8-15-2020

The State of Journal Production and Access 2020: Report on survey of society and university publishers

The State of Journal Production and Access 2020

Report on survey of society and university publishers

Scholastica

About Scholastica

Your platform for sustainable, high-quality scholarly journal publishing

Scholastica is a web-based software platform with modular tools and services for every aspect of publishing academic journals — from peer review to production to hosting and discovery support. Our mission is to empower journal publishers to make quality research available more efficiently and affordably in order to facilitate a sustainable research future. Over 900 journals across disciplines use Scholastica.

Learn more at: scholasticahq.com

Publication date: 13 August 2020
Full data set DOI: https://doi.org/10.5061/dryad.cz8w9gj1r

Contents

“While production and access have historically been two separate aspects of publishing, they have increasingly begun to intersect in the digital research landscape”

Introduction

Welcome to Scholastica’s first report on “The State of Journal Production and Access.” This report details the results of a global survey of 63 individuals working with scholarly society and university publishers that manage and produce academic journals independently (i.e., not outsourced to a separate publisher) about their current journal production and access approaches and future priorities.

The survey questions spanned core production and access areas, including:

- Article formatting/layout processes and priorities
- Metadata tagging standards and priorities
- Open Access journal development and funding models

In recent years, the world of scholarly publishing has been evolving at a rapid pace, with journal production and access (i.e., subscription vs. Open Access) undergoing some of the most significant changes. While production and access have historically been two separate aspects of publishing, they have increasingly begun to intersect in the digital research landscape. The European Commission’s "Future of Scholarly Publishing and Scholarly Communication" report (2019) discusses the role of digitally-driven article production in Open Access (OA) publishing since the start of the OA movement in the early 2000s, noting that "the motives behind [the emergence of OA] are linked to the desire of making the fullest use of the possibilities opened up by computers and networks. Finding a way to constrain prices was a second motive." Many OA initiatives, such as Plan S, reflect the aim of using online publishing to expand article reach and usage, requiring journals to both make their articles fully OA and meet specific digital production criteria.

Today, journal programs have more production and access considerations to factor into their publication planning than ever before, which can significantly affect their publishing methods and models. For scholarly society and university publishers, the changing landscape presents many opportunities, as well as challenges. Determining where their journal programs stand in relation to peers and deciding what to prioritize with limited resources can be difficult.

At Scholastica, we've been reaching out to publishers to learn more about their journal program priorities in these changing times. We decided to run this survey — looking at production and access as discrete but related aspects of publishing — to help society and university journal programs and stakeholders gauge the current state of production and access among academic organizations publishing journals independently and where the landscape is moving.

Launched in March 2020, by happenstance this survey came at a particularly tumultuous time for the scholarly publishing community not only in terms of responding to evolving digital production needs and OA mandates but also COVID-19. It is worth noting that the onset of the COVID-19 pandemic likely impacted the response rate for this survey, along with the fact that it was a new initiative. The survey questions were designed prior to the early pandemic announcements and, as such, do not factor in coronavirus-related production or access decisions. While Scholastica recognizes that the survey respondents might not be representative of the scholarly society and university publishing community, we hope that the results of this survey will be a valuable contribution to publishers and stakeholders working to navigate the changing research landscape.

Note: *The full survey data set is* ***available here****. Some responses omitted to keep graphs readable (e.g., singular 'other' responses might not be represented in the graph, "n/a" responses omitted in graphs, etc.).*

Executive Summary

"The State of Journal Production and Access" survey ran between March and June 2020 and received 63 responses from individuals working with academic organizations that publish one or more peer-reviewed journals independently (i.e., not outsourced to a separate publisher). The survey encompassed questions in two areas: 1. journal production, including article formatting, layout, and metadata tagging practices and priorities; and 2. journal access, including publishers' current access and funding models as well as respondents' perceptions of the viability of alternate options.

Among the main findings on the topic of journal production were:

- Less than half of publishers surveyed reported that they produce full-text XML files
- Most publishers surveyed did not include funder names or funder IDs in article metadata
- Publishers rated decreasing production time as their most important journal production priority over the next 3 years

In the area of journal access, survey highlights included:

- The majority of publishers reported that they currently utilize fully-OA journal models
- Publishers reported that they are prioritizing transitioning journals to OA
- The majority of publishers surveyed reported that they believe institutional subsidies/grants are the most viable options for funding fully-OA journals

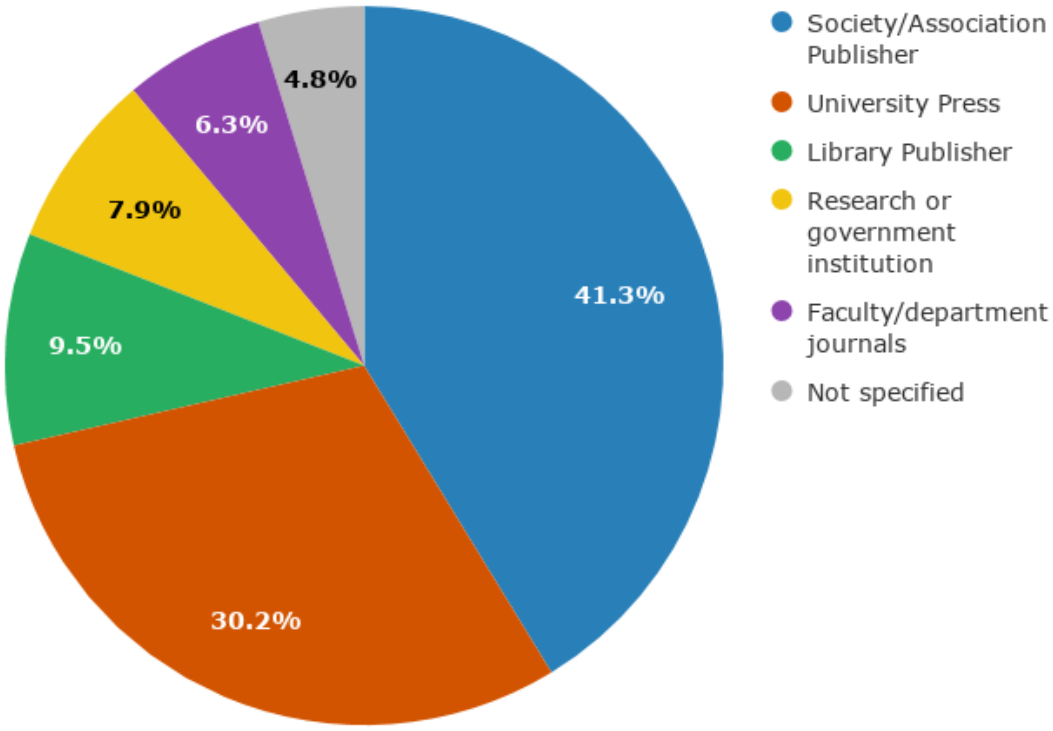
The survey representation was wide-reaching, with responses from members of scholarly publishing organizations across 28 countries working in various roles, ranging from senior leaders to journal editors to technical staff. The majority of survey responses were from individuals working with scholarly society publishers (41%) or university presses (30%).

All questions and analysis on the topics of production and access were kept separate in the survey and this report, to avoid conflating information within the different topic areas. The subsequent sections of this report provide a demographic summary of survey respondents, followed by separate data insights for the production and access areas of the survey.

Summary of Responses: Demographic Data

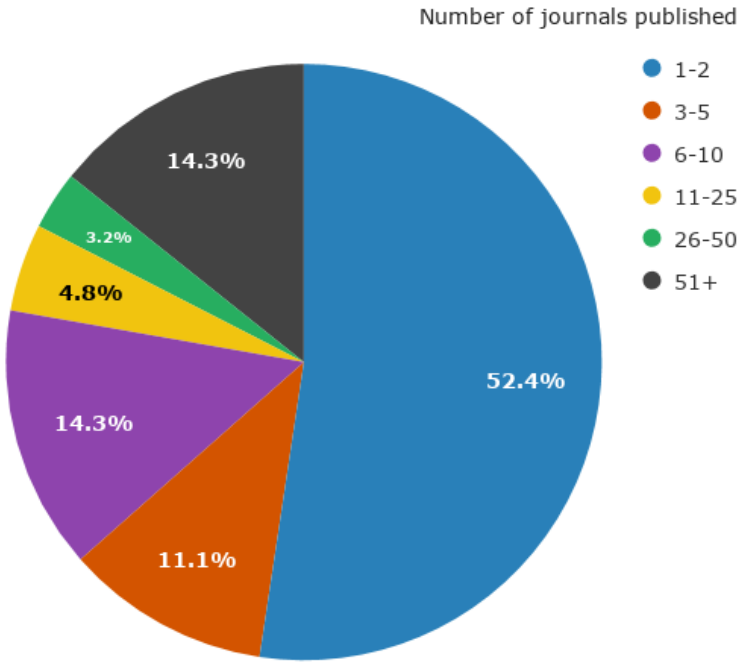
"The State of Journal Production and Access" survey garnered 63 responses from individuals across 28 countries who worked with academic organizations publishing one or more peer-reviewed journals independently (i.e., not outsourced to a separate publisher). The respondents reported primarily working with scholarly society, university press, and university-based publishing programs in various roles, ranging from senior leaders to journal editors to technical staff.

What publisher type best describes your organization?



