



Taylor & Francis Group
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Facilitating access to free online resources: challenges and opportunities for the library community

A white paper from Taylor & Francis

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Introduction

The volume of freely available online resources continues to grow exponentially. Potentially, many of these resources could be of enormous value for teaching, learning and research purposes. However, finding, evaluating and facilitating access to this content brings with it many challenges, for both librarians and their user communities.

Taylor & Francis have conducted a research programme to help explore the issues relating to free content discoverability from the perspective of librarians. We wanted to understand what role librarians see free content having within their institutions; its relative importance compared to paid-for resources; and the challenges associated with making better use of this material.

This paper presents the results of this research programme. We hope that by exposing some of the challenges we can stimulate discussion on this important topic and help make it easier for institutions to enrich their paid-for collections with high-quality free content.

“This survey is a good starting conversation.”

- Subject Librarian, (USA) commenting on the T&F Survey:
Facilitating Access to Free Online Resources, distributed April 2013

Research methodology

Our librarian research programme comprised two focus groups, one held in London (UK) in late 2012 and one in Seattle, Washington (USA) in early 2013; eight telephone interviews; an online survey (distributed in April 2013 with 521 responses); and desk research to identify relevant studies and commentary articles. For more information see Appendix A.

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Executive summary

The volume of online content continues to grow exponentially, and much of it is freely available. Some of this content is of potentially significant value for teaching, learning and research purposes. However, 'free to access' doesn't necessarily mean 'easy to find'.

Taylor & Francis have conducted a research programme to help explore the issues relating to free online content discoverability from the perspective of librarians. Our research included several focus groups, teledeth interviews and an online survey; which together have helped build a picture of the challenges associated with surfacing free online content within an institution for educational and research purposes.

Key findings include:

Growth and value of content

- Librarians and faculty alike agree that free online resources add value to the research process;
- The vast majority of librarians believe that free online content is likely to become at least as important as paid-for content in the future;
- Librarians see value in a range of free online resources, ranging from the traditional (e.g. Open Access journals) through to user-generated content such as blogs, podcasts, videos and wikis.

Resource challenges for libraries

- Librarians have limited human resource available to select and catalogue free online resources;
- An overwhelming majority of librarians believe it would benefit their institutions to invest more in surfacing free content.

Identification and selection of content

- Key challenges for librarians relating to making free resources more discoverable within their institutions are: growing volume of material, unknown permanence and difficulties relating to quality-assessment;
- Lack of metadata to identify how "open" a piece of content is a key issue for librarians;
- The factors that matter most to librarians when deciding what free content to make discoverable are: relevance to curriculum/research programme, reputation of publisher, and reputation of list/index (e.g. DOAJ).

Library role

- Librarians are seen by faculty as ‘purchasers of content’. So their role relating to enhancing discoverability of free content and integrating it with paid-for content needs to be better promoted and developed; a particular challenge relating to this will be proving the return on investment of that effort.

Information literacy

- Librarians are undertaking significant efforts to collaborate with faculty and have more of a central role within their institutions, particularly with a view to increasing information literacy skills;
- Users could become partners with librarians in selecting appropriate free content for surfacing within an institution, but clear criteria will be needed to ensure consistency of approach.

User needs and expectations

- Library discoverability systems need to become faster and easier to use with more comprehensive coverage of resources beyond the library’s own paid-for collection.

The role of publishers

- Librarians’ views are split on the role that publishers should take in helping solve some of these problems – some see publishers as being primarily responsible while others see them as having very limited responsibility, if any;
- Commercial full-text aggregator databases’ coverage of Open Access resources is variable and limited, so publishers need to work with providers to ensure high-quality free publications are included in key indexing resources;
- Publishers provide a quality filter in their selection process, which is helpful to librarians and users in identifying quality content.

Librarians have a critical role to play in helping their users spend less time searching and more time finding and reading content that they need for their research or studies. General search engines will be increasingly challenged to provide the level of filtering that will be required and librarians are well placed to develop methodologies and systems for the evaluation and presentation of a wider range of information resources, tailored to the needs of a specific institution. However, support is required from a range of stakeholders in the scholarly information supply chain.

Clear areas for improvement and innovation to facilitate access to free online resources that emerged from this research are:

1. Creation and adoption of metadata standards to signal how 'open' content is
2. Improved identification of free articles in hybrid journals
3. Permanence of access and reliable archiving for free content
4. Comprehensive indexing of quality free resources by discovery systems
5. Provision of usage statistics for free online content, consistent across publishers
6. Improved integration of free content with link resolvers
7. Development of a wider range of trusted repositories linking to free content
8. Improved user interfaces for accessing library-surfaced content
9. More training and support in information literacy skills for students and faculty
10. Development of metrics for evaluating impact of content (free and paid-for) on institutional performance

By bringing these issues to the attention of the community Taylor & Francis hope to start conversations and progress others. In turn, this will help find ways to ensure that more high quality free online content is made discoverable and useful to libraries and their users around the world.

Growth and value of free content

The volume of online content continues to grow at a rapid rate. In May 2011 Google indexed an estimated 35 billion web pages. In May 2013¹ this has risen to 45 billion, with much of this content being free to access.

Looking more specifically at the scholarly communications industry, we are experiencing a rapid growth in the number of articles available via Gold Open Access. A study² on the development of Open Access journals from 1993 to 2009 estimated that there were around 19,500 Open Access articles published in 2000, increasing to 191,850 by 2009. The number of Open Access journals in the same period also showed significant growth, increasing from 740 to 4,769; by the end of 2012 the Directory of Open Access Journals (DOAJ) listed over 8,000 titles.

Self-archiving is also on the increase. The Registry of Open Access Repositories (ROAR) – which indexes the creation, location and growth of Open Access Institutional Repositories and their contents – reports growth from just a handful of repositories a decade ago to over 3,340 repositories today. The Directory of Open Access Books also shows growth, adding 13 publishers and 135 books in the first quarter of 2013.

Add to this the massive amount of other types of free content – ranging from podcasts and videos to presentations, blog entries and wikis – and a burgeoning problem begins to present itself. How do librarians begin to sift through this volume of material to identify high-quality material that should be brought to the attention of their patrons? Is it even the role of the library to do this?

A recent survey by Ithaka³ relating to the function of a library indicated that Library Directors prioritise ‘information literacy skills’ and ‘support for teaching and learning’; a role relating to the evaluation and selection of free content for use within an institution, alongside managing paid-for collections, would support that ambition. However, the same survey highlighted that faculty consider the most important function of a library to be ‘paying for resources I need’ – with only just over 60% of faculty respondents viewing the library as the starting point or ‘gateway’ for locating information for their research, whether that content was paid-for or free.

¹ Worldwidewebsize.com

² Laakso, M.; Welling, P.; Bukvova, H.; Nyman, L.; Björk, B. C.; Hedlund, T. (2011). "The Development of Open Access Journal Publishing from 1993 to 2009". In Hermes-Lima, Marcelo. *PLoS ONE* 6 (6): e20961.

³ Ithaka S+R US Faculty Survey 2012

“The purchasing role is getting less and less, now it’s much more of a teaching role.”

This difference of perception in the role of a library within an institution could become increasingly critical as more and more information resources become freely available. If a library is seen primarily as a purchaser of content, what then is their role when much of the content being used by researchers and students is free to access?

“We see the role of the library changing from purchasing content to facilitating access to content.”

The Ithaka study also highlighted that faculty already see free content as highly valuable. When asked to rate a range of resources for importance for their research and teaching, 80% rated their institution’s paid-for collection as ‘very important’, but free online resources also attracted a high score, with over 60% rating these as ‘very important’. Increasingly, faculty and students may perceive little value difference between the paid-for collections that their libraries provide, and the free content they are also able to access. Already it may be difficult for them to distinguish between the two; after all, much of the purchased content provided by libraries is ‘free’ to access on campus, or by seamless proxy authentication.

