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Social software, libraries and distance learners: literature review

Project Report

Original citation:

Secker, Jane (2008) Social software, libraries and distance learners: literature review. Project Report. LSE, London. (Unpublished).

This version available at: <http://eprints.lse.ac.uk/4058/>

Originally available from the [Centre for Learning Technology, LSE](#).

Available in LSE Research Online: April 2008

Funding provided by Centre for Distance Education, University of London

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LASSIE: Libraries and Social Software in Education

Social Software, Libraries and distance learners: literature review

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Final version

January 2008

Funded by:

University of London Centre for Distance Education Teaching and Research Awards

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Introduction

LASSIE (Libraries and Social Software in Education) is exploring new developments in technology commonly referred to as social software (or Web 2.0) and how it might be used to enhance library provision for distance learners. This literature review is divided into three broad areas, of which the first is the most substantial:

- an overview of social software and how this is impacting on the library community,
- recent thinking about library provision and distance learners
- and the concept of libraries as a social space in the physical and virtual world.

The review was undertaken at the outset of the project to inform the project team and provide context, definitions and a clearer understanding of previous research in this field. A draft report was published on the project website in July 2007 and this has been updated to take into account literature published between July – December 2007. The review highlights some examples of how different types of social software are being used in the library community, recognising that much of this work is currently experimental. The review is also written at a time when the pace of change is very rapid, therefore it can only hope to provide a snapshot of what is occurring up until December 2007. Nevertheless, it should be valuable to both the project team and more widely to the library community. The literature review has also informed the development of the project and the selection of pilot technologies to explore further in the case studies.

In the context of this project, the process of undertaking a literature review was itself a valuable research exercise, as it demonstrated the challenges faced when doing research in a Web 2.0 world. Gilster (in Martin & Madigan, 2007) highlighted this challenge in a recent publication arguing that:

“Until the tools become available, the thorough scholar will supplement conventional library research with the search engines that mine the intersection of content and communication.”
(Gilster in Martin & Madigan, 2007, p.49)

By this he meant tools such as news readers (such as Google Reader <http://www.google.com/reader/>) and internet search engines, which help us to gather together the literature and supplement the references found in traditional bibliographic databases such as LISA, LISTA and ERIC. In undertaking this literature review on social software, the project team have developed new research skills and tried out new tools, as we are keen to use social software wherever possible to facilitate our research. However, it remains a challenge to stay abreast of developments in this fast moving field and the pace of technological developments is such that inevitably this literature review will date quickly. This document has been updated to include the period July- December 2007. The LASSIE project officially finished in December 2007 however progress can also be tracked via the project blog which is currently still available at: <http://elearning.lse.ac.uk/blogs/socialsoftware/>

What is social software?

LASSIE decided early on to focus on the term ‘social software’ to describe the development of new tools and services that are changing the way people use the internet, making it easier to collaborate, communicate and share information. This concept is more commonly (and somewhat controversially) often described as Web 2.0, however we preferred the term ‘social software’ as it seems to describe the phenomena more accurately. It encompasses a huge range of tools (which are briefly discussed later) but the features many of them share is that they are hosted remotely, they facilitate sharing and communication, they allow users to add content and that they are easy to use.

The phrase Web 2.0 was reputedly coined in 2004 by O’Reilly Media, although it described technologies that had been developed earlier in the 1990s. Social software is not really software as such, but internet services that could ultimately replace desktop software. It’s about using the Internet as a platform to run software and services rather than your desktop PC, so most software tools are hosted remotely and can be accessed from anywhere with an internet connection. The

online encyclopedia *Wikipedia* (which is itself social software) describes much of the background and definition of the term. For more details see: http://en.wikipedia.org/wiki/Web_2.0

However, the term Web 2.0 has led to fierce debates between individuals such as Tim O'Reilly and Tim Berners-Lee, the 'inventor' of the world wide web. The debate largely centres on Tim Berners-Lee's dislike of the term Web 2.0, as he argues the phenomena we are experiencing is simply doing what he always envisaged the web would do: allowing people to collaborate and communicate. He also argues that many supposed 'Web 2.0' technologies have existed since the beginnings of the internet. He maintains that the development of the Semantic web is far more significant. The Semantic web is about expressing web content not simply in natural language, but also in "a form that can be understood, interpreted and used by software agents, thus permitting them to find, share and integrate information more easily" (W3C, 2007).

Web 2.0 has been described as an 'attitude not a technology' by Ian Davis (2005) and this project largely steers clear of the debate about terminology. However, it is clear that something has been happening to the web in the past few years which has made it more participatory, easier for users to contribute, share and work collaboratively. It is also clear that the concept of Web 2.0 is becoming mainstream and the tools and services are becoming extremely popular. To summarise, some overall characteristics of social software or Web 2.0 include:

- development of social networks
- content created by users rather than created by an organisation
- development of user profiles
- use of folksonomies or tagging to attach keywords created by users, to items to aid retrieval

Meanwhile JISC in their recent paper on Web 2.0 (Anderson, 2007) highlight six key concepts related to this subject, which are:

1. Individual production and User Generated Content
2. Harness the power of the crowd
3. Data on an epic scale
4. Architecture of Participation
5. Network Effects
6. Openness

This report was particularly timely and provided the UK education community with a valuable overview of what Web 2.0 is and how it might impact on the community. The report is particularly relevant as it has a special focus on the role of libraries for collection and preservation.

Examples of social software

There are numerous examples of social software with the number of tools growing rapidly all the time. Therefore, this section provides a short overview of the main types of social software that exist. The key feature with any social software is that it is easy to use and is usually free at the point of use. Tagging is another key feature of most social software, which helps users manage their resources and identify other users with similar collections or interests.

• RSS feeds / Syndication / Atom

RSS is not a social software but it is a way of communicating information in a format that Feed Readers or News Reader software can understand. It has become an important way of using social software effectively. Most blogs have RSS feeds, which you can subscribe to, to ensure content is pushed into your Feed Reader of choice, rather than you having to visit the website to read a blog. Bradley (2007) argues that RSS is fundamental to most Web 2.0 technologies, and while people don't need to understand technically how it works, it does underpin most social software.

• Blogs

Blogs are probably the most popular type of social software. They are a simple way of creating a website which is updated, often on a regular basis with 'posts'. They frequently take the form of an online journal and usually only have one main author. Blog software can be set up and hosted on a server, but there are several blog providers who host the service for free. Features that blogs include are commenting facilities so that others can participate in a discussion; tagging to associate postings with a keyword or topic; a calendar, so postings can be retrieved by date. It is usually possible to subscribe to a RSS feed from a blog, so these can be read using a News Reader.

• Wikis:

Wikis are another very popular type of social software. They are again a simple way of creating content on a website, however rather than having one author, they often have many contributors and are ideal for collaborative working. Most wikis allow contributions from people once they have registered, however others allow editing without a user needing to register. The most famous example of a wiki is *Wikipedia*, which is an online encyclopedia which can be edited by any registered user. Features include versioning and document history, so previous versions can be retrieved. Discussion is also possible. Again wikis can be used remotely or set up on a local server.

• Social bookmarking and resource sharing

Social bookmarking tools allow users to store their bookmarks or Internet Favourites remotely on a site so they can be accessed from any computer connected to the internet, rather than being stored within your browser. Sites such as *del.icio.us* (<http://del.icio.us>) allow you to store, organise and share your internet resources. The project team decided early on that this site would be particularly useful for storing and sharing any relevant websites for the purposes of the project and have set up an account which includes links to many valuable resources we have found. This is publicly available at: http://del.icio.us/lse_lassie/

Other tools are also available to allow you to share other types of resources, such as bibliographic references (*CiteUlike* <http://www.citeulike.org/> and *Connotea* <http://www.connotea.org/>), music, video and films (*Listal* <http://www.listal.com/>), books that you own (*LibraryThing* <http://www.librarything.com/>).

• Social networking sites: (*MySpace, Facebook, Elgg, LinkedIn, Ning*)

Social networking sites are another of the most popular type of social software. Users create a profile and join a network, which might be connected to where they live, what music they like, where they work or where they study. Both *MySpace* (<http://www.myspace.com>) and *Facebook* (<http://www.facebook.com>) are extremely popular social networking sites which primarily have a social function allowing people to make friends, talk online and share resources. Professional social networking sites (such as *LinkedIn* <http://www.linkedin.com/>) and those focused on education (such as *Elgg* <http://elgg.net/>) are also becoming popular. It is also worth mentioning that many social networking sites incorporate other Web 2.0 technologies, such as allowing users to set up blogs or Wikis.