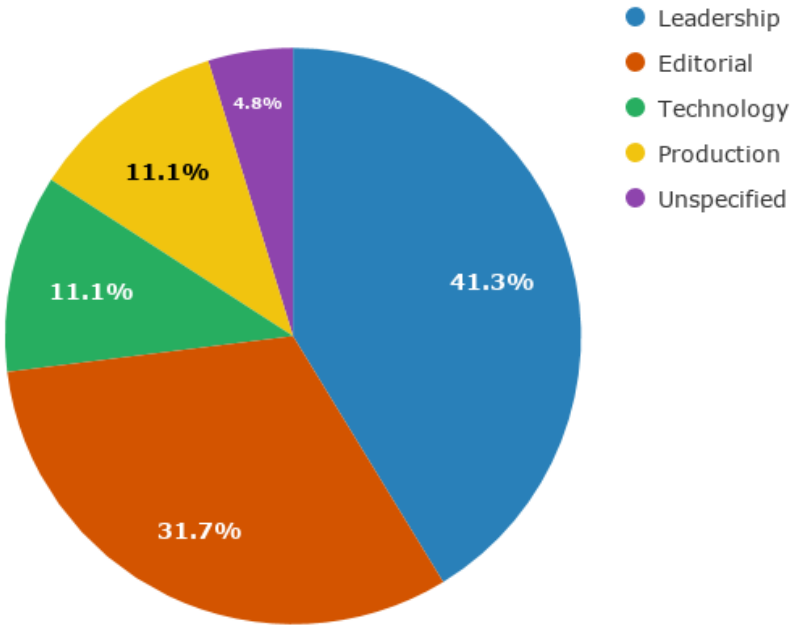
The bulk of survey responses were from individuals working with scholarly society publishers (41%) or university presses (30%). The survey also received responses from individuals working with journals run by university libraries, university departments, and faculty groups, as well as research and government institutions.

Number of journals your organization publishes



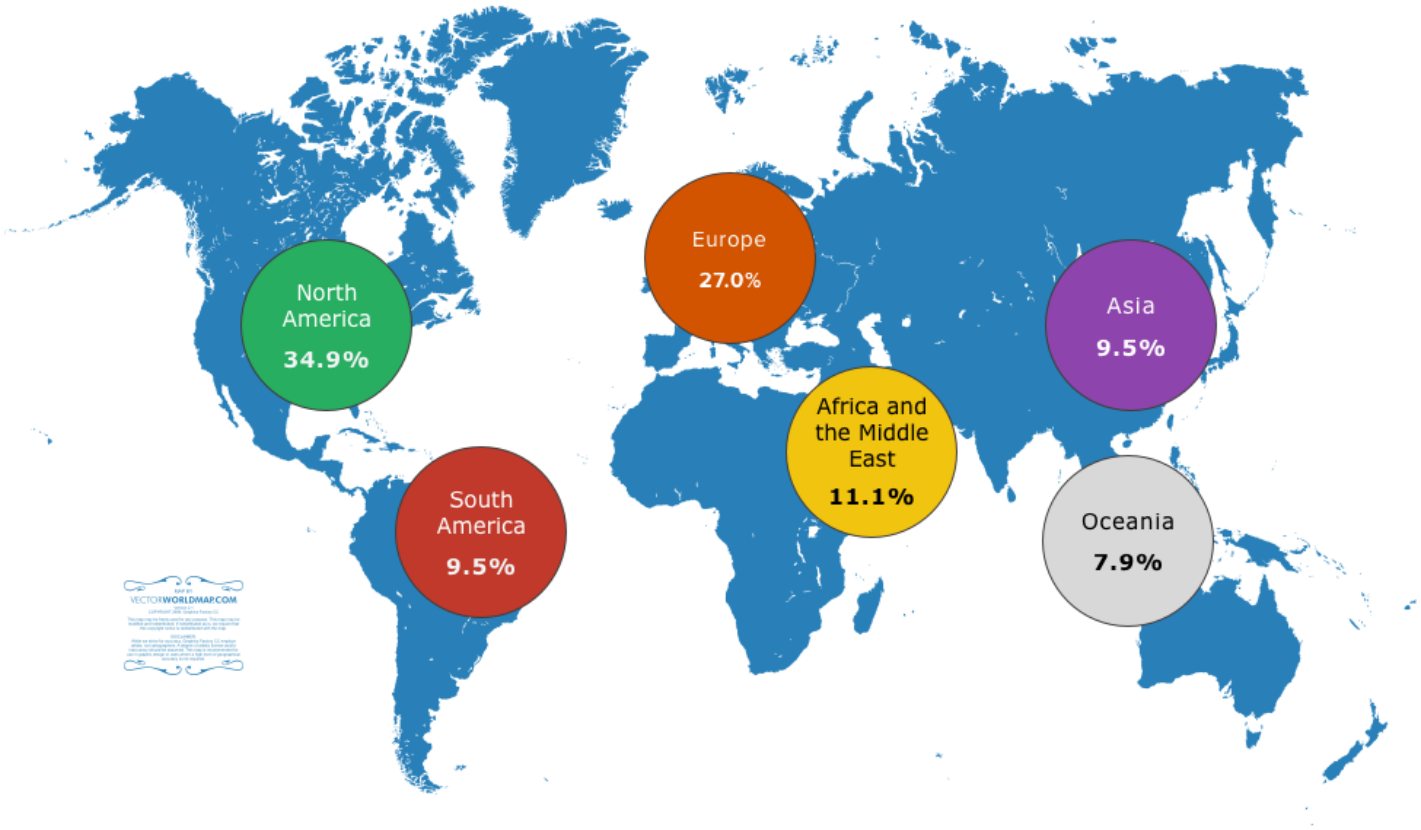
The majority of respondents worked with organizations that published five or fewer journals (64%). The survey also received responses from individuals at larger journal programs with 11+ journals (22%).

Which of the following best describes your role within your journal publishing organization?



The majority of respondents worked in leadership (41%) or editorial (32%) roles. Technology and production roles were also represented with 11% of responses each.

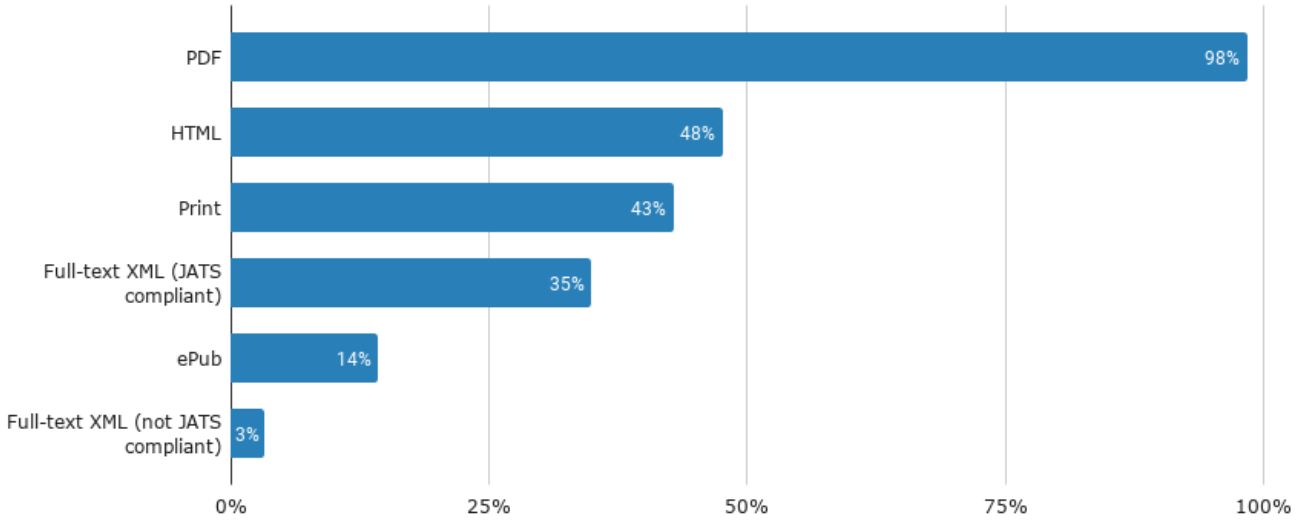
Respondents by geographic region



The survey results represented a diverse global audience with respondents from 28 countries. The most represented regions were North America (35%) and Europe (27%). The most represented countries were the United States, the United Kingdom, Australia, and India.

The State of Journal Production

What formats are your journal articles produced in?