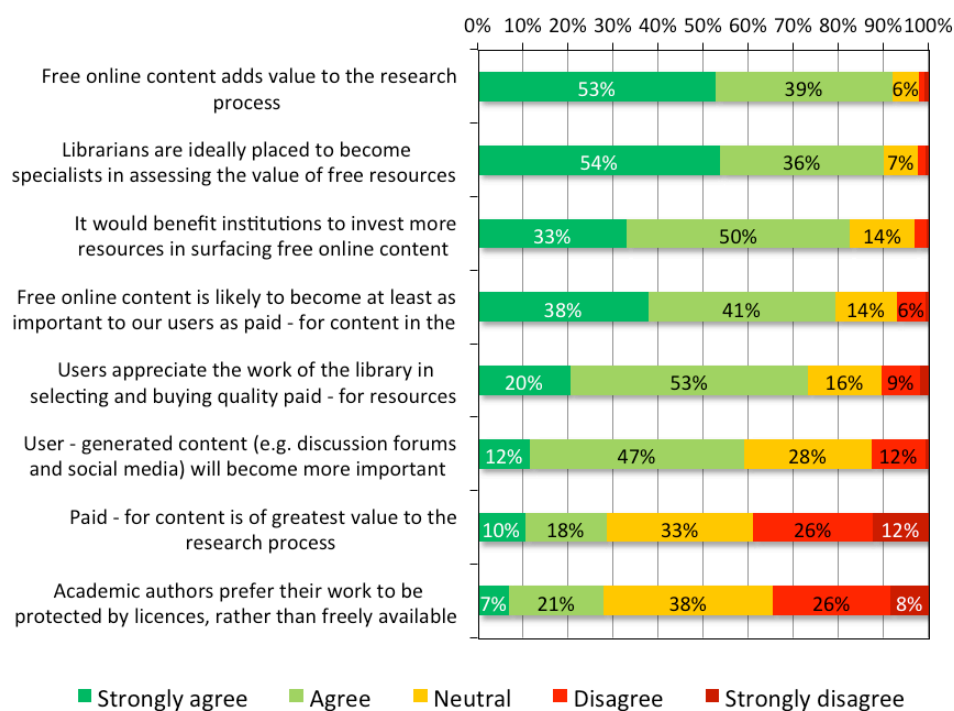
Librarians too are clearly aware of the potential value of free online resources for enriching their paid-for collections. In a recent Taylor & Francis survey⁴, 53% of librarians ‘strongly agreed’ that free online resources add value to the research process; a further 39% ‘agreed’ (see fig. 1).

“At some point the volume and importance of free online content will be greater than subscription content.”

⁴ Taylor & Francis: “Facilitating access to free online resources” online survey, distributed in April 2013, and answered by 521 librarians worldwide.

Figure 1: Facilitating access to free online content (T&F survey, April 2013)

Do you agree or disagree with the following statements?



n = 501

Only 28% believe that paid-for content is of greatest value to the research process. The survey responses also indicate that librarians anticipate free content becoming increasingly useful within their institutions, with 79% agreeing that free online content is likely to become at least as important as paid-for content in the future. This doesn't just apply to traditional content; 59% agree that user-generated content such as discussion forums and social media will become more important for all subject areas in scholarly communication.

“Although there is not a clear single most valuable type of free online content, I would say that our users tend to use most frequently blogs, open access articles (published in pure OA journals or in hybrid journals) as well as open access books and podcasts and videos.”

One frequently raised issue in the focus groups and telephone interviews that we conducted was that librarians believe users choose ease of access over quality.

“Users have a ‘good enough’ attitude to content.”

Resource challenges for libraries

The growth in both volume and value of free online content comes at a time when librarians' budgets are increasingly challenged. American Research Library (ARL) statistics continue to show a downward trend in the percentage of a university's funds spent on libraries. At the same time, ARL statistics show serials expenditure and unit cost increasing ahead of the Consumer Price Index (CPI). These patterns are reflected in most parts of the world. In an article⁵ published on the Scholarly Kitchen blog, Phil Davis reminds us that many costs associated with providing a library service (such as salaries, utilities etc.) have increased beyond CPI, so content acquisition is only a part of the difficulty a library has in making its budget work as effectively as possible.

Perhaps, then the availability of a growing pool of free online resources presents the library community with an opportunity to expand its collection cost-effectively; through balancing effort to buy high-quality content with identifying and facilitating access to high-quality free online content.

"We do have an interest in making the most of the available free content to alleviate the pressures we have on our budgets."

Certainly this is a principle that universities in emerging economies seem to be embracing. In an article⁶ published in *The Economic Times* in February this year, William Avery argues that the availability of free online content (such as the free online courses provided by Harvard and MIT) will lead to an entirely new model for Higher Education in India, helping them compete with better resourced institutions worldwide.

"In our strategic plan we've been tasked with making 50% [in comparison to paid] content as free resources without downsizing within the next three years."

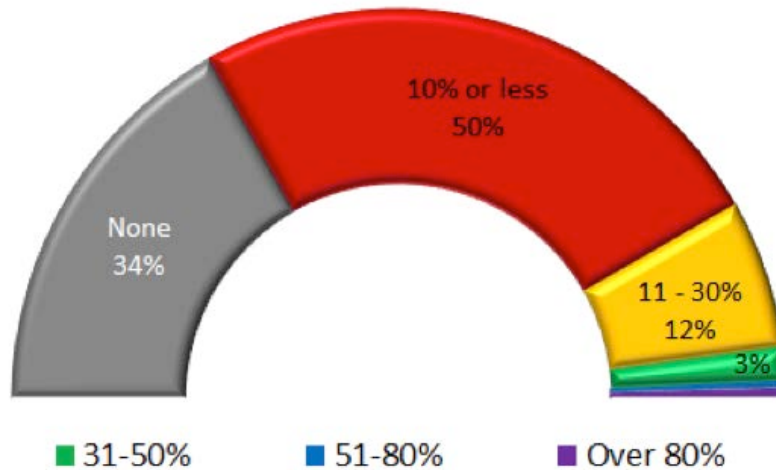
However, despite these financial challenges, and the recognition of the potential value of the many free online resources that are available, librarians are not currently devoting significant time to their selection and indexing within the library catalogue. In the aforementioned Taylor & Francis survey⁴, librarians were asked how much of their cataloguing time they currently devote to indexing free online content; 84% of respondents said this was 10% or less.

⁵ Phil Davis: "Consumer Price Index and the Argument for OA".
(<http://scholarlykitchen.sspnet.org/2009/06/01/consumer-price-index-oa/>)

⁶ Avery, W. "How India can Overtake China in the battle for Higher Education and Economic Growth". *The Economic Times*, February 3rd 2013.

Figure 2: Facilitating access to free online content (T&F survey, April 2013)

What proportion of your cataloguing time is taken up with facilitating discovery of free online resources as opposed to paid-for resources?



n = 391

The most immediate response to this might be that librarians don't see it as their role to select and catalogue free online resources for use within their institution, or that indexing such content isn't worthwhile; perhaps relying instead on users finding resources for themselves. However, our survey suggests this isn't the case. In the earlier question (figure 1), 90% of librarians agreed that they are ideally placed to become specialists in assessing the value of free online resources and 83% agreed it would benefit their institution to invest more resources in surfacing this content. But there is a clear resource challenge for librarians relating to this and it was an issue raised in the Taylor & Francis survey⁴: When participants were asked what challenges are associated with making free content more discoverable one, illustrating the opinions of many others, wrote:

"[We have] insufficient resources for processing and maintenance."

Making time for cataloguing free online resources is just one challenge; perhaps of even greater significance is finding and evaluating such content and then selecting what will be of greatest value for a particular institution. Even then, how is a library to evaluate how much time should be spent on surfacing free online content compared to more traditional activities relating to paid-for content?

Evaluating the return on investment of paid-for resources is still in its relative infancy within most institutions but it is certainly more possible than proving the value of time

spent facilitating access to free online content. A study⁷ by the Research Information Network (RIN) found a correlation between *per capita* expenditure by institutions on e-journals, and papers published, number of PhD awards, and research grant and contract income. Paid-for content has a long history of being key to an institution's performance whereas free content does not. Purchased content is also generally accompanied by performance information (e.g. number of downloads) so some assessment of value and impact can be made. It is also often branded clearly – the publisher or journal imprint can immediately signal a level of quality.

Assessing the quality and potential value of free online resources can be more challenging, so librarians are in a difficult position. They are seen by their institutions as purchasers of content and are valued for this role. But librarians see the potential of bringing together a wider range of resources (integrating free and paid-for content) and matching these to their institution's curriculum and research programme. However, without the evidence to demonstrate the potential positive impact of this, how can librarians be sure that this shift is worth the effort and investment? Metrics will be required to evaluate the relative contribution of different kinds of content, both paid-for and free, on an institution's performance.

“How much effort should we expend on stuff we don't own? Can we rely on it?”

- Research Librarian, UK.

Identification and selection of content

One of the key challenges identified by librarian participants in this research programme is identification of access and reuse rights relating to free online content. Metadata identifying Open Access articles and other free resources is in its infancy, so identifying whether content is free to access (and then whether for a defined period of time, after a certain date, or for perpetuity) or what the licence terms for that content are (CC-BY, or CC-BY-NC etc) can be difficult.

The NISO Open Access metadata and indicator project, announced on February 7th 2013, aims to develop standardised bibliographic metadata and visual indicators to describe the accessibility of journal articles, as well as potentially describing how “open” the item is. This standard, perhaps in conjunction with knowledge base initiatives such as KBART,

⁷ Research Information Network: “E-journals: their use, value and impact”. 18th January 2011.

GB+ and GoKB, may go a long way to helping librarians and discovery services programmatically collect and surface available Open Access content.

