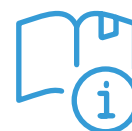


White Paper

TODAY'S LIBRARY & THE FUTURE OF SCHOLARLY COMMUNICATIONS

ADVANCING
DISCOVERY

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Introduction

Responding to a host of economic and cultural transformations in academic and research libraries today, Springer Nature undertook a study in 2018 into the current role of the library and librarians within their institutions. The aim was to better understand the needs and obstacles that librarians face, and how scholarly publishers and libraries can work together. We asked librarians in a variety of positions around the world about how their library operates today and the future of scholarly communications, and received 770 responses from nearly 60 countries, which we followed up with 20 one-to-one interviews. Based upon this original survey and interview data, the findings in this study reflect diverse perspectives from academic and research libraries world wide.



"We strive to be collaborative partners with the librarian community."

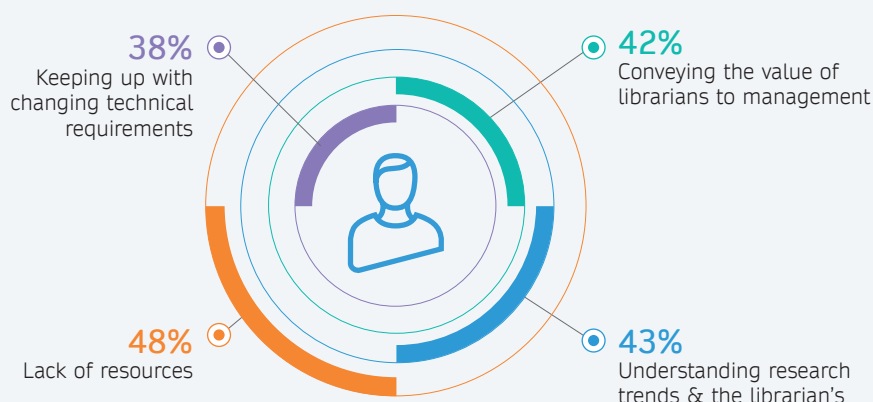
Through this survey, we wanted to better understand the challenges and responsibilities of librarians in today's climate and the near future.

We are keen to understand what role publishers can have in supporting librarians, their faculty and their patrons in their own activities.

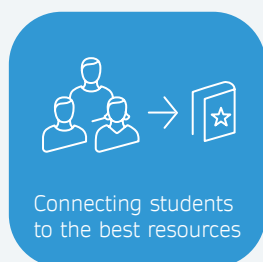
The results were insightful and have given us a lot to consider. We are happy to share some of the key themes with you in this paper and engage in further conversations on the topics."

Jason Marcakis, VP Global Marketing

Biggest challenges reported in survey data (n=660)



Top challenges reported by 20 librarians interviewed



Rising costs & flat budgets

As has been the case for academic and research libraries for several years, top concerns among participants in this study were budgetary ones. While all challenges reported by the 20 librarian interviewees involve some financial demand or economic impact, several said they struggle to balance limited library budgets and resources with ever-changing campus and user demands.

Evidence-based decisions

Justifying the value or impact of library expenses often means that librarians are getting creative about assessments. While survey respondents reported that cost per download metrics were the most commonly used, all interview participants indicated that they balance this statistic with other factors, in particular faculty requests and curricular demands. Some participants identified as being a “data-driven library,” however, a majority are experimenting with new, qualitative methods for evaluating content acquisitions, such as licensing rights and platform functionality. Despite the labor-intensive nature of collating myriad data points for actionable assessments, the driving goal for many participants is to “get the right research into the right venue” for a given author or faculty member, as mentioned by the head of collections and acquisitions at a large, public US university.

