

Library 2.0 and UK academic libraries: drivers and impacts

by Pride Shoniwa & Hazel Hall

Corresponding author: Hazel Hall, h.hall@napier.ac.uk

This is a preprint of an article whose final and definitive form has been published in *New Review of Information Networking* 2008 [copyright Taylor & Francis] ; *New Review of Information Networking* is available at: <http://journalonline.tandf.co.uk/> with the open URL of <http://www.informaworld.com/smpp/content~db=all~content=a793005417~tab=content>

Abstract

At a time that the term “Library 2.0” has attracted attention in the professional and academic press of library and information science, there appears to be a lack of consensus as to what this nomenclature actually means. At one extreme Library 2.0 is purported to be primarily concerned with the implementation of web-based tools, and thus supports the view that its drivers are intimately related to technology. However, it has also been suggested that Library 2.0 is not solely about technology. Rather, the concept also incorporates changing the physical activities and services delivered by libraries, i.e. Library 2.0 is services-driven. Another perspective is that libraries have always had a history of adopting technology and user-centred improvements to services, and thus Library 2.0 may not even be anything new. This article reports on a research project which assessed the perceptions of Library 2.0, and the extent of its adoption, in the UK academic library sector. The main finding of the study is that Library 2.0 is predominantly viewed as the selective application of Web 2.0 tools and techniques with user services at the heart of any implementation. Although Library 2.0 does not present a new paradigm, its effects are felt in services delivery. Of particular interest are changes in the relationships between those who provide information services and the different generations of the end-users that they serve.

Introduction

The concept of Library 2.0 follows a wider ideology that Web services have evolved from the “static” first generation of the 1990s. It is asserted that this new Web is different because it encourages collaboration and user contribution in a participatory environment. Whilst there has been no general consensus on this perspective, the term Web 2.0 has since emerged and been accepted to describe this perceived transition of the Web. It mainly describes the principles that are argued to resemble the new Web such as the network is the platform, software is a service; users add value and there is continuous reuse of services.¹ Consequently, the emergence and wide spread use of social sites such as *MySpace* and *YouTube* may seem to suggest that the trend is indeed moving towards collaborative and participatory Web services.^{2,3} The success and adoption of tools such as blogs and wikis has further propelled the notion of a Web in transition. To this end, the call is that libraries should acknowledge and embrace this phenomenon by integrating such tools and services into the library environment.^{4, 5}

Whilst the discussion of Library 2.0 has gathered momentum, literature in the “biblioblogosphere” reveals a lack of consensus as to what Library 2.0 seeks to address, that is, the boundaries that it covers. For instance Maness⁶ suggests Library 2.0 to be the “...application of interactive, collaborative, and multi-media web-based technologies to web-based library services and collections”. Library 2.0 is purported to be primarily web-based and hence said to involve the implementation of web tools, particularly Web 2.0 tools. This perspective is one that gives the impression that Library 2.0 is primarily technology driven. However, it has further been suggested that Library 2.0 is not all about technology. Casey and Savastinuk⁷ assert that Library 2.0 also incorporates changing the physical activities and services delivered by libraries. These are not necessarily web-based activities and services delivered by libraries. Here it is argued that Library 2.0 is services driven. That said, it is further argued that libraries have always had a history of adopting technology and user-centred improvements to services, hence Library 2.0 may not even be something new.⁸

To this end, the research discussed in this paper aimed to draw on the experience of UK academic librarians who adopted Library 2.0 with the goal of assessing the extent of implementation. It sought to address two key research questions as related to UK academic libraries:

- is Library 2.0 primarily concerned with the implementation of Web tools or does it incorporate a broader services approach that includes physical services?
- what is the potential impact of Web 2.0 or Library 2.0 on information services provision?

Research Design

Three main data collection exercises were employed. Firstly, an audit of university library web pages to ascertain the “visibility” of Web 2.0 implementation was conducted in February 2007. The reason for this approach was that it has been asserted that Library 2.0 is the implementation of Web 2.0.⁵ A systematic navigation of the UK Higher Education and Research library web pages was conducted alphabetically using the directory at <http://www.library.ex.ac.uk/internet/uklibs.html>. It was a simple case of recording visibility of Web 2.0 technologies such as blogs, RSS, podcasts, among others. This became data set “A”. Subsequently, in March 2007 an invitation to complete a web survey was sent to all chief librarians of UK HE academic libraries requesting that they either responded themselves or nominated a colleague to respond. The response rate for this exercise was 32% and became data set “B”. Lastly follow-up interviews were conducted with a sample of academic librarians in April 2007. A total of six people were interviewed. Four interviews were conducted on-site and two by telephone. This became data set “C”. The data sets are summed up in table 1.