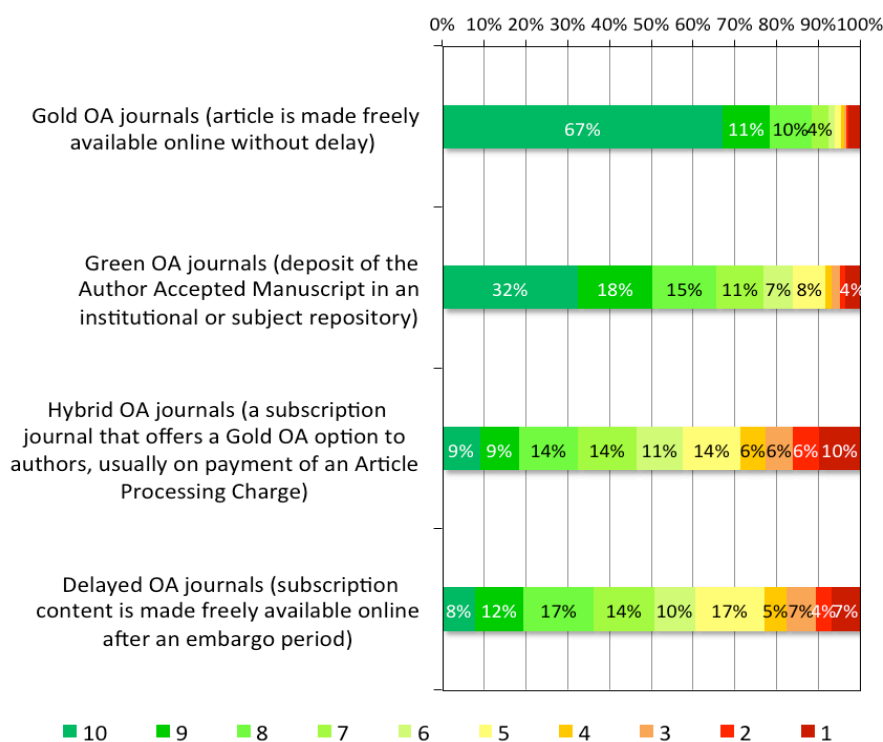
Librarians in our focus groups discussed the problem of this lack of metadata currently, making management of those resources difficult and unpredictable.

“Publishers or their intermediaries should use available metadata standards to facilitate access to their free content. It doesn’t give any advantage to the publisher, or to anyone ... to put or maintain barriers to protect access to metadata.”

Perhaps that’s partly why in the Taylor & Francis survey⁴ Gold Open Access journals were identified as the most useful type of free online content, with 67% of respondents giving a ‘usefulness score’ of 10, with 10 being ‘most useful’ (see figure 3). Usefulness here may also mean ‘predictability’ from a librarian’s perspective, in terms of the perpetual free online access that Gold Open Access represents. Librarians may have more confidence in the on-going availability of this kind of content.

Figure 3a: Facilitating access to free online content (T&F survey, April 2013)

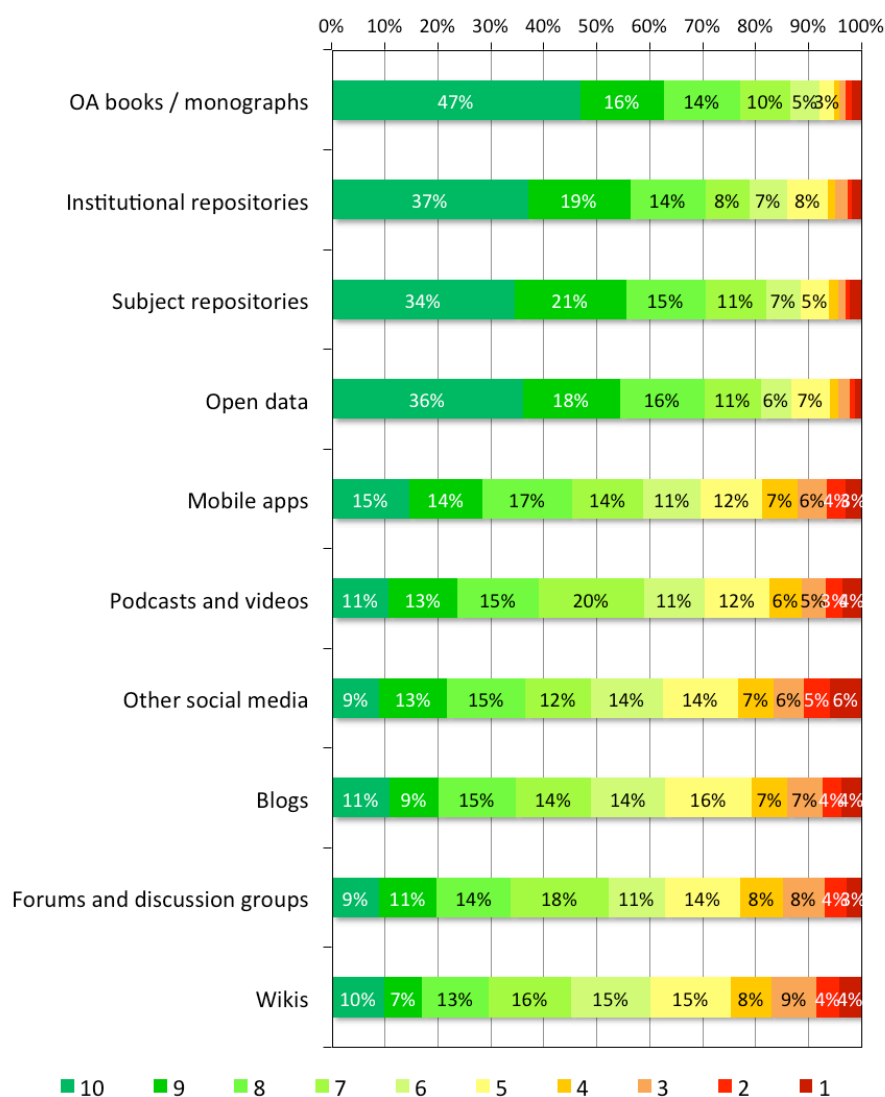
Which of the following types of Open Access journals do you believe are most useful (score out of 10 where 10 is extremely useful)?



n = 499

Figure 3b: Facilitating access to free online content (T&F survey, April 2013)

Which of the following other types of free online content do you believe are most useful (score out of 10 where 10 is extremely useful)?



n = 497

Overall most types of free online content, as outlined in figure 3a and figure 3b, are felt to be useful.

Green and Gold Open Access journals, books and monographs attract the highest scores in terms of perceived usefulness, alongside resources that aggregate this kind of content, such as institutional and subject repositories. Potentially it is the difficulty of identifying access rights that might explain the lower score for Hybrid and Delayed Open Access journals. Hybrid Open Access journals came in for particular criticism:

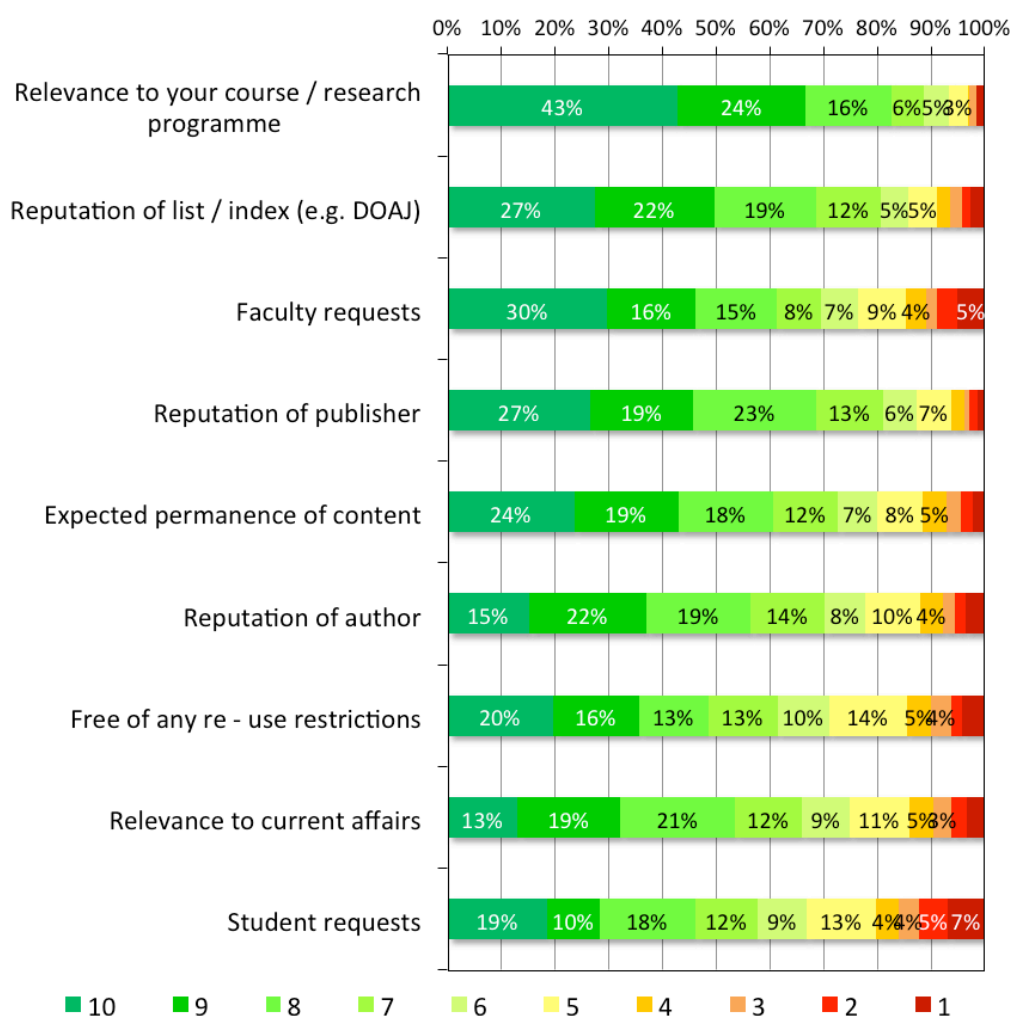
“Most difficult to deal with is hybrid OA journals – you can’t catalogue them as free, so if you don’t have a subscription none of the articles appear in your collection.”

