

July 2015

“WE LOVE THE LIBRARY, BUT WE LIVE ON THE WEB.”

Findings around how academic library users
view online resources and services

Report Authors

Helen Harrop
David Kay
Owen Stephens
Seb Schmoller

The authors would like to thank:

Colin Carter of Innovative Interfaces for managing the process; Andy Land, the University of Manchester library, and the Jisc Spotlight project for inspiring the undertaking; and especially the library teams and users surveyed at the Universities of Glasgow, Hull, Keele, London South Bank, Queen Margaret's, Queens Belfast and the Wellcome Library.

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This report details the findings of a survey of users at seven UK academic libraries. Over 4,000 responses were collected between November 2014 and February 2015.

Both the survey and report are sponsored by Innovative Interfaces (www.iii.com) and managed by Sero Consulting (www.serohe.co.uk).



◎ TABLE OF CONTENTS

“WE LOVE THE LIBRARY, BUT WE LIVE ON THE WEB”	1
Findings around how academic library users view online resources and services.....	1
1. Context.....	3
2. Headline Findings.....	3
3. Data Analysis.....	4
4. The Respondents.....	5
5. Where Users Access Library Services.....	5
6. What Users Think Of Their Institutional Library’s Online Services.....	7
7. How Users Discover And Use Electronic Resources.....	7
8. What Users Need To Do With The Online Resources That They Access.....	8
9. What Users Think Would Make Content Easier To Use.....	9
10. How Users Imagine The Online Library Could Become More Useful.....	10
11. How Libraries Can Assist In The Making Research Content Easier To Access.....	10
12. Free-Text Responses.....	11
13. My Ideal Online Library In 2020.....	15
Appendix : Online Library Services Survey Instrument.....	19

◎ 1 CONTEXT

The way online users interact with library-related services is of increasing interest as we experience an expansion in the range of digital assets (whether for purchase, for subscription, or for free), in the range of services, and in the user preference to conduct everyday lives and work online.

That pattern is reflected in the research literature on user behaviours, as summarised in the 2013 Jisc Spotlight literature review report at <http://digitisation.jiscinvolve.org/wp/2013/11/04/top-discovery-channels-in-online-user-behaviour/>.

In March 2014, the University of Manchester Library commissioned Sero Consulting to conduct a user survey, focus groups, and interviews to inform its 'iLibrary' online service development programme. The survey proved a particularly useful instrument, engaging a representative range of users, students, and staff at all levels in providing feedback that complemented more limited consultation through focus groups and interviews. Responding to this approach and with support from Manchester, a number of academic libraries in the Innovative User Group agreed to repeat the survey, namely:

- University of Glasgow
- University of Hull
- University of Keele
- London South Bank University
- Queen Margaret University, Edinburgh
- Queen's University Belfast
- Wellcome Library

Whilst these libraries represent institutions with a variety of missions, user populations, and specialist subject areas, they all agreed to develop a common survey instrument based on the Manchester example.

Consequently, in November 2014, the group was ready to launch surveys that only differed locally in terms of subject areas and user categories, which could be mapped to a common set for analysis of the total results data set across all institutions.

◎ 2 HEADLINE FINDINGS

The survey responses present a wealth of data that can inform a wide range of quantitative and qualitative enquiry.

In this section, we focus simply on the take away messages for libraries and their parent institutions, which can be derived from the overall pattern of responses, as well as from particular questions. Summary evidence is presented in later sections.

FOR THE HERE AND NOW: Getting the basics right

The following headlines are applicable to current online library services.

1. User behaviours are increasingly pervasive, cutting across age, experience, and subject areas (see Sections 5, 7, 12, 13)

The survey demonstrates a closer commonality of expectation and practice than we might have assumed, emphasising the increasing redundancy of the 'digital native' paradigm and prompting recognition that everyday encounters with the digital at large are perhaps greater influences than the habits and 'literacies' promoted in the academy.

2. Online anywhere, on any device, is the default access setting (Sections 5, 9, 12, 13)

The vast majority of users expect to access library resources and services not only outside the library but also off campus, using a variety of devices (whilst making common sense choices regarding their fitness for particular purposes); consequently, the default test for any online library service should be whether it works well off campus using a variety of access devices.

3. Discovery is a case of horses for courses (Sections 7, 12)

Almost without exception, users are selecting different discovery tools to meet different requirements, ranging from known item searches to broad investigation of a new topic. Perhaps with some credit due to recent 'discovery layer' developments, the specialist library search is very much of interest in this bag of tools, alongside global search engines and more particular entry points such as Google Scholar and Wikipedia.

4. Library Search is under informed scrutiny (Sections 6, 9, 12)

Given a user base that is increasingly aware of the possibilities for discovery and subsequent access, there are frustrations regarding a lack of unified coverage of the library content, the failure to deliver core purposes well (notably, known item searches and uninterrupted flow-through to access), and unfavourable comparisons with global search engines in general and Google Scholar in particular. We note:

- a. **Global Search Engines** – Whilst specialised tools are valued, the global search engines (and especially Google) are the benchmark.
- b. **Unified Search** – Local collection search needs to be unified, not only across print and electronic, but also across curatorial silos (archives, museums, special collections, repositories, and research data stores).
- c. **Search Confidence** – As well as finding known items reliably and ordering results accordingly, library search needs to be flexible and intelligent, not obstructively fussy and inexplicably random.

5. Electronic course readings are crucial (Sections 8, 12)

Clearly, the greatest single issue raised in qualitative feedback is the plea for mandated / recommended course readings—and, ideally, textbooks—to be universally available as digital downloads, especially in the case of books and chapters therein. Second-order problems relating to the practical usability of e-resources (and particularly of e-books) naturally follow on from this level of demand; the supply chain is represented as systemically dysfunctional relative to user expectations of the online world.

a. **Durable download makes assets useful** – Unlike e-journals, the terms on which many e-books are made available are at odds with the range of working practices, including variety of access location and device, as well as the natural undergraduate pressures of submission and assessment deadlines. It is hard to justify such patently unsatisfactory arrangements to fee-paying customers.

b. **Users resent repeated sign on and indirect navigation** – The general organisation of the user experience in the journey from enquiry to access seems at odds with expectations arising from contemporary online services (such as shopping and social media) and from common sense appraisal. Whilst the library / university is typically not in control of enough of the working parts, the user expects to look no further than the immediate service provider.

FOR THE NEAR FUTURE: Playing well in the online ecosystem

The following headlines represent key opportunities and challenges in the emerging future envisioned by respondents.

6. The local collection needs to be surfaced in the wider ecosystem (Sections 7, 12)

Bearing in mind the variety of search behaviours serving different purposes (above), it is increasingly important that items in the library collection are surfaced in the wider ecosystem of web properties and especially in those that offer entry points, which range from the general (e.g. Google) to the specific (e.g. relevant Wikipedia pages, Flickr collections, etc.).

7. Libraries should consider how to encompass non-text resources (Sections 11, 12, 13)

A notable level of interest lies in media beyond text, especially scholarly AV assets and research data content; this interest generates a variety of suggestions, which range from the local need to include such assets in a unified library search (especially if they form part of course recommendations) to the challenges of cataloguing research datasets and authentic digital assets on the web more broadly.

8. Electronic resources demand electronic workflows (Sections 8, 9, 10, 12, 13)

There is broad approval for the importance of supporting tools within the online library environment (i.e. within a 'persistent'

search and access environment, which may be part of the library service, or provided elsewhere in broader learning and research ecosystem). The critical requirement is for seamless integration and persistence (e.g. working with and returning to annotations). In particular, bookmarking, reference management, and annotation are valued for personal use, with some (but notably less) interest in sharing such intelligence (aka User Generated Content).

9. Libraries should empower users like any modern digital service (Sections 8, 9, 10, 12, 13)

Increasing expectations exist across all user categories—likely derived from experiences with other services—that the library should provide 'Apps' geared to just-in-time support on the fly (ranging from paying a fine to finding a shelf) and should also support interactions for registered returning users with transaction histories, saved items, and profile-enabled automated recommendations.

