

Literature surveys - Future of libraries

Digests of survey results

Document status: draft

Provenance prior to the Workshop held at the Bodleian Library, 17th April 2013

Owing to the potentially broad range of topics that a literature survey might uncover, we decided to limit the scope of the preliminary surveys to the four topics listed in the **Basis** section, which are themselves sub-topics relating to broader areas. The workshop organisers wish to thank Mrs Fiona Bell for her advice regarding the survey scope and for conducting the literature surveys.

Each topic was surveyed separately, the aim being to get an impression of what the publications in the area are about and the extent to which various aspects have been considered and/or covered.

Colin Bird reviewed the abstracts in two phases, as listed in the **Basis** section, and assembled the digests into five sections: the extra section comprising the (admittedly incomplete) collection of general articles about the future of libraries that Fiona identified prior the individual topic surveys.

Each section begins with a **Method – extract**, which is a copy-and-paste from Fiona's survey summaries – in a box; some also have **categories**, which are Fiona's provisional classifications. Notes from the **Phase 1** and **Phase 2** reviews follow, including some paragraphs highlighted in yellow, which are *observations or comments* rather than digests.

Please add your own comments, suggestions, and observations and feed them back.

Basis

From Libraries survey.doc:

The results will be used as input for a workshop that will be discussing a set of themes associated with - but by no means necessarily confined to – the following topics:

- Libraries as social spaces
- Future roles for library information specialists
- Uses for mobile technologies in libraries
- The potential for libraries to offer data and information curation services

Phase 1 – Titles and abstracts (where available) only

Phase 2 – Scanning full texts where available and ostensibly of special interest

Social (39 {26+13} articles)

Method - extract

Partly because of the topic & partly being a librarian, it means the search split off into 2 separate 'social' routes. One is very much 'social developments / activities in libraries' and the other is the idea of social learning & designing library spaces with social learning in mind. For that reason, the results are split into social and social learning / design. I've named the pdfs accordingly (social 1 or SL 1 etc...). Not all the articles had FTs available and that is clear from the main document which cites the abstract with the reference. I have purposefully ignored articles about social media because I didn't think it was relevant and it would explode the search as that is a hot topic in libraries, for different reasons. I've highlighted those I think are the best, either because they are from more authoritative sources or because of their content.

Digest

Phase 1 – Social

Library adaptation to social websites, i.e., digital meeting places: 1

Library response to change (deliberately vague tag): 2, 3, 6, 8, 11, 22, 23, 24

Articles referring to "social capital": 4, 13, 18 (duplicate of 4)

Libraries as meeting places: 4, 7, 13, 25

Positions and/or assessments from individual libraries: 5, 7, 10, 12, 14, 15, 16, 17, 19, 20, 21, 26

Designing libraries as social spaces: 9

Include the word "review" – checked in response to my retrospective thought that few if any of the articles stand back and look at the big picture: 5, 7, 13

Phase 1 – SL

Having scanned the 13 abstracts a few times, I'm getting the impression that "*the idea of social learning & designing library spaces with social learning in mind*" could well be a topic in its own right. If the more thorough review in Phase 2 bears that out, perhaps we could consider it as a potential topic for a subsequent Libraries workshop

Phase 2

Having looked through the Social and SL abstracts again, I'm wondering whether we've drifted away from the ITaaU theme with a survey of "Libraries as social spaces". Should we perhaps have looked for articles about the influence of IT utilities and services on the social spaces provided by libraries? I'm looking at the last sentence of "What is IT as a Utility" on the website:

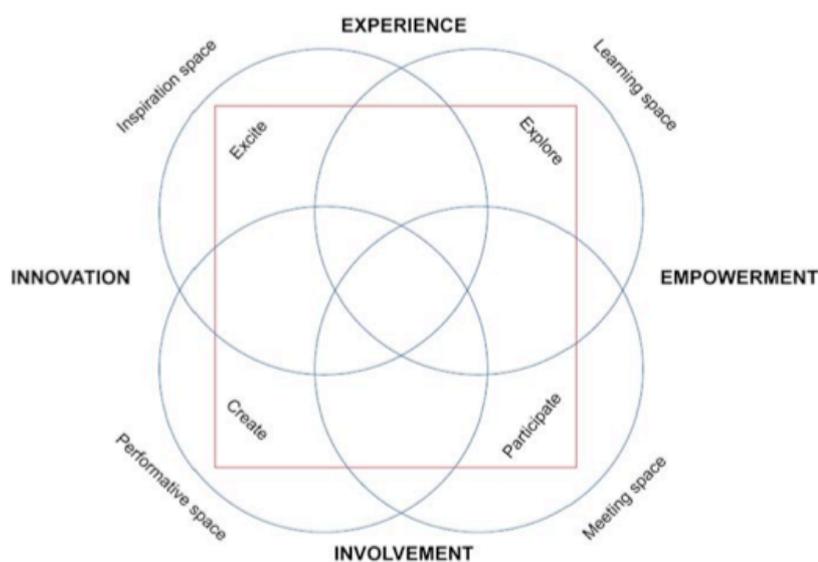
The network will be working towards simple, usable and safe IT provision from smart services, surroundings and information stores.

If that view has some merit, we could perhaps look at these survey results in a different light. For example, Social 13 and SL 2 provide some useful starting points:

Social 13 is from the Australian Library Journal, but at present we have no full text, so I've pasted in the entire abstract:

This paper examines the idea, commonly expressed in the Library and Information Services (LIS) literature, that public libraries have a growing role as developers of social capital, and brings to bear some of the growing body of research into public libraries and social capital. It reviews definitions of social capital by writers outside the LIS sector and outlines the main strategies taken by public librarians who attempt to contribute to social capital, such as community outreach, provision of meeting places and provision of universal services to the public. It discusses the public library as a community centre of learning, with particular reference to the fields of ICT access and training and of information literacy, and the public library as a proactive developer of social networks and partnerships. It concludes by examining research studies that throw light on the complex question of whether public libraries can and do generate social capital and on the kind of evidence that needs to be gathered in order to demonstrate the contribution of public libraries to social capital.

SL 2 does have a full text (SL 2.pdf) and I reckon the diagram on page 3, showing the four spaces model, would make an interesting prompt for a discussion session:



The four spaces
– a new model

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Figure 1.
The four spaces of the
public library

Future (13 articles)

Method – extract

Not much to say other than these are the future refs I found earlier on during the search. I haven't exhausted the resources available for this search, but it gives you a flavour of what is out there.

Digest

Phase 1

Future 6 – Talve, 2011 – looks interesting and fairly wide-ranging. PDF or DOI.

Future 7 – 2013 – Title: The role of public libraries in culture-led urban regeneration. The research project is based on case studies of new “cutting-edge” public libraries in Europe and North America.

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Other aspects covered: what libraries might be used for; how to continue providing services in unfavourable economic conditions, i.e., cost-cutting; impact of cloud computing on systems librarianship (CB: tangential consideration, maybe?); 6 (of 12) articles related to academic libraries, and link: <http://www.futurelibraries.info/content/>

#### ***Phase 2***

Talve [6] is indeed an interesting overview of how, and to some extent why, libraries have evolved since the mid-90s. The nearest the article gets to discussing IT is in relation to a scenario planning exercise run in 1995, looking at the next 15 years:

*In the main, these scenarios described a world in which digital technologies evolved rapidly, challenging libraries to find new offerings or go out of business. One strong theme was the idea that libraries would need to see themselves as more than physical places and repositories.*

My guess is that workshop attendees who are familiar with the library scene will be aware of much of this material, albeit not with the specific examples, so this article might not be as useful as I first thought for pre-workshop reading.

Skot-Hansen et al [7] is about a specific project relating to “culture-led urban regeneration”, a concept that becomes clearer as you read the article, which discusses three roles for libraries in the context of regeneration. The first role is as a cultural icon, with some examples, one of which is Peckham in Southwark, South London. The second role is as a placemaker and the third is in community consolidation or vitalization: the third might well be the role of most interest to ITaaU, as its definition includes *initiating local innovation, creativity and co-operation*.