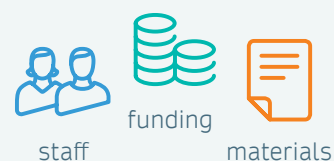
Custom / flexible models

Striking new partnership and purchase models to balance budgets with researcher and institutional demands was also a top concern. Aligned with the push for “read & publish”¹ programs, a majority of librarians believe there will be a move away from the big deal in the future – although there was no overwhelming consensus about what may replace it as a model. Among survey respondents, 23% wanted to see more ‘a la carte’ options and 18% were looking for smaller / customized packages, “where you could pick and choose the content you wanted in a package rather than having to take all or nothing.” This was especially popular with small- to mid-sized organizations, in particular those with a specialized focus, such as engineering or liberal arts. Others advocated for models that took open access into account in some way, solutions “where OA would be at the center.”

A lack of resources was reported by

48%

of survey respondents as the biggest issue facing their library.



23%

wanted to see more ‘a la carte’ options



18%

were looking for smaller, customizable packages



“Vendors and publishers can work with us to bundle things together in ways with greater flexibility to meet different libraries’ needs. What we generally have now is a one-size-fits-all ... but what we need is flexibility.”

Associate Librarian for Collections at large, public U.S. university

1. “Read and publish” experiments are discussed in forums, such as SSP’s blog, <https://scholarlykitchen.sspnet.org/2018/09/04/read-publish-good-academy/>.