10. Social is becoming the norm (Sections 8, 10, 12, 13)

There is approval amongst younger users, with some interest amongst more experienced researchers, for social interactions around individual resources; typically, this is envisaged to involve ratings (perhaps as simple as 'likes') and reviews, with some appetite for discussion and options for linking to the wider 'conversation' through channels such as Twitter and Facebook or specialist options such as Mendeley.

3 - DATA ANALYSIS

A total of 4,185 survey responses were received, of which 2,987 (71%) were fully completed.

Bearing in mind the significant numbers involved, all analysis presented here uses only the fully completed responses, with the exception of free-text comments, which are considered across the full data set.

Responses came predominantly from one of the seven libraries involved (Glasgow University), with lower numbers of responses from the other six. However, detailed analysis indicates that the Glasgow cohort is not unrepresentative of the wider group in terms of the overall pattern of both controlled and free-text responses. This report therefore treats the respondents as a single group irrespective of home library / institution.

In respect to each main area covered in this summary, library users are differentiated by "subject area" and by "category," ranging from first-year undergraduates to tenured academics and visiting researchers.

Where appropriate, responses have been expressed as Likert scale averages on a response spectrum (typically 5-points). For each chart, where applicable, a brief statement is made about what the chart shows and about particular data-interpretation and handling assumptions relevant to what is presented. The underlying datasets for both controlled and free-text responses have been made available to all participating libraries for further analysis.

4 THE RESPONDENTS

For purposes of analysis, survey respondents were required to identify themselves in terms of their principal subject area and category of relationship with the university / library.

Respondent Subject Groupings

Each of the seven libraries used different institutional subject categories, ranging from seven to twenty-nine. For the purposes of this analysis, those local categories have been mapped to seven groupings: Arts, Health, Humanities, Management, Social Science, STEM, and Other.

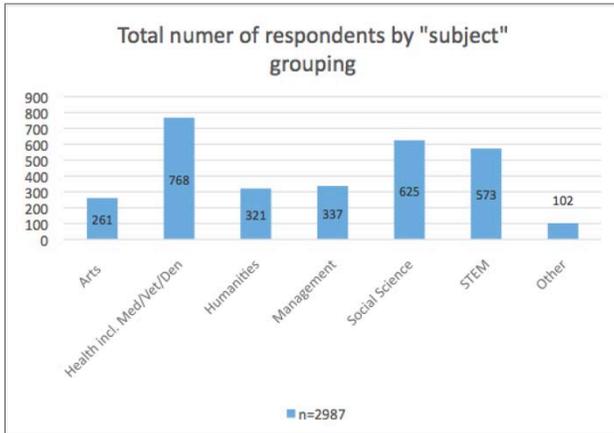


Figure 1 – 2,987 full responses

Respondent Categories

All of the libraries used the same nine categories to capture the relationship of the respondent with the institution: Undergraduate Year 1, UG Year 2, UG Years 3-5, Masters Student, PhD Candidate, Post-Doctorial Researcher, Academic Staff, Other Institutional Staff, and Other (the latter being particularly important for the Wellcome Library as part of a research institute).

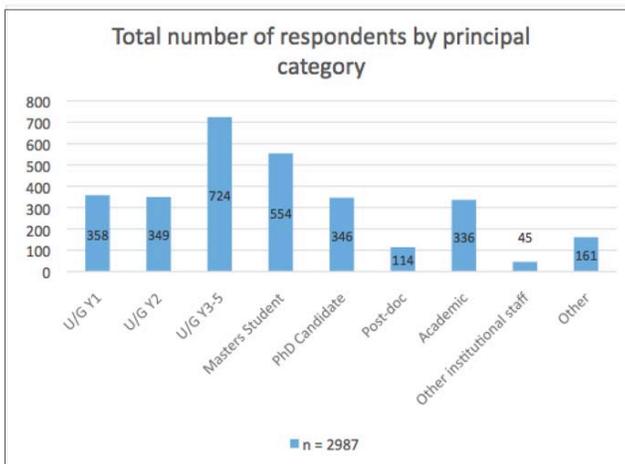


Figure 2 – 2,987 full responses

5 WHERE USERS ACCESS LIBRARY SERVICES

Over 60% of respondents identify the library as a place where they typically access online library content. However, the library is not the most important place. In particular, access from "elsewhere in the UK, such as at home" is reported as a more important setting than the library itself.

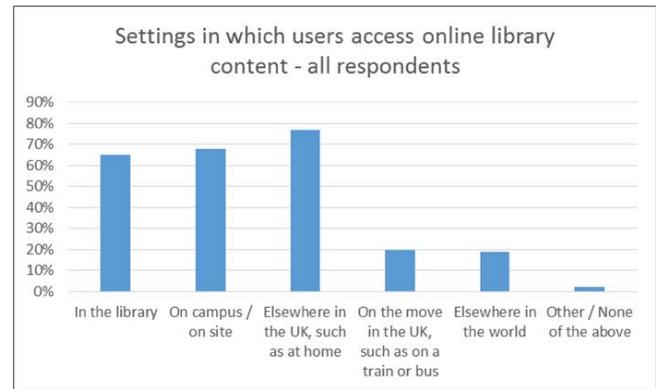
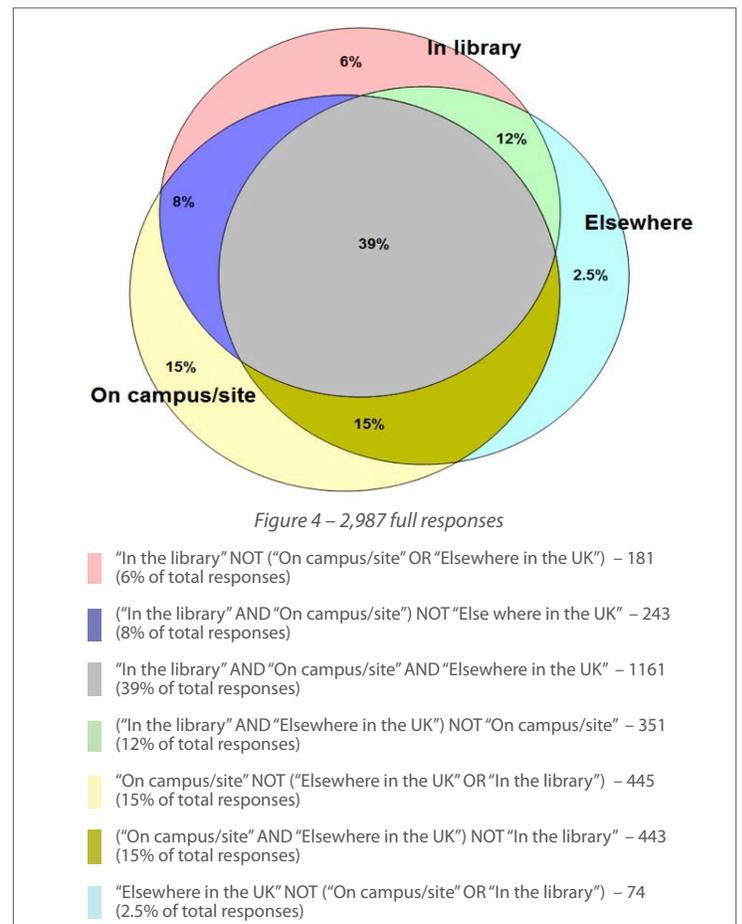


Figure 3 – 2,987 full responses

The relative importance of these access settings is illustrated in the Venn diagram in Figure 4 represents the three main settings in which users say they typically access online library content. Nearly one-third (32.5%) of respondents did not select the library at all as one of the settings in which they typically access online library content.