• Media Sharing

The two key examples here are *Flickr* (<http://flickr.com>) which is a photo sharing website and *YouTube* (<http://www.youtube.com/>) which is a video sharing website. Users can upload their own photo or video resources to the site. These are then available to other users of the site. Tagging makes the resources retrievable by others interested in similar subjects. However other sites exist that allow sharing of different sorts of resources, for example *Slide Share* (<http://www.slideshare.net>) which allows users to share PowerPoint presentations. This site became very popular amongst conference presenters during the course of the LASSIE project, allowing them to easily share their slides.

• Virtual Worlds

Second Life (<http://secondlife.com/>) and other virtual worlds allow users to create a profile and move around a virtual world. You can attend events, buy and sell goods and there are currently a

number of projects exploring its potential for teaching and learning. It was unclear whether virtual worlds are truly examples of Web 2.0 technologies, although they clearly serve a social networking function. These were not explored in any great detail during the project due to time limitations and the required technical specifications. However an overview of the use of Second Life in Higher Education was recently published for those wishing to explore this in more detail (Kirriemuir, 2007)

Other social software

This report cannot hope to outline all the social software tools that exist as the number is growing each day. There are a few other features associated with social software that are worth briefly mentioning. Personalisation functionality on websites such as *Google* and *Yahoo* often uses some Web 2.0 capabilities. For example *iGoogle* (<http://www.google.com/ig>) allows you to add RSS feeds to your home page so you can get updated content from websites or blogs you might read. Podcasts and audio blogging also fall under the social software banner, using RSS feeds as a way of keeping people up to date with new material. Mashups are also part of social software, often bringing data together from different sites and 'mashing it up' in a new way. For example *ChicagoCrime.org* (<http://www.chicagocrime.org/>) which uses crime statistics and *Google maps* to identify locations where crime occurs in the city.

Social software and teaching and learning

Educationalists and learning technologists are one group that fairly quickly began to explore the potential of social software for teaching and learning. Tools such as blogs are particularly useful for reflection and wikis allow for group projects and new ways of working collaboratively. Both open source and commercial VLE software has been fairly quick to develop social software functionality and there is a large amount of research currently being undertaken in this whole area.

JISC have also provided several timely publications such as the TechWatch report mentioned previously (Anderson, 2007) and a report on Web 2.0 for Content Creation for Learning and Teaching in Higher Education (Franklin and von Harmelen, 2007). The report appeared in May 2007 and included case studies from the Universities of Warwick, Leeds, Edinburgh and Brighton and made a series of recommendations for further research into the potential of Web 2.0 technologies for teaching and learning. The report said:

Web 2.0 is, in our view, a technology with profound potential for inducing change in the HE sector. In this, the possible realms of learning to be opened up by the catalytic effects of Web 2.0 technologies are highly attractive, allowing greater student independence and autonomy, greater collaboration, and increased pedagogic efficiency. (Franklin and von Harmelen, 2007, p.1)

The report also highlighted a number of areas where further research was required to explore issues such as IPR and copyright, impact on plagiarism, potential application of Web 2.0 for institutional repositories and issues such as privacy and data protection in particular if services are hosted remotely. Since May 2007, JISC have produced several other documents on Web 2.0 technologies, such as a briefing paper (JISC, 2007a) and an overview of student perceptions of the value of social software (JISC, 2007b). Clearly Web 2.0 is still a hot topic in the education community. Finally another JISC funded study, published in January 2008 on the Google Generation (CIBER, 2008) has some interesting observations about young people's behaviour when searching for resources and using the internet. The report found that while young people were happy to use computers, their information literacy skills were limited. While the report doesn't specifically focus on Web 2.0 developments, when launching the report, Lynne Brindley, British Library Chief Executive recognised the importance of web 2.0 technologies:

Libraries have to accept that the future is now. At the British Library we have adopted the 'Wiki' view and the 'Beta' mindset. We have seized many of the opportunities new technology offers to inspire our users to learn, discover and innovate. However, we must do more and welcome the report findings, particularly the need to equip users of all age-groups with wider information and digital literacy skills. (JISC, 2008)

Social Software in Libraries and Library 2.0

The library community was another community that have been exploring the potential of social software to enhance their services for a number of years. The term “Library 2.0” was coined by Michael Casey in 2005 who sees Library 2.0 at its heart, being about “user-centred change” (Casey, 2006). The term encapsulates the idea that we can enhance library provision using social software and Web 2.0 technologies, although again the terminology itself has proved to be controversial. Crawford (2006) found 62 different views and seven distinct definitions of the term which he usefully brought together in *Cites and Insights*. He argued the term is confusing, and as well as a concept, it is also a bandwagon which has been used to “*deride libraries as being irrelevant, rigid and unresponsive to change*”.

A number of the concepts associated with social software, in particular the idea of ‘user generated content’ does make some librarians uncomfortable. Many Web 2.0 technologies allow users to ‘tag’ resources, which has been likened to adding subject headings. It allows resources that have been similarly tagged to be shared between users. However tags are devised by a user, and can be employed inconsistently or with different meanings. For librarians, particularly cataloguers, familiar with controlled vocabularies such as Library of Congress Subject Headings, they may find the idea of allowing users to come up with their own descriptive terms akin to anarchy. Similarly there has been a lot of work undertaken in the library world to devise standards and to develop metadata schemas to describe web resources. The idea of tagging can sometimes be seen as a counter movement to these standards. Nevertheless, these ideas need not be seen as competing and tagging is coming to be viewed as an additional way of describing resources, not an alternative to creating good quality metadata.

Crawford argues that librarians should not focus on the technology but focus on the phenomena made possible by social software technologies, which essentially means participation and the facilitation of conversations. Crawford recognises that Library 2.0 as a concept may cause problems in libraries, as the term has been linked to a negative view of the library. He also sees that there can be problems integrating these technologies into libraries which have not traditionally used open source systems, but integrated monolithic systems such as catalogues.

The UK library system suppliers have been vocal in the Library 2.0 world and Paul Miller, a Technology Evangelist from *Talis* sets out ‘Paul’s Principles of Web 2.0’ which included characteristics such as it being about:

- Sharing and communication
- Remix
- Built on trust
- Freeing of data
- Participatory
- Community building
- User generated content
- Modular

Miller, a keen advocate of the Library 2.0 movement and concept, argues:

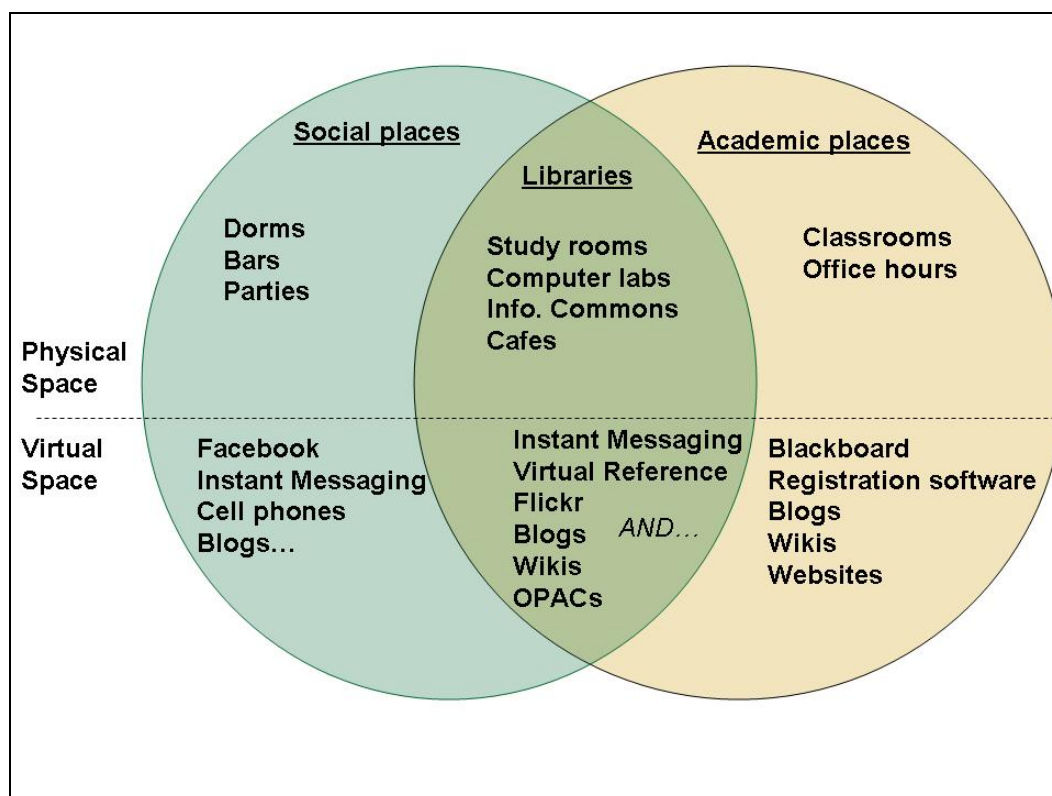
Leveraging the approaches typified by Web 2.0's principles and technology offers libraries many opportunities to serve their existing audiences better, and to reach out beyond the walls and Web sites of the institution to reach potential beneficiaries where they happen to be, and in association with the task that they happen to be undertaking. (Miller, 2005)

