



Faculty Survey 2009: Key Strategic Insights for Libraries, Publishers, and Societies

CHAPTER 3: Scholarly Communications¹

April 7, 2010

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¹ This document contains Chapter 3 of Ithaka S+R's report "Faculty Study 2009: Key Strategic Insights for Libraries, Publishers, and Societies." The full report can be found at <http://www.ithaka.org/ithaka-s-r/research/faculty-surveys-2000-2009/faculty-survey-2009>. If citing or linking to this report, we encourage you to cite to the full report.



Ithaka S+R (www.ithaka.org/ithaka-s-r) is the strategy and research arm of ITHAKA, a not-for-profit organization dedicated to helping the academic community use digital technologies to preserve the scholarly record and to advance research and teaching in sustainable ways. The Ithaka S+R team supports innovation in higher education by working with initiatives and organizations to develop sustainable business models and by conducting research and analysis on the impact of digital media on the academic community as a whole. Insights from these efforts are shared broadly, with more than a dozen reports freely available online. JSTOR, an accessible archive of more than 1,200 scholarly journals and other content, and Portico, a service that preserves scholarly content published in electronic form for future generations, are also part of ITHAKA.

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CHAPTER 3: SCHOLARLY COMMUNICATIONS

In both mainstream and academic circles, the potential of new online communications channels – blogs, Twitter, digital content repositories, and more – to transform interactions and level historic barriers has been widely discussed and celebrated. But thus far, our ability to document the impact among faculty of these radical new abilities to communicate has been extremely limited. Traditional channels – often made more efficient by the transition to digital but otherwise largely unchanged – remain the most important ways in which faculty communicate both formally and informally. And unlike many of the other topics this study explored, no clear trajectory of change is indicated. Aside from a few outlier disciplines, there are remarkably few attitudinal or behavioral differences on these issues between scholars, whether humanists or scientists. Despite several years of sustained efforts by publishers, scholarly societies, libraries, faculty members, and others to reform various aspects of the scholarly communications system, a fundamentally conservative set of faculty attitudes continues to impede systematic change.

This document contains *only* the third chapter of the full Ithaka S+R 2009 Faculty Survey report, presented separately for your convenience. The other chapters and full report can be found at <http://www.ithaka.org/ithaka-s-r/research/faculty-surveys-2000-2009/faculty-survey-2009>. If citing or linking to this report, we encourage you to cite to the full report.

Methodology

Since 2000, our Faculty Surveys have examined how new technologies are impacting faculty attitudes and behaviors. Every three years, we have conducted large-scale studies of faculty members to learn more about their attitudes toward the transition to an increasingly electronic environment. These surveys have been limited to colleges and universities in the United States that grant bachelor's degrees or higher. They have been designed to allow for stratifications in each of the major arts and sciences disciplines, as well as in a number of professional fields. We conducted these surveys in the fall of 2000, 2003, 2006, and most recently 2009, updating the questionnaire to match the rapidly-changing environment but allowing for powerful longitudinal tracking of change in faculty attitudes and practices.² Unless specified otherwise, all findings presented in this report are based on 2009 data.

Following an initial introductory letter, survey questionnaire booklets were mailed to 35,184 faculty members in September 2009. A total of 3,025 complete responses were received and tabulated, for a

² Findings from the 2006 Faculty Survey can be found in Ross Housewright and Roger Schonfeld, "Ithaka's 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education," August 18, 2008, <http://www.ithaka.org/ithaka-s-r/research/faculty-and-librarian-surveys>. See also Kevin Guthrie and Ross Housewright, "Attitudes and Behaviors in the Field of Economics: Anomaly or Leading Indicator?" *Journal of Library Administration* 48, no. 2 (August 2008), pages 173 – 193, <http://dx.doi.org/10.1080/01930820802231369> and Roger C. Schonfeld and Kevin M. Guthrie, "The Changing Information Services Needs of Faculty," *EDUCAUSE Review*, 42, no. 4 (July/August 2007): 8–9, <http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume42/TheChangingInformationServices/161752>.

response rate of approximately 8.6%. Demographic characteristics, including discipline, are self-reported. Table 1 and Table 2 contain information on the breakdown of responses across demographic categories. In 2006, we deposited the dataset with ICPSR for long-term digital preservation and access, and we intend to do so again with the 2009 dataset.³

Table 1: Respondents by institution size

Institution Size	Respondents	Share
Very Large	893	29.5%
Large	482	15.9%
Medium	1038	34.3%
Small	361	11.9%
Very Small	251	8.3%

Table 2: Respondents by disciplinary grouping

Disciplinary Grouping	Respondents	Share
Area Studies	191	6.3%
Humanities	652	21.6%
Social Sciences	1154	38.1%
Sciences	791	26.1%
Other	237	7.8%

