Humanities Scholars and Library-Based Digital Publishing

NEW FORMS OF PUBLICATION, NEW AUDIENCES, NEW PUBLISHING ROLES

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The rise of library-based digital scholarly publishing creates new opportunities to meet scholars' evolving publishing needs. This article presents findings from a national survey of humanities scholars on their attitudes toward digital publishing, the diversification of scholarly products, changing perceptions of authorship, and the desire to reach new audiences. Based on survey findings, the authors offer recommendations for how library publishers can make unique contributions to the scholarly publishing ecosystem and support the advancement of digital scholarship in the humanities by accommodating and sustaining more diverse products of digital scholarship, supporting new modes of authorship, and helping scholars reach broader audiences through interdisciplinary and open access publishing.

Keywords: library-based publishing, humanities research, digital scholarship, scholarly communication, digital humanities

INTRODUCTION: UNDERSTANDING THE NEEDS OF SCHOLARS IN A CONTEMPORARY PUBLISHING ENVIRONMENT

Scholars in the humanities too often find their publishing needs unmet, despite the rapid evolution and diversification of digital scholarship. At the same time, library-based publishing services and library–press collaborations are on the rise, growing in response to a scholarly demand to fill gaps in the current landscape of scholarly communication.[1] Based on a national survey of humanities scholars, this study identifies areas of opportunity for library-based publishers to fill gaps in the current support for digital publishing in the humanities. These gaps include supporting a growing diversity of scholarly products, sustaining and preserving complex digital publications, helping scholars find new and broader audiences,

and supporting collaborative, incremental, and iterative authorship and new forms of review.

In the last two decades, humanities scholars have increasingly turned to digital publishing. Still, long-established print-centric genres (especially the print monograph) remain the gold standard of humanities publishing, even as scholars increasingly employ digital technologies and multimedia sources in their research processes.[2] Several studies have identified barriers to digital scholarly publishing, including a scarcity of easy-to-use tools, lack of faculty time to learn new skills, insufficient institutional support, high costs, and concerns about the evaluation, prestige, and sustainability of digital publications.[3]

Several university presses in recent years have targeted these barriers directly. Building on efforts such as the Public Knowledge Project,[4] recent initiatives — including Fulcrum,[5] Manifold,[6] and Vega Academic Publishing System[7] — are developing publishing platforms for diverse digital scholarship. Often constituting collaborations between presses and libraries, among other stakeholders, these platforms aim to support flexible, collaborative publishing workflows that yield interactive, multimedia content bearing the imprint of a library or press. Libraries have also developed training and outreach programs to support digital scholarship, often through dedicated scholarly communications units.[8] And widespread efforts, in academic departments and professional societies, have sought to formalize systems of credit and evaluation for digital publications.[9]

This article reports on a national survey of humanities scholars that was designed to assess how attitudes and practices are changing in light of these efforts to advance digital publishing. Within the humanities, scholars have distinctive and diverse publishing needs, and they often confront more significant barriers to digital publishing than do scholars in other disciplines. Conducted as part of the Publishing Without Walls initiative (PWW), this research supports the development of a service model for library-based publishing, with the goal of reducing barriers to digital publishing in the humanities.[10]

The survey comprised twenty-nine questions covering six broad themes: (1) experiences with print and digital publishing;[11] (2) goals for publishing; (3) use of and preferences for publishing tools and platforms; (4) use of and preferences for publishing services and support; (5) opinions on digital publishing from the perspective of reader as opposed to author; and (6) general attitudes toward print and digital publishing. Questions were presented as Likert-scale rating questions (usually

presented in matrix tables, which asked respondents to rate several items in succession); ranked responses (which asked respondents to place items in rank order, for example, of perceived importance); multiple-choice questions; and open-ended questions.[12]

By a method of purposive sampling, the survey was distributed through listservs and social media venues targeting scholars in the humanities and humanistic social sciences. A further round of recruitment focused on encouraging responses from scholars more likely to have experienced systemic barriers to digital publishing, specifically scholars at historically black colleges and universities and other minority-serving institutions. In total, the survey received 250 responses.[13] Because only 48 per cent of respondents elected to answer optional demographics questions, how well the responses represent the diversity of humanities scholars is unknown. The majority of those who provided demographic information are tenure-track faculty (66 per cent). Disciplinary representation is skewed toward literature in English (30 per cent) and library and information science (19 per cent), with further respondents from an array of disciplines including history, foreign languages, area studies, classics, digital studies, linguistics, and race and gender studies.

The survey sheds light on four major dimensions of the contemporary publishing environment in the humanities: 1) scholars' attitudes toward digital publishing in general and their attitudes toward and needs from publishing services; 2) their publishing practices and the diversification of scholarly products they produce and use; 3) their changing perceptions of authorship, including ongoing renegotiation of author and publisher roles and increasing collaborative authorship; and 4) the breadth of their target audiences for publications. The rest of this article is structured around these four areas. Survey findings in each area suggest opportunities for emergent library-based publishers to fill gaps by supporting rapidly evolving digital scholarship and communication in the humanities.

READINESS FOR CHANGE AND ADHERENCE TO CONVENTIONS:
SCHOLARS' ATTITUDES TOWARD PRINT AND DIGITAL
PUBLISHING

Responses to the survey suggest that humanities scholars have largely positive perceptions of digital publishing, both as producers and consumers of scholarship, despite having comparatively less digital than print publishing experience. A little over half of respondents (54 per cent) indicated that they are *enthusiastic* producers of digital scholarly publications; only

5 per cent of respondents described themselves as *skeptical* of digital publishing (Figure 1). In contrast, respondents consider their peers to be less enthusiastic about digital publishing, especially as producers (rather than consumers) of digital publications. Only 10 per cent of respondents rated their peers *enthusiastic* producers of digital publications. However, they consider their peers to be more enthusiastic consumers of digital content, with 69 per cent rating their peers *enthusiastic* or *somewhat enthusiastic* consumers. The discrepancy between how scholars think about digital publishing and how they believe their peers think about it resonates with scholars' ongoing concern about the reputation of digital publishing within conservative humanities disciplines.[14] The discrepancy may also reflect a bias among respondents, who may have self-selected into participation out of special interest or investment in digital publishing.

