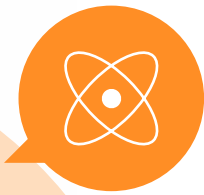


# Librarian Futures <sup>01</sup>



Charting librarian-patron behaviors and relationships in the networked digital age

 Technology from Sage

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# Foreword

A recent *Research Information* article posed the question, 'Covid-19: A catalyst for change?' (Pool, 2021). The pandemic has put librarians under extreme pressure, with sudden and comprehensive shifts to remote learning and research. Yet librarians have also responded with impressive speed, rolling out rapid responses – from newly-digitized collections and click-and-collect services to digital tools and patron resources. A success within the crisis was the foresight shown by many librarians who had long-identified changes in patron behavior and expectation, and the need for new ways of delivering library services (Scott, 2021). As Lorcan Dempsey has observed, 'the forced migration online may [therefore] mark a final transition into a more fully digital identity for the library' (Dempsey, 2020a).

*Librarian Futures* sought to explore what this 'digital identity' could look like, positioning the librarian at the center of our analysis. It is the result of the most extensive librarian and patron survey on patron workflows ever conducted – with over 4,000 surveyed. We also interviewed a range of librarians and library stakeholders to enhance the survey findings, in addition to bringing in a number of valuable contributions from various partners (such as OpenAthens, Springshare, and scite). Lean Library data on patron workflows is also provided.

The report seeks to build on previous research into the 'future of the library', particularly ideas of the library embedding itself 'in the life of the user' to maintain mission relevance and impact in the networked digital age. Its focus is on academic libraries and their patrons, but we hope the findings will be of broader interest too. It examines current trends in librarian-patron interactions and understanding, while also posing some 'innovation provocations' to help provide a glimpse into the future.

We are indebted to all the survey respondents, interviewees and partners who have contributed to this report. Lean Library was

founded to address one of the most significant shifts in patron behavior and expectation in recent years: the move away from the library as the principal starting point for patron discovery, and toward open search tools like Google Scholar, with resulting difficulties in resource access. However, we have always wanted to go beyond helping librarians address this 'access problem', to look instead at how we might help bring the library to its patrons in their digital workflows. This report, conducted from March to November 2021, has contributed immensely to our own understanding in this area (and to the development of a new service for libraries, *Lean Library Futures*). We hope its publication makes new contributions to the discourse on the future of the librarian, bringing new insights and, of course, new questions. It was clear from a number of our survey responses that some of the terms and concepts around this idea of the library 'in the life of the user' were not universally understood. It was also clear that some underlying assumptions – for example that Google Scholar is an inevitable part of the patron's workflow – were not universally accepted. At a general level, we therefore hope that this report contributes to amplifying and continuing a conversation which is clearly still in its infancy.

Finally, I would commend one key takeaway from this report: that library transformation is an *opportunity* for librarians. The report identifies a knowledge gap between librarians and patrons, in terms of patrons often not understanding the full reach of librarian support available to them. It also suggests some disconnect between the activities librarians prioritize versus the needs of their patrons. However, patrons are resoundingly appreciative of their librarians and consider their contribution impactful to their academic success. In other words, there is both emotional good-will, patron to librarian, and a recognition of librarian importance. Fertile ground in which librarians can make bold innovations for the next generation of the library.

## Matthew Hayes

MANAGING DIRECTOR, TECHNOLOGY FROM SAGE

## About this report

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# Executive summary

*Librarian Futures* supports our understanding of librarian-patron engagement, examining what librarians and patrons currently think and do and posing some ideas for the future.

We worked from a number of data sources:

- A survey of approximately 4,000 librarians and library patrons
- Interviews with librarians and library stakeholders
- Third party contributions from OpenAthens, Springshare and scite
- Student studies conducted at Pearson College London on behalf of Lean Library
- Lean Library data on patron workflows
- Reports conducted by Sage Publishing

The report focuses on the academic librarian and is primarily rooted in a North American and European perspective (given the demographic of our survey responses). The report is split into two halves.

Part I of the report looks at librarian-patron engagement **Today**. We look at librarian-patron activity, examining librarian and patron perspectives and identifying a disconnect between activities prioritized versus activities desired, as well as a mutual knowledge gap. We then look at appreciation, examining how librarians are appreciated by their patrons, as well as patron perspectives on the impact of the librarian on their academic success.

Part II of the report attempts to peer into the **Future** of librarian-patron interactions. We examine patron survey responses on their needs, identifying areas of new or enhanced librarian support. We then pose some 'innovation provocations', gauging librarian and patron

perspectives on possible future directions. Finally, we suggest some conclusions on the future of the librarian, including changes to the ways in which librarian-patron services are delivered, the need for improved mutual understanding and shared language, and, finally, an alignment between service provision and patron needs.

Three findings are particularly striking.

The first is a knowledge gap: from patrons, of the full extent of librarian support available to them; from librarians, of the emerging needs of their patrons and the new or enhanced areas of service provision these suggest. This knowledge gap may well be contributing to perceptions of the diminishing centrality of the librarian to the patron experience.

The second key finding relates to the patron's discovery workflow, which now begins outside the library. 79% of faculty and 74% of students now begin their discovery process outside the library. However, subsequent patron use, and appreciation for, library services, resources and the librarian remains high, suggesting scope for even further use and impact if librarians can embed themselves further in patron workflows outside the library.

This leads to the third key finding, which is the fundamental and enduring affinity patrons hold for their librarians. This was evidenced in survey responses on librarian appreciation and impact, but clearest still in patron demand and support for their librarians to be embedded in their workflows. Contrary to any notions that patrons 'just want to be left alone', 88% of patrons would install an application for their library that sits within their workflow, deploying relevant services, resources or expertise as and when needed.

Other findings include:

1. Libraries appear to be investing comparatively less in digital tools, in time or money, than indicated by patron demand. Student interest in digital tools is particularly pronounced, and centered on new technologies that streamline the patron experience, such as lecture capture technology. These patrons are also most likely to face economic challenges in accessing these tools, suggesting a role for the library in provision and the librarian in selection, training and promotion.
2. UK patrons are significantly less likely to use the full range of library services and resources, including librarian support, than their counterparts in other countries.
3. Librarians are consulted regularly by a smaller proportion of patrons than other sources of information such as peers, news and media and faculty, and student patrons consult Wikipedia as often as their librarian.
4. Librarians are highly appreciated by their patrons, significantly more so than librarians anticipated. 84% of faculty patrons appreciate librarians' 'a lot' or 'a great deal'.
5. Patron preferences for library communication align with those in the wider consumer landscape, with preferences for self-service support 'at the point of need', with 1:1 interactions reserved for higher level queries. 55% of students and 60% of faculty favor receiving information about library services or resources in this way. Enhancing discoverability of librarian guidance and embedding it at the point of need would meet these preferences and enable librarians to focus their efforts on high-quality, high-stakes patron interventions.
6. Patron needs are evolving and present areas for new and enhanced librarian support. Examples include librarians

helping to promote faculty research, with 54% of faculty patrons considering publication essential to their success and yet only 21% considering the promotion of this research core to their activity.

7. Despite the centrality of literature search to patron activity, only 36% of patrons consider 'content evaluation' an important skill. In an era marked by disinformation and information surfeit, screening the content patrons use for learning and research should be more important than ever—and is a core librarian competency. Librarians can play a crucial role in this area.
8. Librarians have shown extraordinary resilience with regard to the pandemic, both responding effectively in the moment and generally maintaining their optimism for the long-term. 61% are optimistic about the future of the library, despite the challenges we know libraries are dealing with in pandemic-related budgetary cuts and work pressures.

Looking to the future, both librarians and patrons were highly enthusiastic about various potential innovations that could bring librarian expertise and library services and resources into digital workflows, at the point of need. 82% of librarians would 'definitely' or 'probably' provide their patrons with a library application that sits within patron workflows and deploys relevant services, resources or expertise as and when needed. An even higher number of patrons – 88% – would 'definitely' or 'probably' install and use this application. Patrons are clearly comfortable with the idea of librarians in their workflow, contrary to some perspectives that may see this as disruptive or an irritant.

## Workflow is indeed the new content for librarians.

DEMPSEY, 2016B

# Introduction

## The future of the librarian: a mission under transformation

In the academic library, the focus of this study, the role of the librarian is at first glance clear and uncontentious. They are there to support the library in advancing the learning outcomes and research impact of the university. Yet this does not do credit to the rich heritage of librarianship and its vocational, mission-driven aspects, from acting as custodians of knowledge to agents of change, breaking down barriers to knowledge. Librarians have long acted as both instruments of, and contributors to, university and library policy. This confidence in the role of the librarian as leader, key protagonists in determining the future of their own role, has emerged from the responses and interviews that make up this report and guides the narrative which follows.

In recent years, the library sector has seen considerable change, with disruptions in technology, changes in resource availability, and the impact of digitization on all areas of education and learning. In meeting these changes and challenges, we argue that the future role of the librarian will be as diverse as its present and past, reflecting the ways in which librarians both determine their roles and are beholden to internal stakeholders and external forces. We echo Pinfield et al's 2017 report on the future of academic libraries: just as there can be no single future for the library, diverse as libraries are, there is not one future for the librarian but several futures. We also argue that confidence in the role of the librarian as leader is more essential than ever before. Concern over the continued relevance of librarians, in the networked digital age, cannot be avoided but must be addressed head-on with leadership and conviction.

## Are librarians and libraries still relevant in the increasingly digital information landscape and who needs libraries when you have so much online?

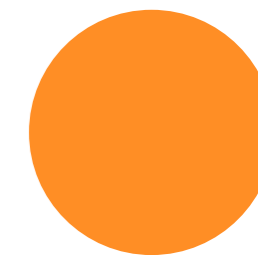
WEAVER & APPLETON, 2020, XXI

Yes they are still relevant, and yes they will continue to be. With the digital era's current pace of change, and the change yet to come, patrons will need their librarian more than ever before. To ensure librarians are prepared to meet the scale of this challenge, this report argues for a reengagement with the mission of the librarian, their daily work and how this is delivered to patrons.

## Fig. 1a. Top 10 countries by number of institutions

3062 librarians and patrons surveyed across 1362 institutions and 99 countries.

United States  
628



United Kingdom  
219



Canada  
77



Australia  
56



India  
23



Turkey  
18



Ireland  
17



South Africa  
17



Spain  
14



Italy  
13



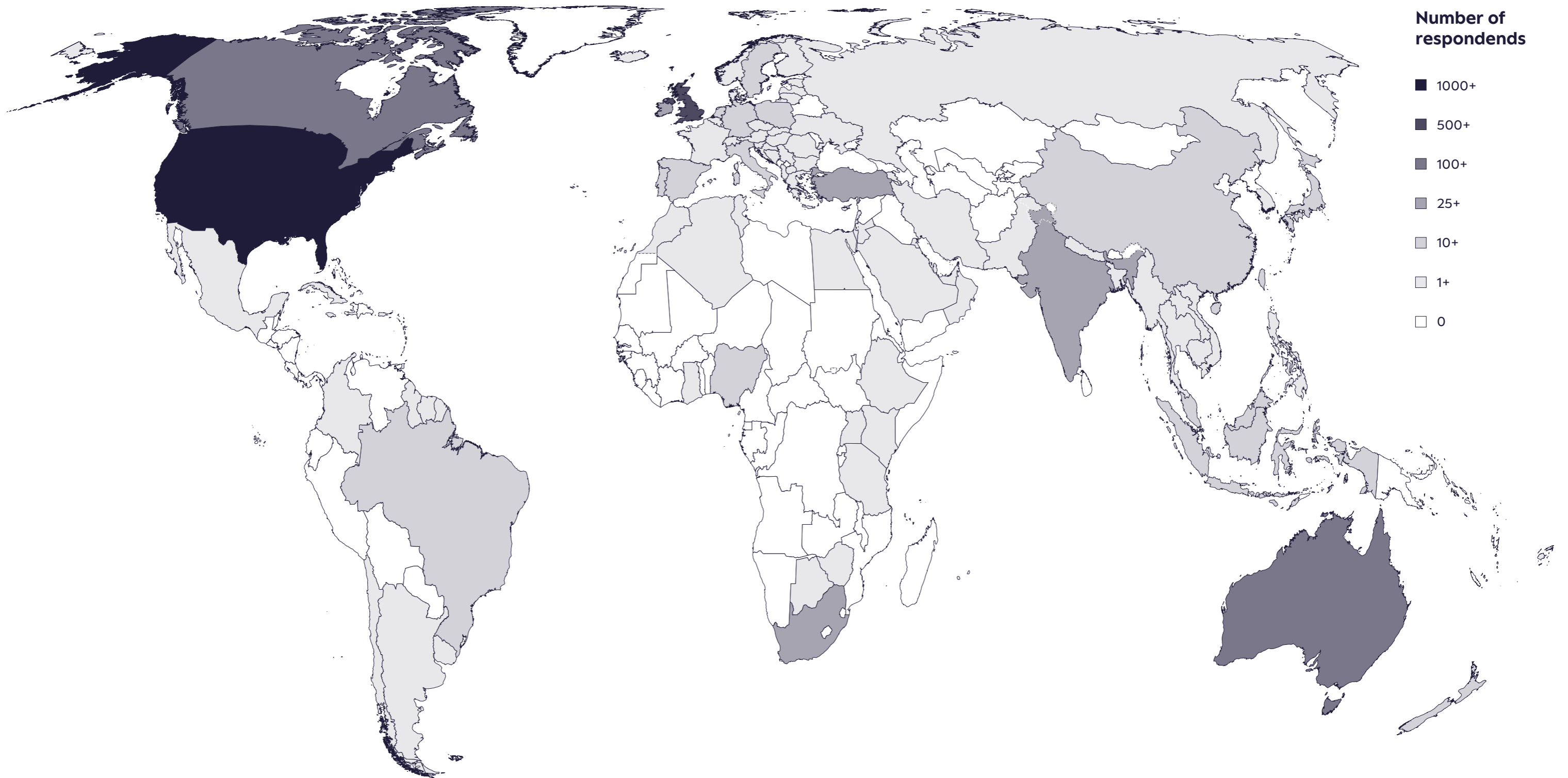
## The business of an academic library is to support the education and research mission of its parent institution.

EVANS & SCHONFELD, 2020, 7



**Fig. 1b. 3062 librarians and patrons surveyed across 1362 institutions and 99 countries.**

These figures count only respondents that chose to identify their region and/or institution.



# Part One Today

# 01 How are librarians serving their patrons today?

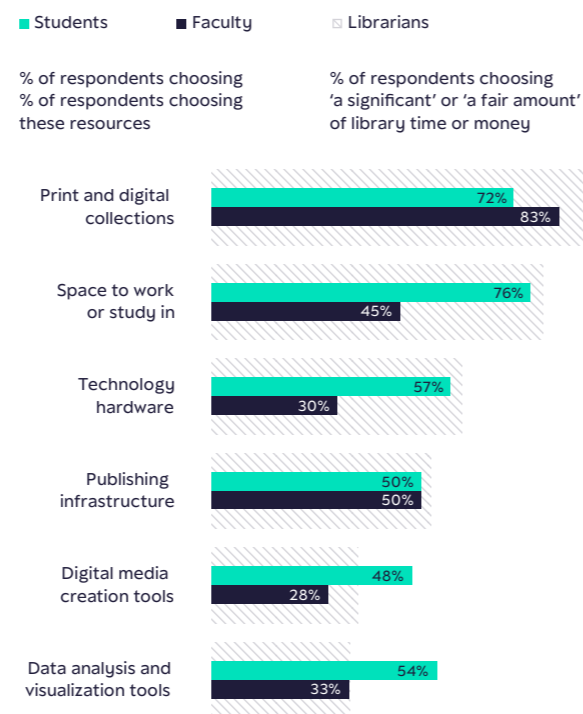
## What library resources do patrons use and what resources do librarians prioritize for investment?