Moreover Miller, suggests that if libraries are to continue to remain relevant and serve their users they must engage with these technologies, otherwise users:

“...will bypass processes and institutions that they perceive to be slow, unresponsive, unappealing and irrelevant in favour of a more direct approach to services offered by others that just might be ‘good enough’ for what they need to do.” (Miller, 2005)

This attitude is typical of the negative associations Crawford (2006) cites with the ‘Library 2.0 bandwagon. The idea that we have to engage otherwise we’ll become irrelevant could be seen as polarizing opinions in the library world. Building on the strengths of traditional library services and

enhancing them with new technology should surely be the way forward? It is also fair to say the UK is currently experiencing a Library 2.0 bandwagon, with a daily round of events and seminars being advertised on the topic. UKOLN's *Web Focus* led by Brian Kelly is currently giving advice to HE and FE sector in the UK about how to utilise these technologies, how to overcome the barriers within institutions. Similarly Phil Bradley, the internet consultant, has given a lot of presentations and training sessions in this area and recently published a book on how to use Web 2.0 in libraries (Bradley, 2007). It was also clear from the number of presentations the project team were asked to give relating to LASSIE, that social software was a particular area of interest. Therefore it is slightly concerning that some librarians continue to view the Library 2.0 concept as somewhat threatening, rather than simply more tools and technologies that can to enhance their current skills and professional activities. A useful diagram, by Habib (2007), available from Flickr, encapsulates his view of Library 2.0.



From Michael Habib's Flickr site (Licensed under Creative Commons):

http://www.flickr.com/photo_zoom.gne?id=222296001&size=o

A recent report from OCLC, 'Sharing, Privacy and Trust in Our Networked World' (OCLC, 2007) gives us an insight into librarians attitudes towards one specific type of social software: social networking. The report looked at four key areas including:

- User practices and preferences on their favourite social spaces
- User attitudes about sharing and receiving information on social spaces, commercial sites and library sites
- Information privacy; what matters and what doesn't
- Librarian social networking practices and preferences; their views on privacy, policy and the potential of social networks for libraries

The overwhelming message the library community seem to have taken from this report is that social networking is 'not for libraries'. (Buckley-Owen, 2008; 3) Nevertheless it should be noted that the OCLC survey of librarians was limited to US Library Directors, although the survey of users was more extensive and included individuals in Canada, France, Germany, Japan, the UK and US. Some interesting findings from the report include:

- Web users like to share. Sharing is no longer just a library thing.
- In the last 18 months - since the last OCLC report - there has been a drop in the use of library websites.
- The idea that we are all "digital natives" now; the majority of people who responded to the OCLC survey have been using the web for at least 4 years.
- People don't trust libraries as much as we might expect.
- Overwhelmingly, neither the general public nor librarians see a role for libraries as providers of social sites.

The report was actually highly positive about the Library 2.0 concept and concluded that libraries need to be brave, to relax their rules and to encourage mass participation in the social library, which inevitably will be messy. By looking at Library 2.0 pioneers the report argued:

The social Web is not being built by augmenting traditional Web sites with new tools. And a social library will not be created by implementing a list of social software features on our current sites. The social Web is being created by opening the doors to the production of the Web, dismantling the current structures and inviting users in to create their content and establish new rules. (OCLC, 2007; 8-8)

At this time it is clear that Library 2.0 continues to polarize opinion in the library community and there is a real need for evidence to prove the value that these new tools might add to traditional services.

Libraries using social software

Despite reservations and the hype, many libraries are taking the plunge and experimenting with social software. There are some genuinely useful examples of how the technology can enhance our services. Many of the examples are from libraries in the US, who began exploring social software somewhat earlier than in the UK. However, since the draft of this report appeared experimentation in the UK has accelerated and there are also relevant UK examples where possible. In general the literature search found a huge number of articles in academic journals, but also more reports on such innovations were found on blogs and on the web rather than in traditional published literature. There are many lessons that can be learnt from our US counterparts' early experimentation. Therefore this next section attempts to provide some examples of libraries using social software, and to draw conclusions where possible about its usefulness.

It is also worth mentioning that librarians in other countries outside the US are also starting to explore using social software technologies, for example Judy O'Connell who works in school libraries in Australia maintains a blog which has much relevant information at: <http://heyjude.wordpress.com/>. Similarly, Kathryn Greenhill from Western Australia who works at a university library maintains the popular 'Librarians Matter' blog: <http://librariansmatter.com/blog/>

A few useful monographs on the subject of social software in libraries were published in 2007, notably by Farkas (2007) who developed the hugely popular 'Five weeks to a Social Library' online course. Phil Bradley (Bradley, 2007) has also published a book on the same topic very recently. Bradley provides a valuable overview of what Web 2.0 technologies are and how they can be used by librarians both personally, but in particular, to enhance library services. Other notable books on the subject include: Casey & Savastinuk (2007) and Sauers (2006) which looks specifically at blogs and RSS. In July 2007 we predicted the market might shortly be flooded with similar titles which will provide us with many useful ways in which we can exploit the new technologies. Since this date there has been a new monograph publication focusing specifically on Web 2.0 in academic libraries (Cohen, 2007) and several others that are forthcoming (Parkes and Hart, 2008). Godwin and Parker (2008) will focus specifically on Web 2.0 and information literacy and should be of particular interest.

Our research found that there are many more examples of libraries using social software from the United States, although where possible this report does include examples from the UK. The entries have been categorised by type of technology.

- **RSS feeds**

MIT Libraries <http://libraries.mit.edu/help/rss/barton/>

Using RSS feeds to highlight new books as these are added to the library catalogue. You can select a feed for the subject you are interested in and this can be added to any web page. This functionality could be particularly useful for adding feeds to subject web pages or directly into courses in the VLE. MIT Libraries also have a Libraries News feed and a feed for new theses added to their repository. They also maintain a useful link of RSS feeds for research which includes information about which publishers offer RSS feeds:

<http://libraries.mit.edu/help/rss/feeds.html>

Amazon has RSS feeds for new books on a huge variety of subjects which can be used in this way. More details about the Amazon feeds are available at:

<http://www.amazon.com/gp/tagging/rss-help.html>

LSE Centre for Learning Technology <http://training.lse.ac.uk/>

LSE's Centre for Learning Technology (CLT) used RSS feeds to bring together a range of different training events from different providers into one training website. CLT, IT Services, the Library and the Teaching and Learning Centre all maintained separate databases of training courses, however it is now possible to go to one website and see an aggregated list of training across the institution. CLT are also using a blog to feed news content onto their website. Any blog postings tagged as 'CLTNews' automatically appear on the home page in the news section. For more information see: <http://clt.lse.ac.uk>

Open University's Library feeds

The Open University have developed RSS feeds for a number of library resources, for example lists of new books and electronic resources are available as feeds. This type of feature can allow lecturers to pull library content into their own personal website, or into a course website such as one developed on a VLE.

Feeds are now being used increasingly frequently and library system vendors are starting to add RSS feed functionality into catalogues and other library systems to allow feeds of new books or new resources to be set up. The above represent a small sample and many large universities are now using RSS feeds.

- **Social Bookmarking tools**

University of Pennsylvania: <http://tags.library.upenn.edu/>

PennTags is a social bookmarking tool developed by librarians at the University of Pennsylvania for locating, organizing and sharing online resources. Users can collect and maintain URLs, links to journal articles and records in the library catalogue. They can develop bibliographies and reading lists which can be shared with the community. Users download a specialised toolbar or use a something called a 'bookmarklet' which allows content to be added to PennTags. At Pennsylvania the tool also allows users to tag library content found in the OPAC and the institutional repository.

Using Del.icio.us in the Library: <http://del.icio.us>

Several libraries have started to use social bookmarking tool del.icio.us to create subject lists of resources. The resources are 'tagged' and in several examples the del.icio.us tags have been embedded into the library website. The use of del.icio.us is examined in more detail in the *LASSIE Case Study Two: resource sharing and social software*. However the Queensland Institute of Technology (<http://www.library.qut.edu.au/subjectpath/internetresourcesforci.jsp>) and Stamford University (<https://www.stanford.edu/group/ic/cgi-bin/drupal/delicious>) are two examples of libraries using social bookmarking in this way.