Seventy-nine respondents elaborated on their attitudes toward digital publishing through free-text responses, providing various rationales for their positive or negative attitudes. The most commonly identified benefit of digital publishing was improving access to publications. One respondent wrote, 'I value [digital publishing] most for the access it provides. While I personally prefer to read printed materials, I still tend toward acquiring digital texts because I can often get them and store them more easily.' Forty-three per cent of the free-text responses explicitly mentioned or alluded to the benefits of open access as a possibility of digital publication. A positive inclination toward open access publishing aligns with the findings of Rowley et al., who identified a cautiously positive view toward open access journal publishing among scholars across disciplines,
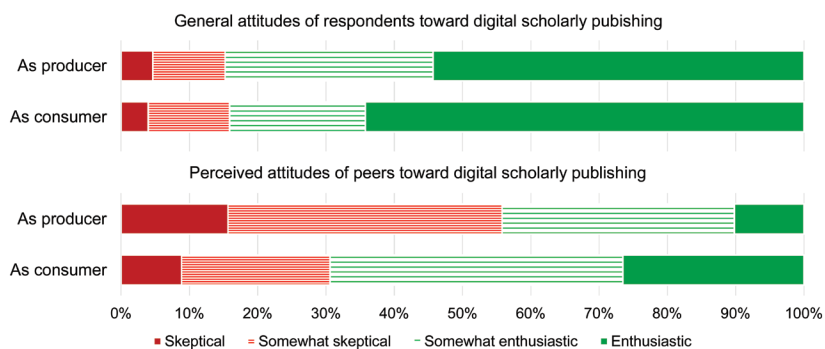

FIGURE 1. Attitudes toward digital publishing.

especially for the capacity of open access to increase the circulation, readership, and visibility of publications.[15]

In their free-text responses, respondents also expressed concerns about digital publications' perceived lack of prestige and quality, along with uncertainty about their durability, persistent concerns that are in keeping with earlier studies of the obstacles confronting digital scholarly publishing.[16] Twenty respondents cited lack of prestige and poor quality as a concern. One respondent lamented, 'There is so much digital junk — very low-quality scholarship masquerading as good research; at least in print, there is better gatekeeping.' Eight people mentioned durability, preservation, and concern over future access; one respondent wrote, 'access is great; but I worry a lot about the lack of durability, about obsolescence, about the preservation of the long-term record of knowledge.' Views on the trade-offs between print and digital publishing varied across respondents. For example, one respondent preferred to collapse the distinction: 'I think we make too big a deal out of whether something is digital or print. I don't care. I just care about the content and sometimes the process, meaning peer review.'

Beyond general attitudes about publishing, the survey identified divergent experiences and needs related to the processes of print and digital publishing. To elicit information about their publishing challenges, the survey asked respondents to rate the following nine variables from *not at all challenging* to *extremely challenging* for both print and digital publishing: 1) getting adequate technical support for publication; 2) manuscript preparation; 3) getting adequate editorial support for publication; 4) getting adequate financial support for publication; 5) securing third-party permissions; 6) reaching intended audiences; 7) finding appropriate venues; 8) securing a publisher; and 9) speed to publication.[17]

The outstanding complaint about print publishing as a process is its perceived slowness, with 85 per cent of respondents categorizing 'speed to publication' as *challenging* or *extremely challenging* for print publication, confirming other studies.[18] Speed to publication has been identified as a main benefit of digital open access publishing.[19]

Nearly a third of participants (31 per cent) considered marketing and audience-creation to be inadequately supported aspects of publishing (regardless of whether print or digital), and more than a third (35 per cent) wanted more help from publishers in navigating third-party permissions for the publication of sources — although neither of these services was among their top priorities. Respondents indicated general satisfaction

with what they considered to be among the most important publisher services: peer-review coordination, publisher transparency and communication, and publisher interventions into publication design. Figure 2 shows how the scholars rated the adequacy of extant publishing services, from *extremely inadequate* to *extremely adequate*. While participants rated the adequacy of extant services on a five-point scale, we have simplified Figure 2 in order to highlight the most important outcomes, collapsing the categories *extremely inadequate* and *inadequate* to represent negative perceptions, and *adequate* and *extremely adequate* to represent positive perceptions. The services are listed in the order of their perceived importance to respondents, with those at the top being most important.

Only three categories of service or support were perceived by more respondents to be inadequate than adequate: digital archiving and preservation measures, marketing and audience-creation, and navigating third-party permissions. Digital preservation was among respondents' most valued services. Approximately one-third of respondents (34 per cent) considered preservation services for digital publications to be *inadequate*; the remaining two-thirds were evenly split between *neutral* and *adequate*. Given the importance of preservation to respondents, improving scholars' trust in the preservation of digital publications constitutes an area of urgent potential for publishers.[20]

Many of the services discussed above could be delivered by publishers in a variety of ways. Respondents' preferences for *how* they receive publishing services varied, with the most popular means being one-on-one

Perceived adequacy of available publishing services
(listed in rank order from most to least important, as rated by respondents)

	inadequate	neutral	adequate
(1) transparency and clear, frequent communication	21%		49%
(2) peer review coordination	13%		64%
(3) digital archiving or preservation measures	34%		33%
(4) input on design, production issues	14%		51%
(5) marketing and audience-creation	36%		30%
(6) navigating third-party permissions	43%		21%
(7) hosting for supplementary materials	26%		32%
(8) input on organizational, conceptual, content issues	20%		33%
(9) instruction in digital publishing tools	31%		42%
(10) help planning publishing projects	25%		41%

Percent of respondents
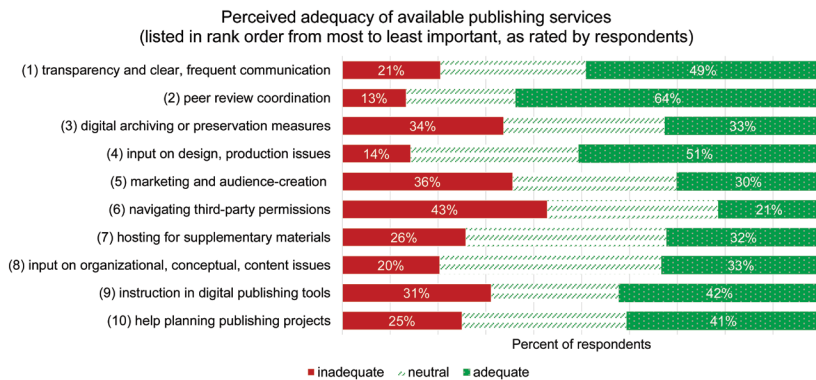
■ inadequate   ⁄ neutral   ■ adequate

FIGURE 2. Perceptions of the adequacy of extant publishing services.

consultations (61 per cent), remote support (60 per cent), and detailed documentation (57 per cent). Far fewer respondents expressed interest in walk-in support or workshops. Within an academic library, these preferences suggest that service models emphasizing library office hours and short-form instructional sessions may not align with the mission of a library publishing unit and the needs of faculty. With respect to publishing processes, however, survey results were not robust enough to suggest a single best path forward. Rather, they serve as indicators for the value of prioritizing a diverse service portfolio.