- Electronic resources librarian in the UK

Ease of identification and permanence of free online access featured strongly in our focus group discussions and telephone interviews as key factors for selection of free content for surfacing by the library. The most important criteria identified by the Taylor & Francis survey⁴ was relevance of that content to the institution’s activities (with 43% scoring 10 out of 10 for influence):

Figure 4: Facilitating access to free online content (T&F survey, April 2013)

What has most influence on motivating you to make free online content discoverable (score out of 10 where 10 is very highly influential)?



n = 389

Figure 4 also highlights the importance of permanence of content in a librarian’s decision to make free online content discoverable. Concerns around permanence of

access and archiving also featured strongly in our focus group and telephone interview discussions:

“If we catalogue a freely available journal and it doesn’t work, then we’re held accountable for it.”

- Research Librarian, UK

“Knowing whether it is valuable and whether it will still be there from one week to the next [is a challenge].”

- Collections Development Librarian, UK

Relevance to current affairs scores highly. As this is a labour-intensive activity it could be seen as somewhat surprising. Finding and selecting content that links to major news stories or seasonal event could take significant effort. Librarians in our US focus group spoke of the work they had undertaken to gather together material relating to the 2012 Presidential Election Campaign, and then the subsequent difficulties of ensuring continued access to these resources when they weren’t reliably archived.

‘Brand’ features strongly as an indication of quality (reputation of publisher and list/index in particular, with perhaps the reputation of the author being more difficult to judge, hence attracting a lower score), as does expected permanence of content. Brand issues are an important consideration as this is a key value that publishers can provide. For known publishers with an established reputation, librarians can trust that a level of quality filtering has already been done. However, with more and more publishers of uncertain origin increasingly providing content to the scholarly communications market quality judgements based on publisher brands are getting harder to make.

“It’s a challenge avoiding predatory and scam publishers of Open Access content.”

- Research Librarian, Canada

The importance of brand was also demonstrated in a question asked in the Taylor & Francis survey⁴ relating to usage of cataloguing and indexing systems that cover free online resources. Google scored highly, with 75% of 468 respondents using this, but also high was the Directory of Open Access Journals (DOAJ), with 55% of respondents using this resource. This demonstrates the potential value of trusted intermediary services that identify and select free resources from which librarians can then further select those that best match the needs of their institution.

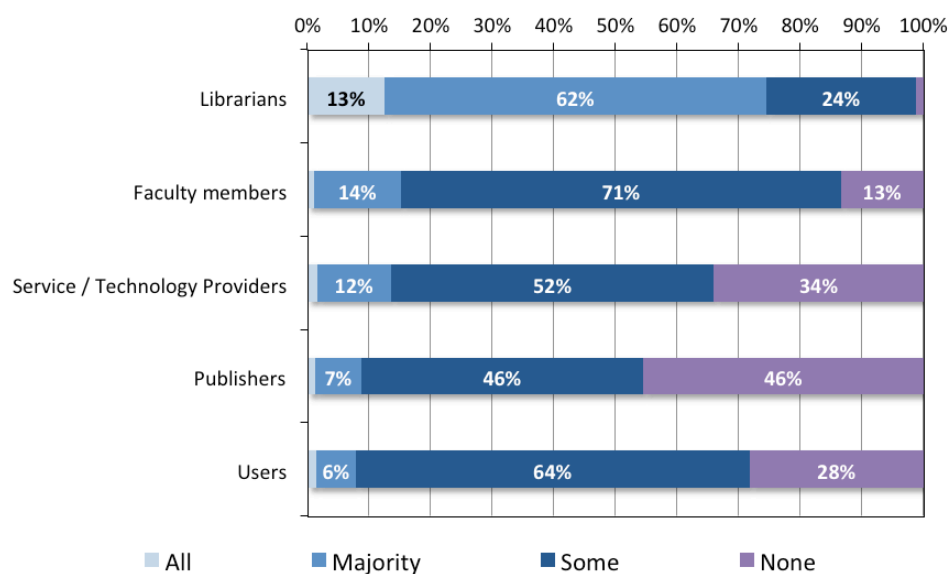
Library role relating to free content

Earlier (see figure 1), we identified that librarians and faculty alike appreciate the potential value of free online content – rating it almost as highly as paid-for content in terms of usefulness. The same figure also demonstrates that librarians feel well placed to provide the expertise in selecting appropriate resources and making them discoverable, although there are resource challenges associated with doing this currently.

The same survey⁴ highlighted that 94% of librarians already help their users find free online content, but the survey also showed that responsibility for facilitating discovery of free online content within an institution is widely distributed:

Figure 5: Facilitating access to free online content (T&F survey, April 2013)

How much responsibility does each of the following have for facilitating discovery of free online content in your institution?



n = 416

Librarians feel they have primary responsibility for this, but users are also seen as key, particularly faculty, with 87% of responding librarians seeing faculty as having some level of responsibility and 72% seeing other users as also having some level of responsibility. Publishers and service/technology providers are seen as having a lesser role. This ‘crowdsourcing’ idea is clearly one way of dealing with resource issues that librarians have of doing all the identification and selection themselves. It also makes the

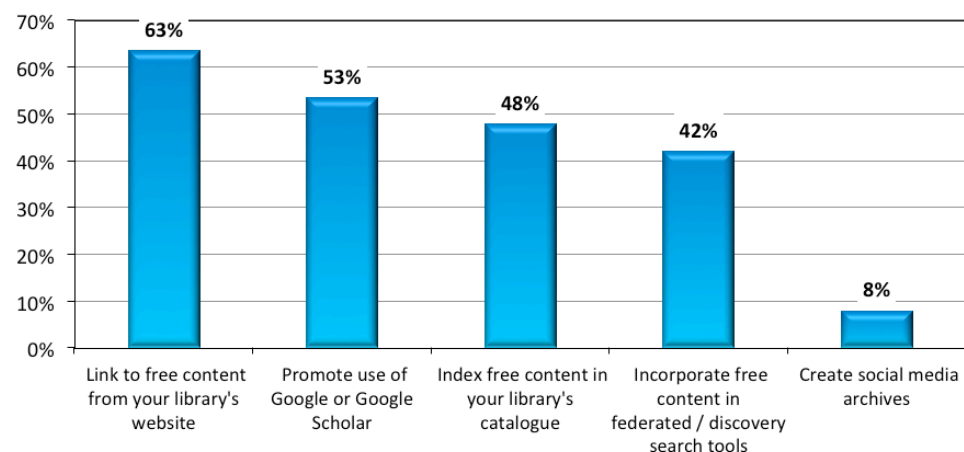
most of the expert knowledge of users. However, a level of centralised control and management is necessary in order to ensure that a consistent methodology is applied to resource identification and selection for making discoverable.

A librarian's role, then, relating to facilitating discovery of free online content, potentially falls into two key areas: 1) central work to evaluate and select resources following a clear methodology, and 2) providing guidelines and training to users to improve their search and evaluation skills.

In terms of central discoverability work relating to free online content completed by the library on behalf of its users the main routes to surfacing such content at the moment are: linking from the library website (63% do this), and promoting the availability of Google (53% do this):

Figure 6: Facilitating access to free online content (T&F survey, April 2013)

How do you currently make free online content visible to users?



$n = 402$

60% of respondents currently index free content in the library catalogue, and 54% incorporate it in federated/discovery tools. One of the main challenges here is simply the volume of resources available and lack of staff to properly evaluate them.