- **User generated content in the catalogue**

Several libraries are experimenting with allowing user content to be added directly to the catalogue. This can include allowing users to add book reviews or other comments to the catalogue. Two examples are listed below:

Hennepin County Library <http://hzapps.hclib.org/catalog/>

Book reviews and discussion is facilitated in the Library catalogue. Users can comment on books and add reviews, similar to the functionality offered by Amazon, but also LibraryThing.

University of Huddersfield <http://webcat.hud.ac.uk/>

The University of Huddersfield have made use of Web 2.0 technologies to enhance the library catalogue, including features such as user reviews and ratings, pulling content from Amazon into the catalogue. They have also added features such as making recommendations based on borrower records, so providing users with a link that says 'people who borrowed this book also borrowed...'

- **Blogs**

Librarians seem to enjoy writing personal blogs and there are several on the topic of Web 2.0 which have a lot of useful information. A sample list of useful blogs on the topic of libraries and Web 2.0 which were used throughout the project is below:

Information Wants to be Free: <http://meredith.wolfwater.com/wordpress/index.php>

Dave Pattern's Blog <http://www.daveyp.com/blog/>

Peter Godwin's Web 2.0 and Information Literacy blog <http://infolitweb.blogspot.com/>

The Shifted Librarian <http://www.theshiftedlibrarian.com/>

Phil Bradley's Web 2.0 blog http://philbradley.typepad.com/i_want_to/

Are you 2.0 Yet? <http://briangray.alablog.org/blog>

Library Crunch <http://www.librarycrunch.com/>

Library 2.0: an academic perspective <http://liblogs.albany.edu/library20/>

Other blogs that were also found to be useful as the project progressed included:

Friends:Social Networking Sites for Engaged Library Services

<http://onlinesocialnetworks.blogspot.com/>

iLibrarian: <http://oedb.org/blogs/ilibrarian/>

The Distant Librarian: <http://distlib.blogspot.com/distlib/>

Infodoodads: <http://infodoodads.com/>

Many libraries are using organisational blogs for posting library news. Examples from the US include:

Madison-Jefferson County Public library: <http://mjcp.org/>

Ohio University Library Business Blog <http://www.library.ohiou.edu/subjects/businessblog/>

Kansas State University library blogs <http://ksulib.typepad.com/>

However, UK libraries are also starting to experiment using blogs and several excellent examples were discovered throughout the course of the LASSIE Project. The University of Worcester Information and Learning Services for example, maintain several blogs including ILS Matters aimed at students (<http://www2.worc.ac.uk/wordpress/>) and Update (<http://altupdate.wordpress.com/>) aimed at academic staff and used by the subject librarians. They also run several other blogs for internal communication purposes in the library.

A list of example blogs by libraries was compiled as part of the 'Five weeks...' course. For more details see: <http://www.sociallibraries.com/course/week1#examples> Sauers (2006) also provides numerous examples of librarians who maintain blogs and includes considerable details about how to set one up. Further details about libraries and blogs are included in the *LASSIE Case Study Four: Blogging and libraries*.

- **Wikis**

Wikis have particular value for collaborative projects, for team building and for knowledge sharing. Anecdotal evidence suggests that Wikis are increasingly being used internally by organisations and LSE have established a number of Wikis used by staff in both the Centre for Learning Technology, for minutes and team meetings and by Library staff. A list of Wikis used by libraries is available as part of the 'Five weeks...' course. For more details see:

<http://www.sociallibraries.com/course/week3#examples>

Library Success Wiki http://www.libsuccess.org/index.php?title=Main_Page

This wiki was developed by Meredith Farkas, who is the Distance Learning Librarian at Vermont. The wiki is a best practice tool, which was created to be a one-stop shop for ideas and information for all types of librarians. The wiki states:

“All over the world, librarians are developing successful programs and doing innovative things with technology that no one outside of their library knows about. There are lots of great blogs out there sharing information about the profession, but there is no one place where all of this information is collected and organized. That's what we're trying to do.”

The National Archives

http://yourarchives.nationalarchives.gov.uk/index.php?title=Home_page

The National Archives have recently added a wiki to their site to encourage users to add content to their site. Called 'Your Archives', they are encouraging people with knowledge of archival material to add content to the wiki.

- **Libraries and Social Networking**

Libraries and librarians have increasingly been exploring social networking sites for both personal and professional reasons. Week 4 of the 'Five weeks..' course looked at social networking sites and the potential of Second Life, MySpace and Facebook for libraries. More details are available at: <http://www.sociallibraries.com/course/week4>. However there are a number of notable developments in this area. For example, Talis the library management supplier have funded Cybrary, which is their headquarters in Second Life and evidence suggests that several libraries are experimenting with offering services in Second Life. For further details about the impact of Second Life on education Kirriemuir (2007) provides a useful overview.

Some libraries have also set up MySpace accounts, however, until recently social networking sites had varying attitudes about whether this was officially permitted and Library accounts on both MySpace and Facebook needed to be created as a personal profile. For example and example see Brooklyn College Library which has over 3000 'friends' and is using the MySpace site to publicise various library activities: <http://www.myspace.com/brooklyncollegelibrary>.

Facebook launched a service called 'Facebook Pages' in late 2007 and this gives libraries and other organisations the ability to create a page on this site. This service is relatively new, but several libraries are experimenting with using Facebook pages, for example:

- Aurora University Charles B. Phillips Library: <http://www.facebook.com/pages/Aurora-IL/Aurora-University-Charles-B-Phillips-Library/8769270978?ref=s>
- University of Winnipeg Library: <http://www.facebook.com/pages/Winnipeg-MB/University-of-Winnipeg-Library/6195503546?ref=s>
- Duke University Law Library: <http://www.facebook.com/pages/Durham-NC/Duke-University-Law-Library/7739830819?ref=s>
- The University of Warwick Library <http://www.facebook.com/pages/Coventry-United-Kingdom/University-Of-Warwick-Library/6168162503>

A growing number of groups for librarians interested in all sorts of professional issues, including Web 2.0 developments, have been set up in social networking sites. Facebook has

numerous groups for librarians such as the Library 2.0 Interest Group which also maintains a website: http://liswiki.org/wiki/Library_2.0 and the group called Librarians and Facebook which as of January 2008 has over 4000 members. Facebook also has a number of library related applications that can be added to a personal profile to allow users to share reading lists, social bookmarks and other resources they are interested in. The social networking site Ning has a useful Library 2.0 group (see: <http://library20.ning.com/>). For a full report on the use of Facebook by libraries and librarians, see *LASSIE Case Study Five: Facebook and Libraries*.

- **Other tools and technologies**

Using Flickr (<http://www.flickr.com>) for photo sharing

The Library of Congress recently began using the photo sharing website Flickr to share some of their historical photographic material. This can be viewed at: http://www.flickr.com/photos/Library_of_Congress

Several other libraries have been using Flickr in this way, such as Hillsdale Teen Library which uses Flickr to post pictures of events at the Teen Library: <http://www.flickr.com/photos/hillsdalelibraryteens>

Using YouTube (<http://www.youtube.com>) for Library publicity / training

A very recent initiative to be launched by several libraries is the use of YouTube to upload video material for promotional or training purposes. Some examples include:

- Otis College Information Literacy – identify your sources video: <http://uk.youtube.com/watch?v=k-2hziLTSyU>
- SUNY College of Environmental Science and Forestry who have numerous videos on topics such as using the library catalogue (<http://uk.youtube.com/watch?v=qVl3CUiru4E>) and finding a journal article (<http://uk.youtube.com/watch?v=cZ1PtXuzK0A>)

Using Slide Share (<http://www.slideshare.net>) for sharing PowerPoint presentations

Increasingly PowerPoint presentations are being shared using social software. SlideShare is one tool to facilitate this and it has been used fairly widely by individual librarians who wish to make their presentations available. The LASSIE team experimented with uploading a presentation to SlideShare which is available at: <http://www.slideshare.net/seckerj/lassie-lse-library>

‘Library Labs’

Finally social software is encouraging libraries to become more experimental and several US libraries are promoting ‘beta’ (partly developed) services and tools via their websites. Some examples of these include:

- Massachusetts Institute of Technology (MIT) — [MIT Libraries’ Betas](#)
- University of Michigan — [MLibrary Labs](#)
- New York Public Library — [NYPL Labs](#)
- University of Virginia — [Library Lab](#)
- Vanderbilt University — [Test Pilot](#)

Other issues of Library 2.0

Social software in libraries raises a number of other issues which will not be examined in great detail in this project, but which we’d like to flag up as being relevant and requiring further research. These include:

Staff development issues of Web 2.0

Quite a lot has been written which is aimed at developing librarians skills and knowledge in the area of Web 2.0 technologies. To familiarise them with the technologies and to raise awareness of their potential. Notable resources include the ‘Five Weeks to a Social Library’ course which ran last year. The resources are available on the web at: <http://www.sociallibraries.com/course/>

Privacy, IPR, copyright issues of social software

JISC highlighted these issues as being pertinent to the teaching and learning community and they are similarly relevant in the context of library developments. Storing personal data on remote systems raises obvious privacy issues, but IPR and copyright issues also need exploring

Technical and institutional barriers

The JISC report also highlighted technical barriers to using social software in educational establishments. Certain social software may conflict with security systems, or be blocked by firewalls. Institutional IT departments may be inherently opposed to the idea of social software.