Contrasting patron use of library resources with library investment in those resources revealed that the library was, broadly, investing in the areas most used by patrons.

We mapped where librarians said their library invested 'a significant' or 'a fair amount' with where patrons said they used a library resource 'often' or 'sometimes'. As might have been expected, the collection loomed large – even larger for the library's investment levels than among patron use. 92% of librarians said their library spent a 'significant' or 'fair' amount of time or money on the collection, while a proportionately smaller 72% of student patrons said they used the collection 'often' or 'sometimes'.

A notable divergence appeared to be in the areas of digital tools, whether for digital media creation, or data analysis and visualization, with the library investing comparatively less here than indicated by student use. For example, a majority of student patrons (54%) said they used data analysis and visualization tools 'often' or 'sometimes', while a relative minority of librarians (33%) said their

Fig. 2. Patron Use versus Library Investment in Library Resources<sup>1</sup>



<sup>1</sup> Patrons were asked 'When you need the following, how often do you use the available resources from your library? Often/Sometimes/Never/Not Available/Not relevant/No response. Librarians were asked, 'Over the past 5 years, how much (time or money) has your library invested in providing the following resources? A significant/A fair amount/A little/None at all/No response

library invested a 'significant' or 'fair' amount of time or money on these. Could the library afford to shift some of its focus into digital tools, such as these and other emerging areas? The responses indicate sufficient demand from students.

Alongside our own large-scale survey of librarians and patrons, Lean Library also worked with undergraduate students at the Pearson Business School in London to build our understanding of student patron needs and trends. Working with the school's faculty, Lean Library set two areas of research for a student consultancy module in their undergraduate BA Business Management program: student requirements for digital tools and student online behaviors. Two theses were particularly insightful. Dhaliwal examined student online behaviors, echoing our survey results to identify growing student appetite for digital tools, including new technologies that streamline the patron experience – such as lecture capture technology (2021, 14). Rubin examined student requirements, and identified the daunting economic challenge faced by many students in adopting digital tools: as many as 81% of students have financial worries throughout their education, with students only able to spend an estimated \$22 a year on course materials (2021, 13).

These findings, both from Lean Library's survey and the student research, suggest that librarians could play just as pivotal a role in the new frontiers of digital tools as they have in curating the collection. The library's spending power and negotiation capabilities could ensure equitable access to students of the tools they need to succeed. While core librarian competencies, such as research-based curation, training and education, make librarians uniquely well-placed to advise their patrons on the most effective, and the most up-to-date, tools for their learning and research.

Two other findings were of note in the responses to this question:

1. We found that first-generation students who responded to our survey consistently reported lower usage frequencies for various library resources and services including library space to work and study in, library print and digital collections. Given the benefit first-generations stand to receive from library support, we suggest that librarians should do more targeted outreach to support first-generation student success.
2. While UK and US students report using the library's services and resources at an overall similar frequency, US students reported using specific services and resources more frequently than UK students, including librarian reference meetings, technology hardware and software, library collections, and library events and programming. This tallies with other findings that indicate UK students are also less likely to use librarian support than their US counterparts.





## Breaking down barriers to knowledge: reminders of unfinished business

The librarian mission of breaking down barriers to knowledge remains unfinished business, with librarians all over the world working to affect change. Where the task is incomplete, the consequences range from the inconvenient to the dramatic. Here is one dramatic reminder of the work still to be done.

## I found out my research was done ten years ago.

John\* is originally from Nigeria and is currently studying in Malaysia for his PhD. He recently spoke about his difficulties in accessing relevant content and the painful consequences for his research in a study commissioned by OpenAthens.

'I wrote a research paper when I was studying for my master's degree in my country [Nigeria]. However, while trying to publish the article, I found out my research was done ten years ago. When I was doing my research and looking at the resources that were available to me, I didn't find this information. So by the time I sent my research to be published to journals, I was told there was

nothing new in my work. It's frustrating, and it made me feel like I've just wasted my time. I never managed to publish my article and I'm still tweaking it to see if I can give it some element of novelty.'

Many academics still struggle to discover and access the knowledge they need to succeed. The challenges are both structural (such as library budget constraints, journal subscription costs and the relative adoption of Open Access) and local, with this disheartening example highlighting the work needed to connect patrons to well-trained and well-resourced librarians.

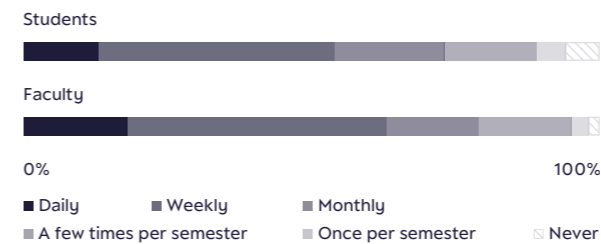


→ Extract from an upcoming OpenAthens report on global library user experience. The report aims to shine a light on themes such as lack of access to resources, research gaps and library user experience. It will launch in early 2022. Sign-up is available at: <https://www.openathens.net/report-launch/>

\* The interviewee's name has been changed for privacy purposes.

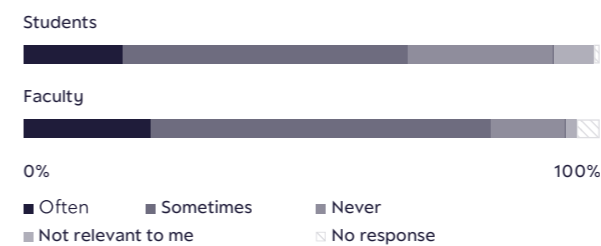
## Support patrons receive from librarians

Fig. 3. Frequency with which patrons use library services and resources<sup>1</sup>



We asked patrons how often they used library services and resources. The results were a striking validation of the library's continued importance, proving that it remains a pivotal part of the patron experience, with 54% and 63% of students and faculty using its services or resources on a daily or weekly basis.

Fig. 4. Frequency with which patrons use librarians for their academic work<sup>2</sup>



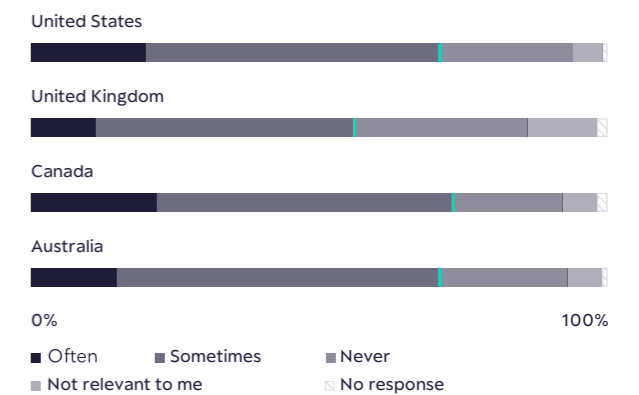
Turning to librarians themselves, it was clear that librarians are also often used to support academic work, with 66% of students and 81% of faculty stating that they 'Often' or 'Sometimes' used librarians as a source of information for their academic work.

<sup>1</sup> Taken from survey question to patrons, 'During a typical semester/term, how often do you use library services and resources?'

<sup>2</sup> Extrapolated from survey question to patrons, 'How often do you use the following sources of information for your (teaching), learning, and research?'

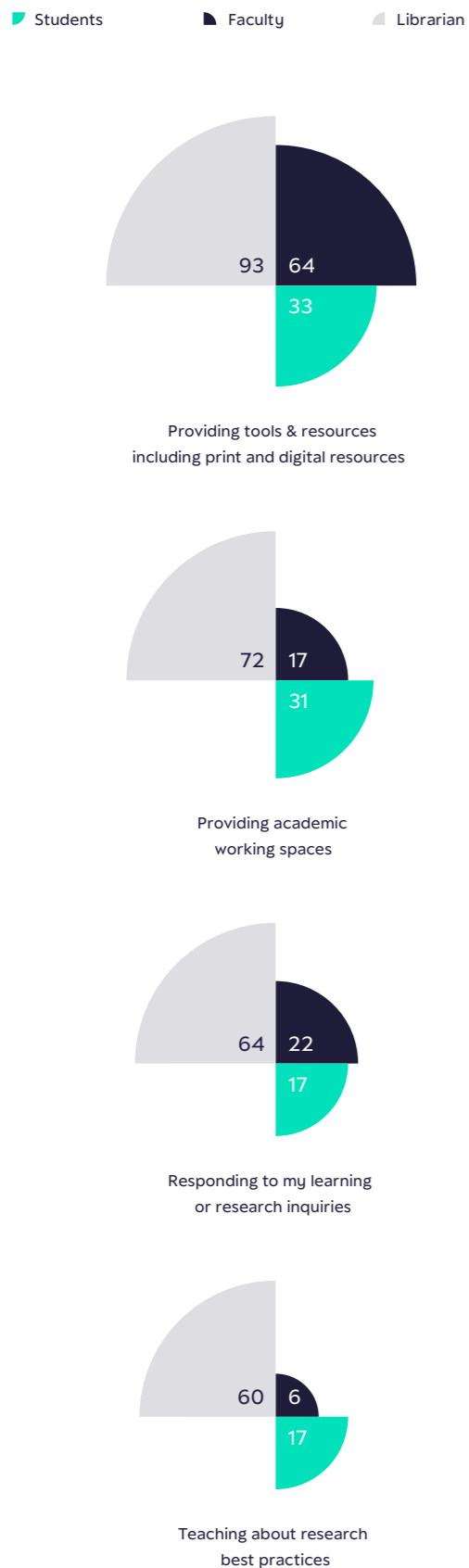
<sup>3</sup> Extrapolated from survey question to patrons, 'How often do you use the following sources of information for your (teaching), learning, and research?'

Fig. 5. UK students are less likely to use the librarian than those from the US, Canada and Australia<sup>3</sup>



However, there was a notable national variance in librarian use by patrons, something that we would like to explore further in future reports. The survey results indicated that UK students were less likely to use librarian help for their learning than those in other countries. 42% of respondents from the UK said they would 'never' use a librarian or deemed this 'not relevant to me', compared to just 28%, 25% and 28% of respondents from the United States, Canada and Australia.

Fig. 6. Areas where the library provides 'Major' support<sup>1</sup>

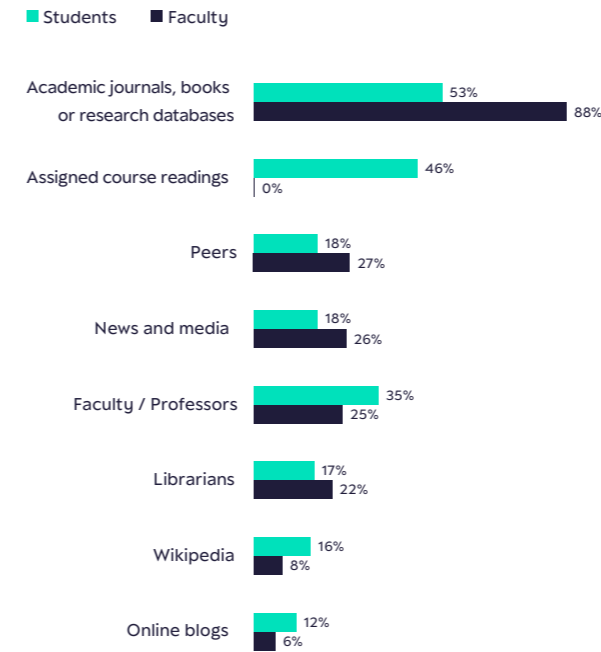


When asked 'Does your library play a major or minor role supporting your research and academic needs in the following areas?' only 33% of students considered the provision of resources and tools as a major support to their academic needs, compared to 93% of librarians. This is surprising, given the high levels of student use of library resources seen earlier. It is one of several data points in our survey results indicating both a knowledge gap and a disconnect between librarians and their patrons. As will be seen later, at a general level there is a shared appreciation among all patrons of the impact libraries have on their academic success. Yet when probed further, there appears to be a knowledge gap on what exactly libraries and librarians are contributing or could contribute. With regard to the provision of resources, one wonders whether student patrons fully appreciate how many of the resources they use were ultimately provided by the library, or how impactful these are to their academic success.

In other areas, such as best practices in research, faculty and student patrons share a relatively low assessment of the support librarians provide with only 17% and 6% rating library teaching about research best practices as of 'major' support to them. This contrasts with 60% of librarians considering the library as offering 'major' support in this area. This suggests either a disconnect, a knowledge gap, or both. A disconnect, in that maybe the nature of the teaching on research best practices does not tally with patron needs. A knowledge gap, in that maybe patrons are insufficiently aware of the teaching available to them.

<sup>1</sup> Patron responses to the question, 'Does the/your library play a major or minor role supporting your research and academic needs in the following areas?' Major/Moderate/Minor/None/Not relevant/No Response

Fig. 7. Sources of information 'Often' used by patrons<sup>2</sup>



When contrasting the use of librarians by patrons with other sources of information available to them it is notable that librarians are not consulted more often. Librarians are used 'Often' by a smaller proportion of patrons than other sources of information such as peers, news and media and faculty. **Most striking is that the same proportion of students use the librarian 'often' as do Wikipedia.**

This datapoint may provide an answer to the surprisingly low importance student patrons ascribed to library resources and tools in the context of their academic success (only 33% considered their library's contribution in this area playing a 'major' role in supporting their needs). For student patrons, are library resources seen as one part of a bigger universe of resources they draw on – such as Wikipedia?

<sup>2</sup> Patron responses to the question, 'How often do you use the following sources of information for your (teaching), learning, and research?'

In a study of Wikipedia use in higher education, Head and Eisenberg observed:

'Far more students, than not, used Wikipedia...reasons for using Wikipedia were diverse: Wikipedia provided students with a summary about a topic, the meaning of related terms, and also got students started on their research and offered a usable interface.' (2010, 10)

As digital natives, we can expect student patrons to be inevitably drawn to easy-to-use and open resources like Wikipedia that save them time. This presents a key area of modern patron behavior that could benefit from core librarian competencies in information literacy. Suggestions for ways in which librarians might provide that information literacy 'at the point of need' – i.e. within Wikipedia itself – are outlined in the 'innovation provocations' in Part II. But these are not the only ways to support patron use of Wikipedia, as many progressive library onboarding programs (which position Wikipedia as one of several resources encouraged for use) evidence.

## Librarians who become skilled Wikipedians will maintain the centrality of librarianship to knowledge management in the 21st century.

MCCOOK, 2014, 1

## A knowledge gap and a disconnect

As Pinfield et al. found in their 2017 survey of UK library staff, 'there is disagreement about what a library is and does', with non-library-based stakeholders often 'thinking of the library in very traditional ways' (7). This resonated with the survey findings outlined above, with most patrons being either unaware of the full extent of library services, or simply not using them – what we have called 'a knowledge gap'.

The survey findings also reveal areas of misalignment, 'a disconnect', between the support and resources prioritized by the library in relation to the areas most appreciated by patrons. This tallies with a 2019 Ithaka survey that found only 35% of respondents strongly agreed that 'my library has a well-developed strategy to meet changing user needs and research habits' (Frederick & Wolff-Eisenberg, 44). It is important to stress that the misalignment identified in our survey result was only in a few areas, but it is significant. For example, the evidence that patrons visit Wikipedia as much as they use their librarian poses the question, why? With the innovations now available to us, can librarian support not become as just as 'convenient' as Wikipedia? And if patrons continue to default to resources outside the library domain, is it not mission critical for librarians to find ways to be present there, confident that patrons will be the better for it and that what librarians have to offer will make a material impact on their academic success?