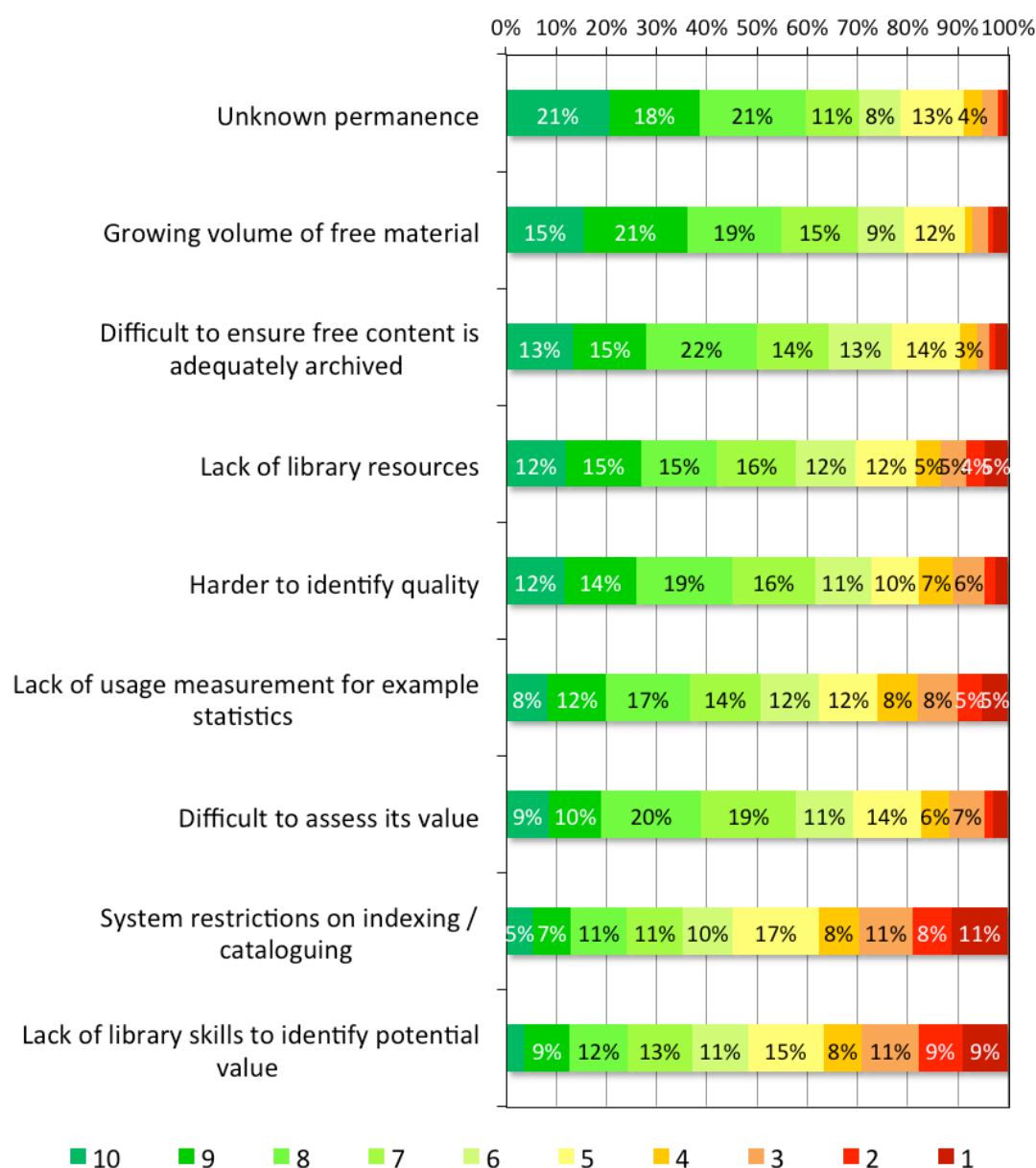
"Our main challenge is human resources for selection decisions."

- Technical Services Librarian, USA

The following figure (figure 7) highlights this volume/resources challenge, and also the many other challenges faced by librarians in increasing discoverability of free resources within their institutions:

Figure 7: Facilitating access to free online content (T&F survey, April 2013)

What are the challenges relating to increasing awareness and discoverability of free online content at your library (level of challenge score out of 10, where 10 is very challenging)?



n = 416

As identified earlier, unknown permanence and difficulties relating to archiving feature strongly amongst the challenges librarians face relating to increasing awareness and discoverability of free online content.

The sheer volume of available resources is cited as the second most significant challenge, and aligned with this – how to identify high quality and useful resources. With so much new content being made available every single day it's simply not possible to sift through all of this manually to identify key resources.

“Librarians shouldn’t be doing the filtering.”

Intermediaries – such as commercial providers of full-text aggregation databases (e.g. EBSCOhost Academic Search Complete; Gale Onefile and Proquest 5000 International) – will also be critical partners to the library community in ensuring a first level of filtration is done automatically through their selection of high quality free content for indexing. Currently, their coverage of this material is variable, as highlighted in a recent article⁸ published in New Library World, which found large differences in the rate of indexing of Open Access journals by different databases and that generally only a very small percentage of available content was indexed.

“[Publishers should] include free content in indexing tools such as Scopus, Web of Science, Pubmed, Ovid, etc.”

System restrictions and lack of skills within the library are seen as lesser problems.

Information literacy

Enlisting the help of users seems a practical way to help spread the workload of evaluating free online content for surfacing by the library, and also gains value from the niche subject-expertise of faculty.

“It is up to faculty to include an element of digital literacy training.”

Several librarians mentioned the growing sophistication of web-based education management systems, which can be used to delivery highly personalised literacy training.

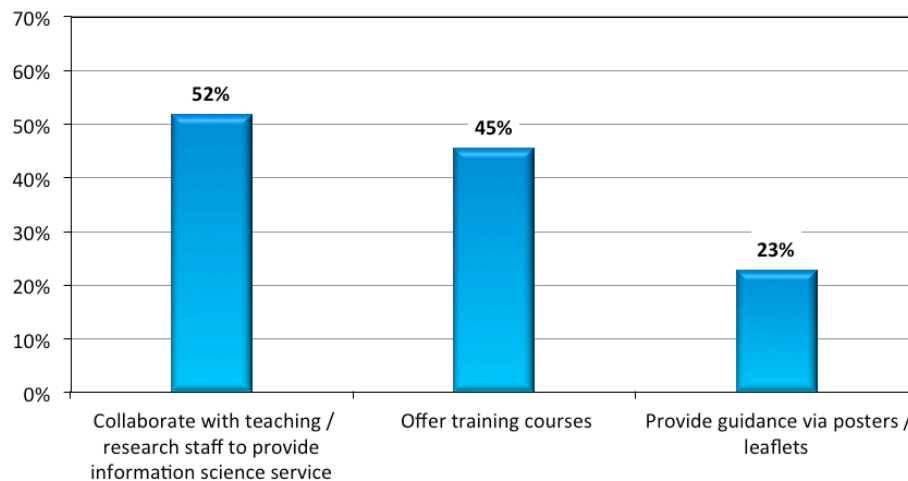
“The library runs user education via ‘Illuminate’ and in future there will be pathways through the different levels of study so digital literacy can be slotted into the different modules.”

⁸ Cummings, J. (2013). “Open access journal content found in commercial full-text aggregation databases and journal citation reports”. New Library World, Vol. 114 Iss 3-4, pp. 166-178

A further question in the Taylor & Francis survey⁴ highlights the efforts librarians are already going to in order to collaborate with faculty and provide training to increase user information literacy skills:

Figure 8: Facilitating access to free online content (T&F survey, April 2013)

How do you help researchers to recognise the quality and relevance of free online resources at your library?