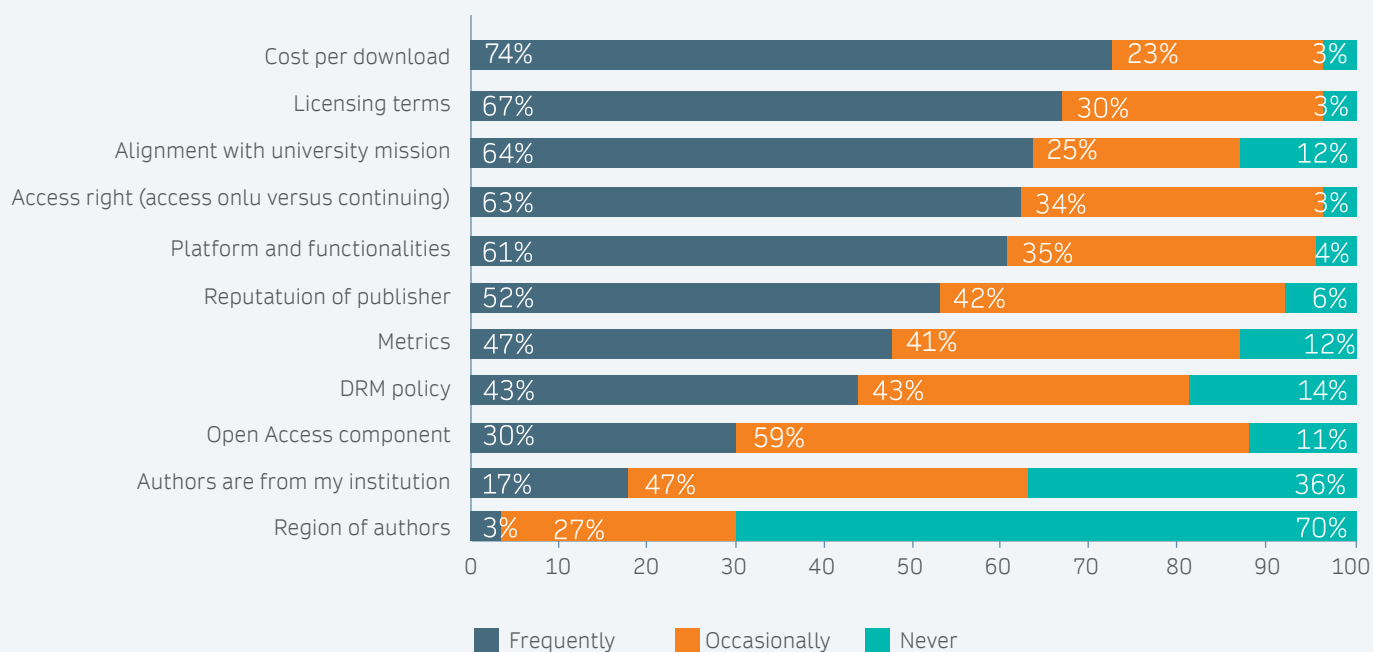
Balancing cost with value

Costs factor into nearly all library decisions, from maintaining existing collections and adding new subscriptions, to investing in technology, professional development, and other opportunities. The issues are not purely financial, however – while budget lines must be balanced numerically, many other priorities must be balanced qualitatively. A majority of participants noted budget strain or lack of resources as a top concern, however, financial aspects rarely stood alone, and were quickly followed by discussions of how to make existing resources work harder and be creative about allocations and assessments. Positive relationships and ease of doing business with publishers and other providers is a guiding principle for many libraries. Demonstrating the library's value to management and to researchers is an important aspect of librarians' budgetary decisions.

"Assessment is a constant effort, we evaluate before and after a purchase / subscription. Any STM resources require heavy weighting to balance allocation with HSS needs...Essentially, we want to measure the value in both department-level and university-level perspectives."

[University Librarian for large academic institute in Australia](#)

Methods of evaluating content (n=691)



Roles & reputations

Ensuring and communicating a positive return on an academic or research institutions' investment in their library was paramount to participants of this study. Restoring, establishing, or maintaining a positive reputation for the library across campus was a focus for these respondents, who described adopting strategies they describe as "user-sensitive" techniques and the importance of "building ties with faculty to embed the library into teaching and learning."

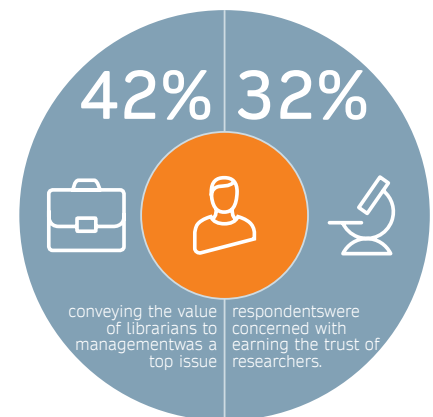
Proactive or reactive libraries

Aligning library priorities with the wider organizational mission is a guiding force for many librarians, in particular for collection development in degree-conferring institutions serving large, multidisciplinary populations. In contrast, those librarians serving private research laboratories are navigating their strategic position toward governmental, military, corporate, and other researcher-funder objectives. Regardless of size or type, participants were generally split on whether libraries are core contributors to the overarching vision of their institutions. Just over half of interviewees felt their library was a peer with other stakeholders, partnering to achieve disciplinary, funding, or other objectives, with insight into changes in enrollment or new fields of study that may impact library strategies.

On the other hand, about the same number described their libraries as support or service agencies, responding to the needs and priorities of their patrons. One European participant reported feeling like the library was seen as the university's internal Amazon service. Half of interviewees saw the library's research function as a responsive one, offering as-needed, secondary support or training for research and publishing. Surprisingly, only one-quarter of interviewees saw their library as an equal partner in the research workflow; about the same number felt scholarly communications leadership was a key area of growth for their library.

Partners with faculty

Whether direct or indirect, academic library strategies are often shaped by instruction and research faculty. More than a third of academic librarian interviewees described their acquisitions strategy as largely faculty-driven; and most took faculty requests and curricular needs into account to some degree, along with other factors – such as usage, budget, consortial options, etc. An associate university librarian for a large, public American university mentioned the value of holding collaborative sessions with faculty to review usage and costs, driving a partnership model for acquisitions decisions. Others organize collection decisions and budget approval by department or subject area, often with subject liaisons and/or committees. For many libraries, a great deal more effort and focus is invested in hard-science fields, where subjects in the humanities often constitute smaller, lower-priority collections.