| Data Set | Data Collection Tool | Sample | Sample size | Date of data collection |
|----------|---------------------------|--|-------------|-------------------------|
| A | Audit of library websites | All UK HE libraries as identified from http://www.library.ex.ac.uk/internet/uklibs.html | 152 | Feb 2007 |
| B | Web-based survey | All UK HE chief librarians invited to participate | 152 | March 2007 |
| C | Follow-up interviews | Library staff who were perceived to have strong interests in Library 2.0 | 6 | April 2007 |

Table 1. Data set summary

Research Findings

Is Library 2.0 primarily about the implementation of Web 2.0 tools?

The literature review had established that many asserted that Library 2.0 is primarily the implementation of Web 2.0 tools, and the increase of virtual services within the library environment.^{4, 5, 6, 8, 9} This research set out to test this assertion.

Data collection exercise A was conducted to establish uptake of Web 2.0 technologies by UK academic libraries as of February 2007. A snap shot of uptake is shown in Figure 1.

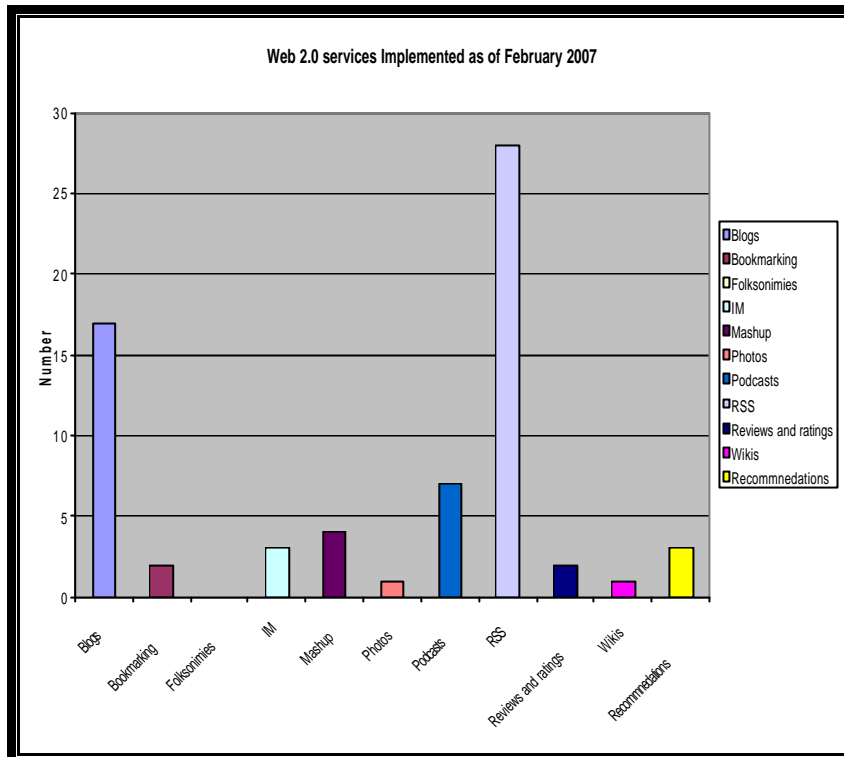


Figure 1. Web 2.0 services implemented as at February 2007

It can be seen that as of February 2007 UK HE libraries were implementing and using some of the Web 2.0 technologies. By far, the most popular tool was the RSS feeds. Of the 152 libraries on the UK HE directory website, 28 university libraries had RSS already installed. This amounted to 18% of the study population. This is not particularly high a percentage but for the purposes of answering the research question, the findings confirmed the presence of Web 2.0 tools. The main use for RSS was to offer users the ability to subscribe to the library blogs and also to notify users of any new acquisitions. It was therefore not surprising that blogs were the second highest service already implemented since most RSS feeds linked to the library blogs. The blogs were largely used for posting library news and allowing users to post comments. In total, 17 universities had implemented blogs, thus amounting to 11% of the study population. Other than podcasts (7 libraries) there was little evidence to suggest wholehearted adoption of Web 2.0 tools in the UK academic libraries on the basis of this visibility audit.