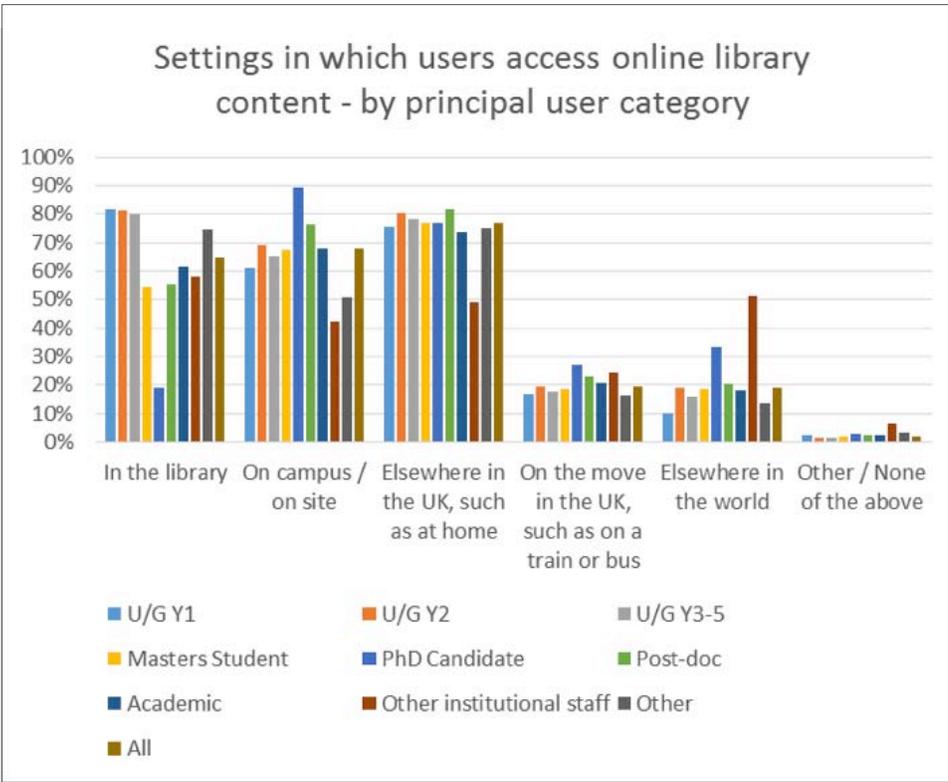


Figure 5 – 2,987 full responses

Figure 5 shows the variation in where different categories of users access online library content. In particular, PhD candidates tend to access online library content from elsewhere on campus and make relatively little use of the library itself. Undergraduate students, however, tend to access online library content from the library and from offsite in more or less equal measure. There is no marked tendency for longer-standing undergraduate students to make less use of the library than those of shorter-standing. Accessing online library content on the move is favoured somewhat more by researchers and established academics than by undergraduate students.

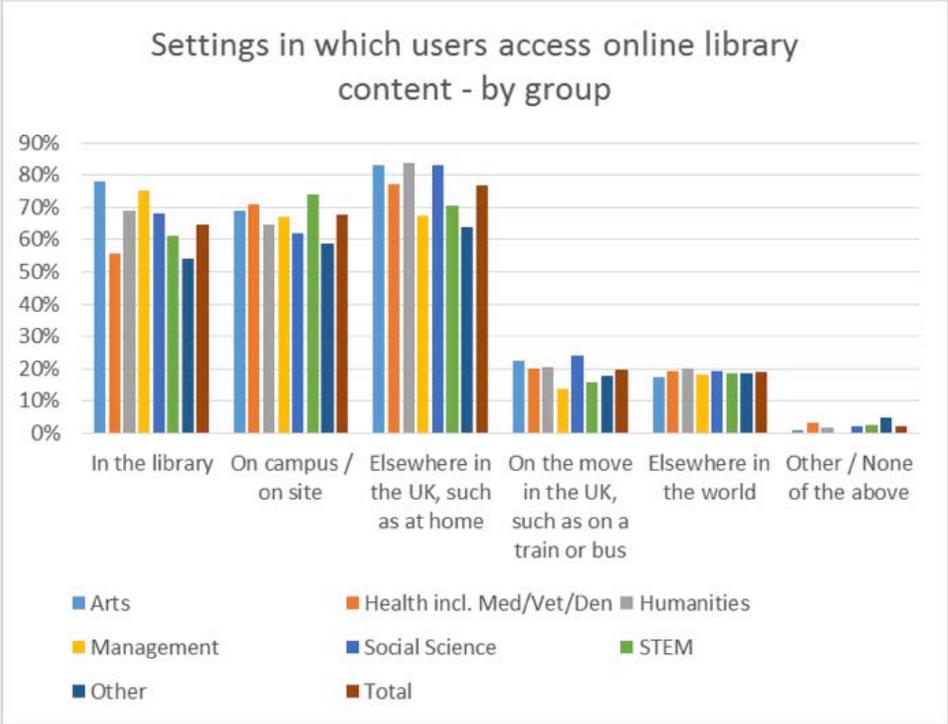


Figure 6 – 2,987 full responses

Figure 6 shows considerably less variation in the way users categorised by subject area access online library content than is the case when analysed by user category (above). Across all categories appears the pattern of greater reliance on access elsewhere in the UK than in the library.

6 WHAT USERS THINK OF THEIR INSTITUTIONAL LIBRARY'S ONLINE SERVICES

	Library website	Library search	Finding aids	Reading lists	Reference Management	Manage library account, renewals, etc.	Reserve a book	Requesting resources e.g Inter-library Loans	Make an enquiry	Access to e-books	Access to e-journals	Access to e-databases	Digitisation of research content	Scans of content
U/G Y1	2.1	2.4	1.9	2.1	1.8	2.3	2.2	1.9	1.7	2.4	2.5	2.4	2.3	2.3
U/G Y2	2.2	2.4	1.9	2.0	1.8	2.4	2.1	2.0	1.7	2.4	2.4	2.4	2.2	2.2
U/G Y3-5	2.3	2.4	1.9	1.9	1.8	2.4	2.3	2.2	1.8	2.5	2.6	2.5	2.3	2.2
Masters Student	2.2	2.3	1.8	1.9	1.8	2.2	2.2	2.0	1.9	2.3	2.4	2.3	2.2	2.1
PhD Candidate	2.3	2.4	1.8	1.8	1.8	2.5	2.3	2.4	2.0	2.4	2.6	2.5	2.4	2.2
Post-doc	2.3	2.3	1.8	1.6	1.9	2.4	2.3	2.3	1.8	2.4	2.7	2.6	2.3	2.1
Academic	2.4	2.4	2.0	2.0	2.0	2.4	2.3	2.4	2.1	2.5	2.8	2.6	2.3	2.3
Other institutional staff	2.2	2.3	2.0	2.1	2.0	2.4	2.3	2.1	1.9	2.4	2.4	2.4	2.5	2.5
Other	2.2	2.3	1.9	1.9	1.9	2.4	2.2	2.1	2.0	2.3	2.4	2.4	2.3	2.0
Arts	2.3	2.5	1.9	2.0	1.8	2.4	2.3	2.3	1.9	2.5	2.6	2.5	2.4	2.3
Health incl. Med/Vet/Den	2.2	2.3	1.9	1.9	1.9	2.3	2.2	2.2	1.9	2.4	2.5	2.5	2.3	2.2
Humanities	2.4	2.6	1.9	2.0	1.9	2.5	2.4	2.3	1.8	2.5	2.6	2.5	2.4	2.4
Management	2.2	2.2	1.8	1.9	1.7	2.2	2.1	1.9	1.8	2.2	2.3	2.3	2.1	2.0
Social Science	2.4	2.5	1.9	2.0	1.9	2.4	2.3	2.2	1.9	2.5	2.6	2.5	2.3	2.2
STEM	2.2	2.3	1.8	1.9	1.9	2.3	2.2	2.0	1.8	2.4	2.5	2.4	2.3	2.1
Other	2.2	2.3	1.8	2.1	1.8	2.4	2.2	2.3	2.0	2.4	2.5	2.4	2.2	2.1
Average	2.3	2.4	1.9	1.9	1.8	2.4	2.3	2.2	1.9	2.4	2.5	2.4	2.3	2.2
Overall % who do not use	4.7%	4.0%	33.1%	50.8%	59.8%	18.6%	23.4%	38.8%	36.9%	8.8%	5.9%	17.7%	30.5%	30.1%

Figure 7 – 2,987 full responses

Figure 7 presents what users “think of the library’s online services.” A score of **three** implies that 100% of respondents (who had indicated that they used the service in question) had selected “A vital service.” A score of **zero** implies that 100% of respondents (who used the service in question) had selected “Prefer to visit the library.”