A couple of quotes from the final section of the article, “Re-inventing the public library”:

*Public libraries have during the last ten years been changing from collections to connection and now also towards creativity and collaboration.*

*An important question is whether this<sup>1</sup> can be seen as an instrumentalization of the library's rationales, and whether its core mission has been affected. If you see the core mission of the library to enliven and enhance the lives of the*

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<sup>1</sup> It's not entirely clear what “this” refers to, but my best guess is: *contributing to urban diversity and addressing social and economic problems*.

*citizens, this mission has not disappeared, but is being tested through new design and new concepts.*

A quick rescan of the other 11 articles didn't produce much more insight, but it's worth mentioning these two:

Liu and Cai [4] discuss the impact of cloud computing on systems librarianship: their key message is the need for systems librarians to keep their knowledge and skills up to date with the changes arising from cloud computing.

Maxymuk [8] includes a paraphrased list of the "Top Ten Assumptions for the Future of Academic Libraries and Librarians": four of the ten involve IT-related terms, five if we include *data*.

## **Roles (26 articles)**

### **Method – extract**

Here are the categories I'd put them under. For some, it seems there are only one or two articles, but actually some of the topics, e.g. roles for health librarians, this topic came up a fair bit, but I've only saved the one to give you an idea of this being an area of consideration. Similarly, education / information literacy roles came up a bit.

As before, most of the articles come from a general librarian perspective, or academic. School, corporate, legal librarianship was rarely considered

### **Method – Fiona's Categories**

- Other: 1, 25
- Involved in research: 2, 11, 19, 21
- General considerations of the future: 3, 7, 8, 10, 13, 14, 15, 20
- Digital management / issues / aspects: 4, 6, 12, 17, 18, 23
- As educators / In education: 5, 22
- School Librarians: 9
- Health Librarians: 24
- Open access: 16
- In Knowledge Management roles: 26

### **Digest**

#### **Phase 1**

Roles 2 – Ferebee & Davis, 2011 – Fiona describes this as a slightly odd article, but thought the following snippet was relevant: “they may find their role moving from information providers to mentors who empower library users as independent researchers.”

Roles 7 – Bosanquet, 2009 – Says it “aims to provide some insight in how to rebuild relevance of the profession in the digital environment” and a quick glance at the PDF suggests it's worth a second look, although the article might be a bit 'pedestrian'

Roles 8 – Tanloet & Tuamsuk, 2011 - Delphi study of Thai academic libraries: looks useful

Roles 11 – Knapp, 2012 – Librarians facilitating interdisciplinary research

Roles 18 – Wang, 2011 - Conference report, *might* expose some trends

Roles 26 – Kebede, 2010 - How the Information Science profession could proactively be involved in advancing Knowledge Management

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Library response to change (deliberately vague tag, see **Social** – it might be a misguided view, but such articles seem tangential to a consideration of roles for information specialists): 1, 6, 10, 14, 17

Skills, knowledge, and attributes required (in the future – IMHO, such requirements are a consequence of role evolution, not the change itself): 3, 9, 13, 15, 20

Enhanced and/or innovative library services: 4, 23, 25

Librarians as educators/teachers **and** helping “communities navigate the increasingly complex information space”: 5, 12, 16, 19, 21, 22, 24

Phase 2

Ferebee and Davis [2] is interesting stuff, but with constrained views about the future role of librarians. The most relevant-looking snippets follow:

From a survey of how [Technologically Structured Individuals] would most likely use a librarian's help:

TSIs show a smaller percentage relying on a librarian to search for or evaluate material, and a higher percentage for using a librarian to teach them effective search techniques, recommending online sources they can use on their own, and in providing help to find material that is not online.

When asked how each group perceives librarian help, both [TSIs and NTSIs] primarily see librarians as searching for material and evaluating material. However, these perceptions are reduced for the TSI and there is an increase in perceiving librarians as someone who can teach them effective search techniques and as a person to recommend good online sources.

TSIs, through a lifetime of digital experience, expect instant access and immediate response. The results of this study suggest that having librarians available through text messaging for mentoring might create the highest level of engagement for TSIs.