Less than half of publishers surveyed produce full-text XML files

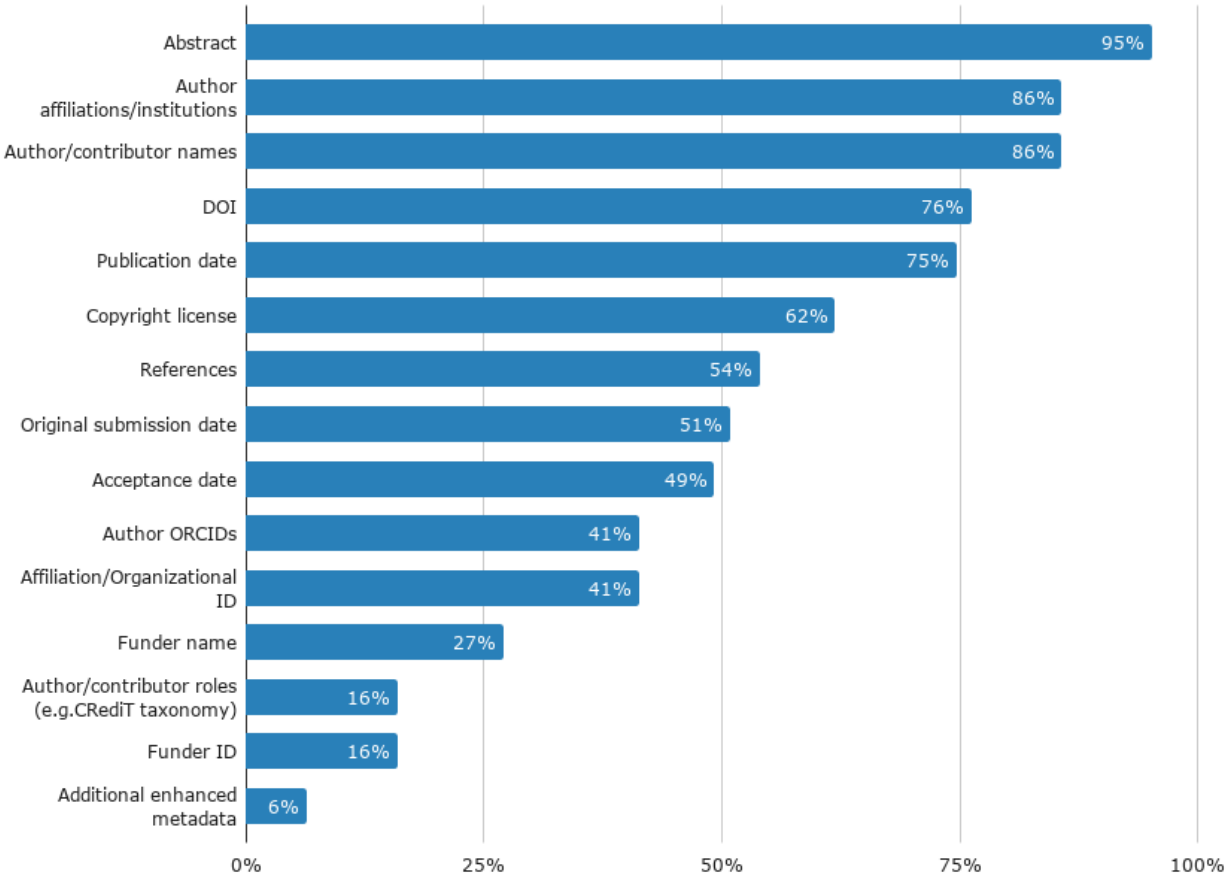
Despite the many potential benefits of full-text XML for archiving, indexing, and text and data mining, less than half of the publishers surveyed reported producing full-text XML article files. It's not clear whether this is by design or a result of publishers not having the technical resources required to convert articles to XML. The academic disciplines of the publishers surveyed could also be a factor in why a smaller number of publishers produced full-text XML as compared to other file types, as XML is more widely used in some disciplines than others. For example, the 2018 STM Report finds, "text and data mining are continuing to emerge from niche use in the life sciences industry [...]." Additionally, full-text XML archiving and indexing is generally more common in STEM disciplines, such as the PubMed Central full-text biomedical and life sciences archive. However, without knowing the disciplines of the journals published (which this survey did not include questions for), it's not possible to determine whether journal disciplines could potentially be a significant factor here. It is interesting to note that the majority of publishers that do produce full-text XML reported that they adhere to the JATS standard, suggesting that publishers are prioritizing technical industry best practices.

Other notable findings with regard to the article formats publishers produced include:

- The most common file type produced by publishers surveyed was by far PDF (98%), suggesting that it remains the predominant digital publishing format, followed by HTML (48%).
- Less than half of respondents indicated that they produced print articles, which suggests that more publishers are moving to digital formats. Later survey respondent answers to questions about the importance of different file types to their readers and publishing programs also suggest that printed journal formats are a lower priority to the majority of publishers surveyed as compared to other digital file types.
- ePub was the least produced file type among publishers surveyed (14%), suggesting that it is not a priority for most publishers.

The apparent focus on digital publishing formats reported by the publishers surveyed is reflective of the 2018 STM Report, which finds that "the number of established research (i.e., non-practitioner) journals dropping their print editions entirely has accelerated in recent years, with others switching to print on demand."

Which of the following elements are included in your machine-readable article-level metadata?

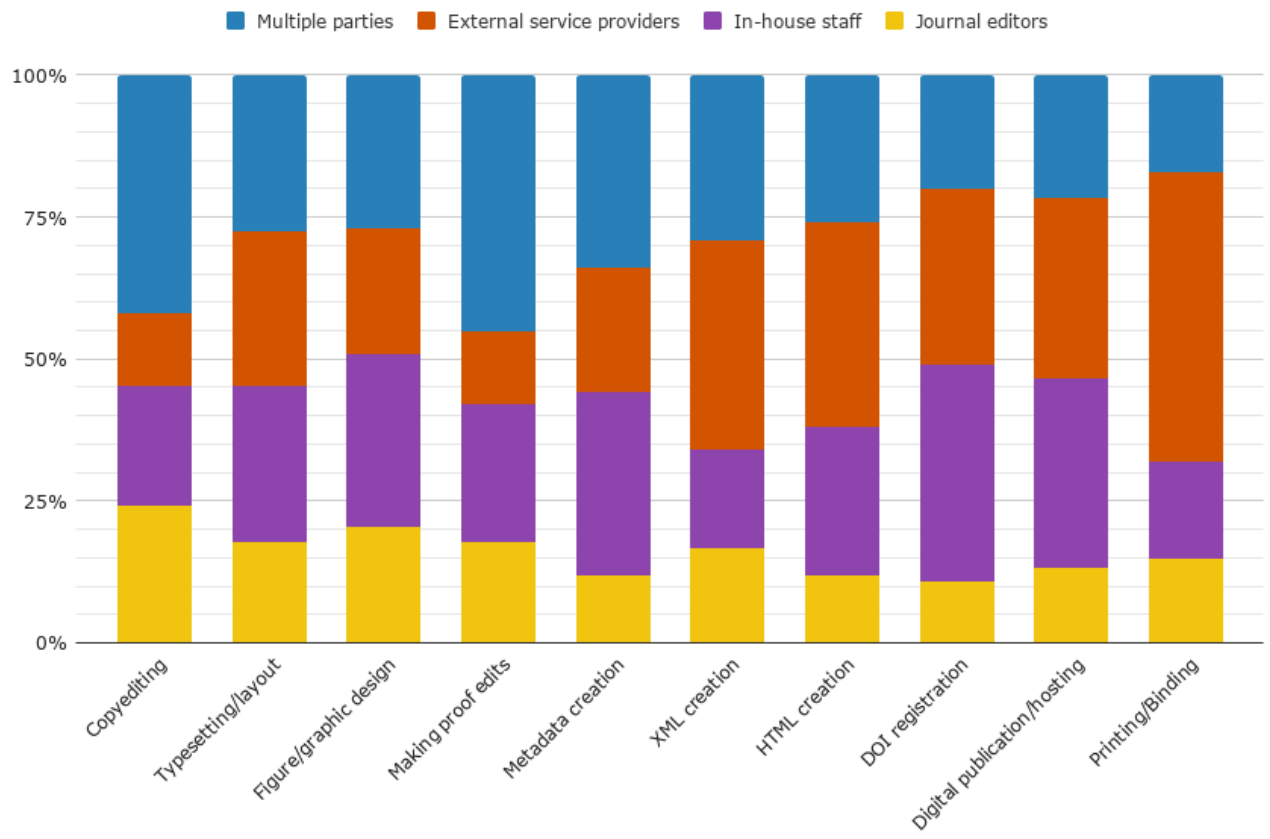


Most publishers do not include multiple PIDs or funder details in article metadata

The survey results show that most publishers are producing machine-readable article-level metadata with basic information (e.g., abstract, author affiliations/institutions). In terms of other rich metadata elements, the survey results show that:

- More than half of respondents include Digital Object Identifiers (DOIs), copyright licenses, or references in their metadata.
- Less than half of respondents reported including additional Persistent Identifiers (i.e., long-lasting references to a digital object), including affiliation/organizational IDs or ORCIDs, in their metadata. This could be due to technical limitations or lower usage of those PIDs among authors.
- Fewer than 30% of respondents include funder names or funder IDs in their metadata. It is not clear whether the low instances of funder names and funder IDs reported were due to technical publishing limitations or the publishers' journal disciplines. As funder metadata is more commonly used in some disciplines than others (e.g., biomedical and life sciences).

Who completes each of the following steps in the article production process for your organization's journals?