The issue of whether Library 2.0 represents the implementation of Web 2.0 tools in a library setting was considered in responses to questions posed in the web-based survey. Specifically, respondents were asked to indicate their level of agreement to the assertion that Library 2.0 is about implementing new technologies such as blogs and wikis. A total of 49 responses were received for this question. 63% of the librarians 'agreed' that Library 2.0 was about implementing new technologies. Furthermore, 31% showed strong agreement. In order to have a consolidated opinion on the level of agreement, the scales for 'strongly agree' and 'agree' were aggregated to represent the overall level of agreement. Similarly, this was done for the 'strongly disagree' and 'disagree' options on the scale. Consequently, the results revealed that 94% of the respondents agreed that Library 2.0 is about the implementation of new technologies such as blogs and wikis. The level of agreement was such that the remaining 6% was accounted for by respondents who answered "not sure" to the question and no one explicitly disagreed. A graphical illustration of the data is shown in Figure 2.

Furthermore, another survey question asked respondents whether Library 2.0 was about the improvement of virtual services. 86% agreed with this assertion, 2% disagreed and the remainder were either "neutral" or "not sure" responses. In addition to this, a triangulation of the "visibility" audit was achieved by including a question in the web survey for respondents to confirm the services they had either already implemented, planned to implement or those with no plans for implementation. It should be said that there was a significant comparative consistency between the results of the "visibility audit" and the web survey. As with the audit, RSS was the most commonly implemented Web 2.0 service with 40% of the respondents saying they had already implemented the service. As with the audit, the second most common Web 2.0 tool was found to be blogs (34%). Similarly, the podcasts came third with 29% of respondents confirming that these had been implemented in their libraries.

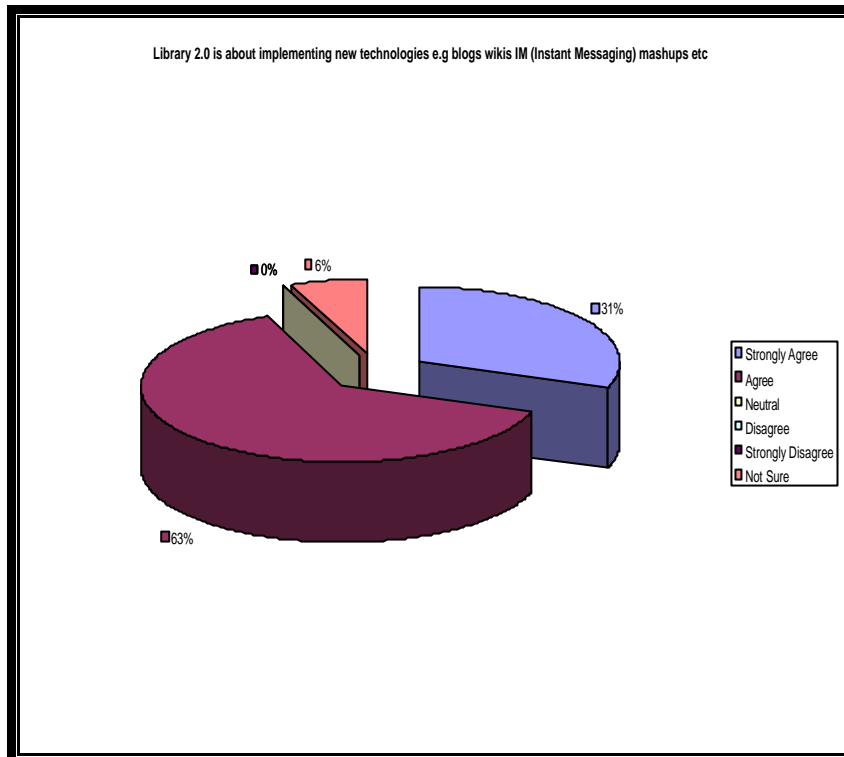


Figure 2. Chart showing the level of agreement to the assertion that Library 2.0 is about the implementation of new technologies

From discussions with the librarians during the interviews, it was found that Library 2.0 is being seen as the attempt to apply Web 2.0 applications and technologies within the library environment. Significantly, all the interviewees concurred that the main emphasis of Library 2.0 was to increase the Web presence of the library, and Web 2.0 technologies were being used as the platform to expedite this goal. However, in three of the interviews, the suggestion was that there had not been much discussion about the term “Library 2.0” *per se* but instead an overall examination of the potential application of Web 2.0 technology in the library environment. This was further emphasised in the notion that the implementation of these Web 2.0 tools had not been as a direct response to a desire to be “Library 2.0”. If it turned out that this activity was Library 2.0, then this was fine but this itself was not an objective of the implementation. The interviewee who expressed most strongly this view proved to come from the institution that had implemented several of the Web 2.0 technologies with great success.