The table shows that there is more “horizontal” variability in perceptions (i.e. across services) than “vertical” (across user groupings), which might provide useful pointers as to where libraries might most usefully concentrate improvements.

7 HOW USERS DISCOVER AND USE ELECTRONIC RESOURCES

	Use the general Library Search	Check the A-Z list of databases, resources etc	Search a union catalogue such as Copac, SALSER, Suncat	Consult abstract databases	Consult full text databases	Use the library's specialised search tools for retrieval, such as images, rare books, archives, research publications, thesis / dissertation database	Get guidance from finding aids	Check out your learning environment or Reading Lists	Use Google or another web search engine	Consult Wikipedia	Look on popular web sites such as Flickr and YouTube	Get recommendations from experts	Ask your friends or colleagues
U/G Y1	4.0	4.2	3.0	2.9	2.3	3.4	3.1	2.4	2.6	4.0	4.0	3.5	3.2
U/G Y2	4.1	4.3	3.0	2.8	2.3	3.8	3.4	2.4	2.6	4.2	4.2	3.7	3.4
U/G Y3-5	4.1	4.3	2.9	2.3	2.0	3.9	3.6	2.7	2.7	4.3	4.4	3.9	3.3
Masters Student	4.2	4.3	3.2	2.7	2.6	3.9	3.8	3.1	3.1	4.2	4.3	4.0	3.5
PhD Candidate	4.2	4.2	2.8	1.8	1.9	3.8	3.6	3.6	3.1	4.1	4.5	4.0	3.4
Post-doc	3.6	3.8	2.0	1.6	1.8	3.1	2.9	3.1	2.5	3.8	4.5	3.6	3.1
Academic	4.2	4.2	2.6	2.2	1.8	3.5	3.4	3.6	3.0	4.0	4.7	4.0	2.8
Other institutional staff	4.1	4.2	3.0	2.6	1.9	3.5	3.4	2.8	2.7	3.8	3.8	3.8	2.8
Other	4.1	4.1	3.2	2.5	2.3	3.5	3.2	2.5	2.9	3.9	3.9	3.8	3.3
Arts	4.2	4.5	3.2	3.0	2.3	4.2	3.9	3.1	3.1	4.4	4.5	4.0	3.7
Health incl. Med/Vet/Den	4.0	4.0	2.7	2.0	2.0	3.4	3.0	2.7	2.7	3.9	4.3	3.8	3.0
Humanities	4.3	4.6	3.0	2.6	2.0	4.1	3.9	3.3	2.8	4.3	4.4	3.8	3.5
Management	4.2	4.2	3.4	3.0	2.8	3.8	3.7	3.2	3.3	4.1	4.2	4.1	3.5
Social Science	4.2	4.4	3.0	2.6	2.1	4.0	3.8	3.1	2.9	4.3	4.5	3.9	3.4
STEM	4.0	4.1	2.7	2.0	2.0	3.4	3.3	2.7	2.5	4.0	4.1	3.6	3.1
Other	4.1	4.2	3.0	2.7	2.2	3.5	3.3	2.7	2.8	3.8	4.0	3.7	3.0
Average	4.1	4.2	2.9	2.4	2.1	3.7	3.5	2.9	2.8	4.1	4.3	3.8	3.3
Overall % not familiar with	2.6%	17.7%	51.2%	32.0%	25.7%	33.7%	33.2%	17.7%	1.2%	2.8%	6.6%	6.9%	2.6%

Figure 8 – 2,987 full responses

Figure 8 (above) shows how users in different categories say they “typically go about discovering electronic resources such as e-books, e-journals, videos and images,” and Figure 9 (next page) shows what respondents say they “are looking to achieve when using their preferred discovery tools.”

In Figure 8, a score of **five** would imply that 100% of respondents (who had, importantly, indicated that they are familiar with the method) “always” used the service in question. A score of **one** would imply that 100% of respondents (familiar with the method) “never” used the service in question. As before, the primary variation is between services rather than between categories of user.

What users are looking to achieve when using their preferred resource discovery tools

	Find known items	Carry out an initial subject search	Get the feel for a topic	Pursue a line of enquiry	Find recommendations	Make chance discoveries	I don't use this
Use the general Library Search	70%	55%	31%	28%	17%	25%	5%
Check the A-Z list of databases, resources etc	28%	29%	17%	15%	7%	10%	36%
Search a union catalogue such as Copac, SALSER, Suncat	7%	9%	8%	6%	3%	4%	75%
Consult abstract databases	20%	28%	21%	18%	9%	11%	48%
Consult full text databases	33%	31%	22%	23%	12%	14%	39%
Use the library's specialised search tools for retrieval,	22%	15%	12%	13%	6%	8%	52%
Check out your learning environment or Reading Lists	37%	23%	21%	15%	21%	6%	33%

Figure 9 – 2,987 full responses

Figure 9 shows the proportion of respondents using different services for different purposes. It is notable that the proportion of respondents who say they are not familiar with a particular service follows roughly the same ranking as the percentage that say they do not use a particular service. For Figure 9, we decided not to analyse the data by user type because of the broadly similar patterns of use across user types shown earlier in this analysis.

8 WHAT USERS NEED TO DO WITH THE ONLINE RESOURCES THAT THEY ACCESS

	All	U/G Y1-5	Masters & PhD	Academic & Post-doc
Bookmark for later	3.4	3.5	3.4	3.0
Download a reference / citation or add to a management tool	3.5	3.2	3.8	3.7
Download the content in an accessible file format	4.1	4.0	4.3	4.2
Copy or re-use the content	3.3	3.3	3.3	3.0
Rate or review it	1.9	1.8	2.1	1.8
Share a link through social media sites such as Twitter	1.7	1.7	1.8	1.7
Discuss it online	1.8	1.7	1.9	1.6
Make online annotations	1.8	1.8	1.9	1.5
Enhance the library's description or related links	1.5	1.5	1.8	1.3
Analyse texts with a computer programme	1.6	1.5	1.8	1.4
Analyse data with a computer programme	1.7	1.6	2.0	1.7

Figure 10 – 2,987 full responses

Figure 10 shows what users say they “typically need to do with the online resources that they access.”

A score of **five** would imply that 100% of respondents “always” undertake the action in question. A score of **one** would imply that 100% of respondents “never” undertake the action in question. For all but two of the options, respondents in the Masters & PhD category are the most “demanding.”

See also Figure 13 (Section 10), which summarises what users say “their institution could do to make the online library more useful through messaging, sharing, and other forms of interactivity.” When asked about future potential, users emphasise features such as annotation, rating, reviewing, and sharing more strongly than they do here in ranking what they explicitly need to do.