Archives and Web 2.0

LASSIE was fortunate to have an archivist on the project Steering Group and this input proved extremely valuable. Archivists, like librarians have become increasingly interested in Web 2.0 developments, as the technology could offer them particular advantages. Researchers often end up knowing far more about archival material than the archivists themselves, because of the amount of time they spend using particularly collections, and the traditional reading room environment does not always offer them many opportunities to share knowledge and information with other researchers using the same or related collections. Social software has the potential to help them make these connections, as for example with the National Archives 'wiki' mentioned earlier. It also offers archivists the opportunity to communicate and engage with their users in new ways. One of the project's case studies looks at the way LSE Archives mounted an online exhibition using blog software, thus enabling visitors to add their own comments to the display.

Data and Web 2.0

The management of data sources is another area where Web 2.0 technologies again could be hugely valuable. Data sources are increasingly being managed in online repositories, however the addition of user generated content and comments, could provide a valuable supplement to the traditional metadata and cataloguing that is being undertaken by repository managers. There are several projects currently underway in this area including:

- Data360 <http://www.data360.org>
- Many Eyes <http://services.alphaworks.ibm.com/manayeyes/home>
- Swivel <http://www.swivel.com/>

Libraries and distance learners

This section of the literature review briefly examines the field of distance learning librarianship to provide context for the project and to identify the key issues in the field. Library support for distance learners is varied across academic institutions, however libraries increasingly recognise they need to provide specific support for the users that never or rarely visit the campus. Libraries also are starting to understand that distance learners face particular challenges when using library resources. This has led some institutions, most frequently in the United States, to create new support roles such as a Distance Learning Librarian.

This section of the literature review will attempt to provide an overview of the current issues and challenges of providing library services to distance learners, to help us consider what solutions social software might offer.

Distance Learning: background and context

Distance education has a relatively long history and developed around the postal service which allowed educational materials to be distributed to individuals in more remote locations. It primarily served those who were unable to access traditional face to face classes and was pioneered in the 19th Century when correspondence courses developed by Isaac Pitman, to teach skills such as shorthand became hugely popular. The phenomenon is identified as originating in the UK by Bell &

Tight (1993). However one of the first distance education universities was established in South Africa in 1946. Distance education became popular in countries such as Australia and the United States where huge distances often made it impractical for people to travel to educational establishments. Sometimes the only option for people would be to undertake education at a distance.

In the UK, the Open University is the most well known and well established provider of distance education. It was established in 1969, although first admitted students in 1971. From the outset it sought to use non traditional teaching methods, and pioneered the use of television for teaching. However, course materials have traditionally been distributed via the postal system when OU materials were developed in-house. Access to libraries in the early days was not assumed, and students were often provided with all the resources they needed. The OU now has over 180,000 students with more than 25,000 of them studying overseas, making it the UK's largest university. The OU has inspired the creation of many similar institutions throughout the world and since it was founded more than 3 million students have passed through its programmes.

The University of London's External Programme also ranks as one of the world's oldest distance education systems, as it was in fact established in 1858, when students from around the world were able to present themselves for university examinations. However, support for University of London external programme students was extremely minimal until the mid 1980s when a largely postal based system was developed to distribute course materials. Coleman (2004) provides a useful overview of the history and development of the External Programme in her article about the University moving into supporting students using online learning.

The External System invested considerable resources in developing a proprietary based VLE to distribute course resources, however in 2006 they announced that they would be using Moodle, an open source VLE. The External Programme now serves over 36,000 students who are based around the world and courses are taught by different colleges in the University Of London. This means issues such as resources and library provision can vary quite significantly between courses. The largest programme is the Laws programme which accounts for almost 16,000 students.

Distance education has traditionally relied on communications networks, such as post services, radio and subsequently television. However developments in computer technology in the last 10 years has led to an explosion in distance learning provision. Computers and the internet have allowed institutions to increase the number of part time programmes they can offer, but also to reach students who never attend a face to face class. Many universities are exploiting the global communications networks to establish programmes for students based around the world. The rise of e-learning support for face to face students has also led to a blurring of the distinction between full time face to face students and distance learners. 'Blended learning' is used in many institutions who are aware that campus based students have increasing pressures on their time and wish to access resources from off the campus.

Distance Learning Library services

Providing access to library services for distance learners is a fairly recent phenomenon. Traditionally students on distance education courses were sent materials by post, which often included a pack of reading materials. These invariably necessitated copyright clearance to allow material from published books and journals to be photocopied and distributed to students. The Open University has employed a rights manager for many years to deal with these and other issues. Many distance learning courses do not assume that students have access to a local library, and so all the required reading materials are supplied as part of the course.

Some libraries supporting distance learning introduced a postal loan system which allowed distance learning students to borrow material from the institutional library. However this is not without problems, as it often requires material being sent out on a more extended loan and can result in higher than average loss of stock.

Distance learning librarianship

Distance learning librarianship was until relatively recently a fairly niche profession, however the growing number of distance education programmes, particularly in the United States and Canada, has led to the development of a vibrant professional community. There are now a number of journals in the field, notably, the *Journal of Library & Information Services in Distance Learning* which was established in 2004 and is published by Haworth Press. Books to support professional practice in the area have also been published, for example Clayton (2007) which is a edited collection drawing on the experiences of over 20 distance instruction librarians from across the USA. Published by Facet in the UK, this was partly in recognition of the growing need for UK librarians to support distance learners.

Professional support in the US is also strong and provided by the Distance Learning Section of the American Library Association's Association of College and Research Libraries (ACRL). The Distance Learning Section present an annual award to the best Distance Education Librarian and have also developed the ACRL Guidelines for Distance Learning Library Services. The guidelines are available at: <http://www.ala.org/ala/acrl/acrlstandards/guidelinesdistancelearning.htm> and actually originated in 1963 as the "Guidelines for Library Services to Extension Students." They have been refined and developed many times since this date to appear in their current form. They make recommendations over issues such as the management, finance, facilities, resources and services that distance learning libraries should be offering to support students.

The Canadian Library Association (CLA) also provide detailed guidelines for library support for distance and distributed learners. These were first issued in 1993, but were revised in 2000 and are available online at: <http://www.cla.ca/about/distance.htm> . These guidelines were also developed by a special interest group of the CLA, known as the Services for Distance Learning Interest Group. They state they are modelled largely on the ACRL Guidelines. In Australia, their professional body, the Australian Library and Information Association, had a Distance Education Special Interest Group until 2000 and also published a journal, however this does not appear to exist any longer. Vare (2002) considered whether New Zealand required guidelines similar to those developed by the ACRL, but despite the recommendations in her thesis, these as yet have not been produced and there appears not to be a distance education special interest group in the New Zealand Library Association.

It is perhaps surprising that in the UK, there is no equivalent group in Chartered Institute of Librarians and Information Professionals (CILIP) to support distance learning librarians, although distance education might arguably be seen to come under the remit of the Education Librarians Group (ELG). SCONUL issued guidance for libraries supporting distance learners back in 2001, including a checklist for libraries over the type of services they should provide. (SCONUL, 2001) At the time the reciprocal access agreement, UK Libraries Plus, had just been launched, which allows distance learners to gain access to local academic libraries. The report emphasised the importance of these types of schemes although access to electronic resources and online support is also discussed. The guidance has not been updated since 2001 and it is clear that more and more UK librarians are supporting remote users, whether they are traditional distance learners or students based away from the campus.

The Centre for Research in Library and Information Management (CERLIM) at Manchester Metropolitan University has very much led the way for research in this area in the UK. The 'Libraries Without Walls' conference was established in 1995 by CERLIM and has become an important event for distance learning librarianship outside the US. This conference attracts delegates from around the world and the conference is held in Lesbos, Greece. 2007. Two members of the LASSIE Project team were fortunate in being able to attend this conference in September 2007 (Secker and Price, 2007) and the papers and further details from the conference are available online (<http://www.cerlim.ac.uk/conf/lww7/>). One emerging issue at the conference of interest was how the needs of distance learners and full time learners are converging, as full time students spend less time on campus and distance learners have greater access to services and online resources. The Institute of Education also funded research into the needs of distance

learners in 2004 when the Student Services Librarian was seconded to carry out an internal study of "Information Services' support for Distance and Flexible Learning". (Price, 2004).