Article production is a dispersed process, except for printing/binding

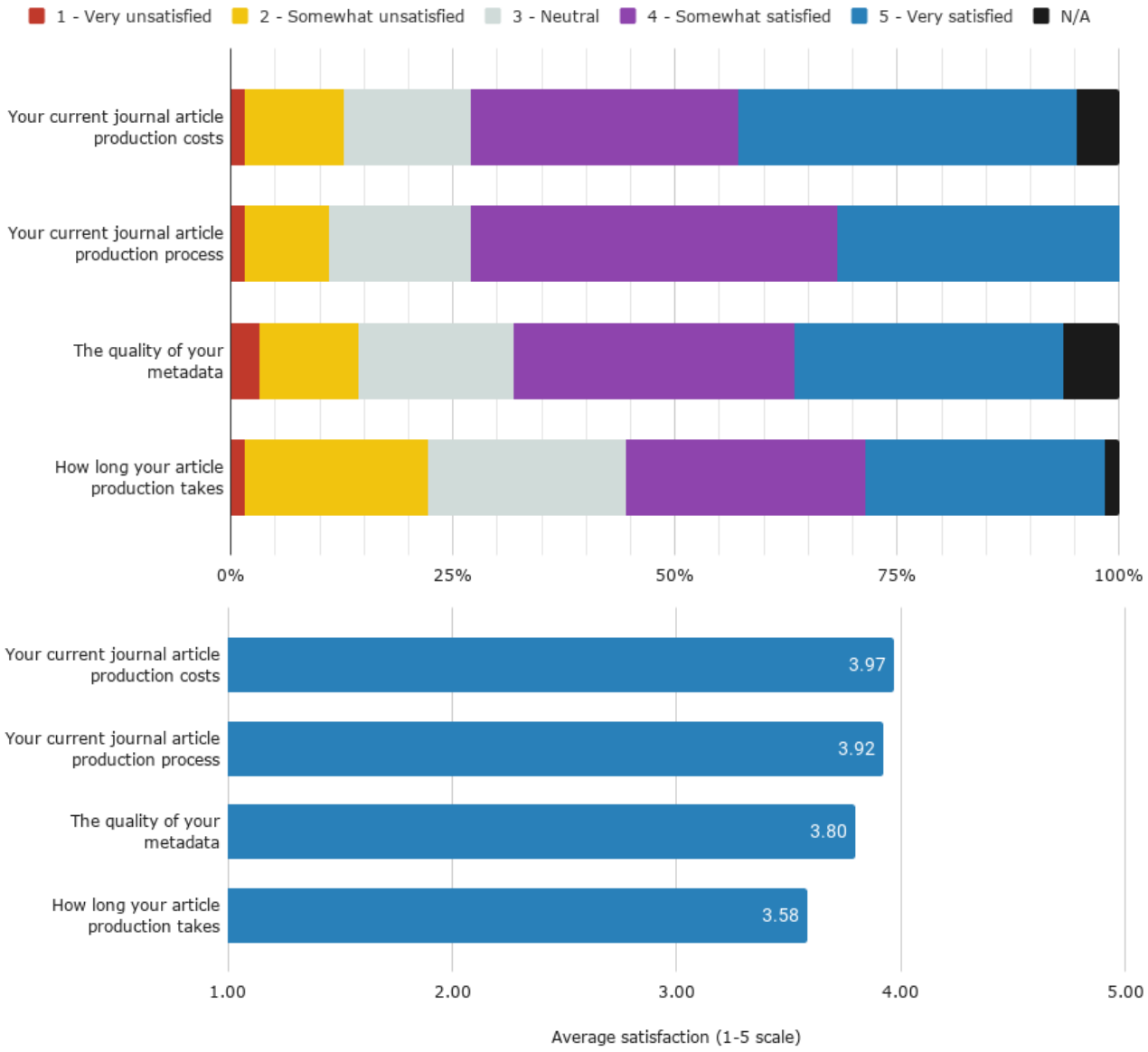
This question was aimed at determining how publishers allocate production work and the number of parties involved. The responses suggest that article production is a dispersed process for many publishers. The results also suggest that many publishers are creating different file types separately, rather than generating multiple files from a single digital format (e.g., XML).

Survey findings include:

- There was about an even split among publishers surveyed either primarily using in-house staff or external service providers for digital publication/hosting and typesetting/layout.
- Unsurprisingly, printing/binding was most commonly handled by external service providers, which has traditionally been the case.
- Copyediting and proofing were most commonly done by multiple parties, suggesting that publisher processes vary in those areas.

On a scale of 1-5, how satisfied are you with [the following aspects of your production process]:

Responses to the above question broken out by individual ratings and average Likert scale ratings (1 being least satisfied and 5 most satisfied)

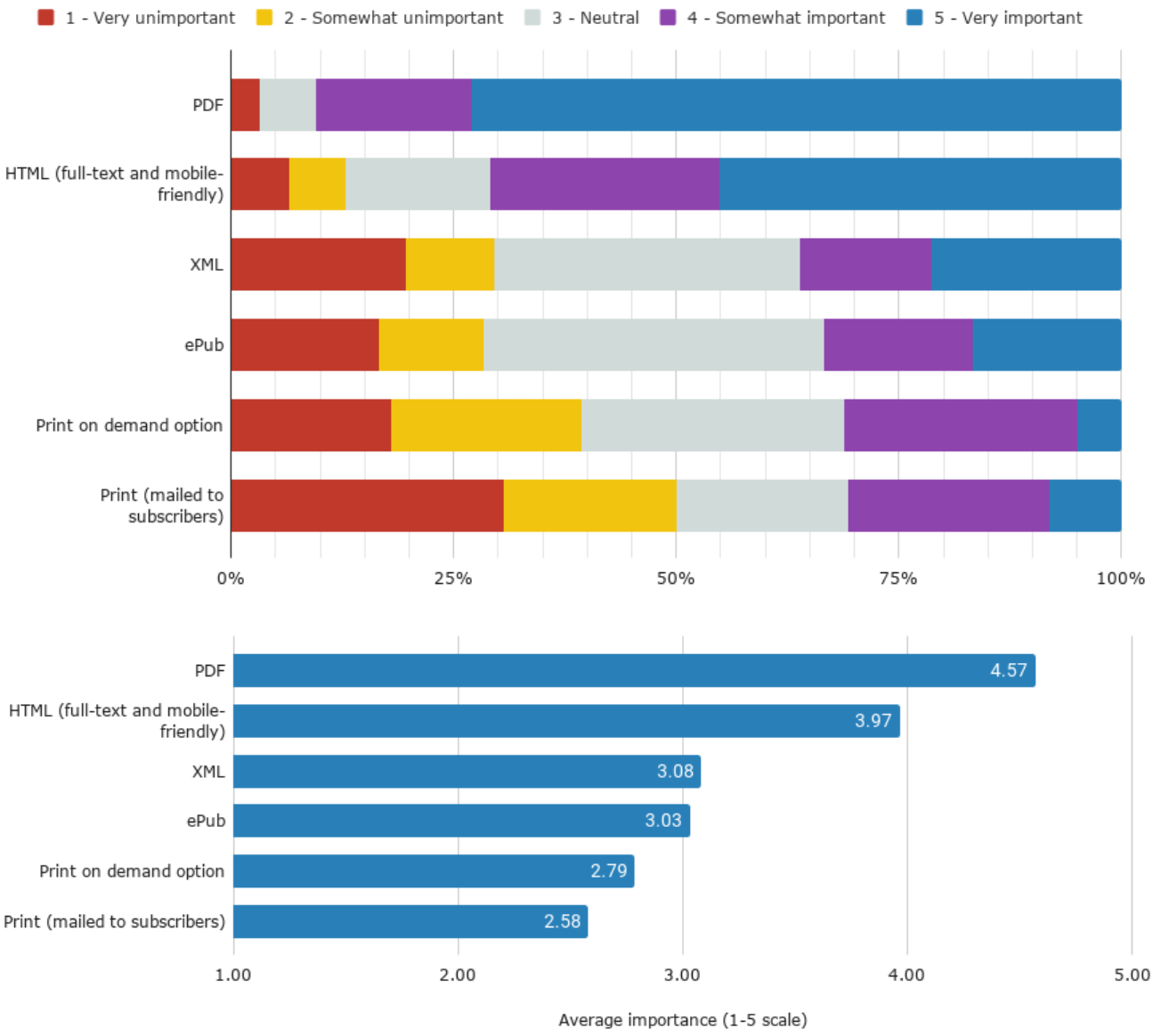


Most publishers are somewhat/very satisfied with their production processes, but less so with how long production takes

The majority of those surveyed were “very” or “somewhat” satisfied with their current article production process, costs, and metadata quality (average of around 4/5). However, survey respondents reported noticeably lower satisfaction rates for “how long your article production takes.” It’s not clear from the data exactly why that is. Though, based on responses to the question “Who completes each of the following steps in the article production process for your organization’s journals?”, one reason that publishers surveyed could have had longer production times was having to move articles between multiple parties throughout the production process.

On a scale of 1-5, how important do you think the following formats are to your journal readers?

Responses to the above question broken out by individual ratings and average Likert scale ratings (1 being least important and 5 most important)



Most publishers reported PDF and HTML are the most (or only) important formats for their readers