DIGITAL PUBLISHING AND THE DIVERSIFICATION OF SCHOLARLY PRODUCTS

Respondents' reported enthusiasm for digital publishing is reflected in publishing practices, albeit to a limited extent. Digital publishing is common among respondents, with most respondents (76 per cent) having published both in print and digitally (14 per cent reported exclusively print publishing experience, and 6 per cent exclusively digital publishing experience). Previous studies have found that common genres of humanities publishing have been slow to transition from print to digital form.[21] Indeed, of the top four print genres (journal articles, book chapters, conference papers, and books), respondents reported having substantially more print than digital publishing experience (Figure 3). Despite advances made in the availability of tools, services, and support, our survey results suggest that digital publishing still lags behind print for the main forms of publication. Of course, the lag may be decreasing (the survey does not reveal trends over time). However, respondents reported publishing a wider variety of forms digitally, and digital publishing was more common than print across most genres of publication.[22]

Technological advancement has given rise to new forms of scholarly output, ranging from datasets and collections to software applications and blogs.[23] Some forms have begun to stabilize, having garnered varying degrees of acceptance among different disciplinary communities. While familiar forms such as journal articles still dominate publishing, our survey results confirm an increasing variety of scholarly products. When asked how frequently they had published digitally in various categories, a large majority of respondents reported having self-published via personal or professional websites (87 per cent), blogs (76 per cent), or other websites (66 per cent). Beyond the controlled categories provided by the survey,

Respondents who have published digitally vs. in print, by genre
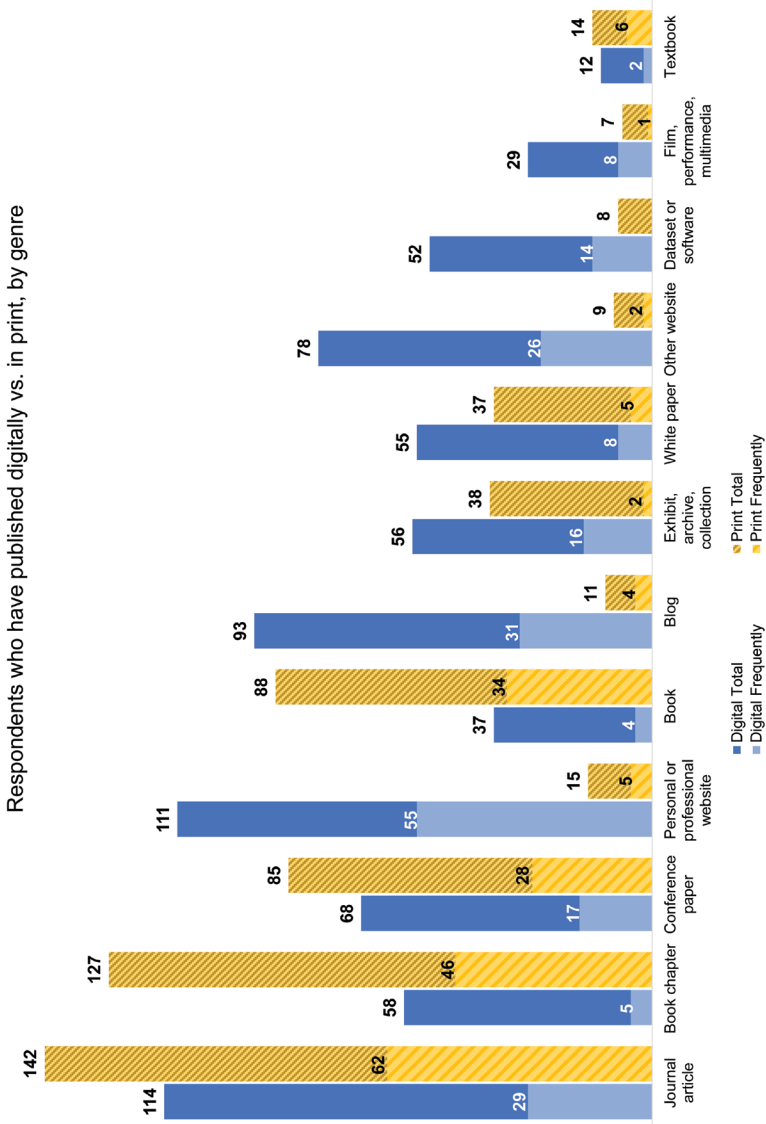

FIGURE 3.   Digital versus print publishing experience, by genre.

twelve respondents named other forms and genres in which they had published, including creative works, book reviews, 'living processual works,' maps, encyclopedia entries, games, edited texts, and transmedia works. In addition, when asked what kinds of content are typically present in the products of their scholarship, a sizeable minority of respondents identified multimedia resources such as collections and archives (33 per cent), datasets (29 per cent), interactive visualizations (27 per cent), and other multimedia (25 per cent). This diversity of content exceeds the capacities of most extant publishing systems, and alternative forms of publication tend to be omitted from related systems of formal review, evaluation, discovery, access, and preservation.[24] For these reasons, the robust numbers of respondents publishing across numerous genres warrants sustained attention from publishers.

CHANGING PERCEPTIONS OF AUTHORSHIP: COLLABORATION AND PUBLISHING ROLES

While most disciplines have witnessed a dramatic increase in co-authorship in the last few decades, this change has come to the humanities more slowly.[25] In keeping with several recent studies that have identified a trend toward increased collaboration in the humanities,[26] our survey results suggest that our respondents are very open to collaborative authorship. Nearly 90 per cent of survey respondents have authored collaboratively or hope to in the future. This desire to collaborate may be attributed in part to bias among our respondents, who may have been drawn to participate in the survey by their prior interest in collaborative, digital modes of publication. While most (75 per cent) had collaborated, or wished to, with a limited number of (local or remote) co-authors, a few reported hoping to collaborate with an unrestricted number of co-authors — for example, through large-scale public or community authorship of open documents, or in a more limited fashion through open annotation and open review tools for gathering commentary and feedback.