A combination of the findings of the audit and the web survey however shows that there had not been a great uptake of some services such as folksonomies, user tagging and social sites, even though these are the ones that epitomise Web 2.0. Interviewees were asked for their comment on this. The majority stated that there had not been a practical benefit that had been identified for the implementation of such services. It was suggested that services such as folksonomies were still being examined for their applicability within the library environment, particularly in the context of issues of trust as has been previously identified.¹¹ By examining the findings of data collections “A”, “B” and “C”, it can thus be suggested that Library 2.0 is the implementation and application of Web 2.0 technology within the library environment. This matches the assertions made by Bradley^{9, 10}; Maness⁶ and Chad & Miller.⁴

Is Library 2.0 about the improvement of physical services?

The literature reviewed in preparation for this study revealed that some argue that Library 2.0 incorporates the improvement of physical services, without necessarily focusing on virtual services or web-based services.^{7, 12} Responses to questions posed to data subjects on sets B and C provided an opportunity to explore this theme.

Forty-nine survey respondents considered this question. A summary of responses is shown in figure 3. Of the 49, a significant number appeared not to have any strong opinion as to whether Library 2.0 incorporated the improvement of physical services. Indeed, 44% of the study population in this question chose to answer ‘neutral’. The results revealed that 22% believed that Library 2.0 is about the improvement of physical services and 30% did not. The interviews provided an opportunity to probe the question further.

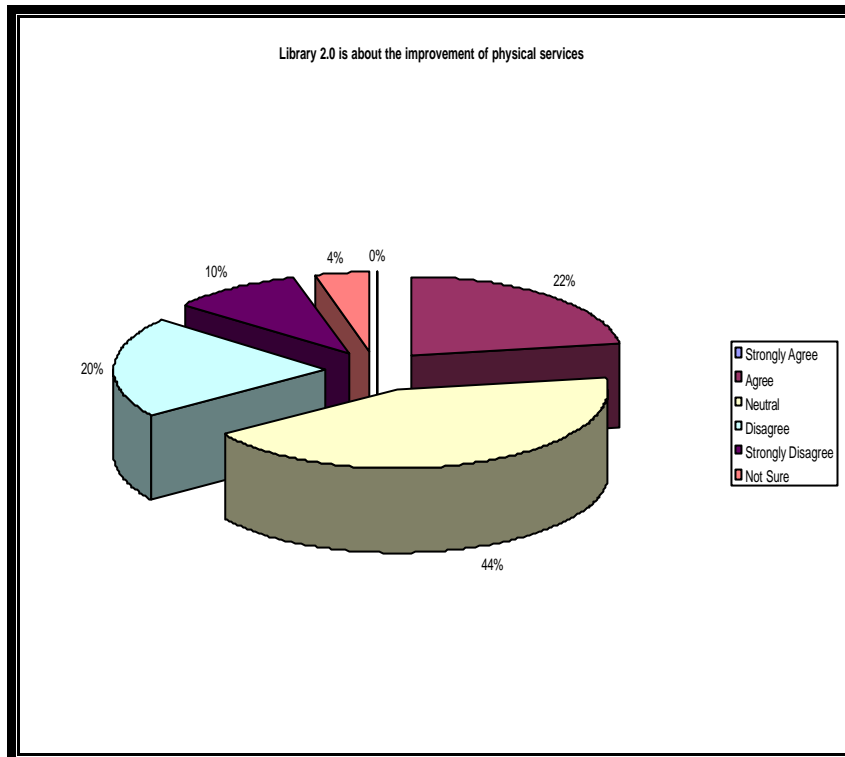


Figure 3. Level of agreement to the assertion that Library 2.0 is about the improvement of physical services

It was established during the interviews that the librarians did not view Library 2.0 to incorporate physical as well as virtual services. There was however a general consensus on the importance of the physical component of LIS, with the librarians noting that users still valued the traditional services offered over the counter and elsewhere within the physical building. Library 2.0 to them had, however, been mainly focused on the improvement of web services. As explained by one interviewee, Library 2.0 is being seen as taking “small baby steps” towards improving the virtual presence of the library which, to date had mainly been perceived as static. It was, however, interesting to note that two of the interviewees acknowledged that their libraries had recently undertaken work of some physical renovations. One university had redesigned a whole floor of the library to be an open space that allows collaborative and participative working between students. This physical setting would fit into Gordon’s¹² definition of Library 2.0. However, the interviewee seemed not convinced that it had been done as part

of any plans to be Library 2.0. In addition, one of the interviewees noted that changes in virtual services delivery often tended to filter into the physical services.