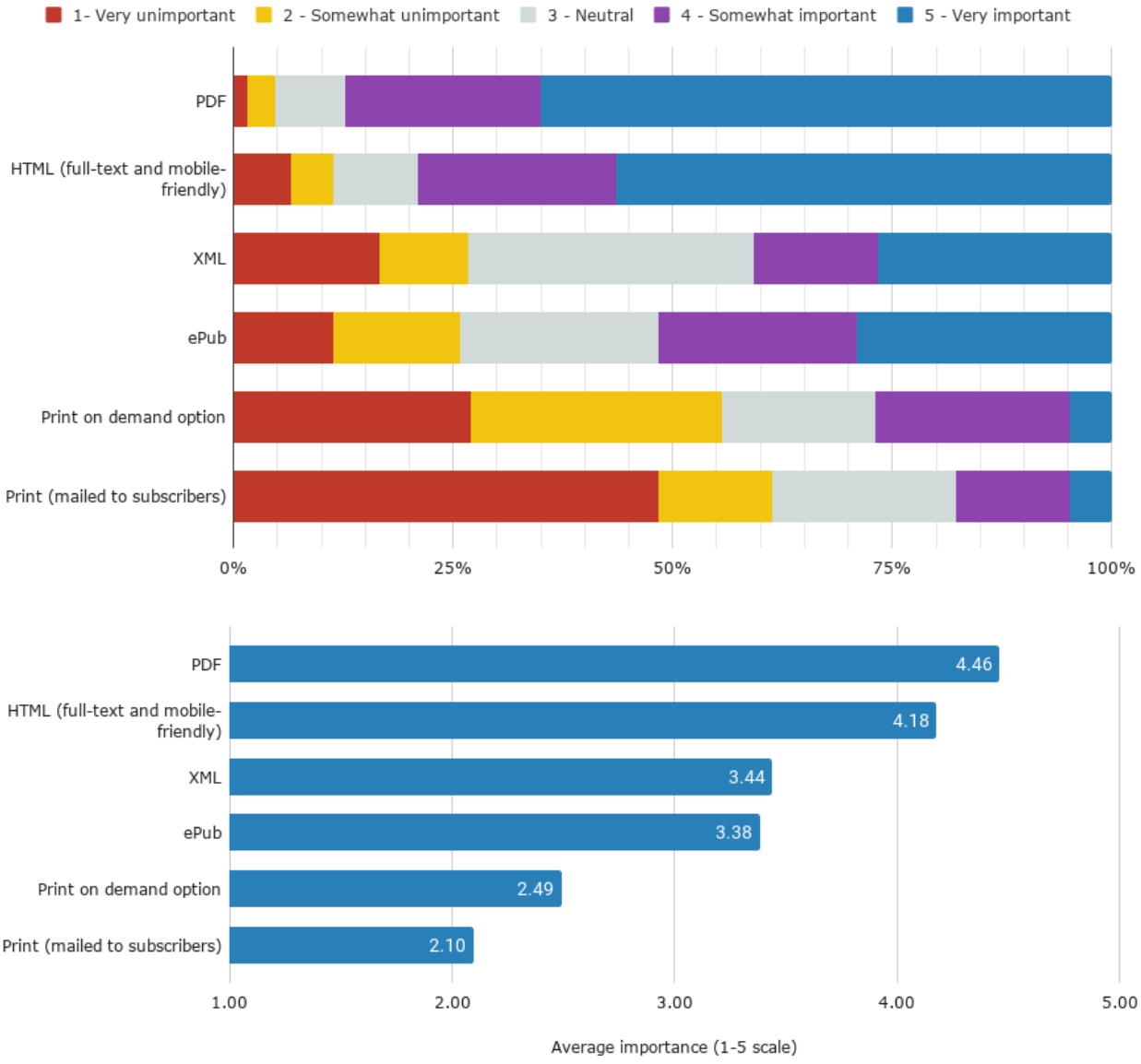
With regard to which article formats publishers consider to be most important to their readers, the survey results show:

- Respondents overwhelmingly rated PDF as the most important file type for their readers, with 73% rating PDF “very important.” This perhaps isn’t very surprising as PDFs adhere to print publishing conventions that researchers have long been accustomed to.

- 70% of respondents rated HTML (full-text and mobile-friendly) “very” or “somewhat” important, suggesting that readers are seeking responsive articles that can be read across different devices.
- Publishers were split on the importance of XML and ePub, suggesting that those may not be commonly sought article formats.
- It is not clear why respondents had mixed opinions on the importance of XML to readers. Respondents might be reflecting that most readers do not directly interact with XML (i.e., only data/text mining scholars accessing XML), or that readers do not realize the indirect benefits of XML (e.g., XML enabling indexing deposits).
- The majority of those surveyed rated print on demand and print mailed to subscribers as the least important file types for their readers, respectively, suggesting that print demand for some journals may be waning.

On a scale of 1-5, in the next 3 years, how important do you think the following formats will be to reaching your publishing program's goals?

Responses to the above question broken out by individual ratings and average Likert scale ratings (1 being least important and 5 most important)



PDF and HTML were the most important file types for reaching publishing goals

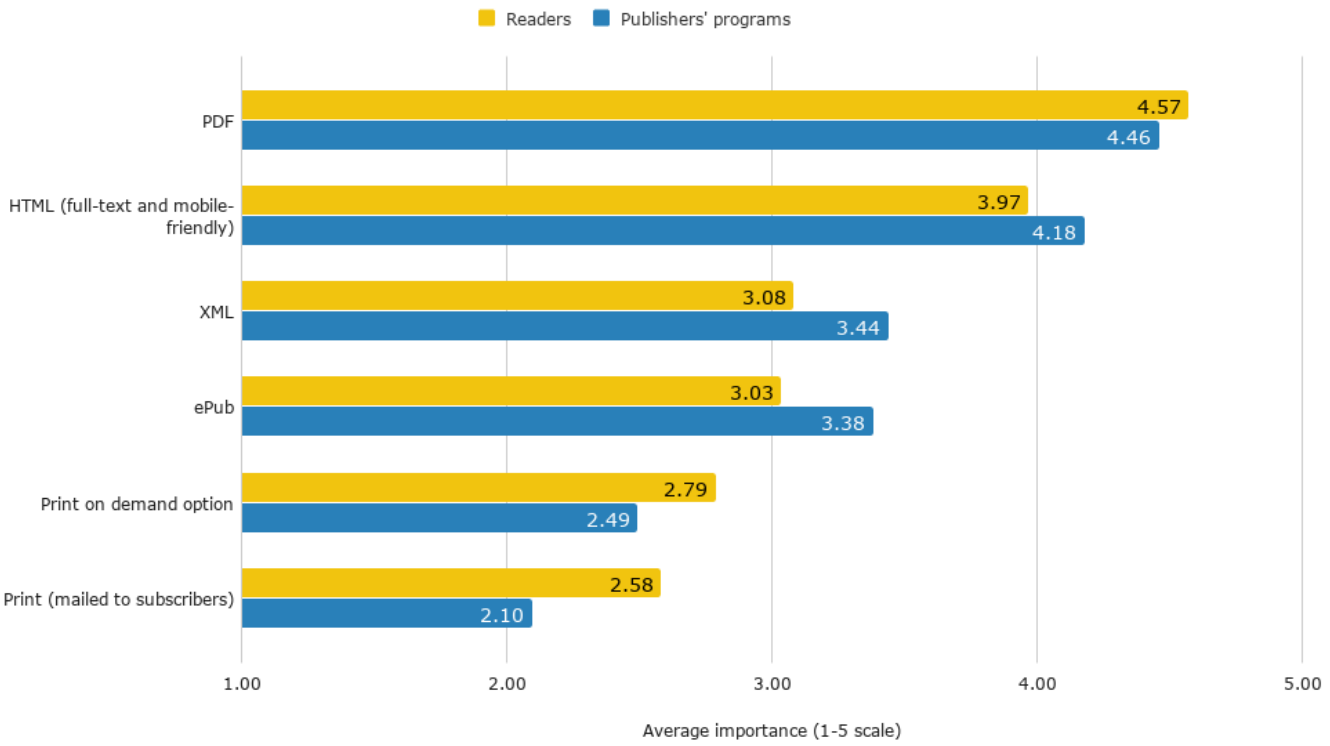
When asked to rate how important different article formats will be to reaching their publishing program's goals in the next three years:

- Survey respondents overwhelmingly rated PDF the most important file type, with 87% of those surveyed considering it "very" or "somewhat" important, followed by HTML with 78% considering it "very" or "somewhat" important.

- The majority of publishers surveyed rated print on demand and print mailed to subscribers as the least important file types to their programs, respectively. The print ratings suggest that publishers may be prioritizing digital formats in response to changing reader demands.
- Perhaps unsurprisingly, there was a disparity in publishers' ratings of the importance of XML for readers versus their publishing program goals, with more publishers rating XML as "somewhat" or "very" important to their programs. This may be due to the fact that publishers rely on XML files for archiving, indexing, and other purposes that are not directly reader facing.

Comparison: Respondent opinions on the importance of different article formats for their readers and their journal program goals

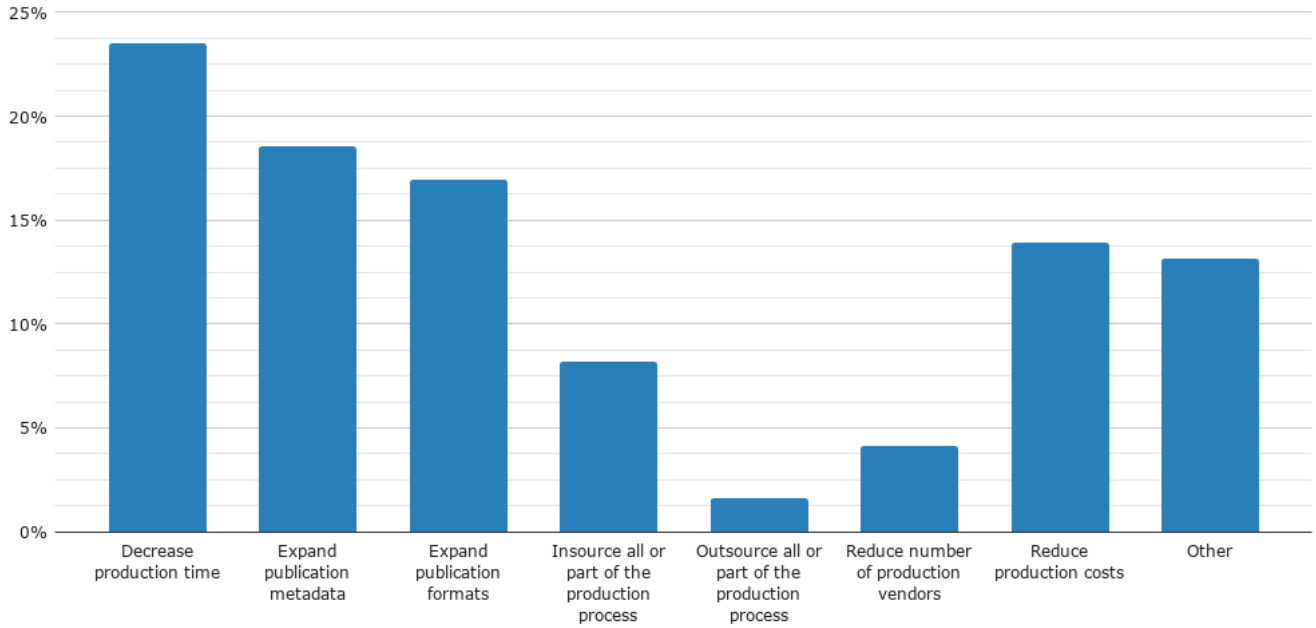
The following graph shows a combined view of average responses to the previous two survey questions. This graph aims to provide a clearer picture of where publishers' views on the importance of different file types for their readers and their publishing program goals converged and differed.