Bosanquet [7] contains plenty of useful material, and certainly looks to be a good candidate for pre-workshop reading. Given the coverage of this article, it feels somewhat invidious to select snippets, but these two attracted me:

The ability to unearth the works of any discipline is a high value skill. Academics are not traditionally strong in this area and in many cases do not even have an awareness that content exists outside their own focus.

It is time to position the [library] profession as a central player in the digitised information landscape.

Tanloet and Tuamsuk [8] report a study of the core competencies required for information professionals of Thai academic libraries between 2010 and 2019. They include a survey of the literature related to core competency. IMHO, their three tables of competencies are by no means confined to Thai academic libraries!

Knapp [11] finds – based on a literature survey of *difficulties that interdisciplinary researchers encounter* – that *Librarians, as “meta-scholars”, can provide useful services to scholars engaging in interdisciplinary research.*

This article looks like another good candidate for pre-workshop reading.

Wang [18] is a report from a virtual conference with a “Library 2.0” context and does offer some relevant points of view. Here's just one of them:

Dr Hirsh² pointed out that in addition to Web 2.0 application skills, metadata standards for digital content, integrated library systems, and teaching/instruction skills are the most desirable new knowledge and experience in the current library job market. However, librarians should also be able to transform our own traditional terminology in new ways to let the industry world know what we value. For example, using terminology such as “metadata” instead of “cataloging”, “user needs” instead of “reference”, “technical skills” instead of “library system” or “social media expertise” instead of “library outreach”, will help increase our job opportunities outside of libraries.

² Dr Sandra Hirsh is Professor and Director of the School of Library and Information Science at San José State University

Kebede [26] is not, IMHO, the type of article we're looking for.

I reviewed the full set of abstracts again, in the light of having browsed the six articles above, and was prompted to look more closely at two others:

Sun et al [5] is essentially about librarians as educators, although the *impact of information technology on library services* section occupies about a quarter of the paper. This section is more a review than an identification of pointers to the future.

Plutchak [12] is a lecture about medical librarianship. I think my Phase 1 view was correct, that this article does not contain enough material relevant to our needs.

The two candidates for pre-workshop reading are Bosanquet [7] and Knapp [11]

Mobile (48 articles)

Method – extract

This was a big one and I did get a little carried away, hence there are so many refs. However, I've sorted them into categories, but for most of the categories there were many more articles that could have been noted down. This is a big topic, so there's a lot out there, but as you said this wasn't a comprehensive survey, I haven't noted every one.

Method – Fiona's Categories

- General: 1, 3, 8, 9, 12, 13, 14, 23, 26, 28, 30, 32, 41, 42.
- Mobile web presence: 4, 6, 10
- Apps: 7, 15, 22, 24, 31, 35, 44, 45, 47
- Information Literacy Training: 11, 25, 27, 37
- Use of mobile technologies in reference services: 29, 43
- Ebooks on mobiles: 5, 33
- Librarians training / are libraries ready: 16
- Medical Libraries: 17, 46, 48
- Access to media collections: 39
- Local history / archives: 18
- QR codes: 19 (only noted down one, but there are loads of articles about this)
- SMS services: 21
- Citation services: 36
- Twitter: 38
- Distance Learning: 2
- GIS: 20
- Location Services: 34
- For borrowing items with mobile: 40

Digest

Phase 1

Decided (after looking at a handful of abstracts) to focus on articles that look ahead.

Mobile 1 – Lippincott, 2010 – Examines trends and analyses potential

Mobile 6 – Bridges et al, 2010 – As well as giving an overview of the current state, also has some forward-looking content

Mobile 11 – Fox, 2010 – Homed in on this: “The paradigm of the library as a place needs to change into a paradigm where the library is not only a place, but also a collection of valuable services that can be accessed from anywhere.”

Mobile 12 – Houghton, 2012 – Minimal abstract, but 10 pages and has a “10-step list” for “how the library can better connect users with information, entertainment, and services.”