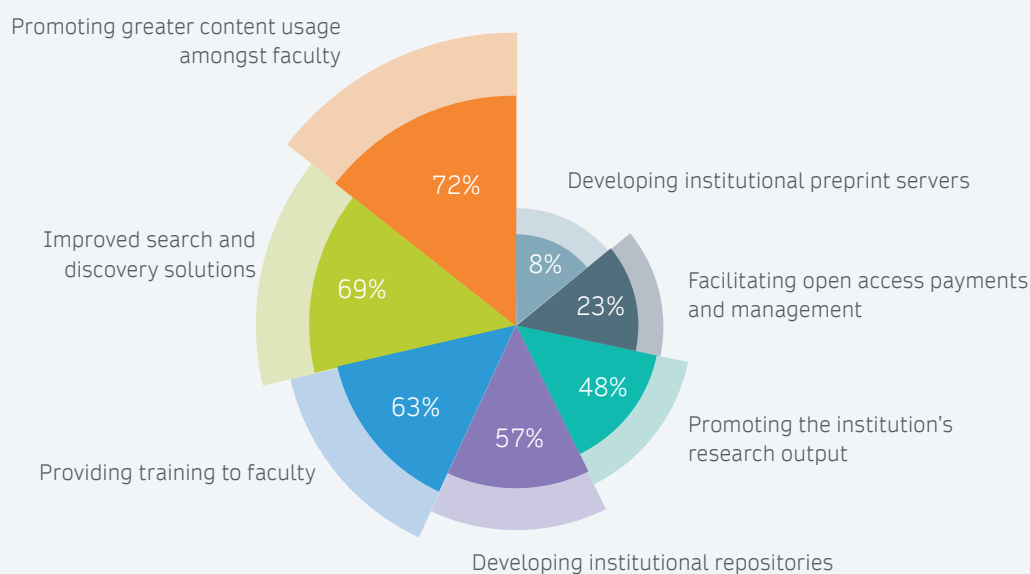
"Even if your role doesn't change, I think if you do not keep up with what is happening in the library environment and with technology, you can't keep up with the students."

Technical Services Librarian, large public South African university

Training & adaptation

Content acquisitions dominated the responsibilities held by librarians, although respondents represented a diverse array of library positions. Among interviewees, a majority noted changes to their own jobs or other librarian roles have shifted in the recent past, largely in their remit and occasionally in title. "Training librarians as professionals," was a top priority for one survey participant; this sentiment, in part, explains the popularity of resources for librarians focused on honing business tactics and negotiation skills². A Canadian academic librarian observed benefits in implementing "functional based roles that require collaboration across units," that allow libraries to "to remove the silos" to solve problems and address campus needs.

With which of the following activities is your library engaged? (n=770)



Although some libraries are experiencing layoffs, most feel the biggest change to librarian roles is in scope and function – specifically in response to an increased expectation for research or publishing support, as well as demand for rapidly evolving technological skills. Librarians today are developing user-friendly websites, architecting institutional repositories, and enabling digital access for off-campus users, as well as juggling traditional content-acquisition and budget responsibilities. When it comes to keeping up with user behavior and technological advancements, one librarian laughed, "you can't just sit back and relax!"

2. For example, in-person trainings offered by library associations (<http://www.ala.org/asgcla/negotiating-license-agreements-and-pricing-confidence>) and how-to handbooks (https://books.google.com/books?id=-4I2DwAAQBAJ&dq=Licensing+Electronic+Resources+in+Academic+Libraries&source=gbs_navlinks_s).

Understanding & serving researchers

Grappling with ever-changing scholarly behaviors and appreciating users' experiences is an ongoing challenge for libraries of all kinds. As other studies³ have pointed out, researcher practices and pathways to scholarly content have seen measurable shifts every few years. While library-enabled resources and databases are still in high demand, there continues to be a notable gap in the information practices of librarians and the experiences of students, faculty, and other researchers. Challenges are felt both in libraries communicating with end-users about their needs and experiences, as well as libraries' ability to champion those lessons about users experiences to management and other stakeholders.