Returning to Pinfield et al.'s 2017 survey, we found one data point particularly thought provoking on this issue. 48% of survey respondents agreed with the statement that in 10 years' time 'librarians will work within other departments', and concluded that 'libraries need to work out how they can stake a claim on developing services in new areas and equally how they can best assert why they (rather than any other department) should carry on providing existing services'.

**N. C. State University Libraries focus on having a “strategic alignment of resources to advance the capacity of our researchers and partners”**

NICKELS & DAVIS, 2020, 1

**Libraries are not yet being seen by their universities as service providers for patrons – there is still this old-fashioned view of collections and books on shelves.**

KAT MCGRATH, RENEWALS & COLLECTIONS LIBRARIAN, TECHNICAL SERVICES, UNIVERSITY OF BRITISH COLUMBIA



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**As a faculty, the library is very important, and I believe that [librarians] care about helping us and our students succeed. As a newer faculty, I don't know what services are available. A lot of things in the [survey] questions I thought, "That's an option? How do I go about getting that information?"**

ANONYMOUS FACULTY  
SURVEY RESPONDENT

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**At our institution, the librarian has become invisible... I'm teaching a "capstone" subject for Master's degree students – despite telling them when they began their studies to "see the librarian", we're finding that this is the first time they've contacted the librarian – at the end of a 2 year degree. The library could and should be pivotal.**

ANONYMOUS FACULTY  
SURVEY RESPONDENT

# 02 How are librarians valued today?

## How resources and the library are currently valued

Fig. 8. Overall satisfaction with Library Services and Support<sup>1</sup>



Turning from librarian-patron activities, our survey then looked at how libraries and librarians are valued, both in terms of appreciation and perceived impact on patron success.

We found high satisfaction levels with the library as a whole. 43% of students and 55% of faculty were 'very satisfied' by library services and support. Those numbers increase to 82% and 86% respectively when adding those that were 'somewhat satisfied'. Students and faculty at research universities were noticeably more satisfied with their library services and support than those outside research universities. Patrons, especially faculty, at research universities depend on and appreciate the library more than those at low or no

research institutions. This observation underscores the challenge for libraries at low or no research institutions in engaging their patrons and demonstrating their value on campus.

<sup>3</sup> Patron survey respondents were asked, 'Overall, how satisfied are you with the services and support provided by your college or university library?'

Fig. 9. Overall satisfaction with Library Services & Support<sup>2</sup>



Exploring this satisfaction further, we then asked patrons to rate their library services in areas of user experience, ease of access and more. Library services were generally rated highly across all these areas of ease of access, discovery, accessibility and responsiveness.

One area that appears to merit closer examination is the library's 'responsiveness to new content requests'. While this is still a positive rating, it received the lowest score from student patrons, with supporting comments suggesting some frustration on this issue. It was also notable that patron perceptions of accessibility ('equitable access to persons with disabilities') were higher than librarians. This could indicate that librarians underestimate their own achievements in this area. However, it is our view that this is more likely to be because librarians are more aware than their patrons of the full scope of 'equitable access', what this means, and where their library falls short – if even for a minority of their patrons. This is a strong

vindication of the vocational, mission-driven aspect to librarianship touched on in the introduction, and argues for the continued vital and unique contribution of librarians, whatever the future holds. As champions for the equitable distribution of knowledge, librarians are able to look beyond metric-driven success in learning outcomes and research discovery at an institutional level and really focus on supporting each individual patron, with all the implications that holds for library service provision and delivery.

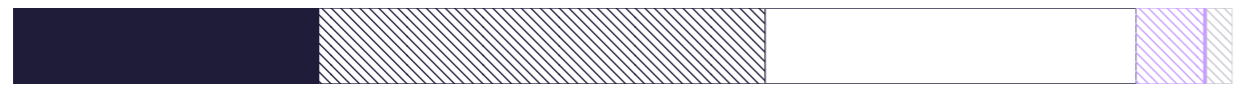
<sup>2</sup> Patron survey respondents were asked 'How well do you think the following statements describe your library?'

## How librarians are valued

Fig. 10. How are librarians appreciated by their patrons?

### Faculty and Other University Staff appreciation of librarians

#### Librarians perceptions



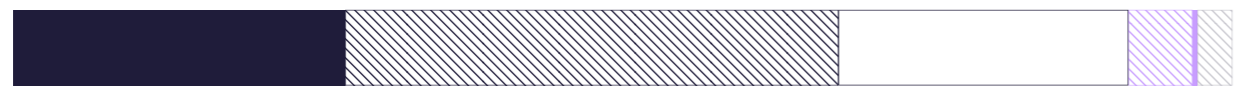
#### Faculty self-reported



0% 100%

### Student appreciation of librarians

#### Librarians perceptions



#### Students self-reported



0% 100%

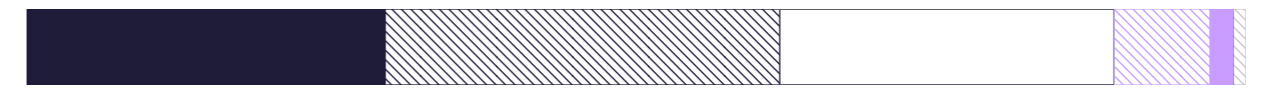
■ A great deal    ▨ A lot    □ A moderate amount    ▩ A little    ■ Not at all    ▨ No response

We found librarians to be highly appreciated by their patrons, significantly more so than librarians anticipated. 84% of faculty patrons appreciate librarians' 'a lot' or 'a great deal', while librarians assumed this would be 62%. 64% of students also appreciate librarians 'a lot' or 'a great deal'.

4 Patron survey respondents were asked, 'How much do the following groups appreciate librarians' contributions to your institution's academic community?' Librarians were asked, 'How much do you personally appreciate librarians' contributions to your institution's academic community?'

Fig. 11. Importance of the library to patron success<sup>2</sup>

### Students



### Faculty



0% 100%

■ Extremely important    ▨ Very important    □ Somewhat important  
 ▩ Not so important    ■ Not at all important    ▨ No response

We then looked at the library's impact on patron success, to go beyond appreciation and look at outcomes. 81% of faculty considered the library 'extremely important' or 'very important' to their success, with 63% of students saying the same. Those considering the library not so important or not important at all were significantly in the minority.

5 Patron survey respondents were asked, 'How important is your college or university library to helping you succeed?'



# Part Two

# The Future

# 03 What are patrons' needs today and how are these evolving?

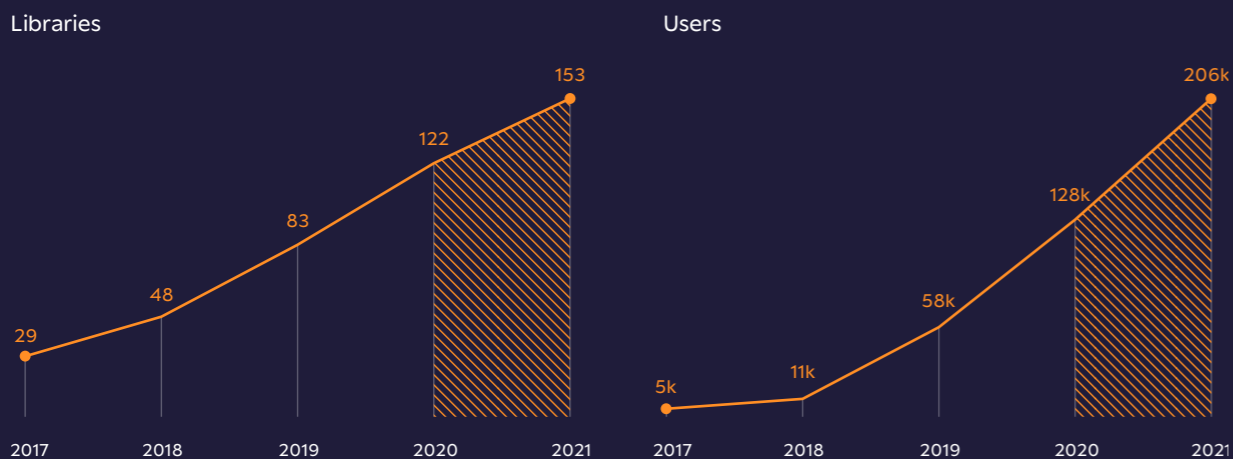
When the pandemic took hold in 2020, Lean Library had around 100,000 users tapping into our browser plugin. Come 2021 and our users had doubled to 200,000. Our experience is in line with community-wide feedback on the use of digital and cloud-based materials by libraries, where the pandemic has accelerated library and patron adoption (see Pool, 2021).

'Libraries do much more than many of our stakeholders realize – I don't think people outside the library quite realized how progressive libraries are in terms of digital until the pandemic hit.' – Andrew Barker, Director of Library Services, Lancaster University.

**[As a result of the shift to remote working] patrons won't visit us as much as they used to. We'll need to bring our services to them.**

COX, 2020

Fig. 12. COVID as an accelerant for digital adoption in libraries?



Source: Lean Library data on libraries and patrons using the Lean Library browser extension.

## How are librarians adjusting to the 'new normal'? A report from the US



As Senior Market Research Analyst at Sage, I speak regularly to our global Librarian Advisory Boards. These include librarians from all over the world, but this report relates particularly to our four boards in the United States.

As of July and August 2021, it was clear that librarians had mixed feelings circulating in their libraries. Several described the atmosphere as cautiously optimistic and emphasized their nervousness and excitement. There was clearly some dissonance, with both a lot to look forward to but still a great deal of hesitation.

By September 2021, Covid-19 cases were starting to increase and fueled a lingering sense of uncertainty among librarians. This uncertainty was especially acute for librarians in politically charged states in the US like Florida, Texas, and California. Regardless of location, all librarians I spoke to discussed Fall 2021 plans that include hybrid working and some fully opened libraries, though some reported intentions to backtrack, reintroducing some social-distancing measures as the Delta variant spreads. For some, other safety precautions like masking and vaccine mandate policies remained unclear. Despite these concerns, they still seemed refreshed from the periods of normalcy through

Summer 2021, though it's impossible to say how long that feeling will last into the Fall.

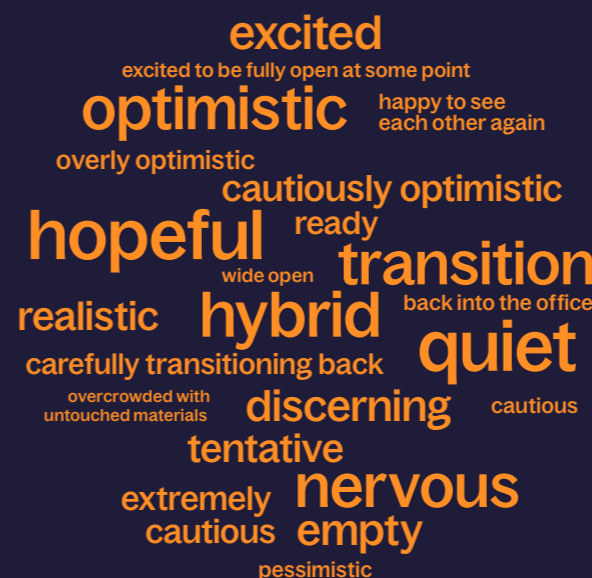
Librarians remain convinced that digital will dominate following the accelerated transition to digital resources and services since March 2020. It appears to be broadly seen as a positive development for librarians and patrons, accepted among even some of the more reluctant (usually humanities) faculty. Patrons and librarians appear to now both agree: digital resources and services are easy to access and are convenient.

In general, there was a definite feeling of uncertainty among librarians again this summer, but not nearly as dire or existential as I recall from the same conversations in summer 2020. Librarians are now more equipped and see this as a crisis to endure, not a fundamental threat to their existence. However, many librarians are clearly still not recovered enough to think strategically. They're still focused on keeping up with their day-to-day tasks and getting through another transitional period. They're not sure what's next but are prepared to be nimble.

**Rebekah Shaw**

SENIOR MARKET RESEARCH ANALYST,  
SAGE PUBLISHING GROUP

Fig. 13. US librarian sentiment re COVID

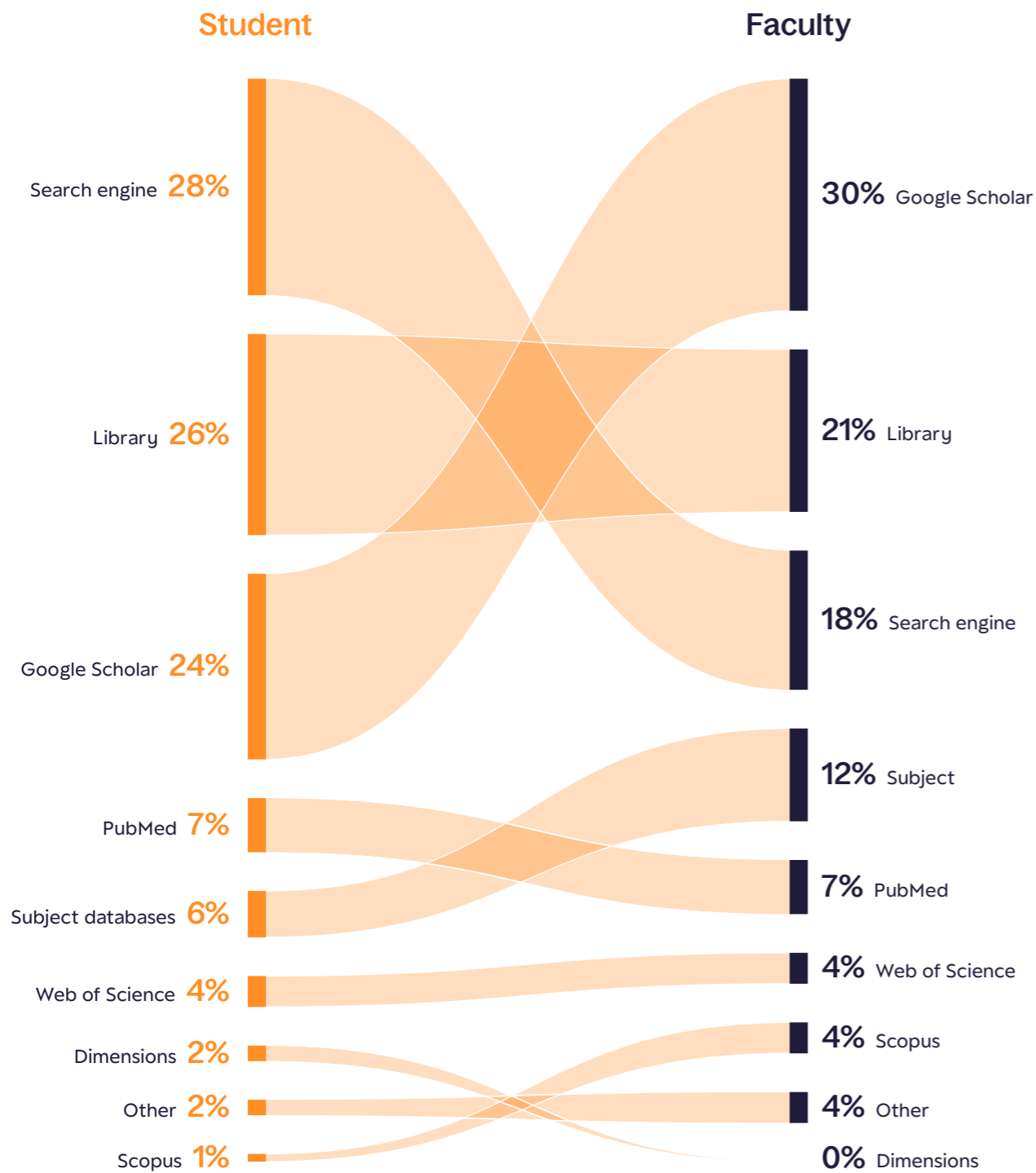




## Where do patrons begin their discovery process?

We asked patrons where they currently begin their discovery process. 79% of faculty and 74% of students now begin their discovery process outside the library. This will not be a surprising finding for many and resonates with previous reports. A 2020 study from Evans and Schonfeld, for example, looked at discovery

workflows for patrons in the OhioLINK network of 117 libraries: they found that only 6% of patron discovery began at the library (15). The dominance of open search tools in this discovery process was also unsurprising: with 48% of faculty and 52% of students in our survey saying that they begin discovery here.