Respondents had similar perspectives on the most important file types for readers and their publishing program goals

- When directly comparing respondents' ratings of the importance of different article formats for their readers and their publishing programs, it is apparent that publishers have similar views in both areas.
- It is interesting to note that publishers rated HTML as slightly more important for reaching their program goals than for readers.
- It is also notable that the majority of those surveyed rated print on demand and print mailed to subscribers as more important for readers than their publishing program goals. That could be because publishers are more concerned with phasing out print to lower costs, whereas for subscribers, while potentially less used, print is generally considered a value add.

Of the following options, which is the most important journal production priority for your organization over the next 3 years?



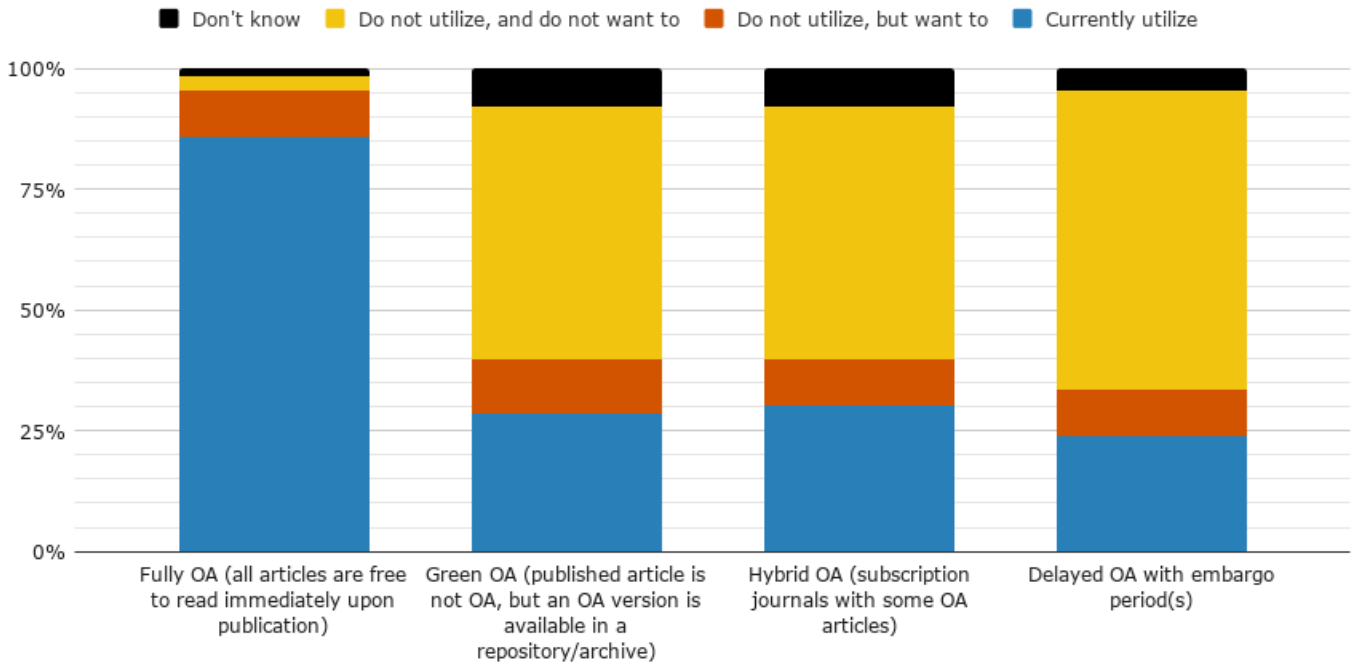
Publishers are most concerned with decreasing production time

When asked the most important journal production priority for their organization over the next three years:

- The majority of publishers surveyed were most concerned with decreasing production time.
- The next top production priorities were expanding publication metadata and publication formats, suggesting that publishers are concerned with improving their online presence and archiving and indexing capabilities.
- Insourcing all or part of the production process, reducing the number of production vendors, and outsourcing all or part of the production process were the least selected options, respectively.

The State of Journal Access

How is your organization utilizing the following Open Access models?



The majority of publishers currently utilize fully Open Access journal models

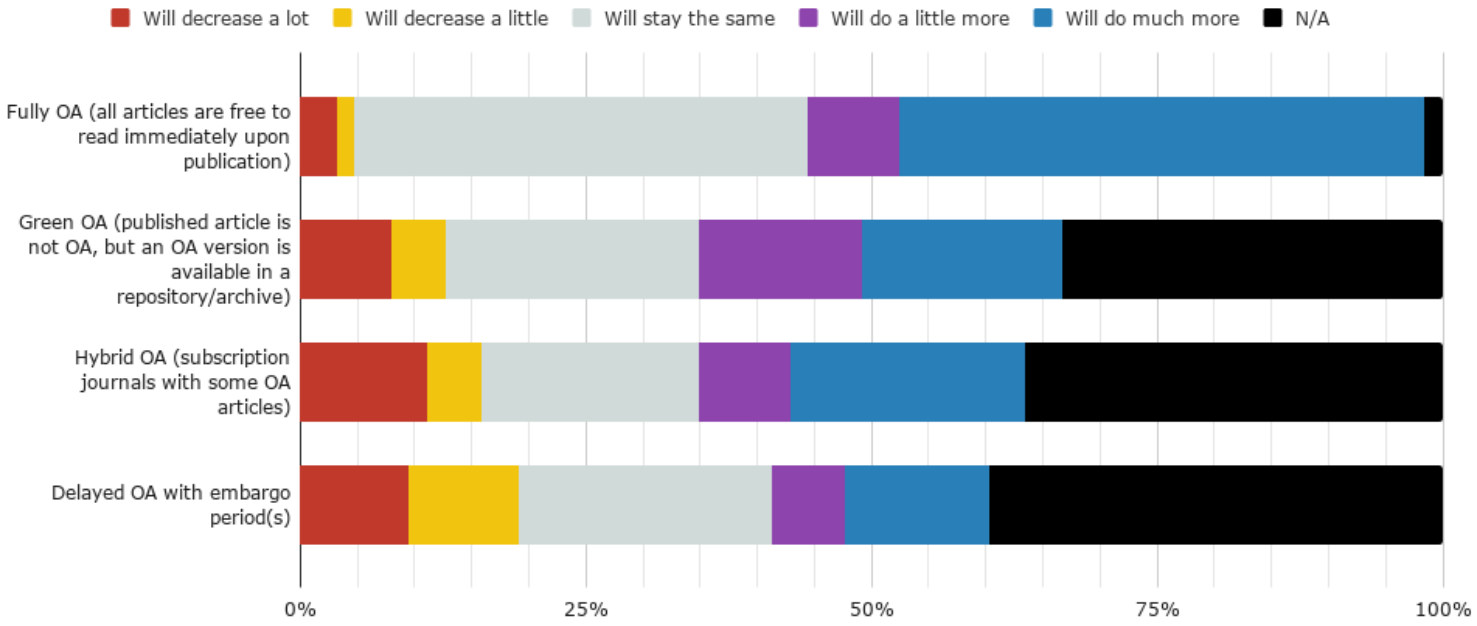
Fully Open Access publishing was overwhelmingly the most common OA approach among publishers surveyed, with over 80% of respondents saying their organization utilizes fully OA publishing models. The prevalence of fully-OA journals among publishers surveyed reflects industry-wide growth in the use of fully-OA publishing models observed in other recent reports, including the 2018 STM Report and Delta Think's 2019 Open Access Market Sizing Update.

The other OA options listed had more mixed results:

- Around 50% of respondents reported that they do not utilize and do not want to utilize Green OA or Hybrid OA.
- Only 30% of respondents reported that they currently utilize either Green OA or Hybrid OA models.
- Delayed OA was the least popular model, with 60% of respondents saying they do not utilize it and do not want to.

One possible reason for Delayed OA having the lowest reported usage among survey respondents is that some publishers may not see a business value in making all articles openly accessible on their website after an embargo period, because institutions and readers can wait for the free version to be released rather than subscribing to the journal.

Over the next 3 years, how do you think your journal publishing program's usage of the following OA models will change?