Ithaka S+R collected thousands of survey responses with hundreds of data points each in 2009 alone, and due to the richness and quantity of the data this summary report can only scratch the surface of the analysis. For example, we have the ability to stratify by most individual disciplines in the arts and sciences and many professional fields, by characteristics such as time in field and faculty rank, by profile as a researcher or a teacher, and by institutional type, along with more sophisticated analyses. If there are survey findings that you believe would benefit from further detail, or where an organizationally customized lens would be helpful, please let us know so that we can respond to your interests.⁴

³ The dataset for the Faculty Survey 2006 is available at <http://dx.doi.org/10.3886/ICPSR22700>.

⁴ With questions, comments, or requests, please contact us at research@ithaka.org.

Faculty objectives

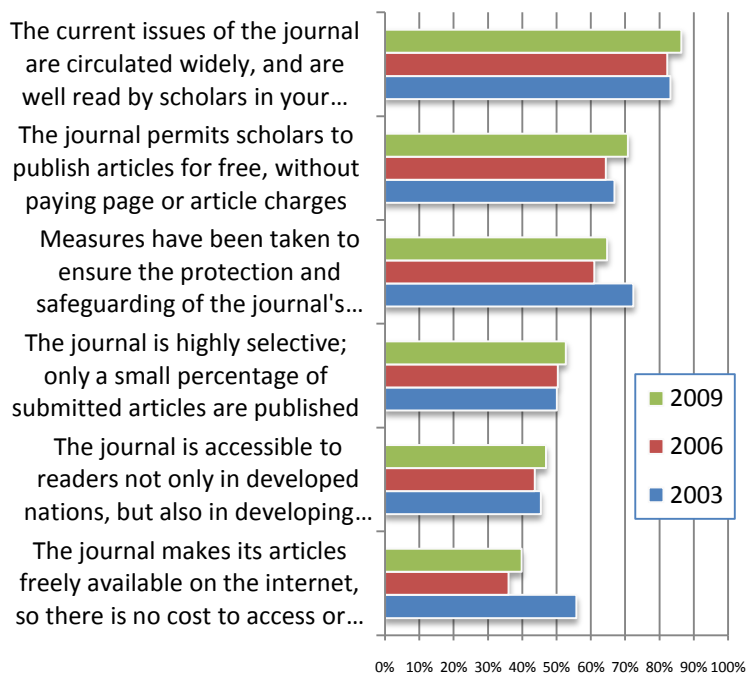
The fact that faculty respondents unambiguously value their professional networks can be seen across a variety of indicators in the survey. For example, over the years and across disciplines, the single most important factor in selecting where to publish is consistently readership within one's own discipline (see Figure 23). Over 80% of faculty rated this as very important. Other factors apply, but a broad circulation among a faculty member's own peers is the ultimate motivating factor in determining where to publish.

Despite a continuing community-wide discussion about open access, institutionalized in the last several years in the form of open-access deposit mandates, free accessibility online has remained the lowest

priority for scholars across disciplines in their selection of a journal for publication; in fact, prioritization of free availability fell substantially between 2003 and 2006. In addition to reputational concerns about the visibility of their work product to their peers, faculty prioritize paying nothing to publish their own articles over the openness of the resulting article, suggesting that the "author-pays" model favored by many open access journals may not match the preferences of many faculty.

The aggregate data presented above do not mask any significant disciplinary differences. Faculty from disciplines where there is a significant amount of open-access pre-print activity, such as physics and economics, prioritize peer visibility for their articles well above an interest in making them openly accessible, just the same as other fields. In fact, these disciplines fall squarely in the middle of the pack in terms of prioritizing free availability of articles online. The number of faculty indicating "free availability" as a priority is highest in fields like sociology and education, and lowest (by a substantial margin) among chemists. But even among disciplines that prioritize free accessibility of their publications relative to their peers, the relative position of free availability versus other journal characteristics is unchanged: in every case, a journal being well-read among one's peers is the most important characteristic in its selection, and in every case free availability is among the least important. Even those fields that have a significant amount of digital open access activity are no more motivated by reducing the price of articles than are other fields; rather, there appear to be other factors at play.