## The platform is not user friendly and it is quite often easier to go to Google to find a journal and then copy and paste into the library.

ANONYMOUS FACULTY SURVEY RESPONDENT

These findings resonate with our own experience at Lean Library. Our plugin is used anonymously, but we are able to track total usage of all access points enabled by Lean Library and, as a subset of this, a feature enhancing Google Scholar search. Reviewing these datapoints can provide a good understanding of our users' discovery workflows.

Our Google Scholar search enhancement uses the plugin to overlay direct links against each search result to the PDF in the library's holdings. Since this feature uses our knowledge base, we log every time it is 'deployed'. (Something we also surface to libraries so they can see the relative use of different features). Usage of this feature is therefore a helpful indication of how often users start their discovery workflow on Google Scholar.

We also track every instance where access to content has been enabled by Lean Library – i.e. where we have helped route users directly to the PDF. This can be viewed as an effective proxy for the total number of discovery workflows. Presenting usage of our Google Scholar feature as a proportion of this total figure therefore gives us a good indication of how often users begin at Google Scholar.

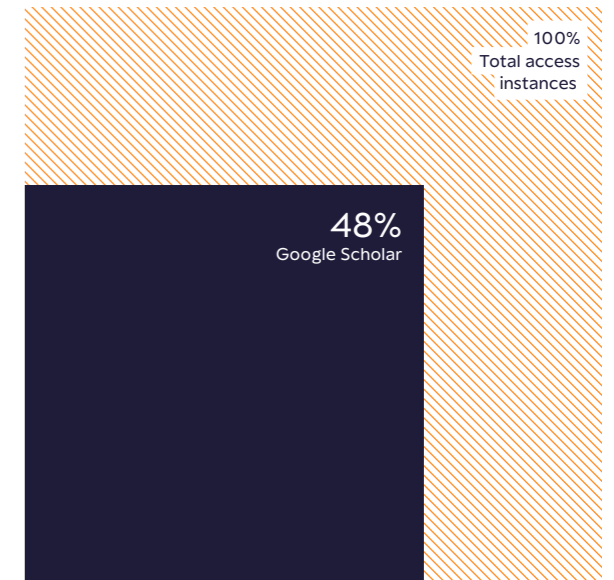


Fig. 15. % of Lean Library users beginning their discovery process on Google Scholar

Many librarians are unable to track their patrons' discovery workflows on a regular basis, since common access metrics like COUNTER are unable to identify where the patron began their 'access journey'. So while the popularity of Google Scholar and other discovery tools outside the library is no doubt well known by librarians, it remains insufficiently studied for insights into patron behavior and ideas this might pose for new types of, and delivery channels for, library service provision. Would some librarians, for example, view Google Scholar and open web tools as dominating the discovery workflow largely for students, with faculty continuing to privilege the library and other more 'traditional' sources? What is striking in our responses is that even more faculty patrons said they began their discovery process on Google Scholar than student patrons (30% versus 24%). The shift in workflows outside the library is clearly universal. We agree with Dempsey's observation that it is changes in research and learning behaviors such as this that most merit librarian scrutiny – more so than any new innovations in library technology (2012, 2013). It represents a fundamental shift in user behavior which should reorient the way libraries and librarians think about their roles.

**Library systems are often built for librarians not users. One of the main selling points for scihub is that you just type in what you want and you get it. Bad user experience blocks us from expanding the value we offer to patrons beyond content and the collection – if simply accessing content from the library is byzantine, this doesn't encourage you as a patron that these are the people to help you.**

ANONYMOUS FACULTY  
SURVEY RESPONDENT

**We need to bring best practices in user experience from the tech giants, not from any misguided notions that we can match their resources or scale, but because this is the user experience patrons are used to in their workflow.**

EMILY DALY, HEAD, ASSESSMENT  
& USER EXPERIENCE DEPARTMENT,  
DUKE UNIVERSITY

**Why would patrons begin their research outside of the library resources that are vetted and available?**

ANONYMOUS FACULTY  
SURVEY RESPONDENT

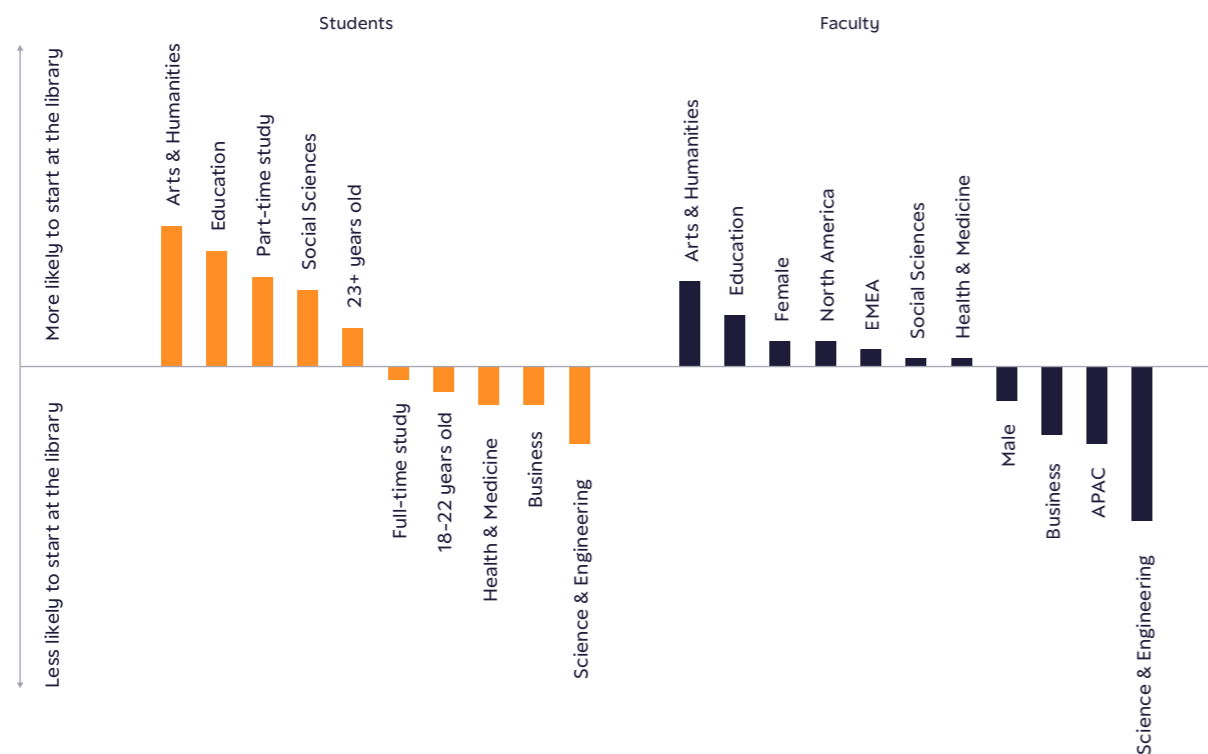


These findings, and insights from our librarian interviews, would appear to validate the idea that ease of access and intuitive user experience can be a stumbling block for patrons using library services, with such a clear majority of patrons eschewing the library as their starting point for discovery. However, in Part I we looked at the results of one survey question where librarians, faculty and students all scored the library highly on 'ease of access', with average scores of 3.9, 3.8 and 3.8 out of 5 respectively. How do we reconcile this relatively positive assessment with the clear real-world preferences to begin discovery outside the library? We would like to suggest that this is a key question for the coming years, especially in the light of Clarivate's recent acquisition of ProQuest. In bringing together Clarivate's discovery platform, Web of Science, with ExLibris' library discovery service, Primo, in many ways the acquisition reasserted the prominence of library-controlled discovery platforms in the years ahead. This was not lost on commentators, nor Clarivate and ProQuest themselves, with the official press release promoting the benefits of a future Primo/Web of Science consolidation:

**Enterprise software is the fastest growing library market segment... This acquisition will provide Clarivate with... The opportunity to deliver new campus-wide platforms to provide a unified source of knowledge discovery [authors' emphasis].**

EXLIBRIS, 2021

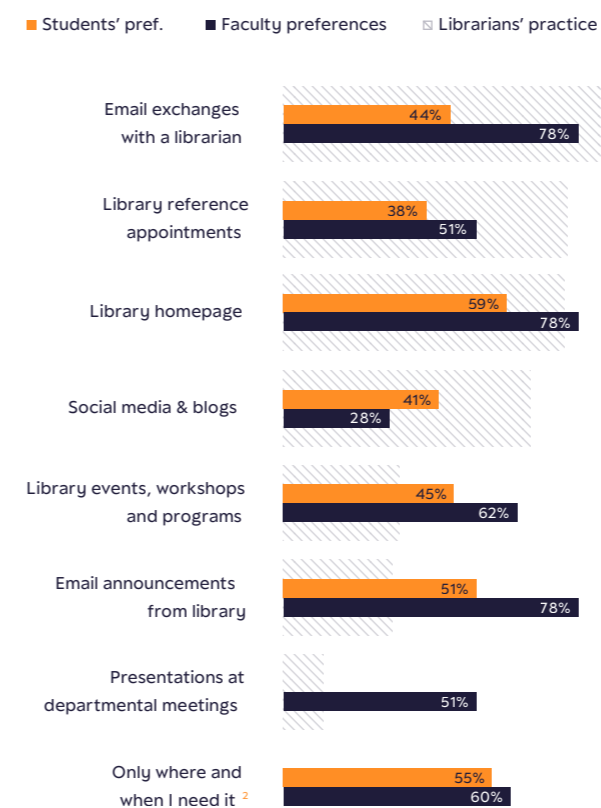
Fig. 16. Faculty and Students more or less likely to start at the library



Since usage of the Lean Library plugin is anonymous, we cannot dive further into discovery workflows with Lean Library statistics. However, we did use our survey to do this. We found that Arts & Humanities, Education and Social Sciences student and faculty patrons were more likely to start at the library than their colleagues in areas such as Health & Medicine, Business and Science & Engineering. This is a striking inversion of where librarians tend to prioritize budget, since we know that budget priority is often (but not always) given to the sciences and engineering over the social sciences and humanities (Davis, 2014). Other important trends in scholarly communications favor the sciences over the arts. Consider two of particular note: Open Access and new technologies.

With regard to Open Access, the sciences are arguably better placed in the move to Open Access, with structural advantages such as bigger funder budgets for APCs and greater urgency (and improved infrastructure and dissemination) in preprint deposits. In terms of new technologies, again the sciences tend to attract the most private sector investment, whether philanthropic or for-profit. There is an overall sense that there is 'more money' in the sciences. With these trends as a backdrop, it is perhaps unsurprising that patrons in the humanities, education, and social sciences are more inclined to start in the library. They suggest this will be true for some time to come. How might librarians adapt and enhance their offerings to meet this demand?

## How do patrons want to hear from their library?

Fig. 17. Library communication preferences vs communication practices<sup>1</sup>

The above chart compares where patrons 'somewhat' favor or 'strongly' favored a library communication practice, with where librarians deployed this practice 'weekly' or 'daily'. In contrasting patron communication preferences with library communication practices in this way, we found some notable variances. Faculty, for example, rate library presentations at departmental

<sup>1</sup> Patrons were asked, 'How do you prefer to receive information about services or resources from your library?' No relevant experience /Strongly oppose/ Somewhat oppose /Neutral/ Somewhat favor/ Strongly favor /No response.

Librarians were asked, 'How often does your library use the following methods to communicate with patrons?' Never/ Less often /Monthly /Weekly /Daily /No response

<sup>2</sup> Librarians were not provided this option, as it was considered potentially confusing alongside established communication practices. See Chapter 6's 'Innovation Provocations' however.

meetings highly (with 51% saying they 'somewhat' or 'strongly' favored this), but they are one of the lowest priorities among librarians (with only 10% saying they attended such presentations 'daily' or 'weekly'). It also appears there is greater room for regular email announcements from the library, with only 29% of librarians deploying these on a 'weekly' or 'daily' basis, but 78% of faculty and 51% of students 'strongly' or 'somewhat' favoring them. It also appears librarian communication practices tend to privilege individual email exchanges, while students and faculty indicate greater comfort with more generic email announcements.

Is there a wider disconnect here, between librarians privileging 1:1 engagements with their patrons, while patrons would be comfortable with more generic engagement? Certainly librarians also appear to rate individual reference appointments as more important than their patrons, with 75% using these 'weekly' or 'daily' but only 51% of faculty and 38% of students 'strongly' or 'somewhat' favoring these within their communication preferences. Our survey results did not support any firm conclusions on this idea of 1:1 engagement versus 1:many. But it would not be surprising if the preferences of library patrons aligned with the wider consumer landscape, where consumers now greatly prefer self-service support, including FAQs and general information, to 1:1 contact (Kulbytté, 2021). We do not see this as diminishing the importance of 1:1 librarian:patron engagement – far from it. To us this suggests that librarians would do well to capture as much of their service provision in a general information feed – providing direction, explanation and guidance in a self-service manner wherever possible – backed by confident, regular promotion to patrons. This would then focus 1:1 engagement with patrons into the most high value, complex areas, while potentially also freeing up more librarian time to effectively deliver this. This is not an overnight task, of course, but one that librarians are better placed than ever before to tackle given the new technologies available to them, from advances in CRMs to NLP mapping of knowledge bases and more.

We have lots of different instructional material to support our patrons. But this is not in one neat package oriented around user workflows – it’s stored in several places and relies on the user finding their way to the library. I want us to deliver our support at the point of need in ways which optimize discovery of pre-written guidance that will make our patrons lives easier. This will save me time – as the patron finds the guide I’ve written when they need it – but will also shift my patron interactions to higher level queries, which is where I really want to spend my time as a librarian – rather than constantly referring patrons back to the 1,2,3 guidance I’ve already written for them.

MATTHEW SMITH, ACADEMIC LIBRARIAN,  
UNIVERSITY OF EAST ANGLIA

Higher education is shifting because its core constituents – students – are starting to behave more like customers and are less forgiving of some of the inefficient and ineffective aspects of the academy not tailored for a strong customer experience.

ANONYMOUS STUDENT  
SURVEY RESPONDENT

## Library communication ‘at the point of need’

Much has been written in library discourse of the need for librarians to bring their services to patrons ‘at the point of need’. Nickels and Davies, for example, note the librarian’s ‘goal to make researchers aware of library services and resources at their point of need’ (2020, 6). To validate this idea, in asking patrons how they preferred to receive librarian communication, we also gave them the option of ‘only where and when I need it’. A striking 55% of students and 60% of faculty favor receiving information about library services or resources in this way.