Respondents disseminate in-progress work predominantly through conferences and workshops or through direct communication with other scholars (Figure 4). A substantial minority (between one-fifth and one-third) reported using blogs, social media, or personal websites for publishing in-progress works. Unlike other options for scholars to share their in-progress work (especially conferences and institutional repositories), these self-publishing options may exist outside institutional systems of

How respondents disseminate in-progress work
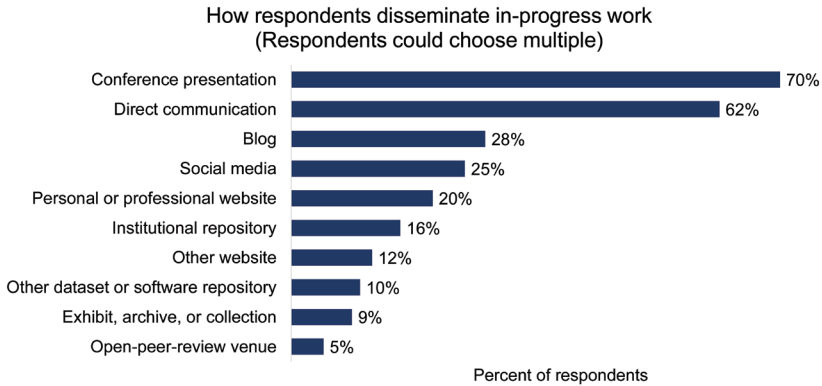(Respondents could choose multiple)

FIGURE 4. How respondents disseminate or publish in-progress works.

discovery, access, and preservation. Figure 5 shows different strategies for obtaining feedback and review from peers and collaborators. Most respondents reported gathering feedback and review by emailing file attachments back and forth with peers (84 per cent), by collaborating asynchronously on cloud-based documents (71 per cent) or through having shared file storage (65 per cent), or by working together in real time (64 per cent). Fewer respondents reported using a version-control repository (such as GitHub) for gathering feedback on works in progress (14 per cent).

More than half of the respondents (56 per cent) expressed interest in using open peer review and open annotation tools (e.g., Hypothes.is or CommentPress) to gather feedback on their research, either before or after its publication. Among the rest of respondents, the largest number (34 per cent) were merely unsure about open review and annotation, perhaps in part because they were unfamiliar with such tools or uneasy about the implications of their use. Only 11 per cent were altogether unwilling to engage in these forms of review and comment. While the interest is substantial, the practice of employing open review and annotation is still rare. Few respondents (eight total, or approximately 5 per cent, as shown in Figure 5) reported having used open review or web-hosted annotation tools to gather feedback on their work. Fitzpatrick and Santo have expressed the need for improved technological systems along with the significant human infrastructure necessary to manage expectations and sustain the labour of participating in a functional open review process.
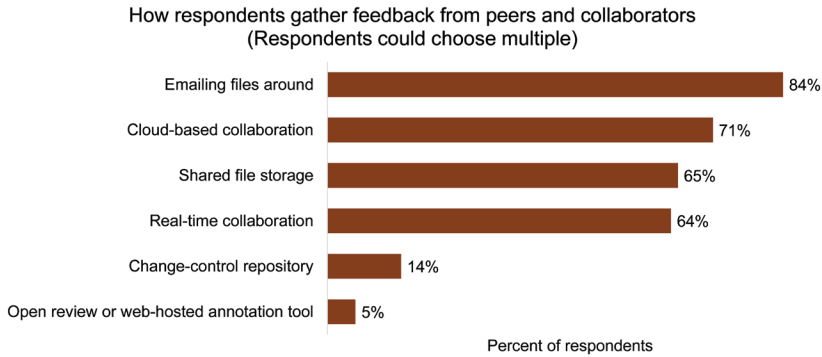
How respondents gather feedback from peers and collaborators
(Respondents could choose multiple)

Emailing files around	84%
Cloud-based collaboration	71%
Shared file storage	65%
Real-time collaboration	64%
Change-control repository	14%
Open review or web-hosted annotation tool	5%

Percent of respondents

FIGURE 5. How respondents gather feedback on in-progress works from their peers.

They recommend the development of socio-technical solutions grounded in dedicated communities of practice.[27]

The survey identified further shifts and tensions in author and publisher roles. Goldsworthy has described publishers as 'shifting their position in the value chain, and redefining themselves as they go, into training and assessment, information systems, networked bibliographic data, and learning services.'[28] While the roles of academic publishers have been in flux for decades, shifts in authorial roles seem to be more recent, enabled by digital self-publishing. Beyond self-publishing for in-progress work and open review, humanities scholars rely on self-publishing for disseminating genres of work that exceed the capacity of traditional publishers. Authors may turn to self-publishing in order to share complex digital objects such as collections and datasets, interactive visualizations, and multimedia. In an era of digital self-publishing, more roles traditionally relegated to publishers are being assumed by authors, including aspects of publication design, facilitation of review, and publicity. Further blurring the line, self-publishing tools usually aim to support various aspects of authorship — including content creation, editing, and design — along with publication to the web.

The humanities scholars we surveyed are not uniformly contented with a perceived convergence of the roles of author and publisher. One respondent wrote, 'As someone who has written professionally for many decades, I consider digital publishing tools, like typesetting and layout, my publisher's job . . . [M]aking writers do design work . . . would be like requiring faculty to clean classrooms and do tech support.' Spence notes the

Audiences respondents most wish to reach
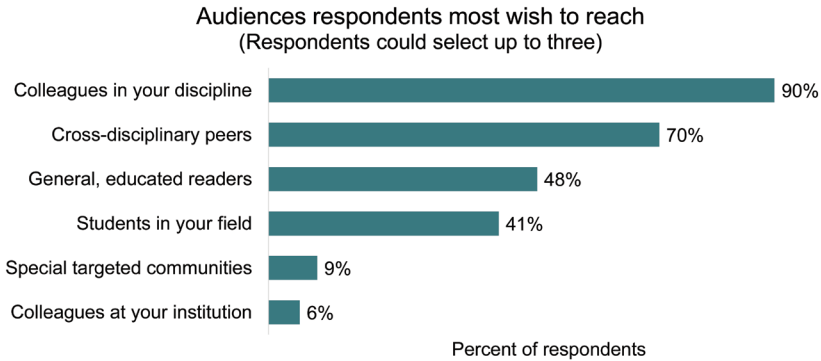(Respondents could select up to three)

FIGURE 6. Audiences that respondents most wish to reach.

shift in author and publisher roles and argues that creative partnerships will be essential to bridging the gaps that exist among different stakeholders in the publishing process,[29] including authors, publishers, and — we argue — library-based publishing services.