Mobile 14 – McEwen & Schaeffer, 2012 – Refers to “mediated collaboration”

Mobile 27 – Canuel et al, 2012 – Teaching the skills required for effective use of tablet devices

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Investigating (e.g., by survey) current practice (habits) as input for future planning: 2, 6, 8, 9, 16, 30, 41

Experiences with responding to the mobile environment and/or creating and using mobile services: 3, 4, 43

Specific mobile applications, application types, and technologies: 5, 7, 15, 17, 18, 19, 20, 21, 22, 23, 28, 29, 31, 33, 34, 35, 36, 37, 38, 39, 40, 44, 45, 46, 47, 48

Abstract has a superficial 'feel' and no FT available to verify: 26, 42

No abstract, and a quick scan of the FT suggests that the article doesn't look ahead (to any great extent): 10, 13, 24, 25, 32

No abstract or FT and title not sufficiently indicative:

Mobile 24 – Special note – Article is about Apps for Autism, so we should add it to the Diversity collection.

Mobile 28 – Special note – Ditto; article ends with: “mobile services should not be overlooked in the context of diverse populations.”

## **Phase 2**

Lippincott [1] was published in 2010 and reviews the state of play (if I can use that term) at the time, with some suggestions for the future.

This article provides what seems to me to be good background, so would be a candidate for pre-workshop reading.

Bridges et al [6] is in a similar vein to Lippincott, but contains more technology context and experiences from libraries around the world. Under the heading Practical implications, they say:

*The paper presents a useful source of information for both libraries wishing to create a proposal for a mobile library site, and for libraries that simply want an overview of the current state of mobile use and technologies.*

My preference for background reading would still be Lippincott.

Fox [11] would also be a candidate for pre-workshop reading, because it explores what might need to happen for libraries fully to embrace mobile technology:

*Technology is a constantly changing landscape. The most important aspect the paradigm shift is the need to be adaptable, and move the focus from conceptualizing the library as a physical place to viewing the library as a set of services that can be exported digitally in a flexible manner. Of primary concern is the level of interaction with a patron. Interactions are an area in which librarianship has a lot of strengths because of its nature as a service profession. The reference interview, bibliographic instruction sessions, collection management and special collections/rare books thrive on interpersonal interaction.*

Houghton [12] starts by considering library website mobile-friendliness and then goes on to look at a range of services. Although the article is interesting, I'm wondering whether the approach is too broad-brush for pre-workshop reading?

McEwen and Scheaffer [14] reports ethnographic observations and interviews, having begun its problem statement as follows:

*A substantial literature on technology-mediated collaborative work has developed over the past 10 years, thanks in large part to the growth of a scholarly community in the field of computer-supported collaborative work (CSCW).*

They go to explain that libraries are struggling to formulate policies for the use of mobile technology that can recognise the differing points of view. The final paragraph of their conclusion begins with the following advice:

*The academic library of the future cannot be conceived without accounting and preparing for technologies that enable people to collaborate across different geographical spaces.*

Predictably, they finish by saying that *further study is required* ...

Canuel et al [27] is about tablets, mobile learning, and information literacy: the “research” in its title refers to research to obtain information. Their Conclusions include the following advice:

*Technological advances are beginning to fundamentally change the way that library users interact with digital information, and it is therefore essential that librarians become engaged with the relevant technology and leverage their role as teachers in order to help ensure their continued relevance in the lives of clients in the twenty-first century.*

Although a borderline candidate, this article does deal with practical issues, so could certainly be considered for pre-workshop reading.

The three candidates for pre-workshop reading are Lippincott [1], Fox [11], and Canuel et al [27]

As we seem to have reasonably good coverage with these three candidates, I haven't revisited the other 42 articles. If specific interests arise, we have both Fiona's categories and my Phase 1 classification to turn to.