The findings related to this research theme thus appear not to match the claims that Library 2.0 incorporates the improvement of physical services. The main emphasis of Library 2.0 is the implementation of web-based services. However, this is not to say that it is only about the implementation of web-based services. Respondents to the web survey were asked about their level of agreement with the view that Library 2.0 is a combination of improving the library services, both physical and virtual in participatory environment between users and librarians. The question received 49 responses of which 70% agreed to the assertion as shown in Figure 4.

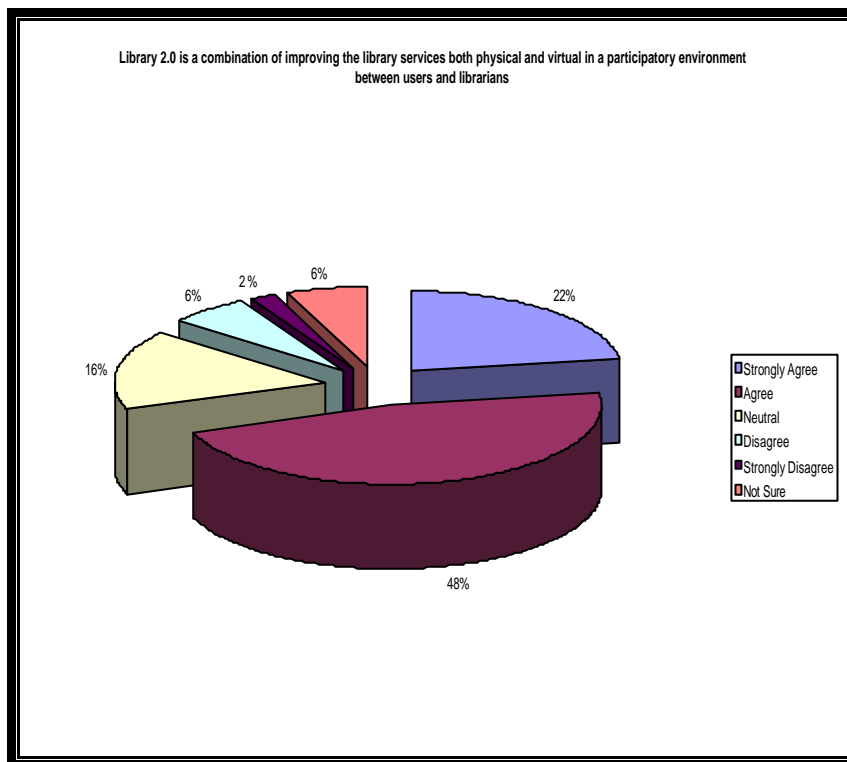


Figure 4 Library 2.0 is a combination of physical and virtual services

Of particular interest is the interplay between physical services and Web 2.0 implementations designed to improve the experience of service delivery. This would include for example, podcasts as guided tours of library facilities as a response to student complaints about the difficulties of navigating buildings and lack of time available for subject librarians to provide traditional induction tours. However, it should be said that this innovation, as with other developments such as the production of a library blog as a replacement for a traditional hard copy newsletter fit with the main tenet of academic library provision that is, meeting users' information needs.

It has been established that Web 2.0 itself is technology driven, but the implementations within the library are not being driven for the desire of just implementing the latest "gadgets" and "widgets" so that it can be seen to be 2.0 compliant. Rather, the main focus has been to implement these Web 2.0 tools in the context of end-users' needs. Representatives of the universities that are already implementing Web 2.0 tools acknowledged that Library "1.0" services were still highly valued, and would probably be so for a long time. To this end, the assertions made by Maness⁶ resemble closely what is happening on the ground at the moment within UK HE academic libraries and being termed Library 2.0, In short, Library 2.0 refers the move towards virtual presence to meet user needs. Library 2.0 is also about improving physical services⁷ but for the moment, the main focus has been mainly on web-based services. It is valid therefore that Library 2.0, whether being implemented from a virtual perspective or physical perspective, is a realisation towards meeting user needs.