n = 347

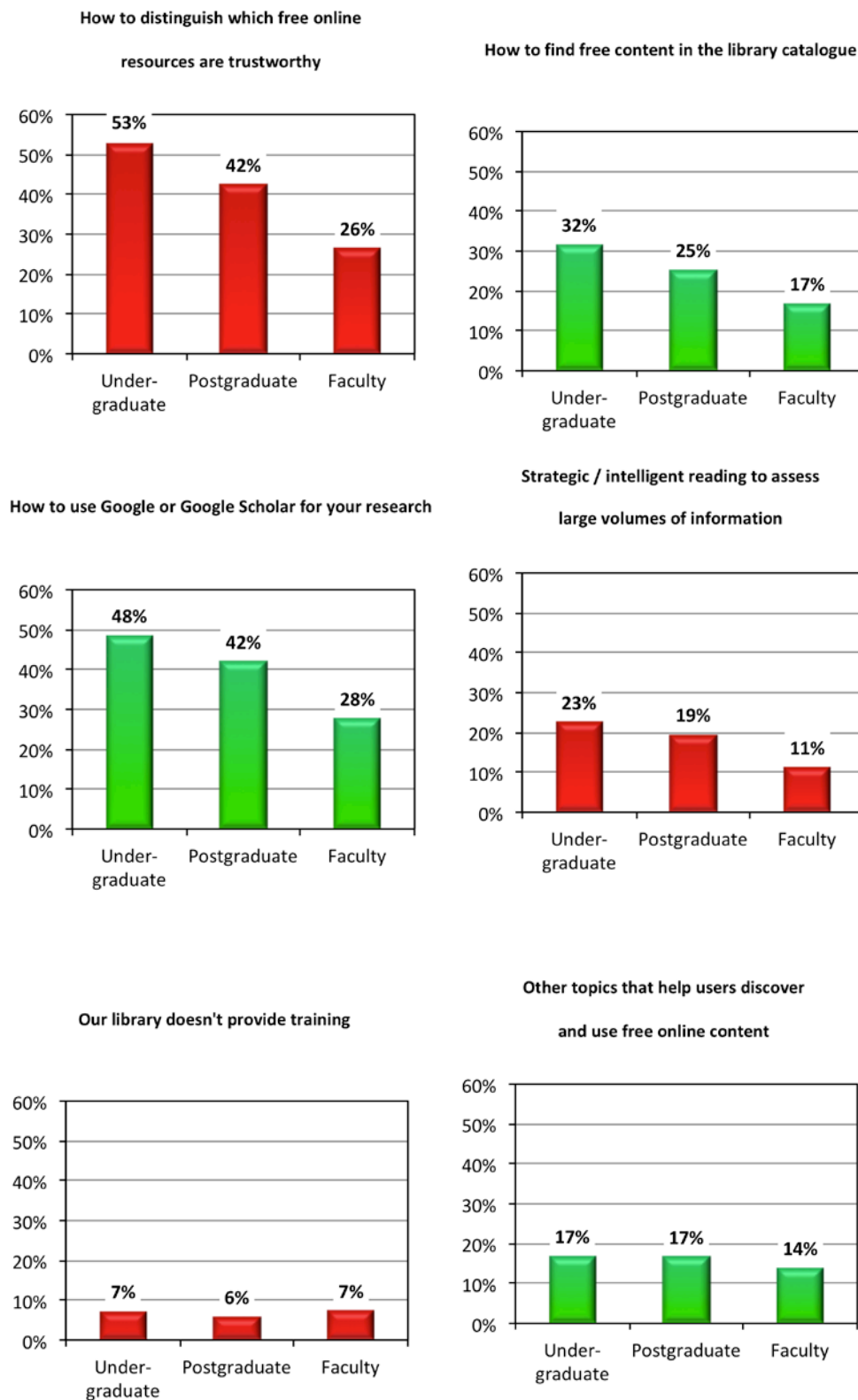
Librarians are focusing on working closely alongside research / teaching staff to provide a personalised information service and also training users to identify for themselves high quality, relevant, free online resources.

“Literacy skills will become more important for researchers to assess provenance as the amount of free online content increases. The academic support team teach literacy skills and have web pages and a department that run specific workshops.”

Results from the Taylor & Francis survey⁴ show that information literacy training is currently focused on undergraduates:

Figure 9: Facilitating access to free online content (T&F survey, April 2013)

In helping your users to recognise the quality and relevance of free online content, does your library's training programme cover any of the following topics?



$n = 369$

Only 14% of responding libraries did not provide training to help their users evaluate free online resources. Helping users distinguish which free online resources are trustworthy is clearly a priority, as is effective use of Google.

“Google has made searching easy but discernment difficult.”

- Research librarian, USA

The focus on undergraduates in this area (53% offer training to undergraduates relating to source quality/trustworthiness, but only 26% offer this training to faculty) may need to shift if the library is to enlist the help of teaching and research staff in identifying appropriate free resources for making content discoverable. Of course faculty will be experienced with resource evaluation for their own research and teaching purposes, but if their recommendations are to be centrally indexed, then there may be benefits to ensuring that selected resources fit a set of clear criteria set by the library.

“A greater depth of information literacy training will be required, probably beyond what librarians can reasonably offer, so teaching staff will need to take much more responsibility. I would say that information literacy skills are essential to maintain the quality of research outcomes, let alone improve them.”

User needs and expectations

Part of the challenge for librarians in making high-quality free content more discoverable within their institutions is ensuring that library discovery services are useful and used.

“Most student and academic users just ignore the playgrounds we have been building for them.”

A 2012 report⁹ by the Association of College and Research Libraries (ACRL) reviewed changing user behaviours and expectations. Research conducted to produce this report found that libraries were considered “hard to use” and “inconvenient”, especially when compared to search engines such as Google. Despite this, the Ithaka S+R US Faculty Survey³ highlighted that specific electronic research resources are still preferred as a

⁹ ACRL Research and Planning Committee: “2012 Top Trends in Academic Libraries”, June 2012

starting point for searching academic literature over general search engines. Both the latter were preferred over the online library catalogue.

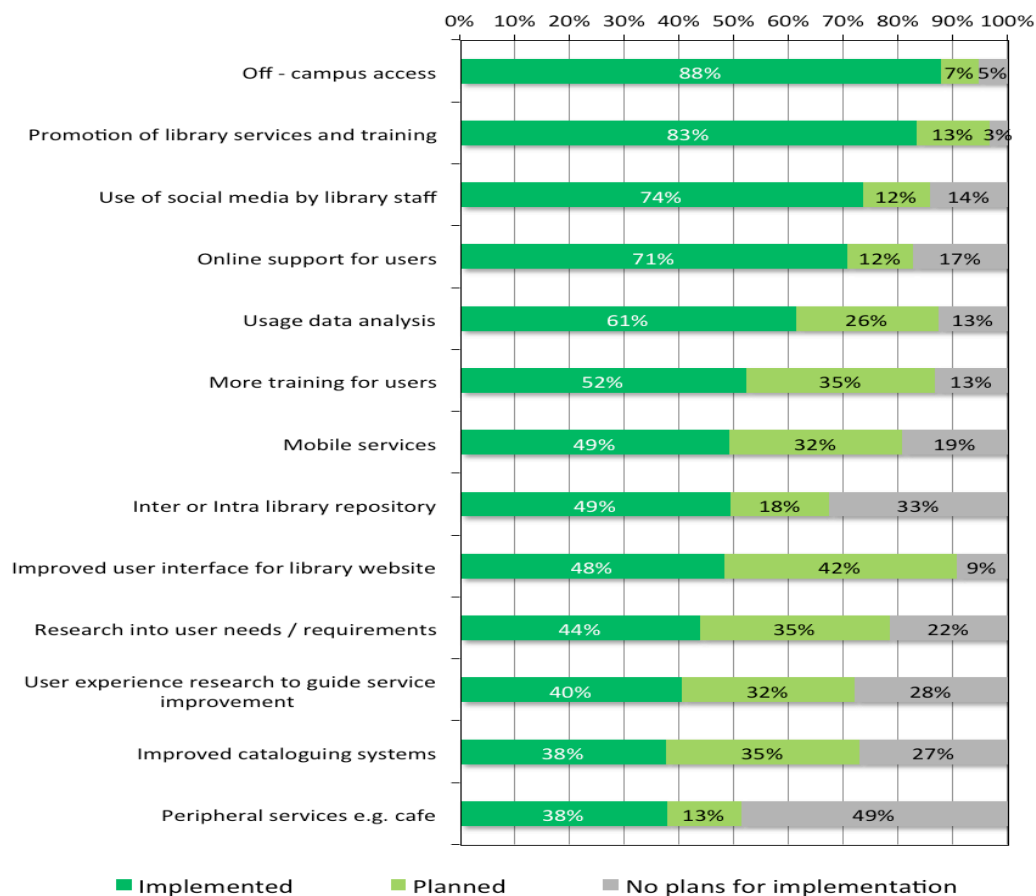
“Recent research shows that students prefer to use Google over library catalogues, across all subjects. Inflexible OPAC design and the use of library jargon in metadata are disincentives.”

Libraries therefore need to make improvements to the user interfaces of their discovery services, and ensure they facilitate access to content beyond the library’s paid-for collection. Library technology partners, such as Ex Libris with its Primo web-scale discovery service, are working to provide more user-friendly interfaces, making the search experience easier and faster with a ‘one-stop’ experience for research needs.