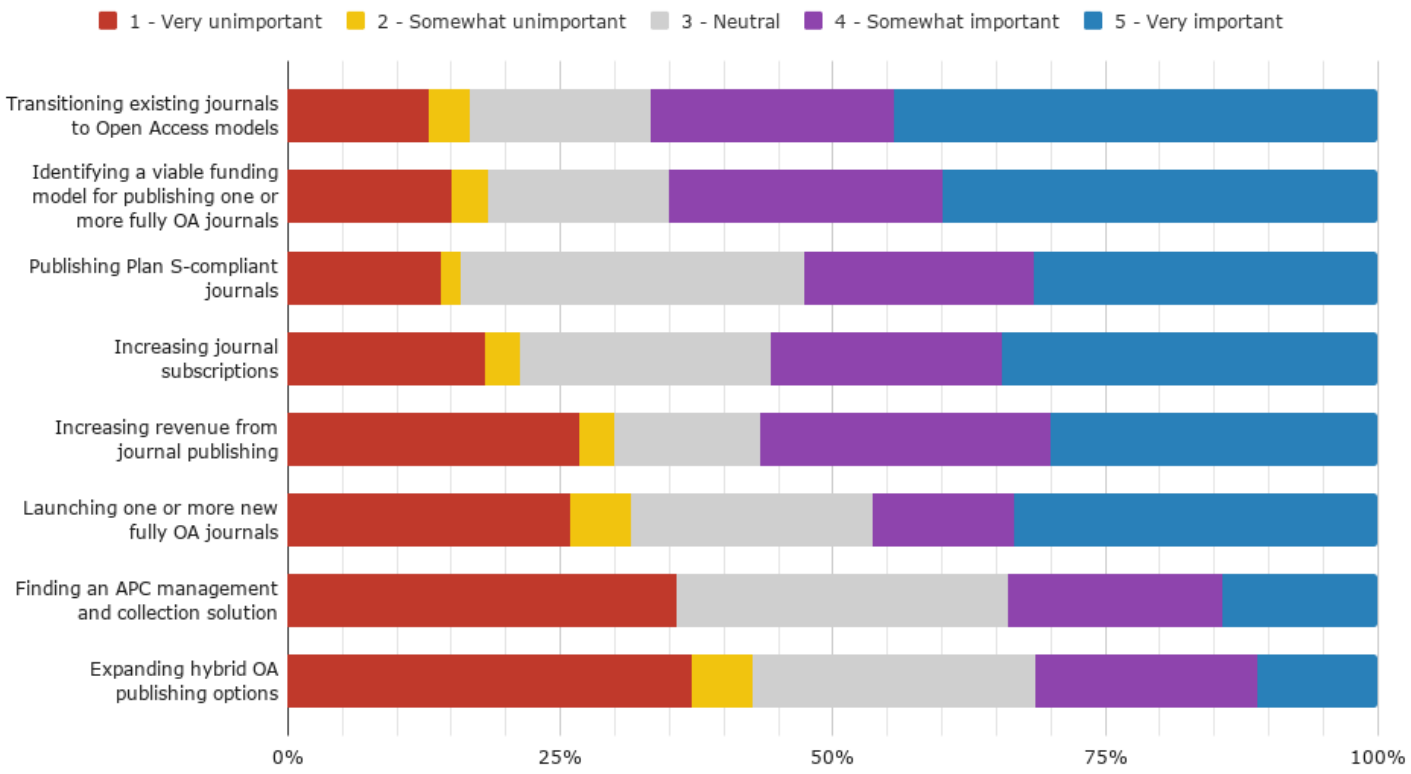
Most publishers expect to expand or sustain fully OA journal models

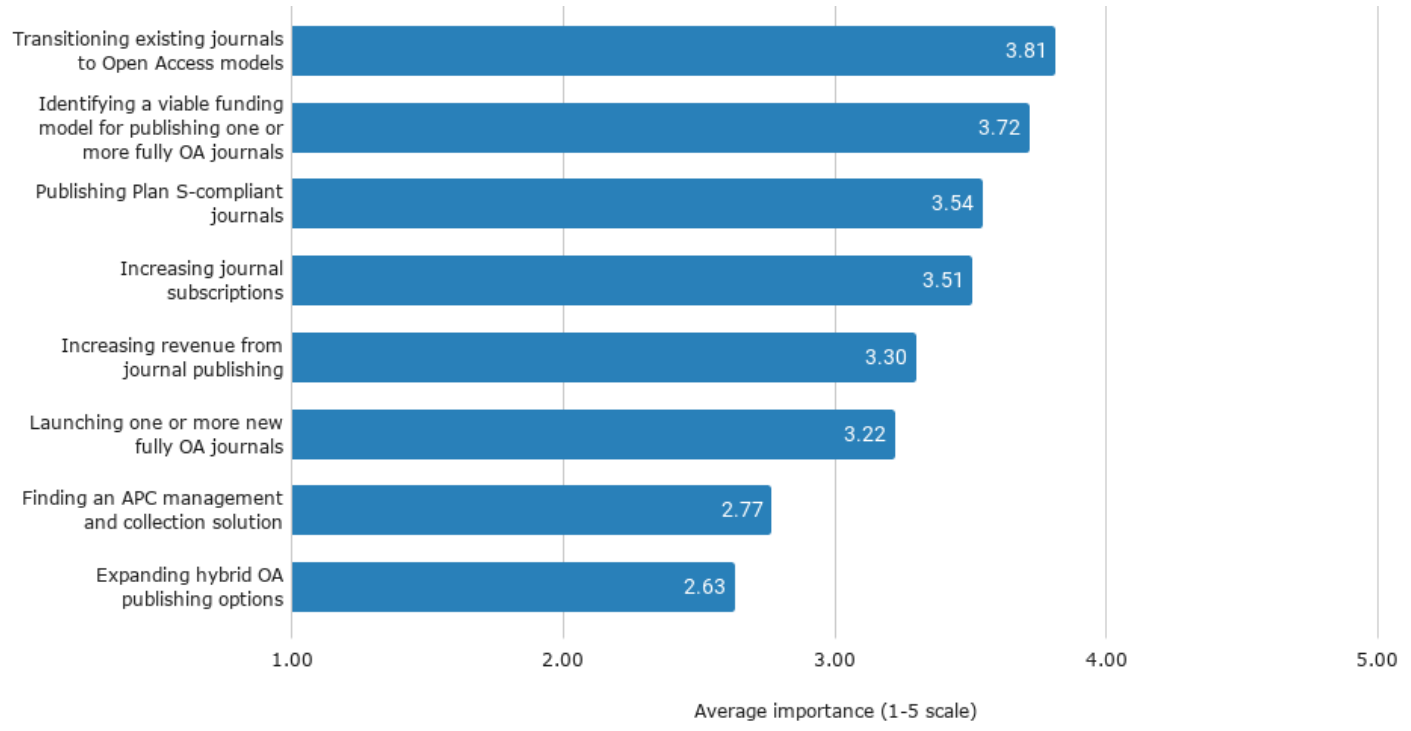
Fully OA publishing appeared to be a top priority for publishers surveyed, with 86% saying they planned to sustain their fully OA models or "do much more." In terms of other OA models:

- Over half of publishers indicated that Delayed, Hybrid, or Green OA models were either "not applicable" to their organization or that their use would "decrease a little," "decrease a lot," or "stay the same."
- It's worth noting that around 30% of respondents reported they planned to do "a little more" or "much more" Hybrid or Green OA, whereas only 19% of respondents indicated they would do "a little more" or "much more" Delayed OA.
- As noted in the previous question, lower popularity of Delayed OA may be because that model has less apparent business value for publishers, as opposed to Hybrid OA, which has a guaranteed subscription access revenue and Green OA, which generally retains the value of the publisher's "version of record" because OA articles are often preprints.

On a scale of 1-5, in the next 3 years, how important will each of the following [journal access] items be to your publishing program?

Responses to the above question broken out by individual ratings and average Likert scale ratings (1 being least important and 5 most important)





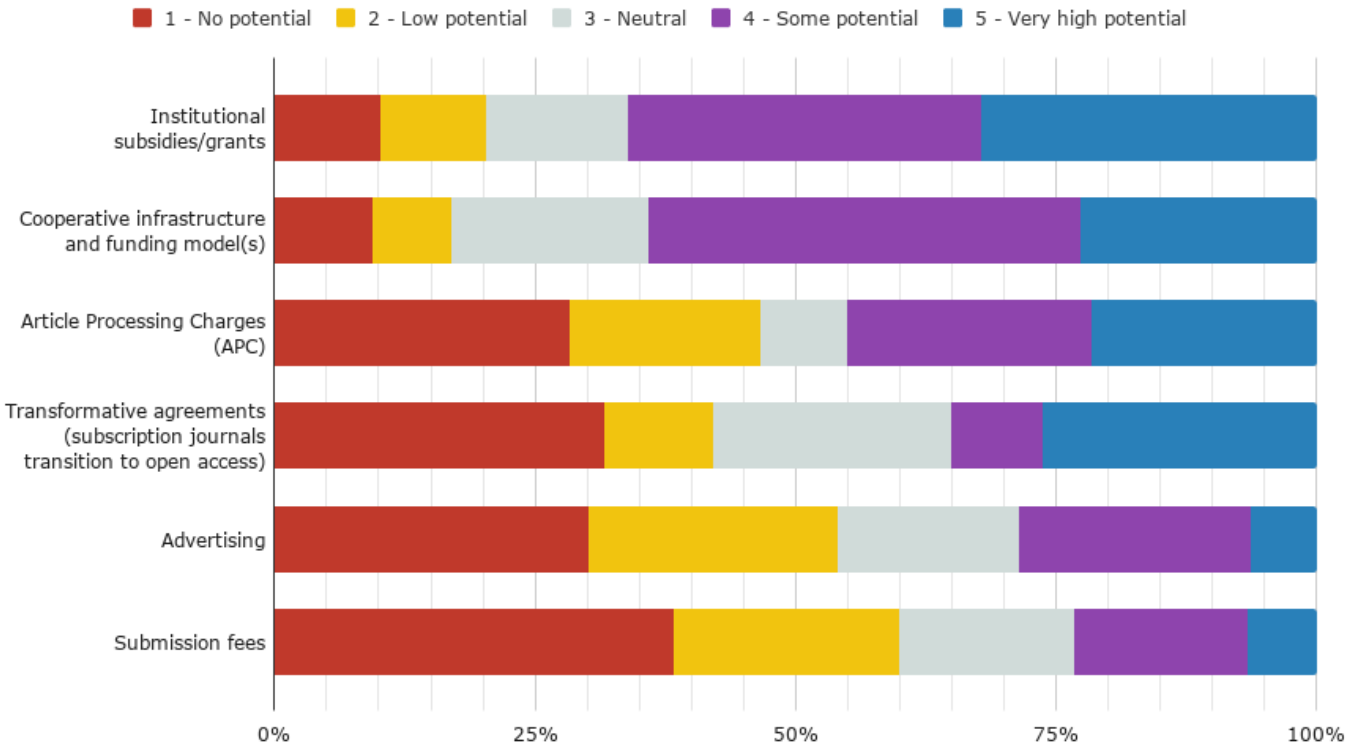
Publishers are prioritizing transitioning journals to OA and identifying viable fully-OA funding models