REACHING NEW AUDIENCES

The survey asked respondents to indicate the top audiences they most wish to reach with their scholarship (Figure 6). Unsurprisingly, 90 per cent of respondents sought to engage with scholars in their discipline, but respondents also revealed an appetite for cross-boundary engagement, with 70 per cent hoping to reach cross-disciplinary peers and 48 per cent interested in reaching the general educated reader. Other target audiences included students in their disciplines (41 per cent) and specific non-scholarly audiences (9 per cent), ranging from funding agencies and policy advocates to communities of interest, such as LGBT readers and creative writers.

It was highly important to respondents that a publication venue have the capacity to reach their target audiences. The survey asked respondents to rank factors they use to choose publication venues (Figure 7). While *reputation of the venue* was more frequently ranked as respondents' first priority (34 per cent), *audience* was also commonly ranked first (28 per cent), and in a calculation of weighted averages, audience comes out slightly ahead of reputation.[30] As consumers of scholarship, respondents also gave preference to *accessibility* (e.g., ease of access and availability) over *status and trustworthiness of the publisher or venue* (with a weighted

Ranked factors in how respondents choose publication venues (e.g. journal, conference, or publisher) (Respondents were asked to rank each factor in order of priority from 1 (highest) to 6 (lowest))
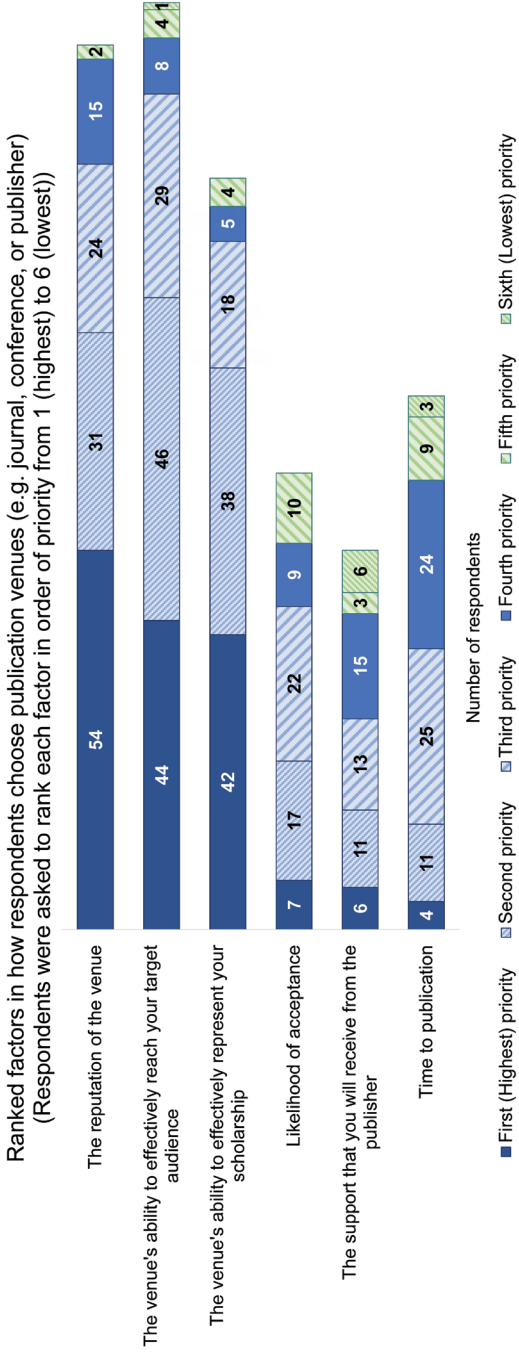
FIGURE 7. Factors in how respondents choose publication venues, ranked by priority.

average of 2.0 and 1.5, respectively, on a 4-point scale). The survey responses suggest that certain readers of digital publications (researchers and instructors) may be willing to overlook the lack of prestige of a publisher if the publication is relevant and easily accessible.

Scholars themselves are prime audiences for less conventional publications. Substantial numbers of respondents (though none a majority) reported frequent use of other scholars' personal and professional websites (30 per cent); of collections, exhibitions, and archives (31 per cent); and of blogs (27 per cent). Comparatively fewer respondents reported frequent use of datasets and multimedia, but these materials fit within the 'collections as data' ethos in contemporary academic librarianship and may readily be collected in anticipation of future use.[31] These survey results suggest that services oriented toward a wider variety of digital content and alternative genres of publication stand to benefit between a quarter and a third of humanities scholars who may be underserved by current systems of digital publishing.

OPPORTUNITIES FOR LIBRARY PUBLISHING SERVICES

This research illuminates areas of special opportunity for publishing libraries to build programs that effectively address unmet author needs. These results can guide prioritizing resources and investing in services. Four prime areas of opportunity for library-based publishers are discussed in this concluding section:

1. platforms to support more diverse scholarly products, including emergent genres and the integration of complex digital objects into long- or short-form narratives;
2. support for durable digital publications, including maintenance systems for diverse content, social media, and informal publications used to disseminate scholarship, and outreach to promote trust in the sustainability of digital publications;
3. support for audience-creation, marketing, and otherwise getting the word out to very broad target audiences, including interdisciplinary audiences and the interested general public;
4. platforms that support collaborative authorship and alternative forms of peer review and feedback gathering.