In the Taylor & Francis survey⁴ librarians were asked about their plans relating to developing their discoverability services for users:

Figure 10: Facilitating access to free online content (T&F survey, April 2013)

Has your library implemented, or is planning to implement, any of the following services?



n = 413

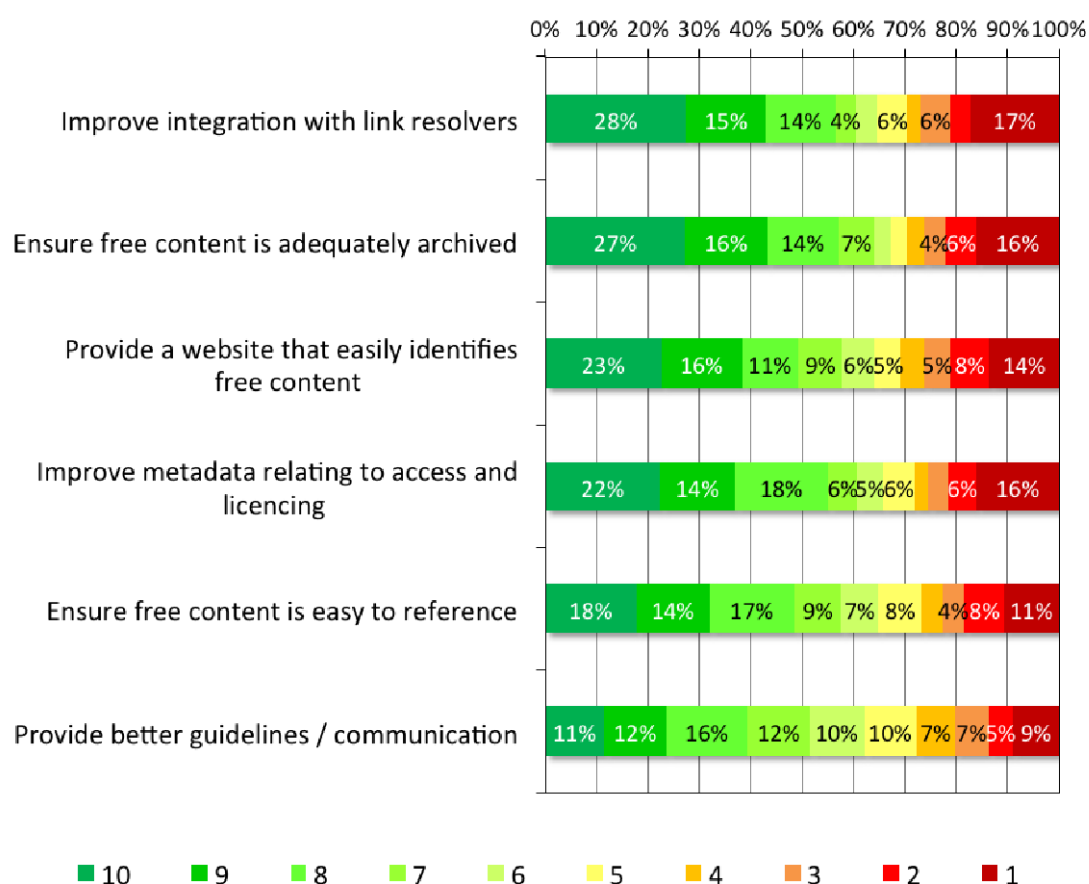
Clearly librarians are already investing in understanding their user community needs and in developing their catalogue interfaces accordingly. 42% of survey respondents are planning to improve their user interface (48% have already implemented) and 35% plan to improve their cataloguing systems (38% have already implemented). 32% plan to conduct user research to understand their needs (40% have already undertaken this).

The role of publishers

The role of publishers relating to the facilitation of free online content is less clear within the library community.

Figure 11: Facilitating access to free online content (T&F survey, April 2013)

Of the activities that publishers can do to help you improve discoverability and usefulness of free online content, which would be most important to you (score out of 10 where 10 is very important)?



n = 429

There is relatively little difference between these scores. All areas are seen as 'moderately' or 'very' important. Ensuring free content is adequately archived scores most highly, followed by improved integration with link resolvers. Although lack of metadata relating to identification of free online content was identified in our focus groups and interviews as a key issue for librarians, in the survey⁴ it was only seen as a 'quite important' activity for publishers to prioritise.

"It would be very useful if publishers could put links in their database to free stuff and then we can put the data into our cross search."

Looking more deeply at the data relating to this question surfaces some interesting polarised views. For example, 27% of respondents gave a score of 10 out of 10 (extremely important) relating to publishers ensuring content is adequately archived, but 16% gave this a score of 1 (not important at all). Similarly, 28% gave improved integration with link resolves a score of 10, with 17% scoring this with a 1. A similar pattern of polarised responses was shown for all activities shown in figure 11.

This spread of opinion could relate to different views on whether it is a publisher's responsibility to provide support in these areas; partly it may also be explained by different interpretations of the question. Perhaps publishers aren't associated with provision of free content, although much of the quality free online resources available – such as Open Access journals – are of course provided by publishers.

At T&F we are committed to supporting Open Access and those who use and facilitate the use of it. We understand however that Open Access books and journals represent just a part of a wealth of material that is freely available online, with much of this produced by the community itself. We are working to ensure that the content we produce is as discoverable as possible and integrates seamlessly with other resources. Standards are a critical part of supporting interoperability and we support this with active roles in new standards initiatives such as CrossRef, CrossMark, FundRef and Orcid.

T&F has always placed emphasis on permanence, quality and discoverability, and we continue to enhance and develop our services in this regard. We are supporting all the current Open Access mandates and working with authors, institutions, funders and policy makers to ensure we develop robust, transparent and trusted values for all involved.

As free online resources grow new challenges for librarians, researchers and institutions will continue to arise. T&F is committed to working with the community to identify and help solve these challenges.

Summary and conclusions

The increasing volume and variable quality of free online resources represent a significant challenge to librarians in deciding how best to facilitate access to high quality free online resources within their institution. The growing recognition of the value of these resources by faculty and librarians alike would seem to justify more resource being directed toward improving their discoverability. However, currently librarians mostly link to selected free resources from their website and provide training to their user communities to equip them to find and evaluate resources for themselves. There is no clear way to measure the potential impact of diverting more resource to surfacing free online content, and yet librarians feel that this would likely prove worthwhile.

More collaborative work is required to develop standardised bibliographic metadata relating to free online resources, and also potentially to build trusted repositories of links and content that might be shared by the community. The popularity of the Directory of Open Access Journals indicates how useful these 'pre-vetted' resources are. Other initiatives, such as OAIster – a union catalogue of millions of records representing Open Access resources – demonstrate the principle of “many hands make light work.” Individually, librarians will struggle to identify the best available free online resources, but if the community works as a collective, significant progress is more likely to be made.

Library users will always have the option to use Google to find relevant resources for themselves. For a library discoverability service to compete, it has to be at least as fast and easy to use, and deliver substantially better and more useful results. One of the factors that emerged from our research was the knowledge that librarians have of their user communities – hence they are well placed to select resources that match their specific needs. Further 'personalisation' of the library service to provide the best resource recommendations for individual users will increasingly make the library service a far superior option when compared to a general search engine.

“A really personalised experience for each researcher and academic, when only what really is relevant for each of them is made available, in an unobtrusive way, and through the usual institutional web interfaces that they use in their work.

The role of publishers in supporting the library community in facilitating access to free online content is less clear. Publishers are generally associated with paid-for content, so perhaps this explains why the library community isn't looking to them to solve some of these problems. But much of the world's quality free online resources are provided by publishers – immediate benefits would come from adoption of metadata standards and reliable archiving policies.

Funder mandates (for example, the recent RCUK policy¹⁰, which seeks to ensure that publicly funded research is freely accessible) will further drive the volume of quality free online content that is available. Free access does not mean necessarily that the content is easy to find and use, so librarians have a valuable and increasingly critical function to perform in facilitating this.

“We, in the library and publishing trade, force readers, some of them who are also authors, to search iteratively for information they want or need or think might exist in many different silos using many different search engines and vocabularies and forms, user interfaces.”

- Mike Keller, University Librarian, Director of Academic Information Resources,
Stanford University (quote from article⁹, 2011)

In summary, areas for improvement and innovation to facilitate access to free online resources that emerged from this research are:

1. Creation and adoption of metadata standards to signal how 'open' content is
2. Improved identification of free articles in hybrid journals
3. Permanence of access and reliable archiving for free content assured
4. More comprehensive indexing of quality free resources by discovery systems
5. Publishers provision of usage statistics for free online content
6. Improved integration of free content with link resolvers
7. Development of a wider range of trusted repositories linking to free content
8. Improved user interface for accessing library-surfaced content
9. More training and support in information literacy skills for students and faculty

¹⁰ <http://www.rcuk.ac.uk/documents/documents/RCUKOpenAccessPolicy.pdf>

10. Development of metrics for evaluating impact of content (free and paid-for) on institutional performance

At Taylor & Francis we hope that this discussion paper is a useful starting point from which we might further explore how publishers and librarians can work together to ensure that the high quality Open Access resources we publish are available via library discoverability services alongside paid-for content collections.

Appendix A: Research Programme Overview

The research programme to inform this paper comprised two focus groups, one held in London (UK) in and one in Seattle, Washington (USA) in early 2013; eight telephone interviews; an online survey (distributed in April 2013 with 521 responses); and desk research to identify relevant studies and commentary articles.