9 WHAT USERS THINK WOULD MAKE CONTENT EASIER TO USE

	% stating "already exists"	Desirability - All	% Don't know	U/G Y1-5	Masters & PhD	Academic & Post-doc
One-stop search	22%	3.8	19%	3.7	3.9	3.7
A more unified suite of search tools	10%	3.9	13%	3.9	4.1	3.6
Save my searches to run again	8%	4.1	7%	4.2	4.2	3.6
Save the results from my searches	8%	4.1	6%	4.2	4.2	3.8
One stop access to content without logging on to different	6%	4.3	5%	4.4	4.4	4.1
Access to online copies of all core course reading	8%	4.4	7%	4.7	4.4	3.6
One click to download a citation in a standard format	8%	4.2	8%	4.2	4.3	4.1
Persistently reliable URLs (web addresses) for content items	8%	4.1	9%	4.2	4.1	4.1
Offer clear Terms & Conditions for re-using content	11%	3.7	10%	3.7	3.8	3.6
Use best practice accessibility standards on all web pages	6%	3.4	17%	3.4	3.6	3.2
Use viewers that represent each content type at its best	5%	3.4	17%	3.4	3.6	3.1

Figure 11 – 2,987 full responses

Figure 11 shows how users think their “institution could make the Library’s online content easier to use.”

Respondents were asked whether an approach “already exists” or if they “Don’t know.” A score of **five** would imply that 100% of respondents (who had not chosen “already exists” or “Don’t know”) felt it “very desirable” that an action be taken. A score of **one** would imply that 100% of respondents felt it “very undesirable.”

In terms of ease and flexibility of use, it is also of interest what users say about access devices.

	All	U/G Y1-5	Masters & PhD	Academic & Post-doc
E-books online on a mobile phone	3.9	4.1	3.9	3.5
E-books online on a tablet	4.3	4.3	4.3	4.1
Stream video on a mobile phone	3.7	3.9	3.7	3.3
Stream video on a tablet	3.9	4.0	3.9	3.6
Complex data or images on a mobile phone	3.6	3.8	3.6	3.2
Complex data or images on a tablet	3.9	4.0	3.9	3.7
Catalogues and finding aids on a mobile phone	4.0	4.1	4.0	3.7
Catalogues and finding aids on a tablet	4.1	4.1	4.1	3.9
Option to download content to use it on any device at any time	4.4	4.5	4.4	4.2

Figure 12 – 2,987 full responses

Figure 12 summarises what users say about the “flexibility they would like for accessing the Library’s online content” on devices other than desktops and laptops.

A score of **five** would imply that 100% of respondents (who had not selected “Don’t know”) felt it “very desirable” that flexibility be provided. A score of **one** would imply that 100% felt it “very undesirable.”

There is notably strong support to be able to download content to use on any device at any time. The striking (if perhaps not surprising) aspect of this table is the gradation of decreasing demand—a gentle one—for flexibility across the three categories of user, from undergraduates to academics.

10 HOW USERS IMAGINE THE ONLINE LIBRARY COULD BECOME MORE USEFUL

	All	D/K	U/G Y1-5	Masters & PhD	Academic & Post-doc
Option to receive alerts on specified collections or topics	3.8	6.2%	3.8	3.9	3.7
Option to track specified collections on social media	3.4	9.0%	3.4	3.4	3.0
See reviews, ratings and recommendations of other users	3.6	5.7%	3.8	3.6	3.1
Add my own reviews, ratings and recommendations	3.4	7.0%	3.5	3.4	2.9
Make personal bookmarks and annotations within content	3.9	6.1%	4.0	3.9	3.5
Make shareable bookmarks and annotations within content	3.4	7.8%	3.5	3.4	3.1
Other collaboration tools such as discussion and folder spaces	3.5	9.3%	3.6	3.5	3.2

Figure 13 – 2,987 full responses

Figure 13 summarises what users say “their institution could do to make the online library more useful through messaging, sharing, and other forms of interactivity.” This table highlights aspirations above and beyond the simple necessities addressed in Figure 10 (Section 8).

A score of **five** would imply that 100% of respondents felt it “very desirable” that an action be taken. A score of **one** would imply that 100% felt it “very undesirable.”

It should be noted that the overall enthusiasm for several of the options is rather limited. There is a striking—and, in some cases, quite steep gradation of decreasing interest—in the options presented across the three categories of user, from undergraduates to academics.

11 HOW LIBRARIES CAN ASSIST IN MAKING RESEARCH CONTENT EASIER TO ACCESS

NB optional	All	Masters Student	PhD Candidate	Post-doc	Academic
Open Access pre-prints for commercially published articles	4.4	4.3	4.5	4.5	4.5
Research data formally relating to published articles	4.3	4.3	4.5	4.4	4.3
Underlying research assets in common formats such as digitised content,	4.1	4.1	4.2	4.0	3.9
More complex underlying assets such as visualisations and simulations	3.9	4.0	4.0	3.9	3.7
Researcher profiles	3.8	4.0	3.9	3.7	3.6

Figure 14 – 2,987 full responses

Figure 14 summarises what research users say about the research content that the library might help them access.

A score of **five** would imply that 100% of respondents (who had not selected “Don’t know”) felt it “very desirable” that a service be provided. A score of **one** would imply that 100% felt it “very undesirable.”

There is notably strong support from research users for Open Access to pre-prints of subscription scholarly content and for the data directly underpinning scholarly articles to be made available (see first and second rows). However, some interesting variations exist between categories of research user, with Academics the least interested in the third, fourth, and fifth rows.

12 FREE-TEXT RESPONSES

Analysis Approach

This analysis is based on the 3,242 free-text responses to optional Questions 13-16, drawn from all 4,185 respondents who started the survey. Where free-text responses contained more than one issue, they were broken into multiple responses in the analysis process. Even taking that into account, this outcome represents a very high level of user engagement with the opportunity to elaborate on service issues and opportunities.

Those questions are:

Q13 – What, if any, is the most important type of content you need to access that is not currently available in the Library’s online collections? (Free-text) (Optional)

Q14 – You may have come across excellent examples of accessing online content and other online services elsewhere on the web from which the Library could learn important lessons. Do you have any suggestions? (Free-text) (Optional)

Q15 – If there were one thing we could do to improve the online library, what would it be? (Free-text) (Optional)

Q16 – Requesting 140 character visions for ‘My ideal online library in 2020.’

These responses are analysed under eight categories that are broken down into 42 sub-categories, based on advice from the participating libraries.

The analysis excludes responses that:

- Offered general compliments for library services (all questions)
- Appeared off-topic (all questions)
- Listed exemplar websites and services without reference to specific issues (Q15)
- Presented 2020 visions that could not be readily categorised (Q16)

However, whilst excluded from this analysis, the anonymised data set provided to participating libraries does include the additional 423 items in the latter two categories.

Frequency by Category

The frequencies for the eight categories were as follows:

ALL CATEGORIES	3242	100.0%
Additional digital resources	837	25.8%
Workflow	577	17.8%
e-Book utility	527	16.3%
Value added opportunities	347	10.7%
Core Texts	314	9.7%
Search functionality	308	9.5%
Authentication	231	7.1%
Help	101	3.1%

Figure 15 – 3,242 free-text comments

The category rankings are graphically represented as follows:

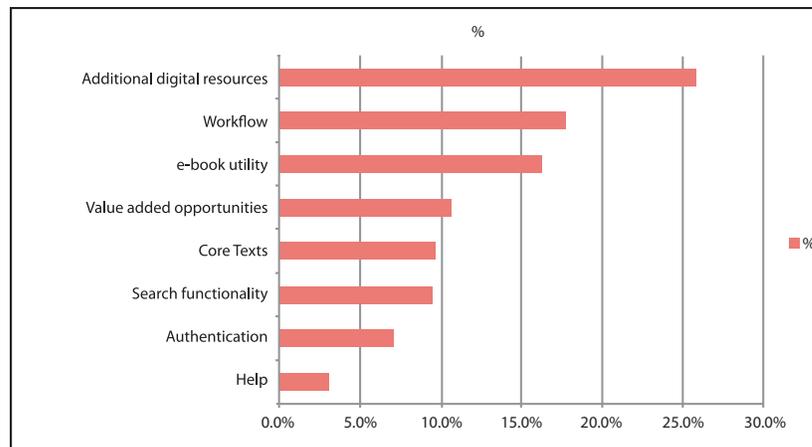


Figure 16 – 3,242 free-text comments

Frequency by Issue

The frequencies for the full set of 42 issues (sorted in descending order within each category) were as follows:

CATEGORY	ISSUE	COUNT	%
Additional digital resources	TOTAL	837	25.8%
Additional digital resources	More digitisation	227	7.0%
Additional digital resources	More e-books	218	6.7%
Additional digital resources	More journal subscriptions	198	6.1%
Additional digital resources	Links to audio and visual content	74	2.3%
Additional digital resources	Newspaper collections	26	0.8%
Additional digital resources	Special collections	23	0.7%
Additional digital resources	Past papers and answers	21	0.6%
Additional digital resources	Non-English texts	20	0.6%
Additional digital resources	Research data sets	16	0.5%
Additional digital resources	Link to out of copyright / free books	7	0.2%
Additional digital resources	ILL + DD	7	0.2%
Authentication	TOTAL	231	7.1%
Authentication	Multiple steps to access	107	3.3%
Authentication	Single sign on	107	3.3%
Authentication	University ID (not library barcode)	9	0.3%
Authentication	Login timeout	8	0.2%
Core Texts	TOTAL	314	9.7%
Core Texts	e-Access to core readings & textbooks	314	9.7%
e-Book utility	TOTAL	527	16.3%
e-Book utility	e-Resources ease of use	290	8.9%
e-Book utility	Download formats (notably PDFs, print)	104	3.2%
e-Book utility	Annotation & Reference Management	86	2.7%
e-Book utility	e-Books loan restrictions	33	1.0%
e-Book utility	Accessibility (Disabled access)	10	0.3%
e-Book utility	DRM	4	0.1%
Help	TOTAL	101	3.1%
Help	Online Help	70	2.2%
Help	My account and services apps	31	1.0%
Search functionality	TOTAL	308	9.5%
Search functionality	Forgiving intelligent search	103	3.2%
Search functionality	Unified search	94	2.9%
Search functionality	Search other libraries / sources	44	1.4%
Search functionality	General Search Issues	42	1.3%
Search functionality	Classic / advanced search	18	0.6%
Search functionality	Asset search (full text, image)	7	0.2%
Value added opportunities	TOTAL	347	10.7%
Value added opportunities	Profile and automated recommendations	115	3.5%
Value added opportunities	Saved searches and items	108	3.3%
Value added opportunities	Ratings, reviews and social connections	78	2.4%
Value added opportunities	Physical location navigation	21	0.6%
Value added opportunities	Availability alerts	13	0.4%
Value added opportunities	Search app	12	0.4%
Workflow	TOTAL	577	17.8%
Workflow	Off-campus experience	240	7.4%
Workflow	Mobile focus	225	6.9%
Workflow	Unsubscribed article/books	68	2.1%
Workflow	Broken links	25	0.8%
Workflow	VLE/reading list resource linking	16	0.5%
Workflow	Off-site storage	3	0.1%

Figure 17 – 3,242 free-text comments

The leading issue totals (19 categories, each with 2% or more of the total mentions) were:

Core Texts	e-Access to core readings & textbooks	314	9.7%
e-Book utility	e-Resources ease of use	290	8.9%
Workflow	Off-campus experience	240	7.4%
Additional digital resources	More digitisation	227	7.0%
Workflow	Mobile focus	225	6.9%
Additional digital resources	More e-books	218	6.7%
Additional digital resources	More journal subscriptions	198	6.1%
Value added opportunities	Profile and automated recommendations	115	3.5%
Value added opportunities	Saved searches and items	108	3.3%
Authentication	Multiple steps to access	107	3.3%
Authentication	Single sign on	107	3.3%
e-Book utility	Download formats (notably PDFs, print)	104	3.2%
Search functionality	Forgiving intelligent search	103	3.2%
Search functionality	Unified search	94	2.9%
e-Book utility	Annotation & Reference Management	86	2.7%
Value added opportunities	Ratings, reviews and social connections	78	2.4%
Additional digital resources	Links to audio and visual content	74	2.3%
Help	Online Help	70	2.2%
Workflow	Unsubscribed articles/books	68	2.1%

Figure 18 – 3,242 free-text comments

The leading 19 issues are graphically represented as follows:

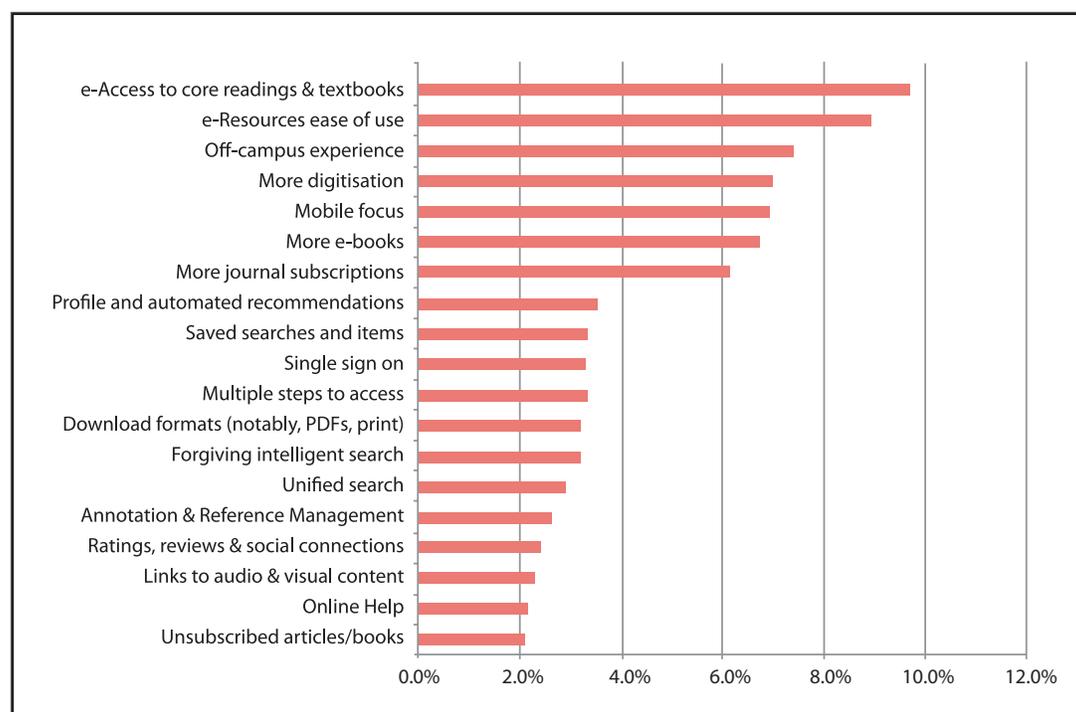


Figure 19 – 3,242 free-text comments

The remaining issue totals (23 categories, each with less than 2% of the total mentions) were:

Search functionality	Search other libraries / sources	44	1.4%
Search functionality	General Search Issues	42	1.3%
e-Book utility	e-Books loan restrictions	33	1.0%
Help	My account and services apps	31	1.0%
Additional digital resources	Newspaper collections	26	0.8%
Workflow	Broken links	25	0.8%
Additional digital resources	Special collections	23	0.7%
Additional digital resources	Past papers and answers	21	0.6%
Value added opportunities	Physical location navigation	21	0.6%
Additional digital resources	Non-English texts	20	0.6%
Search functionality	Classic / advanced search	18	0.6%
Additional digital resources	Research data sets	16	0.5%
Workflow	VLE/reading list resource linking	16	0.5%
Value added opportunities	Availability alerts	13	0.4%
Value added opportunities	Search app	12	0.4%
e-Book utility	Accessibility (Disabled access)	10	0.3%
Authentication	University ID (not library barcode)	9	0.3%
Authentication	Login timeout	8	0.2%
Additional digital resources	Links to out of copyright / free books)	7	0.2%
Additional digital resources	ILL+DD	7	0.2%
Search functionality	Asset search (full texts, image)	7	0.2%
e-Book utility	DRM	4	0.1%
Workflow	Off-site storage	3	0.1%

Figure 20 – 3,242 free-text comments

Whilst lacking statistical significance, in these lower rankings are highlights of interest to libraries concerned with current issues and emerging opportunities.