Libraries and university presses each have important roles to play in meeting scholars' publishing needs for scholarly communication,

and many scholars have recognized the actual and potential benefits to library–press collaboration.[32] Academic libraries are collecting institutions intended to gather and provide access to information in all its forms in the service of research and teaching. Library holdings contain evidence upon which scholars base their arguments, and, in turn, libraries collect new generations of scholarship. Historically, libraries have collected materials produced by scholars and printed and disseminated by presses. While the missions of academic libraries and presses retain an important degree of differentiation, the synergies between the two enterprises are clear and mutually beneficial, so much so that the reporting lines of university presses increasingly run through library administrations.[33] The joint efforts of library publishers and presses can promote a diversified, thriving scholarly communications ecosystem, capable of reaching a broader range of audiences, promoting sustainable digital publication platforms and formats, and reducing the need for third-party vendors for digital products.

In the case of library publishers, strengths and opportunities emerge around pre-existing technical infrastructures that can support platforms for digital authoring, services for content representation, and workflows for dissemination and long-term preservation. The library's mission-critical status within higher education emerges as an overall strength, but taking on additional roles and service models may strain capacity and tax library personnel. Acquiring new content, coordinating peer review, and developing strategies to connect readers with new scholarship all require considerable time and energy. As fledgling publishers, librarians also do not have the established reputation enjoyed by their colleagues in university presses. Strategically, libraries would do well to build their reputations by focusing on core strengths and known gaps rather than replicating what presses already do well.

For library publishers, building out strategies for transparent communication with authors and marketing to reach target audiences would likely be the best priorities for a lean staff. To increase transparency, library publishers should document their publication workflows in ways that are openly accessible to authors and employ communications checklists to ensure frequent and systematic status updates. Communication may be partially automated through platforms that provide author dashboards and auto-generated notifications. Library publishers may develop

individualized marketing strategies through interviews or dialogues with authors, comparable to traditional library reference interviews, designed to help authors identify target audiences and to delegate marketing responsibilities among authors and publishing staff. In response to authors' desire to reach wider audiences, publishers may adopt a multifaceted approach that begins with the review process by soliciting feedback from outside disciplinary silos and developing plans to reach an expanded audience via social media and other forms of community outreach. Such strategies would also build on established attention in most academic libraries to frequent and open communication with users. Managing peer-review processes is highly important, but it is also well supported by existing publishing models. Developing strategies that integrate existing peer-review models or experimenting with alternative modes of peer review would address scholars' needs while also helping to pave the way for new modes of publishing. Instruction in working with new publishing tools and support for navigating third-party permissions did not emerge as prime concerns for survey respondents. Despite clear opportunities to improve presently inadequate services, these activities should be regarded as lower priorities.

The diversification of digital scholarship poses the most significant opportunity for library-based digital publishing services. As the survey's results confirm, scholars are producing a diversity of genres and media that are not well served by systems and services oriented toward conventional university press publications.[34] Libraries have a unique opportunity to confront the diversity and complexity of digital scholarship before, during, and after publication. As collecting institutions, libraries have a vested interest in gathering these materials and, in doing so, become natural candidates for disseminating them as well. Moreover, many libraries are establishing systems for digital preservation of increasingly complex objects, whether within individual institutions, in consortia, or in large-scale preservation networks.[35] For scholars seeking to incorporate complex digital objects into their publications or publish them as stand-alone products of scholarship, the library is a natural source for collecting, disseminating, and preserving such scholarship.

Many humanities scholars' interest in open review and collaborative authorship suggests an opportunity for advancing systems for early publication, sharing, feedback, and post-publication review. In particular,

next-generation digital publishing systems will need flexible support for collaborative authorship, including flexible permissions and access management. While other disciplines have well-established venues for preliminary publishing (e.g., the arXiv preprint repository), there are fewer analogous systems in the humanities, although experimental platforms for sharing scholarship and facilitating open review do exist (e.g., Humanities Commons and MediaCommons).[36] Institutional and domain-specific repositories can serve iterative and incremental publication for some kinds of content, if not the more complex digital objects that scholars are beginning to publish, but these repositories do not usually support annotation or review.

Libraries have an opportunity to innovate by developing, hosting, and maintaining combined authorship and publishing tools that support the flexible, open, and collaborative authorship in demand among some humanities scholars. Collaborative authorship through common authoring tools (like word-processing software and cloud-based text editors) does not disrupt extant publishing models because it retains the distinction between authorship and publishing as separate and successive processes. But where the processes of authorship and publication begin to overlap, the next generation of digital publishing services may need to step in and provide support. For example, in rare cases, documents are made publicly available during the process of their authorship (a process that may keep going indefinitely). Documents open to community and public authorship may be understood as undergoing authorship and publication at the same time, even if they are later finalized and officially published.

Humanists' wide range of target audiences may offer an opportunity for open access library-based digital publishing services — especially for reaching the general public and interdisciplinary communities. Scholars' reported interest in reaching wider audiences aligns well with the established and growing recognition that the purpose and sustainability of humanities research depend on its ability to make public impact.[37] Libraries are well positioned to meet this challenge head on, given their institutional ethic (and often express mission) of providing community service and fostering research literacy, their disposition toward open access publishing, and their willingness to take on higher-risk publications. Publication venues (journals and conferences, etc.) targeted at emergent interdisciplinary intersections are scarce, despite some

humanities scholars' desire to publish across disciplinary boundaries. Many libraries have begun to adapt services to support interdisciplinary research and teaching through a range of programmatic efforts,[38] including direct interventions into publishing and initiatives in scholarly communication that target dissemination gaps for interdisciplinary scholars.[39] At the same time, open access publication has been demonstrated to increase discoverability and citation significantly,[40] suggesting both an overall increase in audience reach and an explicit increase in engagement among academic consumers. With a funding model that demands demonstration of impact rather than generation of self-supportive revenue, library-based publishers have a unique opportunity to embrace open access and interdisciplinary publication. As library publishers work to establish their reputation, a commitment to open access, combined with a dissemination strategy to reach more diverse audiences, may attract authors and readers alike.

To reach new, diverse audiences, traditional academic publishers may face challenges different from those confronting library-based publishers. University presses and other academic publishers have disciplinary or subject-area specializations;[41] acquiring publications at disciplinary edges and intersections may stretch their acquisition policies and processes. Even for those that publish books intended for popular consumption, actually reaching the audience is still a common challenge.[42] On the other hand, library publishers may be agnostic with regard to subject area but may focus on publishing scholarship generated at their home institutions, as libraries exist primarily to serve their universities as a local good. To publish on the edges of disciplines, and to orient publications toward diverse and scattered audiences, library publishers may need to reorient their focus toward spaces and people outside their institutional boundaries. Given their divergent strengths and limitations, libraries and presses may find opportunities to collaborate on initiatives focused on interdisciplinary work and public readership, with accompanying strategies for strategic promotion.