To what extent is Library 2.0 something "new"?

If Library 2.0 is the application of Web 2.0 technology to meet specific identified user needs then to what extent is this something new? Libraries have a long history of adopting and implementing new technology to meet user needs.⁶ Perhaps labelling these changes in services as Library 2.0 is inappropriate.

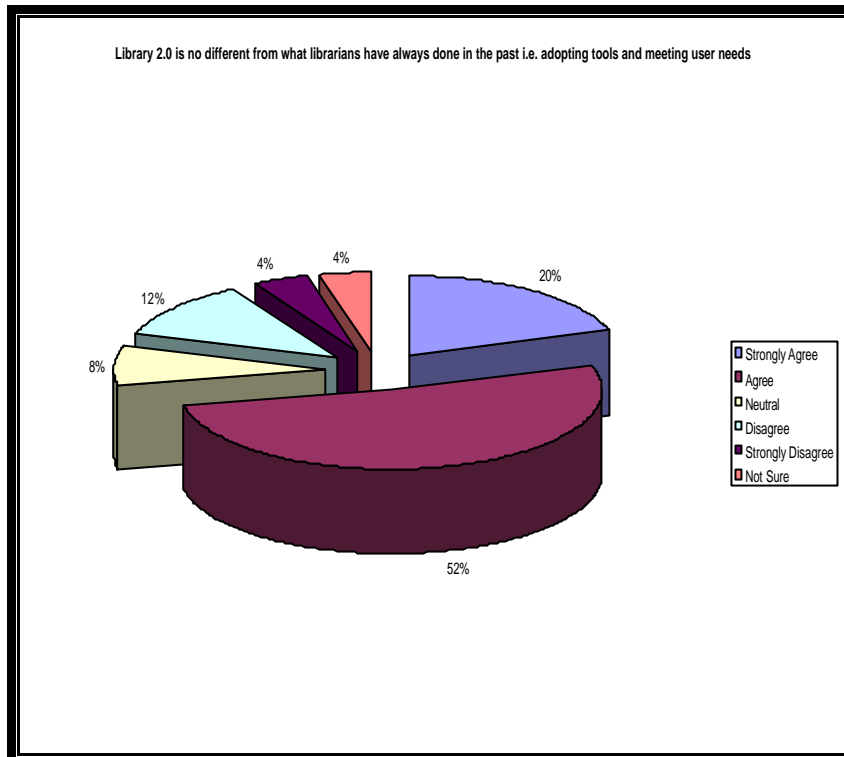


Figure 5. Responses assertion that Library 2.0 is not different

Figure 5 reveals that the majority of web survey respondents did not regard Library 2.0 as something brand new. The interviewees were largely in agreement. However, a few fundamental differences were noted. These centre on the pace of change, which is now said to have greatly increased in light of Web 2.0 technology. Interviewees employed vocabulary such as “the culture of change”, “embracing change”, “enthusiasm” and “pace of change” in their discussion of this theme. Reference was made to the fact that previously users wanted a solution to the problem as it was defined in the project requirements document and wanted it to work 100% of the time. In contrast, the current way of working could give 90% of the requirements very quickly, may not work all the time and it was possible that the other 10% may never be completed. In six months the requirements may even have changed. Closer collaboration was required in project work, and acceptance that “perfect” solutions would not always be achieved, nor was always desired. This meant a change in work approach on the part of the library staff. Another difference noted was that LIS often played catch-up with the commercial organisations in

the past with respect of technology adoption. For once, LIS had been pushing hard to stay current with other industry sectors in the context of Web 2.0 tools.

What has been the impact of Web/Library 2.0 on UK academic libraries?

A number of impacts of Web 2.0 and Library 2.0 were noted in the study. These relate to new enthusiasm for librarians, engagement with users, the need for training and the relationship between academics and students. Whilst it cannot be measured in percentages or monetary terms, Library 2.0 is said to be creating a new enthusiasm within the library environment. This view was confirmed by all interview participants. The argument is that previously librarians and libraries were perceived to be 'boring'. However, new terms are being used to describe the library experience ever since the implementation of the Web 2.0 tools. For instance, at one institution, following the implementation of the library tours podcast, students have been describing the service as "fantastic", "amazing", words rarely associated with the library before. More podcasts have since been delivered. Similarly, at another institution, it was suggested that "...Library 2.0 has given people a reason to be more daring in the ideas of change". Library 2.0 makes people aware that they need to keep up with change and that the change is constant. That other information services are offering the new Web 2.0 tools makes it increasingly difficult for librarians not to take notice.