Changing information behavior

Closing that gap requires communication, visibility, and building relationships. Nearly all interviewees' libraries offered some degree of training and workshops, from instruction focused on finding and managing research literature to publishing and disseminating findings. Generally, library participants focused their information literacy instruction on younger researchers, where outreach and engagement around research activities often focused on faculty.

Keeping pace with computational research methods, digital archiving or publishing mandates, and the technological expectations of users were noted as major issues facing 32% of libraries surveyed. While about a third of interviewees were supporting text- and data-mining capabilities on a case-by-case basis, the majority of participants were investing in those technologies and systems that meets the demand for user-friendly content discovery and seamless digital access. For many libraries, the risk of not supporting content discovery and access needs includes users looking elsewhere, which may or may not involve legally obtained materials.

Paving the discovery pathways

Nearly all interviewees felt the library should be the campus hub and starting point for content discovery. However, about a third did not offer an option for web-scale search across all library resources. Even the majority that did currently have library discovery services in place noted that truly comprehensive search across all holdings is still illusive, as some providers are unable to integrate some licensed academic databases, as well as open-access and preprint archives. Coverage of discovery / access systems can drive library content acquisitions and systems decisions, as reported by one European academic library, which cancelled most of the subscriptions not included in their discovery service. Many libraries directly engage with both new and seasoned users when implementing new discovery and access systems.

Participants ranked the need for

49%

greater understanding of
researcher needs



40%

better communication with
library users



69%

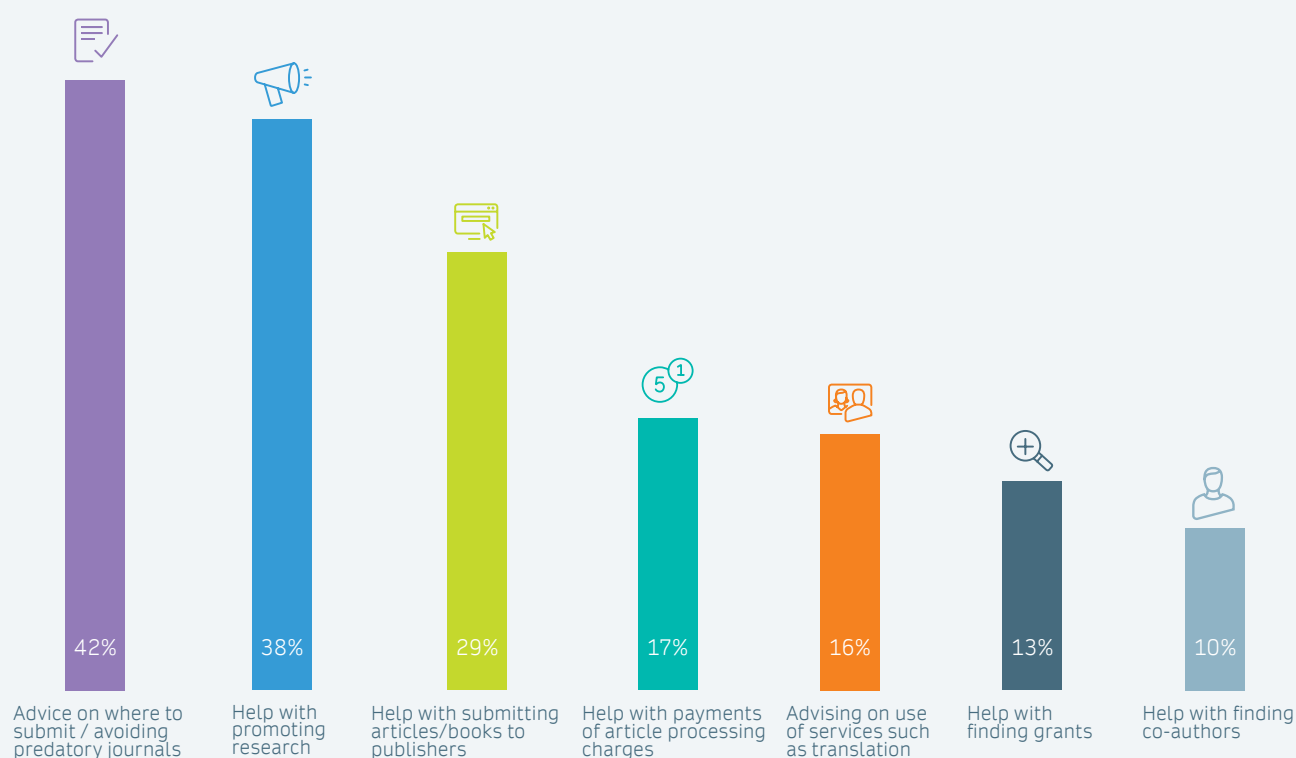
Of respondents engaged in
improving search and discovery