- **On the negative side:**

Broken links, loan restrictions, time-outs, and ID constraints are closely connected to irritants majored on higher up the list (see Figures 18 and 19).

- **On the side of emerging service trends and opportunities:**

Interest in search and service 'Apps', availability alerts, foreign texts, copyright free e-books, and research data sets indicate opportunities that may soon be regarded as firm expectation and potential failings.

- **Rating surprisingly low:**

Concerns over digital rights management (DRM) restrictions are expressed less explicitly in other categories, whilst virtual learning environment (VLE) / reading list linking issues are likely to be related to implementation and take up of those systems.

13 - MY IDEAL ONLINE LIBRARY IN 2020

Q16 of the survey invited respondents to complete the following sentence by adding no more than 140 characters: "In 2020, my ideal online library would be..."

Selected from over 1,300 submissions to this question, the 30 most interesting responses, as considered by the panel of participating library representatives, are presented here in descending order of panel popularity.

Highlighted in red are references to the themes introduced in Section 2 as key opportunities and challenges in an emerging future.

USER GROUP	SUBJECT GROUP	Q16 - My ideal online library
Post-doctoral Researcher	College of MV & LS	In 2020, my ideal online library would be my most important research partner: an intuitive and personalised system that learns from my activities & supports my research through resource suggestions and a comprehensive mobile management system.
Undergraduate Years 3/4/5	College of Science & Engineering	In 2020, my ideal online library would be a dynamic environment that connects with the information of interest , that offers the perfect place to get lost in the depth of your topic of study, and that links the reader with researchers and authors.
Undergraduate Years 3/4/5	School of Culture & Creative Arts	In 2020, my ideal online library would be a teacher, a guide , an active force rather than a tool.
Masters Student	Medicine, Health and Social Care	In 2020, my ideal online library would be richness in content in all formats and language, with content translated into the mother tongue language that users can understand and read
Undergraduate Year 1	School of Computing	In 2020, my ideal online library would be one that blurs the line between user and contributor .
Undergraduate Years 3/4/5	College of Science & Engineering	In 2020, my ideal online library would be available on any device , allowing instant access to search functions and resources. It would allow the users to share information with other students directly through the website. Upon searching a general subject it would provide not only links to texts but would also show reviews of the texts. It would allow the user to select what level of knowledge they're looking for. It would show YouTube videos of explanations, as well as material that may have been consulted to produce results. It would be an area to save all documentation along with annotations .
Masters Student	School of Social & Political Studies	In 2020, my ideal online library would be able to see my upcoming classes and automatically take me to PDF files and downloads of ALL the required readings.
Undergraduate Year 2	College of Arts	In 2020, my ideal online library would be a place where people can go to study AND become inspired by its surroundings. It will have motivational surroundings and exercises as well as areas of relaxation. What happened to reading a book for the pleasure of it?!

USER GROUP

SUBJECT GROUP

Q16 - My ideal online library

Undergraduate Years 3/4/5	College of MV&LS	In 2020, my ideal online library would be able to decipher reliably whether a paper was 'good science' or 'bad science' before I even read it, and therefore save me from wasting my time reading loads of nonsense.
Masters Student	School of Education	In 2020, my ideal online library would be virtual and interactive so I could liaise with others in a similar position to me and share and discuss resources that are beneficial to my studies.
Masters Student	School of Critical Studies	In 2020, my ideal online library would be open to students who have been accepted to the university but not yet enrolled in classes, with services extended at least one year after graduation.
Undergraduate Year 1	School of Social & Political Studies	In 2020, my ideal online library would be an environment that could be navigated easily by the novice while at the same time acting as a time saver for the experienced researcher.
Undergraduate Years 3/4/5	School of Medicine	In 2020, my ideal online library would be easily accessible and enjoyable to use, personalised and at the same time easy to share with peers and academics, including notes and annotations that can be shared on a private or public platform; and all accessible in one place to enhance and optimise our education and research.
Academic Staff	School of Education	In 2020, my ideal online library would incorporate a virtual 'desk' or 'locker' for all users. In this personalised desk that visually looks like an old-fashioned wooden school desk, you could hold all the articles/books you are currently using (or want to store) and to 'drag' new articles and books into your desk from database lists, etc. You would be able to annotate these online and perhaps also be able to keep notes in a special folder or 'scrapbook' and be able to compile lists of things you'd like to read/explore, etc.
Undergraduate Year 1	School of Dentistry	In 2020, my ideal online library would create a database and profile for you which recommended related books to your course or to previous books you have taken out; maybe it could consider your timetable and recommend books linked to upcoming lectures for reading before.
Academic Staff	College of MV&LS	In 2020, my ideal online library would take me first to the research resources that I most often use, with options to access wider resources available on a personalised front page, which includes tabs taking you directly to most commonly used resources - such as current issues of most frequently consulted e-journals.
Academic Staff	Health and Social Care	In 2020, my ideal online library would be accessed via my tablet and updatable wherever I am , enabling me to annotate and extract references and information for teaching, note taking and sharing with students and colleagues.
Other (please describe)	School of Education	In 2020, my ideal online library would be easy to navigate, with the option to view, read, annotate and save my core texts easily in a document viewer which I could then download and access offline.

USER GROUP

SUBJECT GROUP

Q16 - My ideal online library

PhD Candidate	College of MV&LS	In 2020, my ideal online library would be interactive. I would be able to download and annotate papers/text books or do so directly online. These could be shared with classmates and fellow researchers to aid learning and communication.
PhD Candidate	School of Law	In 2020, my ideal online library would be truly open access, in every sense, and as good at responding to a targeted search as a serendipitous search.
Undergraduate Year 1	School of Social & Political Studies	In 2020, my ideal online library would be a place to organise all my readings and notes and to have them at the tips of my fingers anywhere at any time.
Undergraduate Year 2	Adam Smith Business School	In 2020, my ideal online library would be a place where I can search for a specific word or topic and access a range of books, articles, videos, newspaper articles, and where previous student research would appear in one convenient space, thus helping me to fully understand a topic.
Undergraduate Years 3/4/5	Social Sciences	I would be able to click on a journal title and be taken to a Skype group or conversation with other people who are reading the same journal to share ideas, or it takes me to a tropical beach island to read my journal in peace!
Masters Student	School of Education	In 2020, my ideal online library would be a “real” library. I mean that using an online library will make us feel exactly the same as sitting in a library. All the sources in the library will be easy to reach.
PhD Candidate	School of Humanities	In 2020, my ideal online library would be the location of the world’s knowledge and available online throughout the world .
Undergraduate Years 3/4/5	Arts, including Creative Industries	In 2020, my ideal online library would be a place where we could get all books, videos and transcripts. It would include a film library that has keywords and suggestions for readings. It would be amazing for my course and other film students would love it, too!
Undergraduate Years 3/4/5	College of Social Sciences	In 2020, my ideal online library would be extremely interactive, including sections for each course where previous years could review and rate articles that were useful and not useful for their studies. It would be great if the library website became an online platform for course overviews, topics and research and there was the ability to upload lectures, and to share files, notes and ideas.
Masters Student	Adam Smith Business School	In 2020, my ideal online library would be where I will be able to access voice recordings of interviews and conversations and also to retrieve visual information .
PhD Candidate	College of MV&LS	In 2020, my ideal online library would be a place where articles and books are easily available and where I could build my own database on a certain subject.