In exploring potential solutions to the problems posed by humanities scholars' unmet publishing needs, we have focused on areas where libraries are best positioned to make advances in scholarly publishing. We have also stressed opportunities for emerging digital publishing programs, but that emphasis should not preclude long-established scholarly publishers from finding relevance in our survey's results. By

identifying strategic areas for library-based publishers to develop innovative models of service, and by proposing models of collaboration with presses and other publishing stakeholders, we seek to advance scholarly communication in step with the advance of digital scholarship in the humanities.

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NOTES

1. Maria Bonn and Mike Furlough, eds., *Getting the Word Out: Academic Libraries as Scholarly Publishers* (Chicago: Association of College and Research Libraries,

2015), http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/9780838986981_getting_OA.pdf.

2. Nancy Maron and K. Kirby Smith, *Current Models of Digital Scholarly Communication: Results of an Investigation Conducted by Ithaka for the Association of Research Libraries* (Washington, DC: Association of Research Libraries, 2008), https://eric.ed.gov/?id=ED503401; Diane Harley, Sophia Kryzs Acord, Sarah Earl-Novell, Shannon Lawrence, and C. Judson King, *Assessing the Future Landscape of Scholarly Communication: An Exploration of Faculty Values and Needs in Seven Disciplines* (Berkeley: Center for Studies in Higher Education, University of California, 2010), https://escholarship.org/uc/item/15x7385g; Sophia Krzys Acord and Diane Harley, 'Credit, Time, and Personality: The Human Challenges to Sharing Scholarly Work Using Web 2.0.' *New Media & Society* 15, no. 3 (2013): 379–97.

3. Harley et al., *Assessing the Future Landscape of Scholarly Communication*; Acord and Harley, 'Credit, Time, and Personality.'

4. The Public Knowledge Project (PKP), a multi-university research initiative founded in 1998, has developed software with broad impact to support open access peer-reviewed publishing. Journals relying on PKP's Open Journal Systems (OJS) proliferated by the late aughts of the twenty-first century. OJS now supports more than 9000 journals annually, by PKP's estimate (https://pkp.sfu.ca/ojs/ojs-usage/), making it the most widely used open access journal publishing system in the world. In addition, PKP's Open Monograph Press (2013) offers editorial workflows for and publication of long-form, open access, peer-reviewed works. See The Public Knowledge Project, Stanford University and Simon Fraser University Library, https://pkp.sfu.ca/.

5. See Fulcrum, University of Michigan Library, https://www.fulcrum.org/.

6. See Manifold, University of Minnesota Press, https://manifold.umn.edu/.

7. See Vega Academic Publishing System, https://vegapublish.com/.

8. Maria Bonn, 'Tooling Up: Scholarly Communication Education and Training.' *College & Research Libraries News* 75, no. 3 (2014): 132–35.

9. E.g., MLA Committee on Information Technology, 'Guidelines for Evaluating Work in Digital Humanities and Digital Media,' Modern Language Association, accessed September 25, 2018, https://www.mla.org/About-Us/Governance/Committees/Committee-Listings/Professional-Issues/Committee-on-Information-Technology/Guidelines-for-Evaluating-Work-in-Digital-Humanities-and-Digital-Media; Ad Hoc Committee on the Evaluation of Digital Scholarship by Historians, 'Guidelines for the Evaluation of Digital Scholarship in History,' American History Association, accessed September 25, 2018, https://www.historians.org/teaching-and-learning/digital-history-resources/evaluation-of-digital-scholarship-in-history/guidelines-for-the-professional-evaluation-of-digital-scholarship-by-historians.

10. PWW is an Andrew W. Mellon Foundation–funded initiative at the University of Illinois: http://publishingwithoutwalls.illinois.edu/.

11. The survey used the term *digital publishing* without any further definition, remaining intentionally broad to evoke respondents' own understandings of and experiences with publishing.

12. For multiple-choice questions, the PWW research team collectively generated response options and compared them for completeness against protocols from prior published studies on similar topics. The PWW team is composed of information professionals, scholars, and publishers, who drew on their experience and knowledge of best practices in constructing the protocol. For each multiple-choice question, respondents were also given the option of providing additional, free-text responses.

13. In our discussion of survey results in this article, we offer descriptive statistics about responses, with percentages rounded to whole numbers, and quotes from free-text responses that were analysed using open coding strategies drawn from qualitative analysis. The statistics are meant to characterize responses and cannot be used inferentially, given the constraints of what we know about our sample of respondents. Due to IRB conditions, demographics were collected separately from survey responses and so cannot be related to specific results. When we refer to Likert scale categories, terms are displayed in italics. More details for each result are available in a separate survey report written by our research team: PWW Research Group, *Understanding the Needs of Scholars in a Contemporary Publishing Environment: Survey Results* (Champaign, IL: Publishing Without Walls, 2017), http://hdl.handle.net/2142/98576.

14. Christine M. Borgman, 'The Digital Future Is Now: A Call to Action for the Humanities,' *Digital Humanities Quarterly* 3, no. 4 (2010), http://www.digitalhumanities.org/dhq/vol/3/4/000077/000077.html.

15. Jennifer Rowley, Frances Johnson, Laura Sbaffi, Will Frass, and Elaine Devine, 'Academics' Behaviors and Attitudes towards Open Access Publishing in Scholarly Journals,' *Journal of the Association for Information Science and Technology* 68, no. 5 (2017): 1201–11.

16. Harley et al., *Assessing the Future Landscape of Scholarly Communication*; Acord and Harley, 'Credit, Time, and Personality.'

17. For both questions (one for print, one for digital), respondents had the option to describe 'other' challenges with a free-text response. Few respondents selected this option for either question. Eight respondents signalled other problems with print, which included 'onerous peer review processes,' 'time in writing,' and problems with print as a medium, including the need to include digital results or visual evidence beyond what print publications usually accommodate. Four respondents

noted other problems with digital publishing, including making publications openly accessible, the perceived low quality of digital publications, and the perceived long-term instability of digital publications.