The Open University (OU) who has also pioneered developments in library support for distance education in the UK, launching initiatives such as MyOpenLibrary, which provides students with a personal library page of the most relevant resources for their course. The OU also maintain a physical library at the Walton campus in Milton Keynes, however most of the support is online through the library website which has been developed as a digital library. Student support is of paramount importance at the OU, who pioneered the use of the FirstClass computer conferencing system on many courses in the 1990s to support students. In 2006 the OU announced they would be using Moodle, the open source VLE, to support all their courses. They are investing £5 million in the development of the Moodle system and have 10 enhancement projects currently underway, 2 of which are led by the Library. Of most relevance to this project is the Library Integration Project which is piloting a system that enables course teams to deliver RSS feeds of Library resources directly to their course pages in Moodle. Library staff are also working on the eportfolio module of Moodle to enable students to save and tag their own collections of Library resources. Staff believe these 2 initiatives will ultimately replace MyOpenLibrary, providing personalised access to library resources through the VLE. However, they are assessing how some of its functionality might help with development of personalisation in the new library website which was launched in October 2007.

The OU Library employs around 90 members of staff. Electronic resources are obviously crucial to support distance learners, however information literacy is also a key role for library staff. The OU has developed several significant online information literacy tutorials such as MOSIAC and SAFARI and also INFORATE, an information skills diagnostic tool which is being delivered via the VLE. However most recently Parker (2007) described how the OU Library have had significant input into the development of a new, 10-point information literacy course that anyone can take, entitled 'Beyond Google'. The OU have also been exploring Elgg and PMWiki, open source social networking systems, as a possible way to support distance learning tutors. The PROWE project which was funded by JISC used Elgg as a platform to support distance learning tutors. Reports and an evaluation of the project are available on the project website: <http://www.prowe.ac.uk/>

Distance learning and e-learning support

However more and more we are seeing services that support distance learners as being closely linked to libraries' support for e-learning. JISC recognised the importance of research in this area in 2002 when they launched the Digital Library and Virtual Learning Environment (DiVLE) Programme. Ten projects to look at integrating library resources and e-learning was launched. However, although the projects explored technical and interoperability issues, it is not clear that importance of library support from within VLEs was formally embedded into institutionally policies. Secker (2004) felt that integration offered required manual intervention from library staff, who could sometimes be locked out of the VLE or bypassed. Research from the JUSTEIS project in 2004 suggested that library websites and resources are often under-used by students, who prefer to rely on Google or information provided in the VLE.

Some progress has been made since 2004 and Secker (2004) highlighted the need for library staff to engage with the e-learning community and establish a presence in the VLE. Many libraries now provide reading list information in the VLE, or include links to libraries' resources. Information literacy education is also an area where librarians have developed a presence in the VLE. Many universities offer a library training module through the VLE, covering issues such as advanced use of the internet, citing and referencing and tackling plagiarism. Yet ideally this should be embedded into academic courses not in separate library modules which students will may be less likely to find and use. However, to date there has been little evaluative research on how libraries resources are accessed from students in virtual learning environment and whether placing material in the VLE encourages use.

It is also worth mentioning mobile learning (m-learning), as many working in the e-learning field recognise that mobile learning may well be the future. Hand-held mobile devices are becoming

increasingly prolific and particularly in areas where broadband connectivity has been problematic (for example sub-Saharan Africa) but where mobile phone coverage is very strong, these are becoming the key technology. In fact the first International M-Libraries Conference was hosted at the Open University in November 2007 and it aimed to:

...explore and share work carried out in libraries around the world to deliver services and resources to users 'on the move,' via a growing plethora of mobile and hand-held devices.

For more information about this conference see: <http://library.open.ac.uk/mLibraries/>

Current issues in distance learning librarianship

Supporting students who never or rarely visit a physical library can be challenging and there is a vast amount of literature on this topic. The Libraries Without Walls conference in 2005 recognised that library services for distance learners are often pushing back new frontiers and that helping students utilise electronic resources is a crucial role for distance learning libraries. In 2005 the conference wanted to focus evaluation and measuring the positive impact library services for distance learners might be having on users.

In general we have identified four key areas seem to be crucial when supporting distance learners:

- **Collection building:** providing students with access to a wide range of reading materials meaning course packs or 'readers' are often heavily relied on. This can lead to the serendipity of browsing library shelves and meeting other students on one's course who direct you to relevant resources.
- **Information Literacy / Library instruction:** Building up student's knowledge of the library collections, both paper but particularly electronic resources can be challenging without orientation sessions in the library. There is a lot of literature on information literacy and distance learners and a focus on developing online tutorials for distance learners.
- **Providing document services:** This includes providing services to distance learners such as document delivery and inter-library loans but also includes Accessing electronic resources from off campus which can be problematic, particularly as one has little control on the students PC configuration and choice of browser. This can lead to password problems particularly when students don't know the correct route to access resources
- **Providing timely student support:** for queries and problems they encounter while using library resources – this often relies on e-mail and telephone support but some students may be studying in different time zones so this can present a challenge.

These four areas allow us to focus on specific library activities and consider throughout the course of the LASSIE project, whether social software can provide additional support to distance learners using library services. However, underpinning this must surely be the need to evaluate whether the services we provide are supporting students learning, helping them engage with their subject and develop their skills to become lifelong learners.

Libraries as social spaces

This final section of the literature review looks at the role of the library as a social space and 21st century attitudes towards libraries as a physical space on the university campus. Some might imagine that the vast growth in the number of electronic resources has led to a declining interest in library buildings, however, there has been a resurgence of interest, as the literature shows. This section also briefly examines the changing nature of learning spaces more generally in higher education, as the changes and developments in teaching methods are directly relevant to the changing role of libraries. This section concludes by looking at issues such as whether physical libraries do in fact serve a wider social function that is lost when users access virtual libraries. It then considers whether social software might in some way help to support this role.

Changing learning spaces

Physical learning spaces throughout our schools and universities are changing in appearance, partly in reflection of wider changes in teaching methods. The impact of technology on the classroom is also acting as a catalyst for change, as interactive whiteboards, wireless access and the use of computers becomes increasingly common. Traditionally university teaching centred around the large lecture theatre, where students attended to passively listen and take notes. While lectures are still a central part of university life, in the 21st century, teaching methods have diversified as the range of subjects has developed. As our understanding of pedagogy and learning styles has developed, the idea of the 'sage on the stage' has fallen out of favour in some circles as educationalists encourage lecturers to view learning as an active process where teachers are facilitators of learning. Many subjects are now taught in smaller groups, in laboratories or require students to work together collaboratively on joint projects. This has led to changes in higher education requirements for learning spaces. In 2006 JISC recognised this change with the launch of the publication "Designing Spaces for Effective Learning" (JISC, 2006). This report has been followed by a literature review, funded by the Higher Education Academy, and undertaken by the Institute of Education on 'Learning spaces for the 21st Century' (Temple, 2007). The review is due out in Autumn 2007 and emphasises the recent focus on developing new learning spaces that reflect changes that are happening in educational practice, largely driven by technology. Finally SCONUL (Society for College, National and University Libraries) recognise space planning as a current 'hot topic' and have a working group looking into how libraries '*identify the challenges for flexible learning and research space in an increasingly e-environment*'. (SCONUL, 2007)

Changes in library buildings

The move towards an increasingly digital library started in the 1970s and accelerated considerably in the 1990s with research programmes such as eLib in the UK and the Digital Libraries Programme in the US. By the end of the last millennium Rusbridge (1998) recognised we were moving towards what he called the 'hybrid' library rather than an exclusively digital library. This has meant for some time digital library developments have occurred in parallel with ongoing interest in library buildings. The belief in some quarters that libraries as a place are redundant and that users just want to access resources remotely has been firmly challenged by the library profession and the idea of the Library as a social space is gaining increasing recognition more recently. This development is linked to two related ideas about library space which have gained ground in library literature more recently: "The Library As Place" and the library as the "third place". Librarians sometimes call the library a "third place," a reference to a theme in Ray Oldenburg's book *The Great Good Place*. Oldenburg is a professor of sociology at the University of West Florida, and he lamented the disappearance of good public places. Oldenburg argues that society desperately needs third places -- that are neither home (the first place) nor work (the second), but spaces that allow people from different parts of a community to come together and engage one another. Many public libraries in the US and more recently in the UK, are capitalising on this idea and seeing themselves as playing an important role as a 'third place'. The funding to put in place the IT infrastructure in UK public libraries (known as the People's Network) means that public libraries all have internet access and provide a free alternative to internet cafes. Many are also extending their opening hours, providing drinking and eating facilities and trying to shake off their image of being simply places of books.