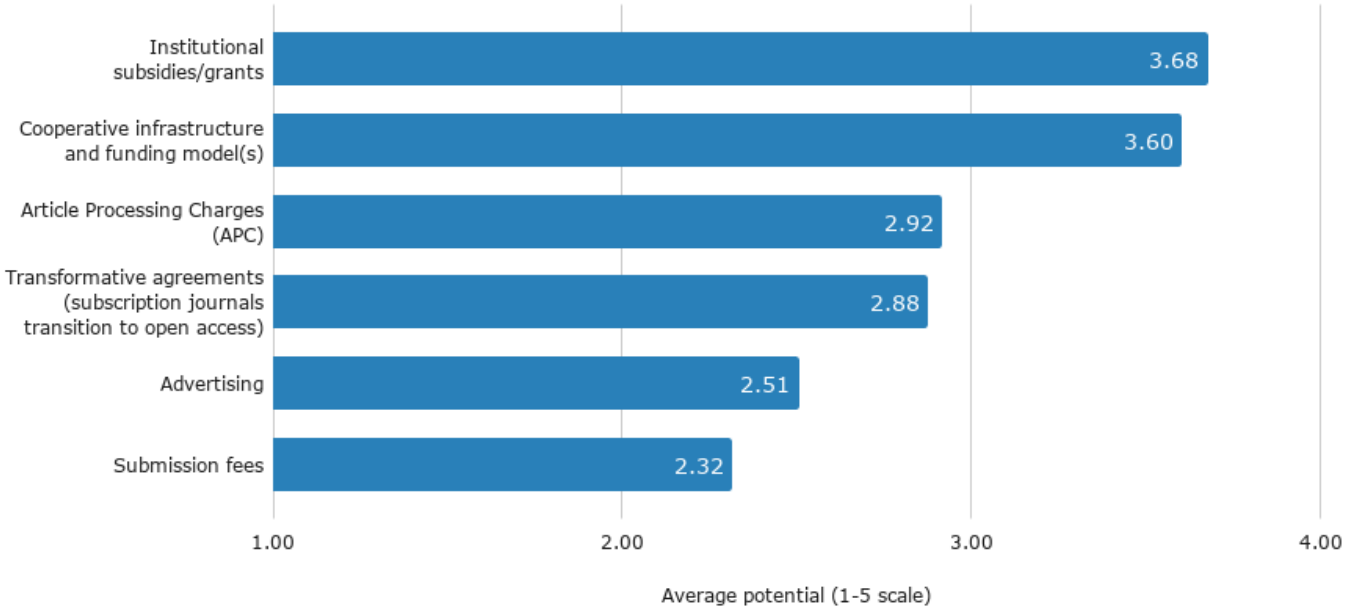
When asked to rate the importance of various journal access areas to their publishing program, some notable trends emerged among respondents:

- The majority of respondents rated transitioning existing journals to OA or identifying a viable funding model for publishing one or more fully OA journals as “somewhat” or “very” important.
- Expanding Hybrid OA publishing was the lowest-rated priority on average, suggesting that Hybrid OA may be seen as a less viable publishing model. This could be due to recent funder OA initiatives like Plan S taking steps to phase out support of hybrid publication.
- Respondents' lower rating for “finding an APC management and collection solution” could be due to publishers already having necessary APC processing infrastructure. Alternatively, the 2018 STM Report finding that “over 70% of the full OA journals listed in the Directory of Open Access Journals do not use publication charges” suggests that publishers planning to prioritize other OA funding options may be the more likely reason.
- As far as subscription access, more than half of respondents rated increasing journal subscriptions as “somewhat” or “very” important to their journal program, suggesting that publishers still plan to rely on revenue from journal subscriptions.
- More than half of respondents also rated increasing revenue from journal publishing as “somewhat” or “very” important to their journal program.

On a scale of 1-5, what do you think the potential is for each of the options below to fund fully OA journals at your organization within the next 3 years?

Responses to the above question broken out by individual ratings and average Likert scale ratings (1 being lowest potential and 5 most potential)





Institutional subsidies/grants are seen as having the best fully-OA funding potential

The majority of survey respondents rated institutional subsidies/grants as having high fully-OA journal funding potential over the next three years, with 62% of respondents selecting "some" or "very high" potential for that option. Cooperative infrastructure and funding model(s) were also highly rated, with 54% of respondents rating it as having "some" or "very high" potential. These responses suggest that publishers are interested in working directly with funders and academic institutions to develop OA funding models and publishing infrastructure.

The higher perceived potential of institutional subsidies/grants and cooperative infrastructure and funding model(s) also appears to reflect current fully-OA journal funding norms. The 2018 STM Report finds that fully OA journals without APCs "most commonly rely on sponsorships from institutions (research performing organisations, research funders, libraries, learned societies, museums, hospitals, for-profit or non-profit organisations, foundations, government agencies and so forth)."

In terms of other potential fully-OA funding options, the survey results show that:

- Transformative agreements were a lower rated option, with 54% of survey respondents selecting “low” or “no” potential and only 32% of respondents selecting “some” or “very” high potential. This is likely because of the variations in the size of publishers surveyed, as transformative agreements are generally more suited to larger publishers.
- Opinions on the potential of APCs were fairly evenly split, with 45% of respondents rating APCs as having “low” or “no” potential and 45% rating APCs as having “some” or “high” potential. While we can’t know for sure, this could be due to variations in publishers’ journal disciplines, since APC funding is generally more available in some disciplines than others.
- Other options of advertising and submission fees were mostly seen as having “low” or “no” potential.

“There is also the overarching question of how publishers' current production and access priorities reported in this survey may change in the future”

Conclusion

Overall, "The State of Journal Production and Access" survey results show that the publishers represented are prioritizing digital article production best practices, such as formatting articles in both PDF and HTML and including rich elements in article-level metadata. Additionally, the survey results show that the majority of publishers surveyed are prioritizing OA journal publishing now and in the future and focusing on expanding their use of fully-OA publishing models.

There are still many questions that remain in the areas of both production and access, such as:

- How do publishers plan to alter their current production processes to reach the aim of decreasing production time?
- Are publishers surveyed planning to add additional PIDs or other rich elements to their article-level metadata?
- Will publishers surveyed be able to generate sustainable fully-OA journal funding from institutional subsidies/grants (the top-rated potential funding model)?

In the ever-changing publishing landscape, there is also the overarching question of how publishers' current production and access priorities reported in this survey may change in the future. For example, will publishers continue to prioritize fully-OA journal publishing models? Such questions could be addressed by repeating this survey or a variant of it.

In reviewing the final survey report output, Scholastica also recognizes that there is room for improvement both in terms of the survey question design and respondent pool, which we’ve taken into account for potential future iterations. In subsequent surveys, we would aim to address areas of possible question overlap as well as some ambiguities in question design. Additionally, we would aim to have a broader representation of publishers to enable more fine-grain analysis, such as variations in responses by publisher size. The first iteration of this report has been a learning experience for our team, and we hope that these initial outcomes will be of value to the scholarly publishing community.

If you're interested in exploring other potential patterns and norms revealed by "The State of Journal Production and Access" survey, you can access the full raw data set here. The data set is anonymized, and geographic information has also been removed to further prevent the possibility of respondent identification.

Scholastica thanks everyone who took the time to respond to this survey to help develop collective insights around society and university publishers' current and future journal production and access priorities.

Acknowledgments: *Survey development and analysis by Brian Cody and Danielle Padula. Survey graphs and design by Dana Stemo.*

Contact Us:

We invite you to contact us with any questions about the “The State of Journal Production and Access” survey at support@scholasticahq.com. You can also find us on Twitter at @scholasticahq.

About Scholastica

Your platform for sustainable, high-quality scholarly journal publishing

Scholastica is a web-based software platform with modular tools and services for every aspect of publishing academic journals — from peer review to production to hosting and discovery support. Our mission is to empower journal publishers to make quality research available more efficiently and affordably in order to facilitate a sustainable research future. Over 900 journals across disciplines use Scholastica.

Learn more at: scholasticahq.com

Get more publishing resources