## **Curation (20 articles)**

### **Method – extract**

So, here are the references of data / information curation services. They fall into the following categories... Some popped up about Institutional Repositories and Knowledge Management, which I'm not sure are relevant to you, but I've included two anyway:

### **Method – Fiona's Categories**

- General: 1, 4, 6, 12, 14
- KM: 2, 3
- IR: 7, 10
- Skills of librarians applicable to curation / research & role changes of librarians: 5, 8, 9, 11, 13, 15, 16, 19, 20
- Examples of collaborative working: 17, 18

### **Digest**

#### **Phase 1**

Curation 1 – Tenopir et al, 2012 – “Academic libraries may be ideal centers for research data service activities on campuses, providing unique opportunities for academic libraries to become even more active participants in the knowledge creation cycle in their institution.”

Curation 4 – Little, 2013 – Title: “Thinking Like Curators”

Curation 11 – Ramirez, 2011 – Not sure about this one, but the following sentence suggests it's worth scan-reading the PDF: “Librarians are expected to serve as liaisons between data authors, managers, scientists and end users, while providing a full range of curation services.”

Curation 16 – Weber et al, 2012 – Abstract looks spot on!

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Data and knowledge management in the library community: 2, 6, 7, 10, 12, 13, 17

Librarians as agents of information exchange (and knowledge transfer): 3, 9, 14, 20

Skills of librarians applicable to curation (Fiona's category): 5, 8, 15, 19

Case studies: 12, 13, 17, 16

Phase 2

Tenopir et al [1] is an ACRL (Association of College & Research Libraries) White Paper, so could even be regarded as required reading. Here are some snippets:

In fact, the ACRL Research Planning and Review Committee has identified library involvement in data curation, including collaboration with their research communities, as one of the 2012 top ten trends in academic libraries.

A recent study at Georgia Tech revealed that although faculty expressed great interest in the curation of data, nearly half (47 percent) of respondents who did not have a plan for data management claimed that they did not know enough about data management plans to construct one.

Creamer et al. found that of twenty needed data competency areas, the greatest need for librarians was technical hands-on training in the digital description and curation of large data sets.

Although only a small number of these positions emphasized preserving (as opposed to gathering and interpreting) research data, it is expected that the need to preserve these materials will become more urgent as the volume of data continues to grow, bringing a new demand for professionals with specific expertise in the area of data curation.

This situation presents a unique opportunity for academic libraries to play an even more active role in the research process in several ways. First, academic libraries can provide consulting services related to research data management and curation. Second, academic libraries can provide the infrastructure, or at least the front end, for data storage and curation. Third, academic libraries can support librarians becoming active members on research and grant proposal teams as data curation consultants.

Litte [4] is one man's point of view, but does give an overview of the curation 'scene' and what librarians are doing, and need to do, to adapt to an emerging role as curators (not saying "new role" was intentional), so a candidate for pre-workshop reading.

Ramirez [11] is a 3-page Opinion article that nevertheless covers the topic reasonably well, so is also a candidate for pre-workshop reading.

Weber et al [18] is in a Data Curation special issue of the Journal of Web Librarianship, but we have only the abstract (reproduced below): we have to pay for the full text. IMHO, it would be worth getting a copy, if only from the BLL.

Digital research data have introduced a new set of collection, preservation, and service demands into the tradition of digital librarianship. Consequently, the role of an information professional has evolved to include the activities of data curation. This new field more specifically addresses the needs of stewarding and preserving digital research data. In this article, the authors offer an overview of data curation research and education in the field of library and information science, focusing specifically on the current state of professional practice, trends in education and workforce development, and future directions for both basic and applied research. Drawing on the proceedings from two data curation summits held in late 2010, the authors highlight and build on the major insights and recommendations that emerged from discussions among more than 50 leading experts from government agencies, data centers, the field of library and information science, and the publishing industry. Specifically, they note the importance of developing interoperable standards for describing datasets, the need for curators to participate in data privacy and ownership policy development, the demand for a workforce to support discipline-specific data practices, and the varied approaches for professional education that will be required by a data-driven research agenda in both the sciences and humanities. The authors conclude with an overview of future directions for research and workforce development in data curation.

All four of the articles I looked at in Phase 2 are candidates for pre-workshop reading are Tenopir et al [1], Little [4], Ramirez [11], and Weber et al [16].

As we seem to have particularly good coverage with these 4 candidates, I haven't revisited the other 16 articles. If specific interests arise, we have Fiona's categories