need to provide more information to the NSW public library network about the options available to assist with the evaluation of web 2.0 tools. The rationale for undertaking an evaluation of the learning 2.0 program was twofold. Principally, we wanted to determine the effectiveness of web 2.0 tools for public libraries delivering services. However we also wanted to demonstrate the value of evaluating usage and outcomes. This evaluation has highlighted the need to undertake evaluation which informs key decisions about the management, maintenance and continuation of a program, service or product as well as the need to encouraging the evaluation of the use of web 2.0 tools in service delivery.

Issues in implementing web.20 in the library

Table 4. Issues encountered with implementing web 2.0 tools



As indicated in Table 4.the survey illustrated that there are still significant issues with the implementation of web 2.0 tools in NSW public libraries. Only 6% of respondents

indicated that there have been no issues encountered in the implementation of web 2.0 tools. More than 25% of respondents indicated that *a lack of time* was the main issue constraining implementation of web 2.0 tools in their library and 14% indicated that there was *no identified need*. These figures may indicate that the use of web 2.0 tools is generally considered as a low priority for libraries and therefore commitment of resources is minimal. Other cited issues in implementing web 2.0 tools such as lack of *organisational support* and *council or library policy* support this idea of web 2.0 being a low priority for library services.

Conclusion

Although the use of web 2.0 for service provision in NSW public libraries is increasing it is clear that the take up, usage and anticipated outcomes of web 2.0 tools for library service provision is still relatively sporadic and experimental. Low levels of planning, policy development and evaluation indicate a lack of confidence about the how these tools fit into current library service provision as well as concerns about the longevity, reach, effectiveness of these tools. Consequently it appears minimal resources have been allocated to the strategic implementation of web 2.0 tools in public libraries. Without some significant investment in terms of time, technology, planning and evaluation the outcomes, benefits and limitations of web 2.0 tools will continue to be unclear.

¹ NSW Public Libraries Learning 2.0 <http://nswpubliclibrarieslearning2.blogspot.com/> [Accessed 17 September 2008]

² Orange County Library System, *OCLS learn 2.0* <http://ocls120home.blogspot.com/> [Accessed 23 April 2009]

³ King County Library System, *KCLS learning 2.0* <http://kcls27things-list.blogspot.com/> [Accessed 23 April 2009]

⁴ Public Library of Charlotte and Mecklenburg County, *Learning 2.0* <http://plcmcl2-about.blogspot.com/> [Accessed 23 April 2009]

⁵ Blowers, H. Learning 2.0 Survey: Calling all program coordinators ... in *Librarybytes* blog 5 August 2008 <http://www.librarybytes.com/2008/08/learning-20-survey-calling-all-program.html> [Accessed 17 September 2008]

⁶ Minnesota's seven multicounty multitype library systems *23 Things on a stick* http://23thingsonastick.blogspot.com/2007/11/thing-23-final-thoughts_09.html

⁷ Public Library of Charlotte and Mecklenburg County, *Learning 2.0* <http://plcmcl2-about.blogspot.com/> [Accessed 17 September 2008]

⁸ Blowers, H. Learning 2.0 Survey: Calling all program coordinators ... in *Librarybytes* blog 5 August 2008 <http://www.librarybytes.com/2008/08/learning-20-survey-calling-all-program.html> [Accessed 26 May 2009]

⁹ Blowers, H. *Learning 2.0: 23 Things Survey Findings* <http://www.slideshare.net/hblowers/learning-20-23-things-survey-findings> [Accessed 9 July 2009]

¹⁰ Dr Michael Stephens appointed 2009 CAVAL visiting scholar <http://librariesinteract.info/2009/03/31/dr-michael-stephens-appointed-2009-caval-visiting-scholar/> [Accessed 18 June, 2009]

¹¹ Reflethesen, M. and Farrell A. Cross-Country Connections: Implementing Learning 2.0 in a Multistate Medical Library System in *Medical Library Association Annual Meeting and Exhibition 2008* <http://www.mlanet.org/am/am2008/index.html> [Accessed 26 May 2009]