We then asked librarians where their library currently offers patrons support ‘at the point of need’. Although these percentages are at first glance relatively high, with the majority of librarians saying that they offer library support on their discovery service, research databases, LMS and reading list system, we believe that the other findings in this report call for even more emphasis on these channels, given they are those the library is most likely to have influence over. Of course, the library may not have all of these platforms at its disposal, and there may be structural factors impeding an integration with the library, but wherever possible it is clear that librarians should endeavor to embed themselves where their users are.

<sup>1</sup> Librarians were asked ‘Which of the following are places where your library offers patrons support at the point of need? Check all that apply.’

Fig. 18. Patrons favor receiving library communication at the point of need

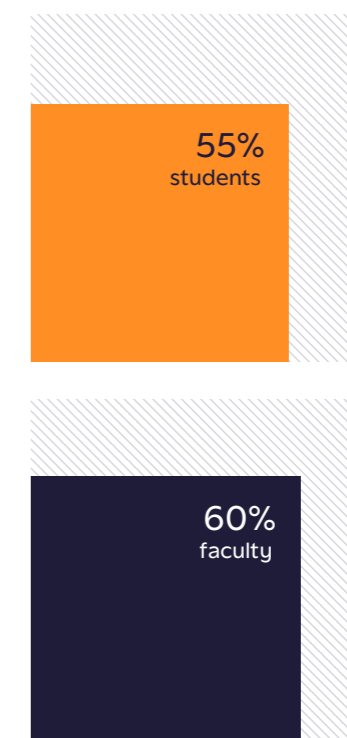
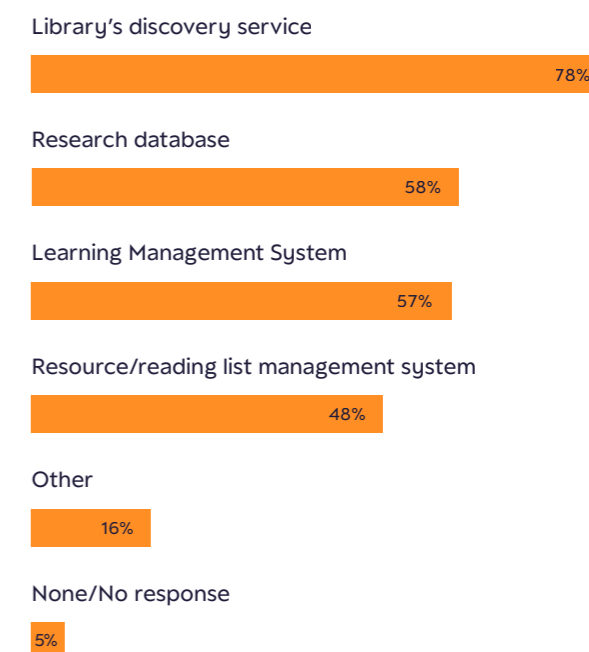


Fig. 19. Where librarians currently provide communication at the point of need<sup>1</sup>



## The breadth of librarian expertise and the merits of point-of-need delivery

springshare

Fig. 20. Diversity of librarian expertise, as indicated by LibGuides content.



As of October 2021, 223,000 LibGuides authors have published 845,000+ LibGuides in 5,700 institutions in over 100 countries around the world. We looked at a random subset of 4,000 LibGuides created by librarians from all different types of libraries (Academic, School, Public, Special, etc.). The figure above demonstrates the diverse scope of advice and insight these librarians provide their patrons.

They are a powerful illustration of the breadth, depth and sheer energy of librarian support to their patrons, covering everything from citation best practice to non-fiction writing, from resource guides to patron well-being tips. Our current favourite is 'Chocolate & Confections', or perhaps the enigmatically but mysteriously titled 'Your library can help with...' Well... *everything*, by all accounts!

Fig. 21. Point-of-need delivery of LibGuides sees high usage by patrons

32,725

times LibGuides are embedded in LMSs

47,977

times these LibGuides are accessed within LMSs every week

6,854

times these LibGuides are accessed within LMSs every day

Research study after research study has shown that providing library resources at the point-of-need provides a more effective and engaging learning experience (German, 2017; Baker, 2014; Little, 2010). Additionally, the most effective LibGuides are narrow in scope and relevant to the resource need at hand.

For an effective LibGuides service, each individual guide needs to be effective. Class guides are a good way to accomplish this through their narrow scope, content that is framed in the context of the learner, and the delivery of information and resources with learners at their point of need. (German, 2017)

To that end, we know that librarians often deploy their LibGuides directly within relevant Learning Management Systems (LMSs) to deliver effective point-of-need services targeting patrons of a specific course, assignment, or project. Our Learning Tools Interoperability (LTI) module helps librarians achieve these integrations, across LMSs like Blackboard, Moodle, Sakai, Canvas, Desire2Learn and others. Librarians can pick and choose which LibGuides display inside each individual course, for example deploying the Introduction to Accounting LibGuide inside of the Accounting 100 online classes. By providing targeted resources, users are far more likely to be engaged with library content and find the relevant resources to meet their needs.

## Assignment guides can be designed to address key learning theories to meet those goals and engage students more effectively in their own learning and provide that instruction at the student's point of need.

Point-of-need delivery like this sees particularly high usage. As of October 22, 2021, our LTI tool has been embedded 32,725 times inside of online courses. From October 10, 2021, to October 16 – the LTI tool was used a total of 47,977 times by students. This means that students interacted and engaged with relevant and point-of-need content inside of their online courses, on average, 6,854 times a day. By embedding library resources via LibGuides right inside their online course, librarians are reducing barriers and roadblocks to accessing high-quality and relevant resources. Students don't have to hunt around on the library website or scroll through long A-Z lists to find the right resource. Their cognitive load, the act of processing information before actual learning can occur, is reduced so real learning can occur more quickly and effectively (Little, 2010). Bottomline, the most effective interactions with library resources occur at the point-of-need, whether the user is inside their online course or browsing the world wide web. Delivering the right resource at the right time will yield a higher return on libraries' considerable investment of electronic resources and journals.

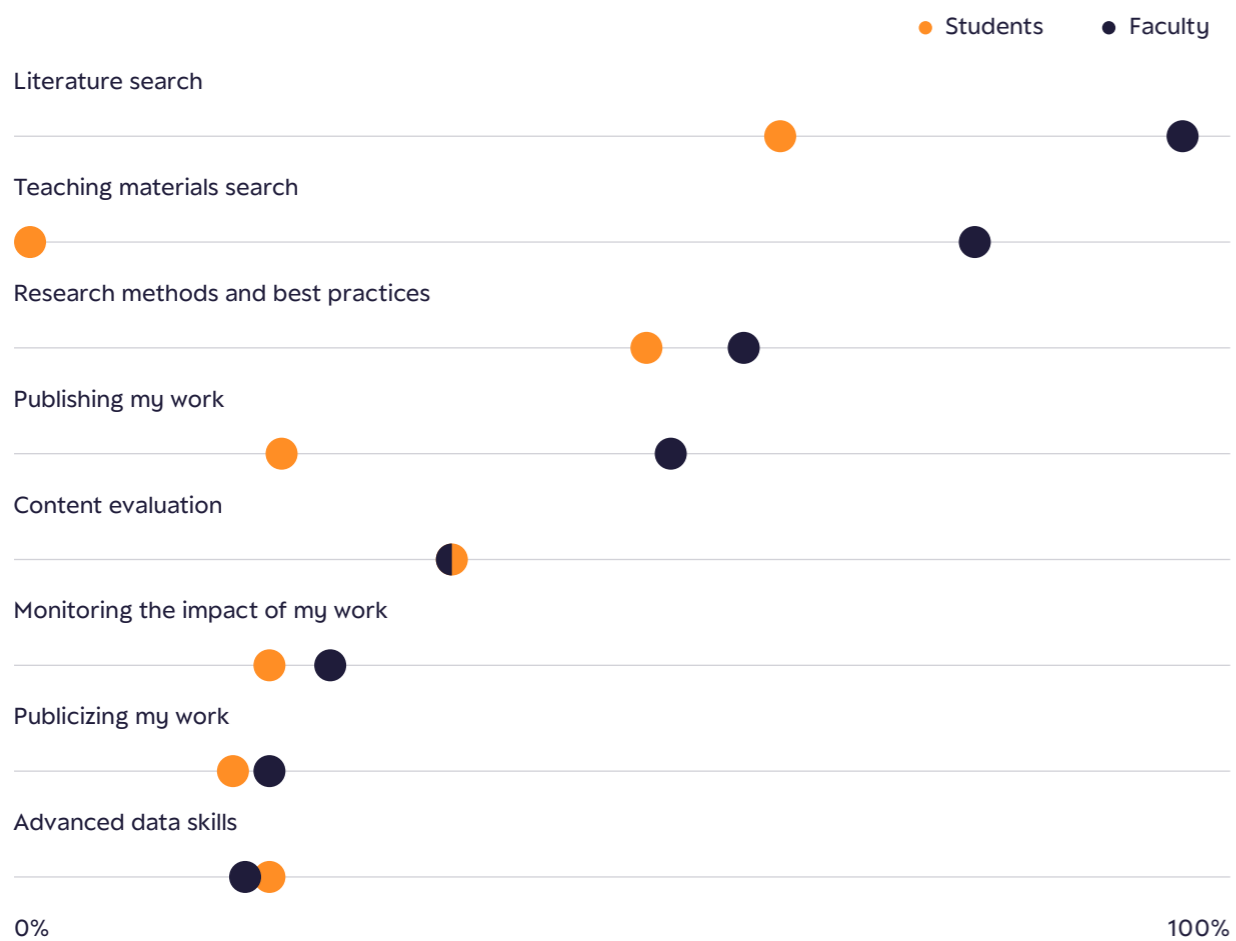
**Talia Richards**

MARKETING DIRECTOR, SPRINGSHARE

## How patrons' needs are evolving

In Part I, we looked at what the survey results said about librarian:patron interactions today, identifying some areas of misalignment and disconnect. But we also wanted to understand how patrons' needs were evolving and what, if any, new requirements they have which librarians might align their services with, to keep pace with changing needs.

Fig. 22. Skills patrons require<sup>1</sup>



<sup>1</sup> Patron survey respondents were asked 'What skills or activities are relevant to your learning and research activities? Please check all that apply.'

To begin this discussion, we asked patrons what skills or activities were most relevant to their current academic work. The findings are presented below. They identify a number of areas librarians might consider when expanding their service offering to patrons and maintaining their critical contribution to academic success.

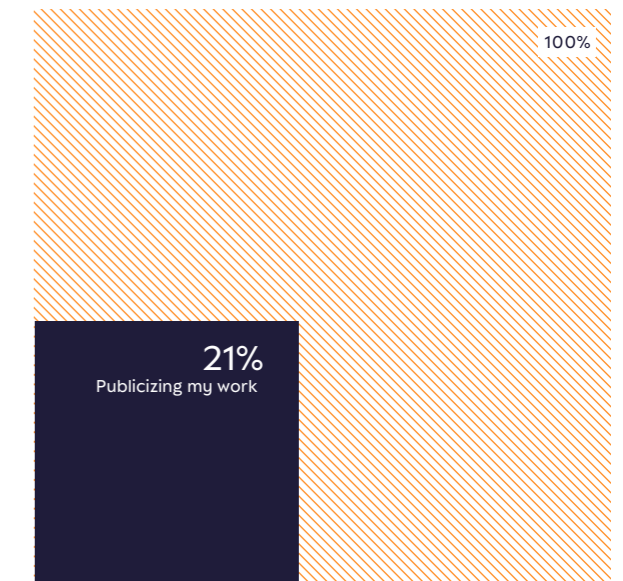
## 01 More support for publishing and career advancement

This area is of course most relevant to faculty patrons, 54% of whom said that 'publishing my work' was an important skill in their academic work. Supporting these patrons in publishing their work would clearly be a valued contribution from their librarian, in cases where librarians are not already doing this.

In framing just how far librarians should go in this theme, it is striking that just 21% of faculty felt 'publicizing my work' to be a, despite 54% of faculty indicating 'publishing my work' was a relevant skill. There is a sizable group within faculty, then, that are publishing their work but not promoting or publicizing it – an important skill not just for their progression but also for the university's research impact. A number of recent Sage Journal Author interviews highlighted the diverse perspectives among faculty on this topic, ranging from the disinterested ('I don't do twitter and don't ever want to'<sup>1</sup>) to the positively engaged ('Academic twitter [is] a big space today. If you're an academic and not on twitter, what are you doing?'<sup>2</sup>) and finally to the reluctantly accepting ('Colleagues that do use [ResearchGate, Mendeley, Kudos, etc.] are promoting themselves. It's beneficial for their career – [they get] citations and eventually promotion'<sup>3</sup>).

To these perspectives we might add another emerging from Pinfield et al.'s 2017 report, that of an expectation that this promotional task is not the faculty's 'job'. Said one faculty member, '[librarians] have a role of helping us as academics to get our work to reach the right people and for it to become more discoverable, to be cited more often, and that is a very different role for a librarian and one that we are sadly lacking' (Pinfield et al., 2017, 27). In short it does seem that there is both an expectation and an opportunity for librarians here, where librarians can play an important role in research dissemination. Advising where to publish, yes, and supporting Open Access mandates too, but also extending this support to encourage and guide faculty in the latest methods for research promotion and maximum exposure.

Fig. 23. Skills faculty require



<sup>1</sup> Quoted from Jul 2021 Sage Journal Author Experience Interviews.  
<sup>2</sup> Quoted from Jul 2021 Sage Journal Author Experience Interviews.  
<sup>3</sup> Quoted from Dec 2020 Sage Journal Author Experience Interviews.

## 02 Discovering and screening information which is not in the library's collection

91% of faculty and 63% of students consider 'literature search' an essential skill to their academic success. So far, so obvious. However, a relatively smaller 36% of both groups consider 'content evaluation' an important skill. We suggest there is an important gap here which librarians could step into, leveraging their core competencies of information literacy and curation.

We have seen that patrons begin their literature search outside the library. We have also seen that they rely heavily on non-library resources (such as Wikipedia). As noted by Nickels and Davis 'we need to consider how the library supports researchers' use of non-library information sources **and find ways to incorporate support for those resources [authors' emphasis]**' (2020, 5). This support could begin with information literacy, by doubling down on librarian training efforts to educate patrons on how to effectively screen content, but also by finding new ways of bringing library curation to the places their patrons are discovering content.

How could librarians take the same principles inherent to their library's discovery service (a curated pool of content, selective indicators to support screening such as citation and indexing information) and bring these to those new platforms for discovery their patrons are now preferring, whether this is Google Scholar, Wikipedia or another open web tool? We suggest that addressing this challenge would begin by first acknowledging patron use of these non-library resources, to bring them out of the quiet corners of patron behavior. Connaway et al. note that students make regular use of Wikipedia but are 'often uncomfortable about revealing this to their teachers' (2013, 25). Bringing their use into the light, and into an open conversation with the library, would help librarians understand where they can add value in these new worlds outside the library. *Why do you use these resources? How could we help you do more with them and avoid their shortfalls?* We also explore this area as one of our 'innovation provocations'.