Figure 1: Percent of faculty responding "very important" to the question "When it comes to influencing your decisions about journals in which to publish an article of yours, how important is each of the following characteristics?" in 2003, 2006, and 2009



In general, if faculty members have concerns about the established scholarly communications paradigm, their responses do not indicate a willingness to reshape their behaviors in response to those concerns. For most faculty members, our data seem to be consistent with other research indicating that faculty interest in revamping the scholarly publishing system is secondary to concern about career advancement, and that activities that will not be positively recognized in tenure and promotion processes are generally not a priority (an issue discussed below at greater length).⁵ Substantive change to the scholarly communication system is thus unlikely to be driven by faculty attitudes alone; cultural and process changes at the highest level of the university will be needed to realign incentives and institute broad reform. Although faculty attitudes are only one component of policy making for scholarly communications, they may help to explain why policy makers have in some cases turned towards incentives or deposit mandates. Without this kind of interest and investment from university leadership, changes to the scholarly publishing system are likely to happen slowly, if at all.

⁵ As Harley et al. describe it, “experiments in new genres of scholarship and dissemination are occurring in every field, but they are taking place within the context of relatively conservative value and reward systems that have the practice of peer review at their core.” Harley et al., “Assessing the Future Landscape of Scholarly Communication: An Exploration of Faculty Values and Needs in Seven Disciplines,” 12.

Deposit of materials in repositories

With perennial interest from the library community in developing institutional repositories and substantial attention to successful examples of community-driven repositories like arXiv, our study revealed a significant amount of interest in depositing articles, but relatively limited faculty deposit behaviors. Less than 30% of faculty members have deposited any scholarly output or research material into a repository, but nearly 50% have not deposited but hope to do so in the future (see Figure 2). Nearly 80%, therefore, report that they are likely to deposit materials in the future. Whether this is cause for hope that faculty are moving toward depositing more of their work or just an indication of good intentions is hard to tell.

Figure 2: Percent of faculty indicating that they “have deposited materials” or “have not deposited materials but are likely to do so” in an institutional, discipline-specific, or multi-disciplinary repository

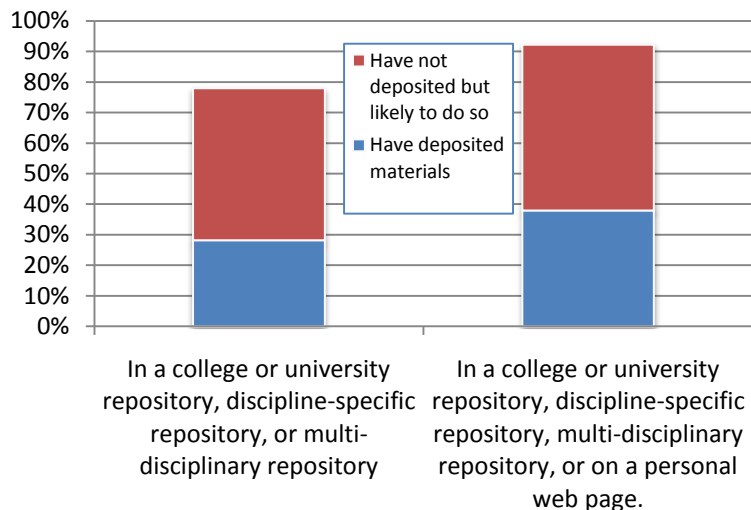
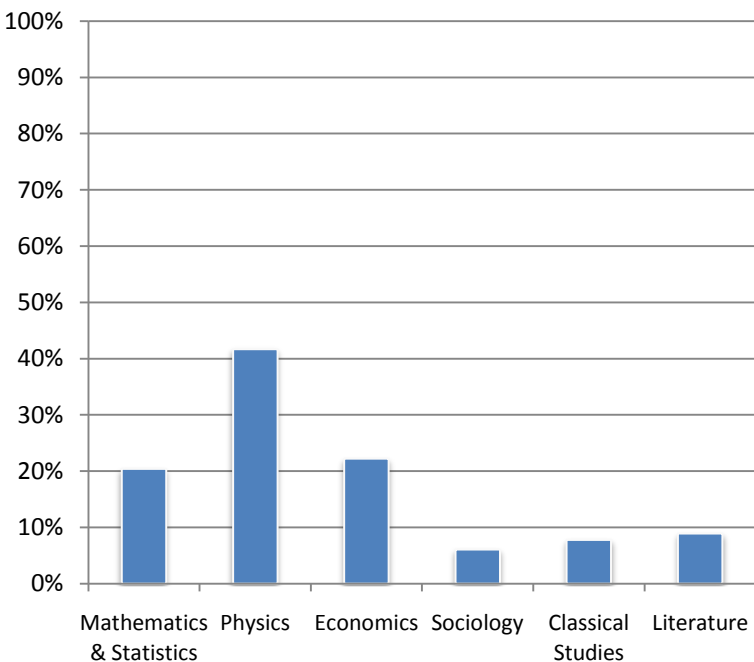


Figure 3: Percent of faculty indicating that they have deposited materials in a repository specific to their discipline, in selected disciplines