Engaging users

Over the last decade, libraries have dedicated resources and focus to understanding and optimizing researcher experiences. Our survey results show that 42% of librarians feel they are very engaged with their researchers; of those, most have a role in advising on submissions, including helping authors to avoid predatory journals, where only a minority help with article processing charges. The open access movement, with somewhat uneven uptake across regions and fields of study, was often mentioned as a driver of change by those interviewees focused on growing the library's role in publishing, data management, or other scholarly communications functions.

Does your library provide any of the following assistance to authors of research? (n=587)



"How do we select and approach quality journals so that my faculty members can publish their quality work?"

"We need to understand the data management needs of our community and how the library may best provide support."

Open science

While a majority of librarians have strong personal opinions in support of the value and impacts of open research practices – and open access resources specifically – a much smaller percentage are actively engaged with open science at their institutions. About a third of interviewees were in organizations with a formal policy or strategic response to open publishing mandates from funding organizations. At the time of our survey, only 20% of respondents were involved in management of campus open access activities. A number also worried that OA impacts would be largely financial, specifically in their management of article-processing or author-publishing charges on their already limited budgets. Most of the small- to mid-sized organizations felt they were best served by the library's participation in low- or no-cost open science coalitions, such as SCOPE3 and digital humanities initiatives.

The uneven terrain of open access

Surprisingly, no interview respondents reported major impacts on their library due to OA, whereas about half were feeling moderate impacts and expected much more to come. The other half felt no impacts as yet and were mixed in their view of the future. In large part, they felt this was down to discipline-level responses to open science movements and somewhat isolated or siloed practices. Participating libraries that serve special laboratories or research institutions were monitoring tensions between open access mandates and confidentiality restrictions of funders, government agencies, and other stakeholders.

Notably, 40% of European survey respondents indicated they frequently facilitate open access payments and other demands -- a much higher number than other regions. Those libraries actively involved in open science on their campuses were concerned with disciplinary imbalances within OA movements, which are predominantly focused on medical and hard-science fields. Most interviewees observed a lack of uptake by faculty and researchers in the humanities and social sciences and mentioned this could potentially worsen existing tensions in offering equanimity in library services across departments⁴.

Libraries in the age of open

So where do libraries see themselves playing a role in open science? Many interviewees felt libraries can best help at this stage with education and advocacy, in particular facilitating an organizational understanding of open access in particular and why it matters to an institution (or not). One North American librarian champions a definition of open access on her campus as being a model for "barrier free" content, rather than "freely available." Many libraries are promoting faculty and stakeholder awareness of the economic realities of the open movement, as there are still publishing costs and budgetary impacts involved in the open-access mandates.

A common theme was a growing expectation for greater transparency from publishers when it comes to the costs of publishing, in particular the concern that some publishers may charge for both authorship and access of scholarly resources. Inventive new models for ensuring fairness and balancing these costs, such as "read and publish," were mentioned as possible solutions and promising ways libraries and publishers can navigate open science transformations together.