## Why would I be using Google/Wikipedia for academic research?!

ANONYMOUS LIBRARIAN  
SURVEY RESPONDENT

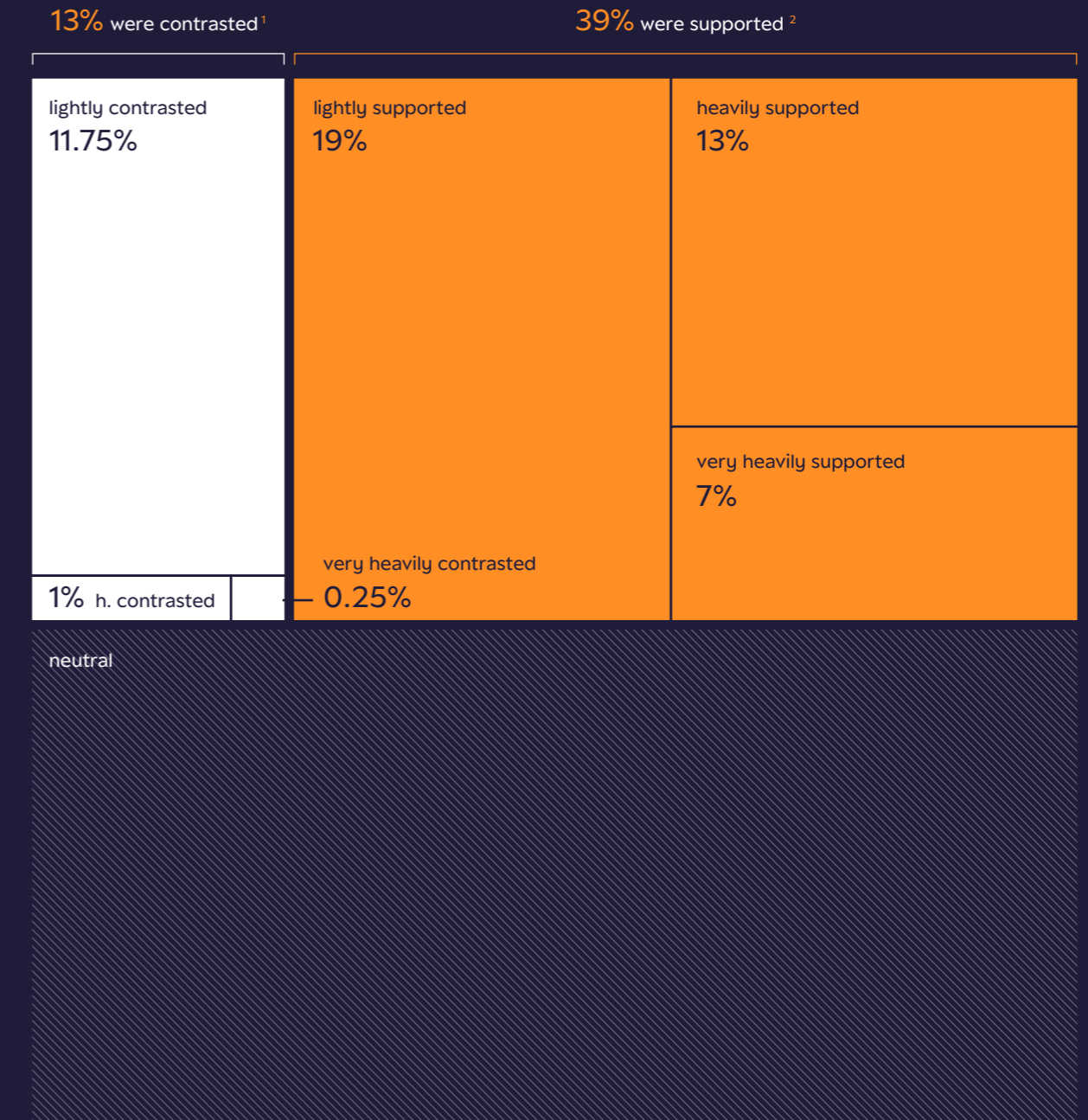
We should always remember that we are in the "information" business, not the book, print, building business.

ANONYMOUS LIBRARIAN  
SURVEY RESPONDENT

scite\_

## What are patrons reading? An analysis of Cambridge University patron reading habits using scite's citation context analysis tool

With 1,545,901 total publications read from University of Cambridge with Lean Library data we found the following:



■ 0.05% of all read publications were retracted / withdrawn

<sup>1</sup> contrasted = publications with 1+ contrasting citations  
heavily contrasted = publications with with 5+ contrasting citations  
very heavily contrasted = publications with with 10+ contrasting citations

<sup>2</sup> supported = publications with 1+ supporting citation  
heavily supported = with publications with 5+ supporting citations  
very heavily supported = with publications with with 10+ supporting citations

Scite worked with the University of Cambridge and Lean Library to analyze the reading behavior of Cambridge patrons. We mapped publications read (as tracked by Lean Library) to the scite Smart Citation Index, which organizes publication citations into categories: those that provide contrasting or supporting evidence for the cited work, and others, which mention the cited study without providing evidence for its validity (see Nicholson et al., 2021 for detailed explanation of our classification process). Our index also allows us to identify publication retractions.

Of the 1,545,901 publications read by Cambridge patrons over the course of 2019 to 2021, 608,375 (39%) of those had citations that primarily supported the authors' findings and 200,081 (13%) of those had citations that primarily contrasted the author's findings (see figure). Additionally, 831 (0.05%) of those publications were either retracted or withdrawn by the publisher.

One of the key roles of the librarian is to promote information literacy to their patrons, helping them to read and cite publications critically. We hope that analyzes such as this give librarians deeper insight into the context of the literature their patrons are reading, informing information literacy training and service provision, such as effective scrutiny of retractions and other editorial notices.

In terms of library service provision, we believe our index can support librarians providing citation context in their patrons' workflows, at scale. It remains difficult for patrons to consistently evaluate publications in their discovery workflow, with most journals and literature databases failing to make editorial notices such as retractions obvious. We developed scite to both provide citation analysis at scale, analyzing millions of citing works using our deep learning model, and to make this analysis available to researchers in their workflows, by using our browser extension (or integration with others such as Lean Library) to surface this information at the point of need.

#### Domenic Rosati

SENIOR RESEARCHER AND SOFTWARE ENGINEER, SCITE

We often analyze where our researchers publish, and who they cite, as useful indicators of the quality and impact of our research. However, it is much more difficult to analyze who our researchers and students are reading, particularly when it comes to assessing the quality of the information they are reading, for example, in supporting their learning outcomes, or the initial stages of research discovery. The ability to map reading to scite's knowledge base would enable us to better understand our users' reading habits. For example, if a proportion of papers read by our users have been retracted, is this a negligible amount, and if not, does this suggest we need to better train our users, especially undergraduates, in relevant information literacy skills of critical evaluation? We look forward to further analysis.

#### Elizabeth Tilley

HEAD OF EDUCATION AND USER SERVICES,  
CAMBRIDGE UNIVERSITY LIBRARIES

### 03 Leading the provision of data tools and other digital tools for patrons

29% of students and 19% of faculty consider 'advanced data skills' an essential skill to their academic success. Connecting this back to Part I, where we examined patron use versus library investment in library resources, this sits in a broader trend of growing patron interest in digital tools. In Part I, we found the library investing comparatively less in the area of digital tools than indicated by student use, concluding that librarians might play just as pivotal a role in the new frontiers of digital tools as they have in curating the collection: ensuring equitable access to digital tools, as well as screening them and providing training and support on them. Student research conducted at the Pearson Business School for Lean Library also proposed a number of areas in digital tools provision that librarians might investigate for their student patrons. In a survey to fellow student patrons, Rubin identified four main areas of interest to students:

- Digital tools and services that increase student independence
- Digital tools and services that improve the overall professionalism of student work
- Digital tools and services that improve student writing skills
- Digital tools and services that provide access to more material and information

(Rubin, 2021, 26)



**I really like the possibility of bringing in productivity tools to help patrons manage the numerous of tools used in their learning and research workflows. I can see students in particular appreciating this.**

EMILY DALY, HEAD, ASSESSMENT  
& USER EXPERIENCE DEPARTMENT,  
DUKE UNIVERSITY

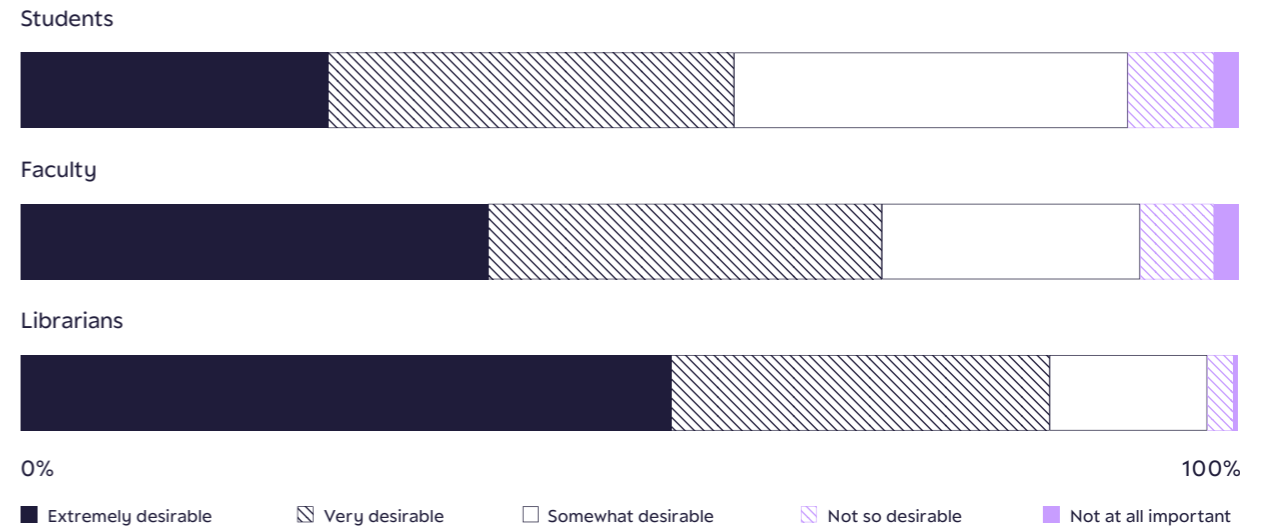


# 04 Innovation provocations

Having sought an understanding of how patrons currently use and view their library, our survey then presented some potential innovations to operationalize the ideal of embedding the library 'in the life of the user', seeking to answer Lorcan Dempsey's key question: 'how [libraries] get into the flow of users' research and learning practices... practices [which] are evolving' (2016a, 342). We did this cognizant that, as Pinfield et al. observe, 'a coherent picture of what library services of this sort should look like is yet to emerge' (2017, 51). This was of direct interest to the Lean Library product team, to understand how our browser extension could play a role in enabling these innovations, but we endeavored to keep the questions as broad as possible. We suggest that they are seen as 'innovation provocations' and hope they inspire thinking and debate. Evans and Schonfeld argue that bridging the gap between the library and their patron's workflow in this way is an 'imperative' for the library, to shift their focus from collections and holdings 'to those that use them' (2020, 5).



## Innovation Provocation #1: Embedding library chat and support in patrons' digital workflows



Patrons and librarians were asked how desirable the following potential innovation would be:

**'When working online, you/your patrons can access librarian support via a single click, either through live chat or relevant lecture or study materials, without needing to pause what you're/they're doing or visit a separate website.'**

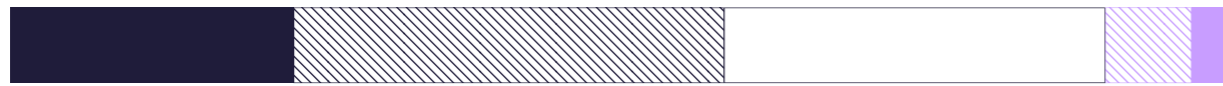
Students, faculty and librarians alike were resoundingly positive on this potential innovation. Perhaps unsurprisingly, librarians led this positivity with 96% considering this 'desirable' versus 91% of faculty and 90% of students. The varying levels of 'desirability' can be scrutinized in more detail above. 'We are finding increased use of our library chat tools. Being able to bring library chat and support directly into relevant parts of the patron's online workflow, embedded at the point of need, would be hugely significant.' – Tim O'Neill, Systems Support Analyst (eResources), University of Manchester.

**In this past year we've become increasingly aware of the importance of being able to connect to other people in a virtual environment; this kind of support for users would be extremely helpful.**

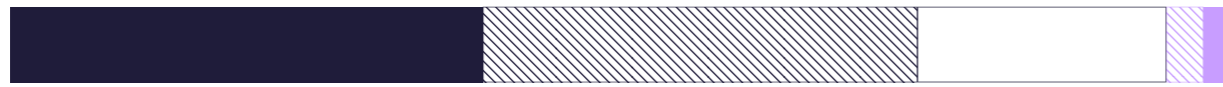
ANONYMOUS LIBRARIAN SURVEY RESPONDENT

## Innovation Provocation #2: Embedding library discovery in patrons' digital workflows

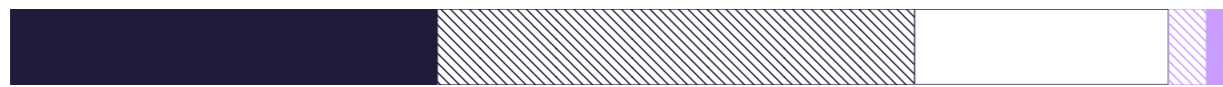
Students



Faculty



Librarians



0% 100%

■ Extremely desirable    ▨ Very desirable    □ Somewhat desirable    ▩ Not so desirable    ■ Not at all important

Earlier, we identified patron preferences to begin their discovery process on open search tools outside the library. In this second innovation provocation, we worked on the premise that library competition with these tools was unlikely to be successful, despite the perseverance among some libraries (Pinfield et al., 2017, 28). Instead, we proposed library integration with these tools, asking patrons and librarians how desirable the following innovation would be:

**'When searching for content in their preferred search engine (e.g. Google Scholar) a patron can choose to surface relevant results against that query from their library's in-house search engine, by activating a virtual version of the library.'**

(The wording was suitably adjusted for each audience.)

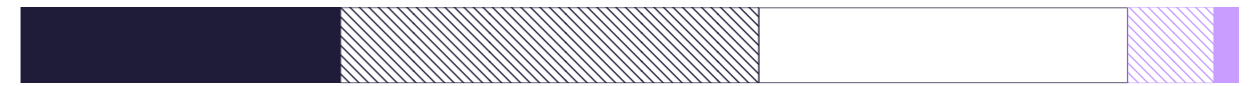
Students, faculty and librarians alike were also positive on this potential innovation. In this case, faculty led the positive response with 93% considering this 'desirable' – perhaps a reflection of how central advanced literature search is to their research process, and therefore the attractiveness of multiple discovery tools in their workflow. 92% of librarians and 89% of students also considered this 'desirable'. The varying levels of 'desirability' can be scrutinized in more detail above.

**I love the idea of having this integrated automatically. As it stands now, I'm often switching between Google searches and library searches.**

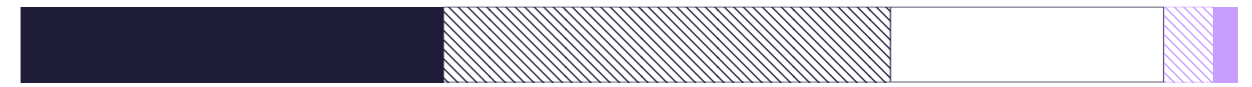
ANONYMOUS FACULTY  
SURVEY RESPONDENT

## Innovation Provocation #3: Embedding library curation and information literacy in patrons' digital workflows

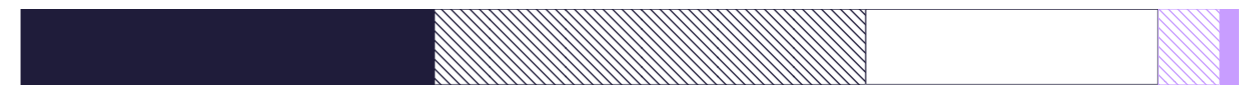
Students



Faculty



Librarians



0% 100%

■ Extremely desirable    ▨ Very desirable    □ Somewhat desirable    ▩ Not so desirable    ■ Not at all important

Patrons and librarians were asked how desirable the following potential innovation would be:

**'When reviewing search results from their preferred search engine (e.g. Google Scholar) a patron can choose to surface library curation information, such as flagging when academic content has been retracted, or if it is published by predatory/untrusted journals, in addition to highlighting academic content that libraries know is of a high quality.'**

(The wording was suitably adjusted for each audience.)