The second concept of "The library as place" became a buzz phrase in many US library-planning meetings a few years back and it was also the title of a series of essays published by the Council on Library and Information Resources (CLIR) (For more details see: <http://www.clir.org/PUBS/reports/pub129/pub129.pdf>). In 2005 'library as place' was also the theme of a panel discussion at the American Library Association conference (see: <http://www.ala.org/ala/pio/piopresskits/alaannualconferencepresskit2005/librarisplace.htm>), and the title of a conference organised by the National Library of Medicine." The importance of the library as a physical space was emphasised by Carlson (2005), who described how a professor of engineering at Pennsylvania State University told his University Director that the brand new \$15 million library building was a shame 'because everything was on the Internet'. He strongly argues that libraries as a place are important in the digital age. In the UK over the past few years we have

seen considerable investment in many flagship new library buildings, for example the Jubilee Library in Brighton, the Ideas Store in East London and the new library in Peckham, South London. Yet we are also living in a period of government and local authority cuts which are badly affecting some library services in both the US and the UK. As Brophy (2001) concludes in his monograph on the future library "it is easy, in the excitement of cyberspace, to lose sight of the fact that physical places remain important and are where people actually live out their lives" (Brophy, 2001, p.183)

The idea of 'library as place' very much challenges the notion that users simply want access to library resources, and are not concerned about a physical environment. Librarians are understandably defensive of their spaces, and the information literacy movement is particularly eager to challenge the belief that libraries and librarians are redundant because everything can be found on the internet. In fact, in a recent book on Digital Literacies a non library author argues that the idea of the internet as a Digital Library is a 'fallacy' and that viewing it as such as led researchers to become less effective when using more traditional data sources. (Gilster, p.48 in Allan & Madigan, 2006).

Information Commons

Linked to the resurgence of libraries as physical space is the phenomena for building new, innovative library spaces . In the US, Canada and Australasia there have been a number of "Information Commons" built which provide flexible learning spaces incorporating library, IT and other student services. These buildings are usually built as separate projects to the library and often only include high demand paper collections (such as short loan collections) along with flexible space for group study, areas where students can talk, text, and use their phones, and quieter study spaces more akin to a traditional library. Information Commons have a high number of desktop PCs and space for laptops as accessing electronic resources is common. User-support can be provided by traditional enquiry desks but also may include floor walkers who can trouble shoot IT and library problems. Information literacy and library training are often important components of these buildings. Beagle (2006) published *The Information Commons Handbook*, which provides an overview of their history, role and includes valuable details for those involved in planning an information commons. The Canadian Library Association also have a special interest group devoted to the subject and maintain a wiki. (Canadian Library Association, 2007).

In the UK a similar initiative was the Saltire Centre at Glasgow Caledonian University which opened in 2006 and provides a flexible learning space. It is now home to many of the University's library staff and was described in some detail in a recent article in *CILIP Update* by Howden (2007). The same issue of *Update* also reported on librarians involvement in developing a flexible learning space at the University of the Arts (Christie and Everitt, 2007). The first UK Information Commons opened in April 2007 at the University of Sheffield, again a distinct building from the library. It is described as:

"More than a library, more than a study space, more than an IT centre; the whole is greater than the sum of the parts. So the Information Commons deserved a new name for a new concept." (University of Sheffield, 2007)

Advocates of Information Commons are clear that these buildings are not libraries, but new learning spaces designed with learners at the heart.

"The library is the one thing that stands for the kind of culture and learning for which universities are noted," says Michael Gorman, dean of library services at California State University at Fresno and former president of the American Library Association. "When you look at the glossy brochures that universities put out, hoping to attract funds, they always feature people reading in the library, because there is something iconic about that." Gorman calls the library the "great intellectual and cultural center" of the academic community.

Conclusion

Social software and Web 2.0 technologies seem to offer enormous potential for the library community, as they do for the education community more widely. There is a tremendous excitement and new tools are currently being developed all the time. Advocates of Web 2.0 technologies such as Bradley (2007) and Farkas (2007) argue that librarians should start experimenting and using these tools to enhance the services they offer. However, it is useful at this time to reflect on the experiences to date, to consider the central purpose of libraries and then to select tools that really do make a difference to our users.

This literature review highlighted that our library buildings serve an important role as a physical space where learning and interaction takes place. Literature in this field has helped to shape our thinking about the value of social software for libraries and address the issue of whether there is a specific social function that could be replicated for those unable to visit the building. It is clear that collaboration and communication has become increasingly important in the way we learn and our new library buildings are starting to reflect this shift. The role of the librarian as the facilitator of collaboration and communication could become crucial in the Web 2.0 world. It is also worth noting that in virtual worlds, notably Second Life, many organisations, including libraries have embarked on building learning spaces such as libraries. Individuals who use Second Life also report on visiting these places and so the role of the virtual and physical library becomes increasingly interesting and increasingly blurred. This review will undoubtedly date quickly but the LASSIE team hope it provides a valuable summary of the current debate surrounding implementing Web 2.0 technologies in libraries and documenting progress to date.

References

- ACRL (2004). Guidelines for Distance Learning Library Services. American Library Association. <http://www.ala.org/acrl/resjune02.html> (Accessed on April 13, 2007).
- Anderson, Paul (2007). What is Web 2.0? Ideas, technologies and implications for education. JISC TechWatch report. Available at: http://www.jisc.ac.uk/whatwedo/services/services_techwatch/techwatch/techwatch_ic_reports2005_published.aspx (Accessed 13th June 2007)
- Beagle, Donald Robert. (2006) *The Information Commons Handbook*. Neal Schuman publishers.
- Bell, R. and Tight, M. (1993). *Open Universities: A British Tradition?* Buckingham: The Society for Research into Higher Education and Open University Press.
- Black, Nancy E. (2001). Emerging Technologies: Tools for Distance Education and Library Services. *Journal of Library Administration*, 31(3/4), 45-60.
- Bradley, Phil. (2007) *How to User Web 2.0 in your Library*. Facet Publishing: London
- Brophy, Peter. (2001) *The library in the twenty-first century: new services for the information age*, Library Association, London.
- Buchanan, Elizabeth A. (2000). Going the Extra Mile: Serving Distance Education Students. *Journal of Distance Learning Administration*, 3(1)
- Buckley-Owen, Tim (2008) Are these sites just hype? *CILIP Gazette*. 11-24th January 2008, p.3.
- Canadian Library Association (2007). Information Commons Interest Group. Home page: <http://www.infocommons.ca/> (accessed 13th June 2007)
- Carlson, Scott, (2005) The Place of Libraries. *Chronicle of Higher Education*; 2/18/2005, Vol. 51 Issue 24, pB4-B4
- Casey, Michael (2006) Library 2.0: Service for the Next-Generation Library - *Library Journal*, 1 September 2006 Available at: <http://www.libraryjournal.com/article/CA6365200.html> (Accessed 31st January 2008)
- Casey, Michael E. and Savastinuk Laura C. (2007) *Library 2.0: A Guide to Participatory Library Service*. Information Today, Inc.: Newark, New Jersey.
- Cassner, Mary and Kate E. Adams. (2006). Assessing the Professional Development Needs of Distance Librarians in Academic Libraries, *Journal of Library Administration*, 45(1/2), 81-99.
- Christie, P and Everitt, R. (2007) 'No rules': managing a flexible learning space. *CILIP Update*. June 2007.
- Chuck Thomas and Robert H. McDonald, (2005) "Millennial Net Value(s): Disconnects Between Libraries and the Information Age Mindset" (August 15, 2005) Florida State University D-Scholarship Repository, Article #4. <http://dscholarship.lib.fsu.edu/general/4>
- CIBER (2008) Information behaviour of the researcher of the future. CIBER Briefing Paper. Available online at: <http://www.ucl.ac.uk/slais/research/ciber/downloads/ggexecutive.pdf> (Accessed 31st January 2008)
- Cohen, Laura B. (2008) *Library 2.0 Initiatives in Academic Libraries*. American Library Association.

Coleman, Marianne (2004) On-line Learning at the University of London: building on a heritage. *International Journal of Instructional Technology and Distance Learning*. 1 (6). Available online at: http://www.itdl.org/Journal/Jun_04/article02.htm (Accessed 31st January 2008)

Cornell University Library. (1998). Cornell University Library Distance Learning White Paper. <http://www.library.cornell.edu/staffweb/Distance.html> (Access on April 15, 2007).

Crawford, Walt (2006) Library 2.0 and "Library 2.0". *Cites & Insights* 6, Number 2: Midwinter 2006. Available at: <http://citesandinsights.info/v6i2a.htm> (Accessed 31st January 2008)

Davis, I., "Talis, Web 2.0 and All That", Internet Alchemy blog, 4 July 2005 <http://internetalchemy.org/2005/07/talis-web-20-and-all-that> (Accessed 31st January 2008)

Evans, Beth. "Your Space or MySpace?" *Library Journal*. Oct. 15, 2006 <http://www.libraryjournal.com/article/CA6375465.html&> (Accessed 31st January 2008)

Farkas, M. (2007) *Social Software in Libraries: Building Collaboration, Communication, and Community Online*. Information Today Inc: Newark, New Jersey.