USER GROUP

SUBJECT GROUP

Q16 - My ideal online library

PhD Candidate	Medicine, Health and Social Care	In 2020, my ideal online library would be a self-monitoring system that can guide us with required course readings with a checklist on task completion. Mentoring is another important support service, which will be best if it can be included in the online library system.
Undergraduate Year 1	School of Physics & Astronomy	In 2020, my ideal online library would be fully interactive with links to helpful extended media such as podcasts, videos, articles, books, etc. for each text, linking knowledge efficiently and providing thoughtful recommendations across a wide range of media.
PhD Candidate	Medicine, Health and Social care	In 2020, my ideal online library would be a self-monitoring system that can guide us with required course readings with a checklist on task completion. Mentoring is another important support service, which will be best if it can be included in the online library system.
Undergraduate Year 1	School of Physics & Astronomy	In 2020, my ideal online library would be fully interactive with links to helpful extended media such as podcasts, videos, articles, books, etc. for each text, linking knowledge efficiently and providing thoughtful recommendations across a wide range of media.

The full free-text responses are available on request from info@iii.com.

◎ Appendix Online Library Services Survey Instrument

The following instrument was presented in the Survey Monkey online tool.

Introduction for Respondents

We are working with a group of UK academic libraries to develop our vision for and delivery of online library services. We want to understand how you are currently using online library resources and services. We're also interested in what might be your future requirements and expectations, especially taking advantage of technological change.

Please share your opinions by completing this survey. It should only take 10-12 minutes, so please complete it in one go, rather than pausing part way through.

- Questions 1-3 tell us about yourself
- Questions 4-5 ask about existing online library customer services
- Questions 6-8 are about how you find and use resources
- Questions 9-12 are about more useful engagement with digital content
- Optional Questions 13-16 invite you to express your future vision

Your answers will be traceable back to you only by Sero Consulting, the company conducting this survey, which is registered for data protection with the UK Information Commissioner's Office under reference Z2157524. Your answers will be anonymous in any data set, report or aggregation of the data across the participating libraries and will only be used for the purposes of this review.

Q1 – Identify yourself in one principal category (Tick one)

1. Undergraduate Year 1
2. Undergraduate Year 2
3. Undergraduate Years 3/4/5
4. Masters Student
5. PhD Candidate
6. Post-doctoral Researcher
7. Academic Staff
8. Other institutional staff
9. Health professional
10. Visiting scientist
11. Visiting artist / designer
12. Visiting author / writer / journalist / media professional
13. Other [please describe]

Q2 – With which grouping are you primarily associated? (Tick one)

Note – Libraries provided their own list of any length for this question

Q3 – Indicate other relevant information (Tick all that apply)

1. Distance learner
2. Part time student
3. International student or researcher
4. Registered with a disability
5. Other information (please describe)

Q4 – In what settings do you typically access online library content? (Tick all that apply)

1. In the library
2. On campus / on site
3. Elsewhere in the UK, such as at home
4. On the move in the UK, such as on a train or bus
5. Elsewhere in the world
6. None of the above
7. Other (please describe)

Q5 – What do you think of the Library's online services? (Tick one column per row – A vital service, Find this useful, Useful but needs improving, Prefer to visit the library, Don't use this service)

1. Library website
2. Library search
3. Finding aids (e.g. Subject resource pages)
4. Reading lists
5. Manage my references
6. Manage my library account (e.g. Renew a loan, Pay fee or fine)
7. Reserve a book
8. Requesting Inter-library Loans
9. Make an enquiry (e.g. Problem, Advice)
10. Access to e-books
11. Access to e-journals
12. Access to databases
13. Scans of content (e.g. Book chapters)
14. Digitisation of research content

Q6 – How do you typically go about discovering online resources such as e-books, e-journals, video and images? (Tick one column per row - Always, Frequently, Sometimes, Rarely, Never, Not familiar with this)

1. Use the general Library Search
2. Check the A-Z list of e-resources, databases or journals
3. Search a union catalogue such as Copac, SALSER, Suncat
4. Consult abstract databases such as MEDLINE, Web of Knowledge
5. Consult full text databases such as CINAHL, PsycInfo, BSP
6. Use the library's specialised search tools for such as images, rare books, archives, research publications, thesis / dissertation database

7. Get guidance from finding aids such as the library subject pages
8. Check out your Virtual Learning Environment or Reading Lists
9. Use Google or another web search engine
10. Consult Wikipedia
11. Look on popular web sites such as Flickr and YouTube
12. Get recommendations from experts
13. Ask your friends or colleagues
14. Other [please describe]

Q7 – What are you looking to achieve when using your preferred resource discovery tools? (Tick all that apply – Find known items, Carry out an initial subject search, Get the feel for a topic, Pursue a line of enquiry, Find recommendations, Make chance discoveries, I don't use this)

Same list as Q6

Q8 – What sort of things do you typically want to do with the online resources you access? (Tick one column per row – Always, Frequently, Sometimes, Rarely, Never)

1. Bookmark for later
2. Download a reference / citation or add to a management tool
3. Download the content in an accessible file format
4. Copy or re-use the content
5. Rate or review it
6. Share a link through social media sites such as Twitter
7. Discuss it online
8. Make online annotations
9. Enhance the library's description or related links
10. Analyse texts with a computer programme
11. Analyse data with a computer programme
12. Other uses [please describe]

Q9 – How could we make the Library's online content easier to use. (Tick one column per row – Already exists, Very desirable, Desirable, Neutral, Undesirable, Very undesirable, Don't know)

1. One-stop search
2. A more unified suite of search tools
3. Save my searches to run again
4. Save the results from my searches
5. One stop access to content without logging on to different sites
6. Access to online copies of all core course reading
7. One click to download a citation in a standard format
8. Persistently reliable URLs (web addresses) for content items
9. Offer clear Terms & Conditions for re-using content

10. Use best practice accessibility standards on all web pages
11. Use viewers that represent each content type at its best
12. Other suggestions [please describe]

Q10 – How could we make the online library more useful through messaging, sharing and other forms of interactivity? (Tick one column per row – Very desirable, Desirable, Neutral, Undesirable, Very undesirable, Don't know)

1. Option to receive alerts on specified collections or topics
2. Option to track specified collections on social media
3. See reviews, ratings and recommendations of other users
4. Add my own reviews, ratings and recommendations
5. Make personal bookmarks and annotations within content
6. Make shareable bookmarks and annotations within content
7. Other collaboration tools such as discussion and folder spaces
8. Other suggestions [please describe]

Q11 – In addition to desktops and laptops, what flexibility would you like for accessing the Library's online content on other devices? (Tick one column per row – Very desirable, Desirable, Neutral, Undesirable, Very undesirable, Don't know)

1. E-books online on a mobile phone
2. E-books online on a tablet
3. Complex data or images on a mobile phone
4. Complex data or images on a tablet
5. Catalogues and finding aids on a mobile phone
6. Catalogues and finding aids on a tablet
7. Option to download content to use it on any device at any time
8. Other devices or approaches [please describe]

Q12 – If you are not a researcher, you may prefer to skip this question ... Making research outputs available is a major mission for UK research funders to benefit students and the public as well as researchers. What research content should our online services help you access? (Tick one column per row – Very desirable, Desirable, Neutral, Undesirable, Very undesirable, Don't know) (Optional)

1. Open Access pre-prints for commercially published articles
2. Research data formally relating to published articles
3. Underlying research assets in common formats such as digitised content, photographs, interviews

4. More complex underlying assets such as visualisations and simulations
5. Researcher profiles
6. Other suggestions [please describe]

Q13 - What, if any, is the most important type of content you need to access that is not currently available in the Library's online collections?

(Free-text) (Optional)

Q14 - You may have come across excellent examples of accessing online content and other online services elsewhere on the web from which the Library could learn important lessons. Do you have any suggestions? (Free-text) (Optional)

Q15 - If there was one thing we could do to improve the online library, what would it be?

(Free-text) (Optional)

Q16 - Complete the following sentence by adding no more than 140 characters: "In 2020 my ideal online library would be ...". (Free-text) (Optional)

 **FOR MORE INFORMATION :**

web : www.iii.com
email : info@iii.com
call : 800.878.6600



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© Innovative Interfaces, Inc.
5850 Shellmound Way
Emeryville, CA 94608