Students, faculty and librarians alike were also positive on this potential innovation. In this case, faculty again led the positive response with 93% considering this 'desirable' – another reflection of how central advanced literature search is to their research process, and the importance of screening content for research quality. 91% of librarians and 90% of students also considered this 'desirable'. The varying levels of 'desirability' can be scrutinized in more detail above.

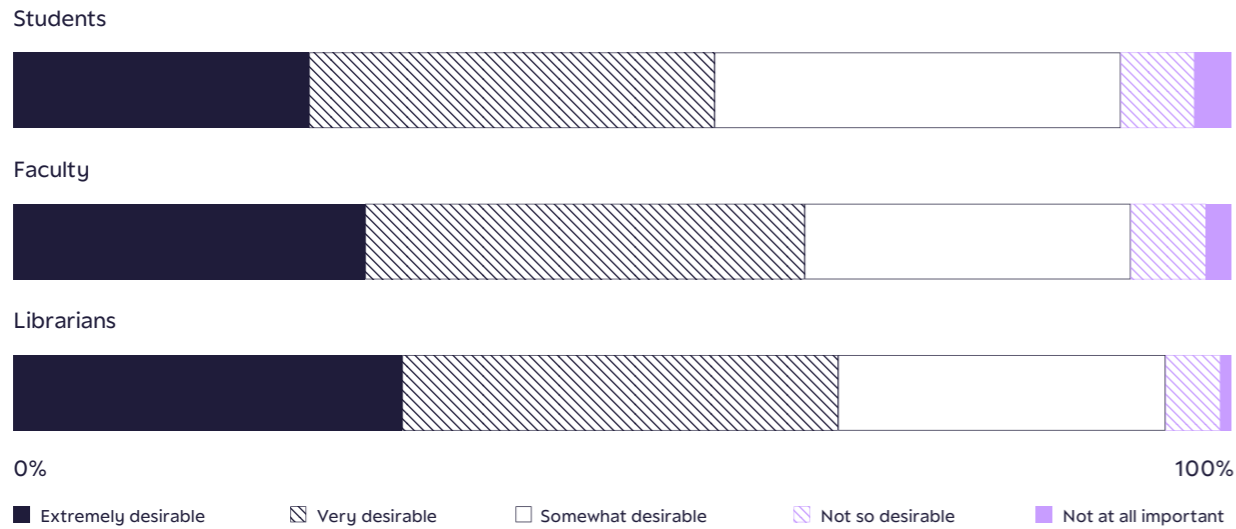
**I think knowing a librarian curated the content gives me more confidence in the content's credibility.**

ANONYMOUS ADMINISTRATOR  
SURVEY RESPONDENT

**A good feature due to its integration across sources of information. It would also improve my ability to find credible, non-predatory journals.**

ANONYMOUS FACULTY  
SURVEY RESPONDENT

### Innovation Provocation #4: Embedding the library collection in patrons' digital workflows



We have identified patron preferences to begin their discovery process on open search tools outside the library. We have also identified the range of non-library resources patrons use for their work. In this third innovation provocation, we wanted to present Pinfield et al.'s recommendation to 'develop[] ways of surfacing library content in network discovery tools [i.e. open search tools]' (2017, 9). Patrons and librarians were therefore asked how desirable the following potential innovation would be.

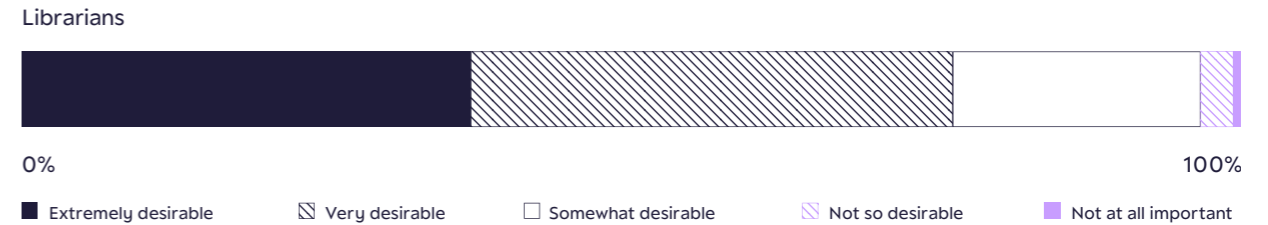
**'When viewing content online, a patron can choose to surface other relevant content from the library collection by activating a virtual version of the library. For example, the patron may be reviewing research method terms on Wikipedia and can choose to activate the virtual version of their library to surface relevant research method guidance or resources available from their library. Other examples could include searching health terms on Google, or academic conferences on YouTube – in all cases the patron would be able to choose to surface expert content relevant to their search available from their library.'**  
(The wording was suitably adjusted for each audience.)

Students, faculty and librarians alike were also positive on this potential innovation. Librarians led the positive response with 92% considering this 'desirable' – no doubt a reflection of the drive to increase usage of materials they have invested in, whether in monetary terms, curation or both. 91% of students and 90% of faculty also considered this 'desirable'. This validates our earlier comments regarding how librarians might engage with patrons working outside library-managed workflows and in non-library resources: patrons would evidently welcome that engagement. The varying levels of 'desirability' can be scrutinized in more detail above.

**This would help me bridge the gap between looking at secondary sourced info and being able to search for primary research papers.**

ANONYMOUS STUDENT  
SURVEY RESPONDENT

### Innovation Provocation #5: Enabling closer librarian-patron understanding in the digital workflow



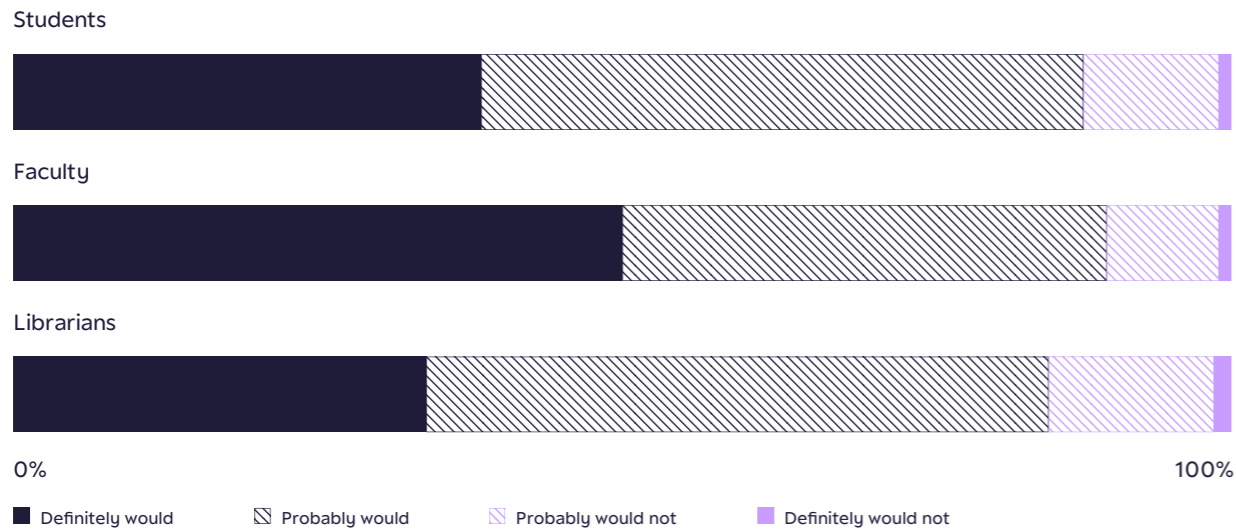
Librarians (it did not translate as well to patrons) were asked how desirable the following potential innovation would be:

**'To support quantitative usage indicators (e.g. COUNTER), you would be provided with more qualitative indicators of patron engagement with & feedback on the library collection and library services.'**

95% of librarians found this 'desirable', validating an appetite among librarians to better understand their patrons and their use of the library, presumably to ultimately help librarians serve their patrons better. This is an encouraging takeaway, confirming that librarian appetite is there to engage with the transformation needed to adapt to evolving patron behaviors.



### Innovation Provocation #6: A comprehensive library application



The final innovation posed followed the previous innovation questions. It sought a comprehensive and practical answer to Connaway’s challenge: ‘[how to] embed library systems and services into users’ existing workflows’ (2015, 6). Patrons and librarians were asked to respond to this question:

**‘Thank you for reviewing those initiatives. Having considered them, would you consider providing your patrons with/installing a virtual version of the library that, when activated, allows patrons to quickly access relevant librarian services and library resources online, without having to visit the library portal?’**  
(The wording was suitably adjusted for each audience.)

Both librarians and patrons responded positively to this overarching innovation. Most striking to us was that patrons were even more enthusiastic to adopt this library app (‘virtual version of the library’), with 88% of patrons ‘definitely’ or ‘probably’ prepared to use this compared with 82% of librarians ‘definitely’ or ‘probably’ prepared to provide it. Through this question, clearly Lean Library was looking for validation of our own product development, but we want to share the results here as we believe the implications are much broader and of general interest. Firstly, operationalizing

this idea of a library app in the patron’s workflow could be achieved in many different ways (our own product development is just one potential execution). Secondly, the clear patron support expressed for it shows a more general support and comfort with the librarian being present ‘in the workflow’. We hope this gives librarians confidence in their own innovations around patron workflows. Yes, a number of patrons may have moved away from the library platform in recent years, but this does not mean that they do not want to hear from their librarian – on the contrary, they actively seek librarian engagement with their workflow.

Fig. 24. **Would patrons and librarians adopt a comprehensive digital application of the library?**

**82%**  
**OF LIBRARIANS**  
‘definitely would’ or ‘probably would’

**88%**  
**OF PATRONS**  
‘definitely would’ or ‘probably would’

**My goal as a 21st century librarian is to provide uncomplicated access to high quality information wherever and whenever the user needs it. My library's busy users need to access scholarly information within their workflow and with minimal barriers. I want library resources right on the shoulder of the patron.**

LINDA VAN KEUREN, ASSISTANT DEAN FOR ACCESS AND RESOURCE MANAGEMENT, GEORGETOWN UNIVERSITY MEDICAL CENTER

**There is still this thought process of the library being this warehouse of books. The library is hanging on the perimeter in terms of the patron’s academic experience... getting in there is existential for the library.**

SALLY GIBSON, DIRECTOR OF LIBRARY, MISSOURI WESTERN STATE

**This sounds convenient and makes information more accessible as my current library's online functions are not very user friendly.**

ANONYMOUS STUDENT SURVEY RESPONDENT

# 05 Bridging the Gap and Librarian Futures

58% of librarians are optimistic about the future of the library over the long-term. Similar numbers (61%) are also optimistic about the future of the library in the short-term. This is a heartening result, given the challenges we know libraries are dealing with in pandemic-related budgetary cuts, and shows an extraordinary resilience in the librarian community.

## What's our next role going to be as librarians? If we're not collections and study hall?

SALLY GIBSON, DIRECTOR OF LIBRARY, MISSOURI WESTERN STATE

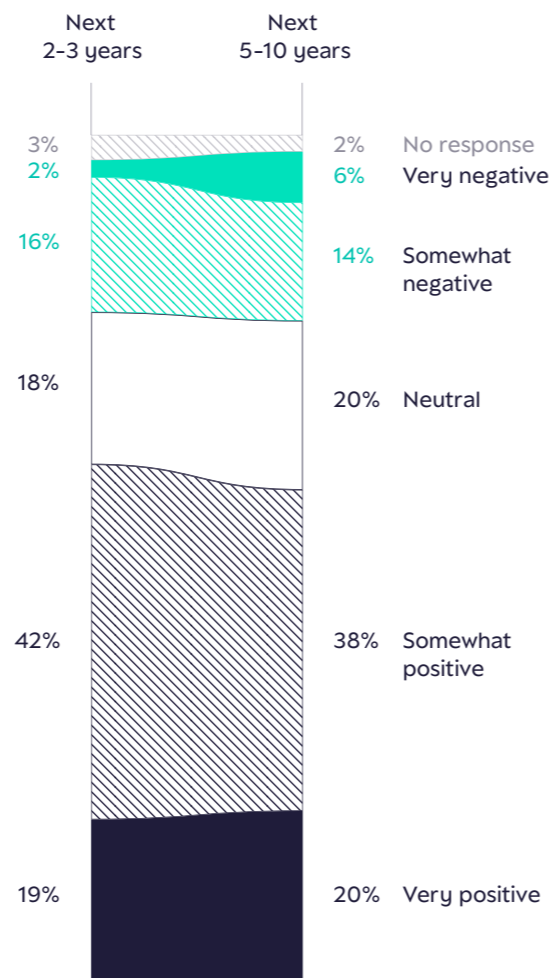
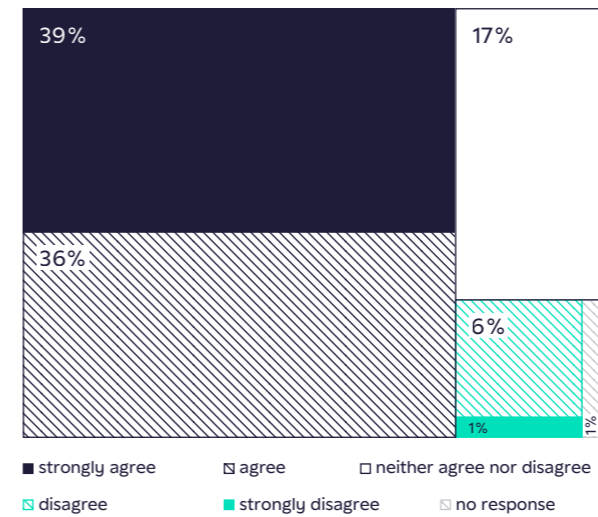


Fig. 25. The majority of librarians are optimistic about the future of the library.

## Finding a guiding mission for the library in the years to come

Fig. 26. 'The mission of the library is not about buildings and collections, but who librarians serve'



Librarians were asked if they agreed or disagreed with the following statement: 'The mission of the library is not about buildings and collections, but who librarians serve.' (Evans & Schonfeld, 2020). We found this to be a highly thought-provoking statement from our literature review and wanted to pose it to a large-scale audience. We also encouraged librarians to add comments to their response. A vast majority of librarians (75%) agreed or strongly agreed, but their responses indicated a significant variance in the mission that will guide librarians in the years to come.

Many comments regarded the 'manner in which the service is provided,' how patrons are provided 'access to information' and the importance of a distinction between the view of the library as an 'information' business, not a 'book, print, building business.'

A selection of librarian responses is provided below, reflecting some of these key themes.