70%

felt OA models will most significantly influence expectations for library involvement in activities like



research
practices

publishing

data
management

One European librarian commented that subscription models are preferable in some ways, as "the budget is more fairly spent on content shared across the campus, where OA can favor certain faculties." Generally, libraries are looking for a balanced approach, where both traditional and new, open models can be used where they make the most sense.

4. Similar sentiments have been shared by librarians in other venues, e.g., <https://www.historians.org/news-and-advocacy/statements-and-resolutions-of-support-and-protest/aha-expresses-concerns-about-potential-impact-of-plan-s-on-the-humanities>

Collaboration & innovation

When it comes to concerns most in need of library - publisher teamwork, most participants addressed the need to control library costs. One librarian wanted publishers to better “align cost models with inflation,” recognizing that libraries cannot sustain increases if budgets are flat. Others felt a pressing need to be creative about sales models, in particular to help libraries acquire only the resources they require. A librarian in a public Middle Eastern university suggested we collaborate on custom collections that meet both content acquisitions and budgetary needs, to “exclude irrelevant content” from big deals – a sentiment echoed by nearly half of interviewees. As one librarian said, “make it easier for us to keep spending money with you.”

“At our institution, we definitely value good publisher and vendor working relationships...it's a two-way street. We will always talk and hear somebody out, and make sure that we're maintaining those relationships, just as we would in our personal lives.”

[Collections Librarian at large, public Canadian university](#)

Outreach & promotion

Collaborating with publishers to offer faculty trainings in publishing or student demonstrations of resources was mentioned by several participants, especially important for those European and Asian libraries. A majority of librarians are open to the publisher playing a role in helping libraries to engage with their broader institution, with large proportions wanting publishers to provide more information on market trends, training, and to promote the library itself to wider faculty. Engaging with students and researchers was another opportunity for mutually beneficial alliances, where publishers might co-host focus groups, demonstrate user behavior trends, or share observations of publishing patterns.

Help researchers do their jobs

Beyond promoting new books or collections, one Middle Eastern librarian suggested that publishers focus on those tools and services that will “really help researchers do their jobs,” such as searching by research method. Cross-sector participation in standards initiatives was also raised as an obvious platform for mutually beneficial cooperation, “for the greater good,” in particular efforts around metadata and access, such as RA-21.



63%

respondents feel that publishers could play a role in engaging users including:



providing faculty training

15%



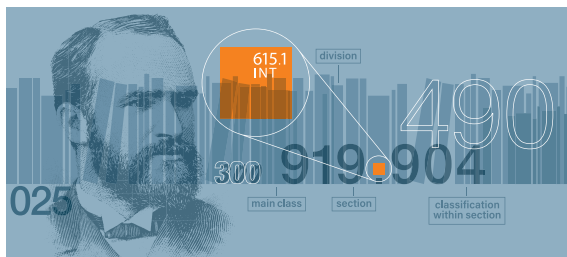
helping with marketing content in the library

12%

Share your thoughts

As with all Springer Nature white papers, we aim to maintain an open channel of communication and knowledge sharing across our scholarly and research communities. We welcome your thoughts and reflections on this study and encourage you to reach out. Pose questions and reflections to our [@SN_LibraryLink](#) Twitter account and let us know if you would like to take part in future and follow-up research projects.

A full account of the methodology and demographics represented in this study can be found online springernature.com/todayslibrary



Melvil Dewey (1851 - 1931)

Founder of the Dewey Decimal System, Melvil Dewey was born in New York in 1851. While a student at Amherst College, he worked in the school library to support his living expenses and stayed on as a librarian after graduation. After experimenting with different cataloging and organization methods for library collections, Amherst College published his work *A Classification and Subject Index for Cataloguing and Arranging the Books and Pamphlets of a Library*. Dewey has been named the "Father of Modern Librarianship" and even helped created the American Library Association in 1876.

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