18. Harley et al., *Assessing the Future Landscape of Scholarly Communication*; Borgman, 'Digital Future Is Now.'

19. E.g., Kristine K. Fowler, 'Mathematicians' Views on Current Publishing Issues: A Survey of Researchers,' *Issues in Science and Technology Librarianship* 67 (2011), doi:10.5062/F4QN64NM; Rowley et al., 'Academics' Behaviors and Attitudes.'

20. Other studies confirm this potential: e.g., Daniel G. Tracy, 'Assessing Digital Humanities Tools: Use of Scalar at a Research University,' *portal: Libraries and the Academy* 16, no. 1 (2016): 163–89.

21. Borgman, 'Digital Future Is Now.'

22. Of course, some genres are necessarily digital (e.g., websites and blogs). Note that a few respondents marked publishing in print for these genres. This error may be an artefact of the matrix presentation of the print/digital question and does not contribute anything meaningful to our results.

23. See Carole L. Palmer, 'Scholarly Work and the Shaping of Digital Access,' *Journal of the American Society for Information Science and Technology* 56, no. 11 (2005): 1140–53; Kathleen Fitzpatrick, 'Peer Review,' chap. 1 in *Planned Obsolescence: Publishing, Technology, and the Future of the Academy* (New York: New York University Press, 2011); William G. Thomas III, 'The Promise of the Digital Humanities and the Contested Nature of Digital Scholarship,' in *A New Companion to Digital Humanities*, ed. Susan Schreibman, Ray Siemens, and John Unsworth (Chichester, UK: John Wiley, 2016), 524–37.

24. Camilla MacKay, 'Book Reviews and Digital Scholarship,' *Journal of Electronic Publishing* 17, no. 3 (2014), doi:10.3998/3336451.0017.305; Katrina Fenlon, 'Thematic Research Collections: Libraries and the Evolution of Alternative Scholarly Publishing in the Humanities' (PhD diss., University of Illinois at Urbana-Champaign, 2017), http://hdl.handle.net/2142/99380; Harley et al., *Assessing the Future Landscape of Scholarly Communication*.

25. Stefan Wuchty, Benjamin F. Jones, and Brian Uzzi, 'The Increasing Dominance of Teams in Production of Knowledge,' *Science* 316, no. 5827 (2007): 1036–39; Truyken L. B. Ossenblok, Frederik T. Verleysen, and Tim C. E. Engels, 'Coauthorship of Journal Articles and Book Chapters in the Social Sciences and Humanities (2000–2010),' *Journal of the Association for Information Science and Technology* 65, no. 5 (2014): 882–97.

26. Jennie M. Burroughs, 'No Uniform Culture: Patterns of Collaborative Research in the Humanities,' *portal: Libraries and the Academy* 17, no. 3 (2017): 507–27; *Co-authorship in the Humanities and Social Sciences: A Global View*, a Taylor & Francis Group white paper, 2017, http://authorservices.taylorandfrancis.com/

wp-content/uploads/2017/09/Coauthorship-white-paper.pdf; Gaby Haddow, Jianhong Xia, and Michele Willson, 'Collaboration in the Humanities, Arts and Social Sciences in Australia.' *Australian Universities' Review* 59, no. 1 (2017): 24–36.

27. Kathleen Fitzpatrick and Avi Santo, 'Open Review: A Study of Contexts and Practices,' Andrew W. Mellon Foundation, 2012, https://mellon.org/resources/news/articles/open-review-study-contexts-and-practices/.

28. Sophie Goldsworthy, 'The Future of Scholarly Publishing,' *OUPblog*, November 10, 2015, https://blog.oup.com/2015/11/future-scholarly-publishing/.

29. Paul Spence, 'The Academic Book and Its Digital Dilemmas,' *Convergence: The International Journal of Research into New Media Technologies* 24, no. 5 (2018): 458–76.

30. For weighted averages, a weighted sum is calculated by taking the number of respondents who selected that option as the highest rank and multiplying that number by the total number of options that people were asked to rank. The next highest rank is then multiplied by the total number of options that people were asked to rank minus one, and so on. The sum of the products for each option is then divided by the total number of respondents for that question.

31. Thomas Padilla, 'Collections as Data: Implications for Enclosure,' *College and Research Libraries News* 79, no. 6 (2018), doi:10.5860/crln.79.6.296.

32. Bonn and Furlough, *Getting the Word Out*, 17–42, 57–82.

33. Bonn and Furlough, 83–112.

34. Fenlon, 'Thematic Research Collections.'

35. Institutional repositories, research data services, and discipline-based repositories such as Humanities Commons (https://hcommons.org/core/) aim to support open access publishing and long-term preservation of complex digital objects. Large-scale networks, such as the Digital Preservation Network (https://dpn.org/), aim to support preservation for member organizations, beyond the life span of individual institutions. However, preservation for complex digital publications — those that include multimedia resources, interactive or dynamic content, and linked or embedded external resources — remains widely unsupported.

36. See, respectively, https://hcommons.org/ and http://mediacommons.futureofthebook.org/.

37. E.g., Eleonora Belfiore, '"Impact," "Value," and "Bad Economics": Making Sense of the Problem of Value in the Arts and Humanities,' *Arts and Humanities in Higher Education* 14, no. 1 (2015): 95–110; Jon Parrish Peede, 'The Humanities in Relationship' (presentation, National Humanities Conference, Boston, MA, 15 November 2017).

38. Daniel C. Mack and Craig Gibson, *Interdisciplinarity and Academic Libraries* (Chicago: Association of College and Research Libraries, 2012).

39. Carole L. Palmer and Katrina Fenlon, 'Information Research on Interdisciplinarity,' in *The Oxford Handbook of Interdisciplinarity*, ed. Robert Frodeman, Julie

Thompson Klein, and Roberto C. S. Pacheco (Oxford: Oxford University Press, 2017), 429–42.

40. Heather Piwowar et al., 'The State of OA: A Large-Scale Analysis of the Prevalence and Impact of Open Access Articles.' *PeerJ* 6 (2018), doi:10.7717/peerj.4375.

41. See the Association of University Presses, *Subject Area Grid*, http://www.aupresses. org/images/stories/documents/2018Subject_Area_Grid_final_20180115.pdf.

42. Ruth Scurr, 'Academic Publishers Are Struggling to Publicise More Accessible Books, Many of Which Never Reach Wider Readership,' *Times Higher Education Supplement*, March 9, 2007.