- 'In a technologically rich library environment, the mission of the library no longer just reflects that of the parent institution, but also embodies the many varied formats and access avenues that patrons now use. The maintenance and curation of all forms of information, not just books and collections.'
- 'I would add: and how they provide access to information.'
- 'The mission of the library is to connect people through open access to information.'
- 'The mission of the academic library is to provide information, information management guidance and information analysis assistance in support of the learning, teaching and research mission of the university or college.'
- 'As earlier said: Bad libraries create collections, Good libraries create services, Great libraries create communities.'
- 'The mission of the library is not about the buildings and collections, but about relationships between students and the library staff.'

## The mission of the library is not about buildings and collections, but who librarians serve, and the manner in which the service is provided.

ANONYMOUS LIBRARIAN SURVEY RESPONDENTS

## A discussion with Lorcan Dempsey, Vice President and Chief Strategist, OCLC



### Would you care to share any general comments on this report, Librarian Futures?

I think this idea of a ‘comprehensive library application’ [see Innovation Provocation #6] very much aligns with what I have called the facilitated collection... where the library assembles a coordinated mix of local, external and collaborative services around user needs. The move online accelerates the need to provide targeted, relevant resources, however they are sourced.

Discovery is a central issue here. [Regarding your findings on discovery workflows] I have used the phrase “discovery happens elsewhere” to describe the phenomenon you mention where Google Scholar etc accounts for a large proportion of discovery traffic. This has been taking place for several years. I’ve also looked at this in a recent paper (see Dempsey, 2020b). With the growing importance of online learning, ‘guided discovery’ will be increasingly important – in the form of reading/resource lists, syllabi, resource guides. I also see a shift from discovery to discoverability, which is about making library collections discoverable in various external environments, especially those institutionally unique resources like special collections and scholarly outputs.

The Open Access label actually covers an extraordinarily complex and interesting array of developments. There is a proliferation of models (characterized by colors and minerals!), a progressively broader agenda (open science, global equity, open monographs, ...), and a variety of library investments (repository, APCs, transformative deals, library publishing, open infrastructure, investment in OA organizations, and so on). This is against a background of publisher consolidation, diversification of products into workflow and analytics support, national and funder policy mandates, and variable university attention. At the same time, the prestige economy of scholarly publishing sustains strong reputational incentives for faculty and for universities

concerned about reputation and ranking. It imposes new workflow requirements for libraries, as libraries track compliance, APCs, etc. We are seeing multiple paths to no single destination, so what it means for libraries is still very much an open question.

### In your view, how has/will the pandemic influence all this?

I like to think about at least four important ‘pandemic effects’:

- 1. Online: a holistic library experience.**  
The move online has created a greater interest in a holistic library experience where online and face to face complement each other more readily, and this balance will change depending on the particular library. The holistic library experience is now important in an online setting: more imaginative programming for public libraries, online consultation and advice, more tailored materials to support learning and so on.  
I think this is interesting in the context of your discussion in this report about library identity and story. In a time of change the library story is very important. However, the current elevator pitch requires a pretty tall building to deliver. This means that the library can be defined by others – who don’t have a strong sense of the full opportunity. How does the library become identified or defined by its expertise and services, and not by only by its building or collections?

- 2. Care-ful: empathy and equity.**  
The experiences of the last couple of years have foregrounded empathy and equity in library concerns. The role of the library in the mental wellness of its communities has been highlighted and is purposefully addressed. The responsibility to care for employees in a difficult time is clear. The murder of George Floyd has accelerated and catalyzed a focus across the range of library interests on repairing harm (in existing practices) and on pluralization (diversifying all elements of library activity going forward).
- 3. Optimized: make everything count.**  
As the contexts of service delivery are reconfigured, libraries look to make the best allocations of time, expertise and resources. Budgets may be constrained, research and learning practices are changing, and user expectations have shifted. You need to optimize \*for\* something, which leads to strategic choices and tradeoffs – optimize for open, optimize for diversity, optimize for economies, optimize for efficiencies, and so on...
- 4. Align: focused on community needs and institutional strategy.**  
It is really important that the library is aligned with emerging strategies and goals in the community the library serves, whether this is local municipality, a university, and so on. The need to deliver materials and expertise into the learning environment has become very important for example. Another important example is the library contribution to closing the digital divide.

This idea of a ‘comprehensive library application’ very much aligns with what I have called the facilitated collection... where the library assembles a coordinated mix of local, external and collaborative services around user needs. The move online accelerates the need to provide targeted, relevant resources, however they are sourced.

# The Librarian in 2030

We asked our survey respondents what the role of the librarian looked like in 2030. Here were their responses...



Frequency

Alphabetical order

# In conclusion... Librarian Futures

In drawing conclusions from our report about the future of the library and the librarian, we are mindful of our own bias as a library services provider, the diversity of thought and opinion reflected in the various data points used, and the inherent challenge of peering into the future. But to synthesize all we have learned, we would like to propose these *librarian futures*, recognizing both the diverse contexts librarians operate in and the range of potential futures ahead:

**01 Librarians will acknowledge and seek to understand the changing world around them**

## The general shift to OA will impact the role of the library significantly – I see a greater focus on leveraging library expertise and skills...

AARON TAY, LIBRARY ANALYTICS MANAGER, SINGAPORE MANAGEMENT UNIVERSITY

Many librarians and library stakeholders, whether in our survey comments or in the discourse on the future of the library, acknowledge that there are now at work and will continue to be, profound changes in scholarly communications, patron behaviors and other contextual forces – all of which bear direct relevance to the evolving role of the librarian. The core point is this: with

the growth of Open Access and the patron shift away from the library as their starting point, the collection will diminish in centrality and importance. This, as one commentator put it, should drive librarians to position themselves as important to the knowledge-creating task of the university in different ways' (Pinfield et al., 2017, 26).

**02 Librarians will use their community to build a new language in library discourse, to successfully debate and learn from the relative merits of different library innovations**

In attempting to dive deeper into this idea of 'the library in the user's workflow', which runs throughout this report, we encountered a number of difficulties around shared language. Especially in the 'innovation provocations' section of our survey, a significant minority of librarian responses indicated some confusion about the language used. For example, we had some difficulty conveying the scope of 'the patron's workflow' – that this did not just mean library-controlled domains, such as the LMS or the library portal, which are parts of that workflow, but the end-to-end process *in its entirety*. A workflow which 'might be in the learning management system, it might be on Google Scholar, it might be in disciplinary portals... wherever the researchers are' (as put by one library commentator in Pinfield et al., 2017, 28).

Of course, this may well have been our own shortfalls in constructing the survey, but this resonates with our wider experience in library innovation. When Lean Library first worked with libraries to build our access product, there was similar confusion in the language to describe what we, Kopernio, Access Anywhere and others were doing to streamline access to library-subscribed content. The term 'access brokers' then emerged as a helpful shorthand

(see Schonfeld, 2019). We hope to see similar shared language emerging around how to operationalize ‘the library in the user’s workflow’.

## Collaboration between libraries and librarians could have huge benefits as well as helping us meet our future aspirations.

TIM O’NEILL, SYSTEMS SUPPORT ANALYST (ERESOURCES), UNIVERSITY OF MANCHESTER

### 03 Librarians will become experts in digital tools

If, to borrow Lorcan Dempsey’s phrase, ‘workflow is the new content’ for librarians (2016b) then digital tools are a key element within this. There is both an imperative and an opportunity for librarians to play a leading role in the selection and provision of digital tools to the university’s patrons. They are uniquely placed to do so, with all the core competencies needed to add genuine value in the adoption of new technologies by patrons.

‘One of the key contributions that information professionals are likely to make is not so much about having ‘stuff in their heads’, but having expertise in the use of tools to support users in navigating resources at network level, including expertise in new areas of discovery and analysis.’ (Pinfield et al., 2017, 29)

### 04 Librarians will think strategically about content, both what they buy, how they buy it and how they give their patrons access to it

All of these futures must take place while librarians balance budget, time and resource priorities and constraints. This will require careful thinking about the area which currently dominates all of these: the collection.

Looking ahead we will be rethinking access to content – via the way we acquire content through use of things like Rapid ILL and better use of demand driven content. We want to ensure we have the right content at the right time, not buy by the bucketful and hope for the best. Content will also only be one part of the mix of what we do, including being creators of content, not just purchasers of it.’ – Andrew Barker, Director of Library Services, Lancaster University

### 05 Librarians will become ‘Workflow Librarians’

It has long been noted that libraries need to surface their services in the workflows of their patrons, rather than expecting patrons to come to the library. However, this has not yet been achieved. Looking at the responses to our ‘innovation provocations’, it is clear that there is real appetite from both librarians and their patrons to operationalize this – to bring librarians, and their services and support, into patron workflows. Following through on this will require a significant shift in library strategy, organization and approach. Dempsey’s phrase, ‘the facilitated collection’, can be instructive here, with its idea that library services and content are assembled around user needs and organized according to a network logic (2016a, 350).

The librarian’s role in enabling this will be pivotal, with clear benefits to both librarian and patron:

Taking a user-need and user-workflow first approach will improve patron experience

and deliver on expectations of seamless access to resources (Connaway et al., 2011, 134).

Embodying the role of ‘workflow librarian’ will require a compelling digital presence, one that successfully translates the physical concept of the library into the digital world (Pinfield et al., 2017, 5). This will bring benefits of closer interactions between librarians and patrons and with that a deeper understanding of patron needs and librarian value, with the resulting loop of patron need translated to librarian service. This will reaffirm the central importance of the librarian to academic success in the digital age.

## We have these unintentional impediments to access content. We want discovery and access to be as frictionless as possible. Patrons just want to get that PDF. Frictionless access should be what both patrons and libraries want, so that libraries can focus on service.

IAN ROBSON, HEAD OF INFORMATION RESOURCES, QUEEN’S UNIVERSITY LIBRARY

## Suggested actions for librarians:

- Explore what a meaningful digital space could look like for the library, through workshops and engagement with librarians, patrons and senior university leadership. How can you translate everything you do physically into your patrons’ digital workflows?
- List your current library services and map these to known patron needs. Where there is a disconnect, review. Where there is alignment, communicate this to patrons and senior university leadership, for example through a library:patron services charter, to ensure the extent of your contributions are recognized.
- Review your role in the patron discovery workflow, in particular looking at how to surface library content and curation in external discovery tools. Where do patrons make mistakes? Where can your librarian skills add value?
- Understand your patrons’ use and familiarity with new technologies for learning and research (such as AI and machine learning). Look at training programs for yourself so that you can provide guidance to patrons and the right services for them.
- Allocate room in your library’s budget, bandwidth and strategy priorities for experimental or innovative projects, especially those that take a longer-term and are high risk.
- Identify your own skills gap and work with your team and library management to build a training program tailored to you.



## Closing remarks

In concluding this report, we hope the many opportunities and possible directions outlined will have piqued interest and provoked debate. We stress that these are lines of thought, not roadmaps. Ultimately it is for librarians to decide what will work for them, and to go beyond feature requests, looking instead at the core challenges their patrons currently face, and will face in the coming years, and how they can best support them.

The majority of patrons now begin their workflows outside the library. It is also clear there is work to do to align the library with patron needs and user behavior, and to better promote and deliver the library support already in place. However, it is also clear that there is fertile ground for librarians to innovate. Use of library services and resources remains high. Higher still is the appreciation patrons feel toward their librarians. When presented with potential innovations that would bring their librarians closer to them, embedded in their digital workflows, patrons were also resoundingly positive. Whether the particular innovations presented here appeal in specific contexts is for librarians to decide. Regardless, they remain an important validation of the fundamental affinity, of patron to librarian, which should sustain librarianship in the years ahead. We hope this is a source of confidence to librarians as they seek to innovate and experiment – with the ultimate aim of reaffirming the importance of the librarian to academic success in the digital age.

## Acknowledgments

This consultation has benefited from the participation of many thousands of librarians and their patrons who so kindly took the time to participate in the survey. We would also like to thank the librarians, library stakeholders and others who gave us their time, whether for interviews, commentary or other insights.

### Special thanks to:

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**Matthew Smith**, Academic Librarian, University of East Anglia

**Tim O'Neill**, Systems Support Analyst (eResources), University of Manchester

**Aaron Tay**, Library Analytics Manager, Singapore Management University

**Emily Daly**, Head, Assessment & User Experience Department, Duke University

**Linda Van Keuren**, Assistant Dean for Access and Resource Management, Georgetown University Medical Center

**Lorcan Dempsey**, Vice President, Membership and Research and Chief Strategist, OCLC

**Roger Schonfeld**, Director of Libraries, Scholarly Communication, and Museums for Ithaka S+R

**Andrew Barker**, Director of Library Services, Lancaster University

**Sage Library Advisory Board members** (various)

## Methodology

### Key data points

1. Survey of approximately 4,000 librarians and library patrons
2. Interviews with librarians and library stakeholders
3. Interviews with library stakeholders
4. Third party contributions, from OpenAthens, Springshare, scite
5. Student studies conducted at Pearson College London on behalf of Lean Library
6. Lean Library data on patron workflows
7. Reports conducted by Sage Publishing

### Survey detail

1. Survey administered online, via Survey Monkey platform.
2. Responses collected April 14, 2021 to July 22, 2021.
3. Participation was voluntary.
4. Participant recruitment used 3 primary channels
  - a. Sage in-house contact list
  - b. Third-party panel provider, Dynata
  - c. Web promotion

### Sage in-house contact list

1. List was derived from Sage's in-house list of academic librarians and faculty, reflecting Sage's global market.
2. Participants were recruited via email.
3. To qualify, respondents had to self-identify as a college or university administrator; faculty, researcher or instructor; librarian, faculty librarian, or other library staff; or student.
4. Participants could enter a drawing for a gift card, donation, or t-shirt.
5. Sage contact list, N=118,391.

### Third-party panel provider, Dynata

1. Recruitment was managed by Dynata.
2. Sample balanced by gender, age, and income.
3. To qualify, Dynata student respondents had to be a student at a college or university, be over 18, and be studying in Australia, Canada, the United Kingdom, or the United States.

### Web promotion

1. Participants were recruited via Lean Library website banner ads, Research Information adverts, and Lean Library social media posts.
2. To qualify, respondents had to self-identify as a college or university administrator; faculty, researcher or instructor; librarian, faculty librarian, or other library staff; or student.
3. Participants could enter a drawing for a gift card, donation, or t-shirt.

## Incidence and qualification

Sample	Survey Starters	Qualified Starters	Qualified Completes
Sage Sample	2,740	2,675	1,857
Dynata Sample	1,644	1,159	1,092
Web Promotion	175	156	115
Total	4,559	3,990	3,064

Group	Qualified Completes
Students	1,182
Faculty	1,039
Librarians	795
Administrators	48
Total	3,064

## Survey respondent demographics

Some key demographic information is provided below, but, as with other data behind this report, we would happily provide more detail on request to

those interested in diving deeper. Please just email [info@leanlibrary.com](mailto:info@leanlibrary.com) with your request and use case.

Region	Faculty	Librarians	Students
NA	42%	63%	56%
EMEA	40%	24%	33%
APAC	9%	7%	9%
INDIA	3%	1%	0%
LATAM	3%	2%	0%
No response	3%	3%	2%

Gender	Faculty	Librarians	Students
Female	44%	68%	54%
Male	54%	26%	44%
Other	0%	2%	1%
No response	2%	5%	1%

**Librarian Roles** (Librarians could select multiple roles if they applied to them)

Reference	40%
Faculty / Academic Liaison	37%
Instruction	35%
Collection Development	33%
Information Literacy	33%
Electronic Resources	29%
Access services	21%
Acquisitions	20%
Head or Director	20%
Library Systems	17%
Cataloging	17%
Technical Services	16%
Circulation	15%
Other (please specify)	12%
Selector	12%
Special Collections	10%
No selection	2%

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