Fisher, Karen E, Landry, Carol F. & Naumer, Charles. (2007) Social spaces, casual interactions, meaningful exchanges: 'information ground' characteristics based on the college student experience. *Information Research*; Jan2007, Vol. 12 Issue 2, p4-4

Franklin, T and von Harmelen, M (2007) Web 2.0 for Content Creation for Learning and Teaching in Higher Education. JISC. Available at: http://octette.cs.man.ac.uk/~mark/web2.0_for_comment.pdf (Accessed 23rd May 2007)

Godwin, Peter and Parker, Jo. (2008) *Information Literacy meets Library 2.0*. Facet Publishing. London.

Gilster, Paul. (2004) Chapter 4: Digital fusion: defining the intersection of content and communications (pp.42-50) in Martin & Madigan (2007).

Given, Lisa M. & Leckie, Gloria J. (2003) "Sweeping" the library: Mapping the social activity space of the public library. *Library & Information Science Research*; Dec2003, Vol. 25 Issue 4, p365.

Hildreth, Susan H. (2005) The Library As Place. *California State Library Foundation Bulletin*; Fall2005 Issue 82, p16-18. Available at: http://www.csifdn.org/pdf/bulletin_82.pdf (Accessed 31st January 2008)

Hines, Samantha Schmehl. (2006). What Do Distance Education Faculty Want from the Library? *Journal of Library Administration*, 45(1/2), 215-227.

Hisle, W. Lee (2002). Top Issues Facing Academic Libraries: A Report of the Focus on the Future Task Force. *College & Research Libraries News*, 63(10). <http://www.ala.org/ala/acrl/acrlpubs/crlnews/backissues2002/novmonth/topissuesfacing.htm> (Accessed April 14, 2007).

Howden, Jan (2007) The Saltire Centre: a new space for learning. *CILIP Update*. June 2007 <http://www.westga.edu/~distance/buchanan31.html> (Accessed on April 19, 2007). Information Technology Policy.

JISC (2008). The Myth of the Google Generation. JISC News report. Available online at: <http://www.jisc.ac.uk/news/stories/2008/01/googlegen.aspx> (Accessed 31st January 2008)

JISC (2007a). Web 2.0 and social software: An introduction. JISC Briefing paper. Available online at: <http://www.jisc.ac.uk/publications/publications/web2socialsoftwarev1.aspx> (Accessed 25th January 2008)

JISC (2007b) In their own words: understanding the issues and benefits of social software. Available online at: <http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/iowpersonalsoftwarepdf.pdf> (Accessed 17th January 2008)

Kazmer, Michelle M. (2002). Distance Education Students Speak to the Library: Here's How You Can Help even More. *The Electronic Library*, 29(5), 395-400.

Kennedy, Shirley Duglin (2005) A Library by Any Other Name. *Information Today*, Jul/Aug2005, Vol. 22 Issue 7, p17-19.

Kirriemuir, John. A (2007) A "snapshot" of UK Higher and Further Education Developments in Second Life. Eduserv Foundation. Available online at: <http://www.eduserv.org.uk/upload/foundation/sl/uksnapshot072007/final.pdf> (Accessed 25th January 2008)

Lankes, R.D, Silverstein, J. and Nicholson, S. (2007) *Participatory networks: the library as conversation*. Executive Summary. Produced for the American Library Association. Available online at: www.ala.org/ala/washoff/washevents/midwinterwo/past/2007/partnetsummary.doc (Accessed 31st January 2008)

Lenhart, Amanda and Mary Madden. (2007) "Social Networking Websites and Teens: An Overview" Pew Internet Project Data Memo. Pew Internet & American Life Project Jan. 7, 2007 http://www.pewinternet.org/pdfs/PIP_SNS_Data_Memo_Jan_2007.pdf (Accessed 31st January 2008)

Martin, Allan and Madigan, Dan (Eds.) (2007) *Digital Literacies for Learning*. Facet Publishing: London

Mclsaac, M.S. & Gunawardena, C.N. (1996). Distance Education. In D.H. Jonassen, ed. *Handbook of Research for Educational Communications and Technology: A Project of the Association for Educational Communications and Technology*. 403-437. New York: Simon & Schuster. <http://seamonkey.ed.asu.edu/~mcisaac/dechapter/index.html> (Accessed April 19, 2007).

McLean, Evadne and Stephen H. Dew. (2006). Providing Library Instruction to Distance Learning Students in the 21st Century: Meeting the Current and Changing Needs of a Diverse Community, *Journal of Library Administration*, 45(3/4), 313-337.

Miller, Paul (2005) "Web 2.0: Building the New Library" Ariadne Issue 45 30 Oct 2005. Available at: <http://www.ariadne.ac.uk/issue45/miller/intro.html> (Accessed 25th January 2008)

OCLC (2007) Sharing, Privacy and Trust in Our Networked World. Available at: <http://www.oclc.org/reports/sharing/> (Accessed 16th January 2008)

O'Reilly, T. (2005) What is Web 2.0, 30 September 2005 <http://www.oreilly.com/go/web2> (Accessed 31st January 2008)

Painter, Mary Ann. (2005). Library Support for Distance Learning. *Distance Education Report*, 9(12), 3.

Parker, Jo (2007). IL gets social: distance learners venture Beyond Google. Paper presented at LILAC 2007. Available at:

- <http://www.cilip.org.uk/specialinterestgroups/bysubject/informationliteracy/lilac/lilac2007> (Accessed 31st January 2008)
- Parkes, David and Hart, Liz. (2008) *Web 2.0 and Libraries: Impacts, Technologies and Trends*. Chandos Publishing: Oxford.
- Price, Gwyneth. (2004) Information Services' support for Distance and Flexible Learning. Institute of Education report. December 2004. Available at: <http://www.ioe.ac.uk/iswebsitedocs/zstaffdom/flexDistLearnReport050223.doc> (Accessed 31st January 2008)
- Reiten, Beth A. and Jack Fritts. (2006). Distance Learning Librarianship Over Time: Changes in the Core Literature, *Journal of Library Administration*, 45(3/4), 397-410.
- Rusbridge, Chris. (1998) Towards the Hybrid Library. *D-Lib Magazine*. July / August. Available at: <http://www.dlib.org/dlib/july98/rusbridge/07rusbridge.html> (Accessed 31st January 2008)
- Sauers, Michael P. (2006) *Bloggging and RSS: A Librarian's Guide*. Information Today, Inc. Newark, NJ.
- SCONUL (2001) Access for distance learners: report of the SCONUL Task Force. SCONUL Briefing paper. Available at: https://www.sconul.ac.uk/publications/pubs/distancelearners_report.doc (Accessed 31st January 2008)
- SCONUL (2007) *SCONUL Hot Topics: Space Planning*. Available at: http://www.sconul.ac.uk/topics_issues/ (Accessed 31st January 2008)
- Secker, Jane (2004). Electronic resources in the virtual learning environment: a guide for librarians. Chandos: Oxford.
- Secker, Jane and Price, Gwyneth. (2007) Libraries as a social space: enhancing the experience of distance learners using social networking tools. Paper given at the 7th Libraries Without Walls conference. Molyvos, Lesbos, Greece. 15th-18th September 2007.
- Stevens, Norman D. (2006). The Fully Electronic Academic Library. *College & Research Libraries*, 67(1), 5-14.
- Temple, Paul (2007) *Learning spaces for the 21st century*. Higher Education Academy Literature Review. Available at: <http://www.heacademy.ac.uk/assets/York/documents/ourwork/research/Learning%20spaces%20for%20the%2021st%20century.pdf> (Accessed 31st January 2008)
- Vare, Lynn S. (2002) A Study of Tertiary Library Services for Distance Education in New Zealand Institutions: Do We Need National Guidelines? *New Zealand Libraries* 14 (2002): 255-261. Condensed version of Library Services for Distance Education in New Zealand Tertiary Institutions: Do We Need National Guidelines? MLIS project, Victoria University of Wellington, 2002. 81 pp.
- W3C (2007). W3C Semantic Web Frequently Asked Questions. World Wide Web Consortium. Available online at: <http://www.w3.org/2001/sw/SW-FAQ#What1> (Accessed 31st January 2008)
- Williams, Pete and David Nicholas. (2005). E-learning: What the Literature Tells us about Distance Education. *Aslib Proceedings: New Information Perspectives*, 57(2), 109-122.