It was also suggested from the interviews that Library 2.0 has made it possible to engage the users in ways that have not be possible before, for example through podcasts. Interviewees were pleased with statistics to show huge uptake of services provided by podcasts and blogs, and commented on how these services' previous incarnations, for example as manuals, had in contrast been largely ignored by users. A further impact of service delivery by Web 2.0 tools has been increased user-independence and thus a reduction in needs for end-user training. Another observation relates to different communities of users in academic libraries. All interviewees noticed that while for example students had been grasping the Web 2.0 tools such as wikis and podcasts with ease, academics have been lagging behind with some even reluctant to try the services. A gap appears to have been created between the user-bases

served by academic libraries. There was concern that two types of service delivery would need to be supported in the future, one for those “born with the chip” and one for the older generation.

Conclusion

This study reveals that in the UK, academic librarians have taken Library 2.0 to be the application of Web 2.0 tools and techniques within the library environment with user services at the heart of any implementation. Not every Web 2.0 technology has been embraced: RSS, blogs and podcasts are the most popular to date. Thus Library 2.0 is about selectively choosing from a set of tools which happen to be Web 2.0, without any compulsion on the part of the library service to be Library 2.0. The perspective that Library 2.0 incorporates the physical services has not been widely substantiated. However, the Web 2.0 applications implementation tends to impact the way in which physical services are delivered.

It is emphasised in these research results that librarians do not perceive Library 2.0 to be presenting a new paradigm. Although reacting to the pace of change and willingness to adapt to change have been identified as having an impact, the underlying principle of meeting users’ needs – one which has been embedded in the long history of librarians adopting technology is still the basic tenet of library and information services provision.

The most significant impacts in this context of the move to adopting these tools are being felt in several ways related to how librarians and the relationship between academic libraries and their users are perceived, not least in servicing the needs of different generations of users.

Acknowledgements

Survey participants and anonymous interviewees

References

1. O'Reilly, T. (2005a, September 30). *What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*. Retrieved November 18, 2007, from <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>
2. BBC News Online. (2006a, May 24). *Social sites wrestle for top spot*. Retrieved November 18, 2007, from <http://news.bbc.co.uk/1/hi/technology/5012194.stm>
3. BBC News Online. (2006b, December 18). *Social networks top Google search*. Retrieved November 18, 2007, from <http://news.bbc.co.uk/1/hi/technology/6189809.stm>
4. Chad, K., & Miller, P. (2005, November). *Do libraries matter? The rise of Library 2.0*. Retrieved November 18, 2007, from http://www.talis.com/applications/downloads/white_papers/DoLibrariesMatter.pdf
5. Miller, P. (2006, February). *Library 2.0: the challenge of disruptive innovation*. Retrieved November 18, 2007, from http://www.talis.com/resources/documents/447_Library_2_prf1.pdf
6. Maness, J.M. (2006, June). Library 2.0 Theory: Web 2.0 and Its implications for Libraries. *Webology* 3(2). Retrieved November 18, 2007 from <http://www.webology.ir/2006/v3n2/a25.html>
7. Casey, M. E., & Savastinuk, L. C. (2006, September 1). Library 2.0: service for the next-generation library. *Library Journal*, 131(14), 40-42. Retrieved October 20, 2006, from EBSCOhost Database.
8. Crawford, W. (2006, Midwinter). Library 2.0 and "Library 2.0". *Cites & Insights*, 6(2), 1-32. Retrieved November 18, 2007, from <http://citesandinsights.info/civ6i2.pdf>
9. Bradley, P. (2006a, May). Web 2.0: a new generation of services. *Library & Information Update*, 5(5), 32-33.
10. Bradley, P. (2006b, June). Web 2.0: a new generation of services Part 2. *Library & Information Update*, 5(6), 38-39.
11. Harris, C. (2006, November). A matter of (radical) trust. *School Library Journal*, 52(11), 50-53. Retrieved December 14, 2006, from EBSCOhost Database.
12. Gordon, R. S. (2006). What will you do today?. *Library Journal* (131)17, 43. Retrieved December 28, 2006, from EBSCO Host Databases