A. Focus Groups and teledepth interviews

Our two focus groups were attended by librarians based in the UK (London, November 2013) and USA (ALA Midwinter Conference in Seattle, Washington, January 2013) from a wide range of institutions. The focus group findings were supplemented with the results of a further eight phone interviews with librarians.

The following questions were discussed in both the focus groups and teledepth interviews:

1. What kind of free online content do you think is most valuable for your various user communities?
2. What factors influence your decisions to facilitate discovery of free content?
3. Do you currently facilitate discovery of any free information?
4. What automatic or human-validated cataloguing and indexing systems are you aware of that cover free online resources?
5. How might publishers and others in the scholarly information supply chain better support you in facilitating access for your users to high quality free online content?

6. If you were starting from a blank canvas, what services would you offer through the library to support research and education activities?

B. Online survey

The findings from the focus groups and teledepth interviews were used to identify themes for qualitative testing through an online survey (results published separately July 2013). The survey was distributed to the library community via listservs and attracted 521 responses from all over the world.

The survey comprised the following questions:

This survey is being carried out by Taylor & Francis to inform a forthcoming white paper. The white paper will explore the challenges librarians face in helping their users to understand and realise the value of the increasing quantity of content that is freely available to read, including Open Access (OA) journals, repositories, blogs and wikis.

During this survey, participants should interpret the term 'facilitating discovery' to mean how librarians help their researchers to navigate non-purchased content including wider web and mobile services such as search engines and social media using the library's catalogue and other tools/systems.

Please note, any comments you make in the survey will be kept anonymous.

You will be offered the opportunity to enter our free draw to win a Kindle Fire at the end of the survey. Terms and Conditions apply.

The value of free online content

In your opinion, which kinds of free online content are most useful for your various user communities?

(Please rate how useful on a scale of 1 to 10, where 1 is not at all useful and 10 is extremely useful)

Options: 1–10

1. Types of Open Access (OA) journals:

Gold OA journals (article is made freely available online without delay)

Hybrid OA journals (a subscription journal that offers a Gold OA option to authors, usually on payment of an Article Processing Charge)

Green OA journals (deposit of the Author Accepted Manuscript in an institutional or subject repository)

Delayed OA journals (subscription content is made freely available online after an embargo period)

2. Other types of free online content:

OA books / monographs

Subject repositories

Institutional repositories

Open data

Blogs

Wikis

Forums & discussion groups

Podcasts and videos

Mobile apps

Other social media

Other (please specify)

3. In your opinion, how useful is free online content to users in each of the following subject areas?

(Please rate how useful it is in each subject area on a scale of 1 to 10, where 1 is not at all useful and 10 is extremely useful)

Options: 1–10, No Opinion

Science

Technology

Medicine

Social Science

Humanities

Law

Other subjects (Please comment)

4. Are you aware of automatic or human validated cataloguing and indexing systems that cover free online resources, and if so which do you use?

(Please select all that apply)

Options: Aware of, Use

Google

DOAJ

OAISTER

PEDRO

MARC edit software

Please list any other systems you know of:

5. Do you have an institutional repository?

(Please choose one option)

Yes

No

6. Do you agree or disagree with the following statements about free online content?

Options: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

Free online content adds value to the research process

Paid-for content is of greatest value to the research process

Users appreciate the work of the library in selecting and buying quality paid-for resources

Academic authors prefer their work to be protected by licences, rather than freely available

User-generated content (e.g. discussion forums and social media) will become more important for all subject areas in scholarly communication

Free online content is likely to become at least as important to our users as paid-for content in the future

It would benefit institutions to invest more resources in surfacing free online content

Librarians are ideally placed to become specialists in assessing the value of free resources

7. Does your library currently help users find free content?

(Please choose one option)

Yes, we help our users find free content

No, we only facilitate discovery of paid-for content

Discovery of free online content

8. How do you currently make free content visible to users?

(Please select all that apply)

- Link to free content from your library's website
- Index free content in your library's catalogue
- Create social media archives
- Incorporate free content in federated / discovery search tools
- Promote use of Google or Google Scholar
- Other (please specify)

9. How do you help your researchers to recognise the quality and relevance of free online resources at your library?

(Please select all that apply)

- Provide guidance via posters / leaflets
- Offer training courses
- Collaborate with teaching / research staff to provide information science service
- Other (please specify)

10. In helping your users to recognize the quality and relevance of free online content, does your library's training program cover any of the following topics?

(Please select all that apply for the relevant researcher for which training is provided)

Options: Undergraduate; Postgraduate; Faculty

- How to distinguish which free online resources are trustworthy
- How to find free content in the library catalogue
- How to use Google or Google Scholar for your research
- Strategic / intelligent reading to assess large volumes of information
- Our library doesn't provide training
- Other topics that help users discover and use free online content (please specify)

11. What proportion of your cataloguing time is taken up with facilitating discovery of free online resources as opposed to paid-for resources?

(Please select at least one. If this is not something you do, please select 'none')

None; 10% or less; 11-30%; 31-50%; 51-80%; Over 80%.

12. What criteria do you use when prioritising which free content to make available and visible to your library users?

(Please rate how important you consider each of the following factors to be on a scale of 1 to 10, where 1 is least important and 10 is most important)

Options: 1–10

The content is more current for users

The content provides primary source information for users

The content enriches the knowledge available to users

Free content helps the work of authors at your institution get discovered

Accessibility of free content helps us to meet an institutional target

What other benefits do you consider important? (please specify)

13. What motivates you to make free online content discoverable; what has the greatest influence on your decision?

(Please rate your answers, on a scale of 1 to 10, where 1 has least influence over your decision and 10 has most influence)

Options: 1–10

Student requests

Faculty requests

Expected permanence of content

Reputation of publisher

Reputation of list / index (e.g. DOAJ)

Reputation of author

Relevance to current affairs

Relevance to your course / research programme

Free of any re-use restrictions

14. How much responsibility does each of the following have for facilitating discovery of free online content in your institution?

Options: None, Some, Majority, All

Librarians

Faculty members

Users

Publishers

Service / Technology Providers

15. What are the issues related to increasing awareness and discoverability of free online content at your library?

(Please rate how challenging each issue is on a scale of 1 to 10, where 1 is not at all challenging and 10 is extremely challenging)

Options: 1–10

Harder to identify quality

Difficult to assess its value

Difficult to ensure free content is adequately archived

Unknown permanence

Growing volume of free material

Lack of library resources

Lack of library skills to identify potential value

Lack of usage measurement for example statistics

System restrictions on indexing / cataloguing

What other challenges do you consider important? (Please specify)

16. What is the greatest challenge to librarians surrounding free content?

17. Of the activities that publishers can do to help you improve discoverability and usefulness of free online content, which would be most important to you?

(Please rate the importance to you on a scale of 1 to 10, where '1' is of the greatest importance to you and '10' is of the least importance to you.)

Options: 1–10

Ensure free content is adequately archived

Improve metadata relating to access and licensing

Improve integration with link resolvers

Provide better guidelines / communication

Ensure free content is easy to reference

Provide a website that easily identifies free content

18. Is there anything else that publishers could do to improve discoverability of free online content?

(Please include an indication of relative importance, if so)

Future outlook

19. Has your library implemented, or is it planning to implement, any of the following services?

(Please select as appropriate)

Options: Implemented, Planned, No plans for implementation

Improved cataloguing systems
Improved user interface for library website
Peripheral services e.g. cafe
More training for users
User experience research to guide service improvement
Inter or Intra library repository
Research into user needs / requirements
Usage data analysis
Mobile services
Online support for users
Off-campus access
Promotion of library services and training
Use of social media by library staff

Demographics

20. What best describes your primary job role?

Acquisitions librarian
Reference or research librarian
Technical service librarian
Collections development librarian
Director / head / general librarian
Subject specific librarian
Digital / electronic resources librarian
Systems librarian
Assistant librarian / administrator
Consultant / advisor
Other librarian (Please specify)

21. What best describes the type of institution for which you work?

Academic

Medical
Government
Corporate
Public
Other (Please specify)

22. What is the size of your user community?

0-250 FTE
251-500 FTE
501-1000 FTE
1001-2000 FTE
2001-4000 FTE
4001+ FTE

23. In which country are you based?

I am based in: [List]

24. Does your institution have a specific subject focus?

(Please tick all that apply)

No
Yes - Science
Yes - Technology
Yes - Medicine
Yes - Humanities
Yes - Social Science
Yes - Law
Yes – Other (Please specify)

25. The results of this research will be published in a white paper, which will be available on our website (www.taylorandfrancisgroup.com) later this year.

Please indicate below if you would like to receive an email when the white paper becomes available and/or if you would like to enter the prize draw.

(If you select either of these options please provide your email address in the box below and click here for full terms and conditions.)

I would like to receive an email when the white paper becomes available

I would like to enter the free prize draw for a Kindle Fire

Email address:

Thank you for completing our survey; we look forward to sharing the results with the library community.

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