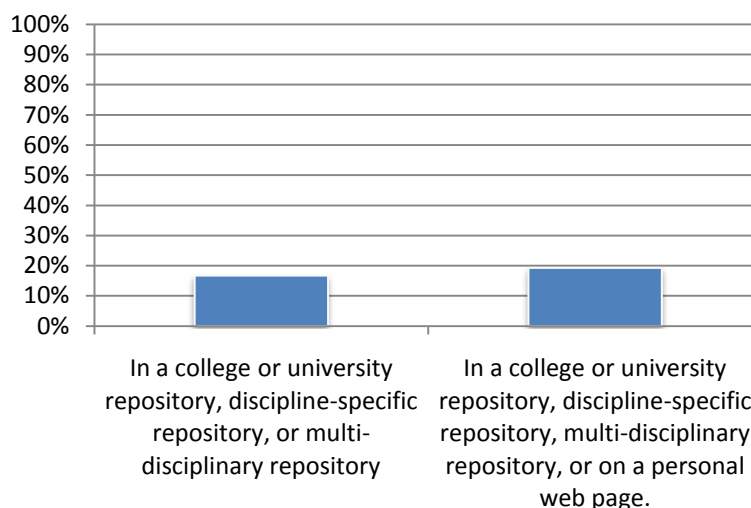
Only about 15% of faculty members, in the aggregate, report having deposited materials into a discipline-specific repository. The only discipline with dramatically greater than average discipline-specific deposit practices is physics, almost certainly due to the presence of the arXiv e-print platform. Physicists are far more likely than scholars in any other disciplines to deposit pre-prints and final versions of articles in a discipline-specific repository. Although prominent disciplinary repositories exist in other fields, such as the RePEc repository serving economists, physicists’ deposit practices as facilitated by arXiv have not yet been replicated in any other fields (see Figure 3 for a sample of fields).

Deposit practices in institutional repositories presumably vary by institution, but our national sample found only 15% of faculty members have deposited into an institutional repository. Following a report by the Association of Research Libraries in early 2009 calling attention to some challenges in the design of institutional repositories, a number of institutions have put in place initiatives to better align repository services with author and creator needs.⁶ It is too soon to know whether these initiatives will meet user needs in such a way as to encourage additional deposit activity by faculty members.

Use of materials in repositories

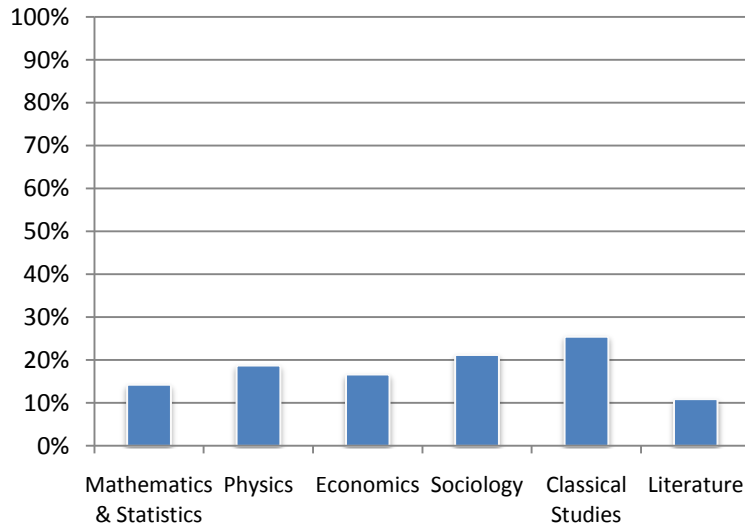
The percentage of faculty that reports having used content from institutional or disciplinary repositories lags the percentage that has deposited content. In the aggregate, use of any type of repository remains remarkably low (see Figure 4). Limited use of deposited data by US faculty members in most fields may indicate that demand for deposited materials remains low, although whether this is due to a challenge with discovery, with quality perceptions, with citability, or something else, is not apparent from the data here.

Figure 4: Percent of faculty indicating that they have used materials deposited by others in an institutional, discipline-specific, or multi-disciplinary repository



⁶ The report is “The Research Library’s Role in Digital Repository Services: Final Report of the ARL Digital Repository Issues Task Force” (Association of Research Libraries, January 2009), <http://www.arl.org/bm~doc/repository-services-report.pdf>. For the new services and tools that the University of Rochester has added to its institutional repository, see Steve Kolowich, “Encouraging Open Access,” *Inside Higher Ed*, March 2, 2010, <http://www.insidehighered.com/news/2010/03/02/repositories>.

Figure 5: Percent of faculty indicating that they have used materials deposited by others in institutional, discipline-specific, or multi-disciplinary repositories, in selected disciplines



But even in physics, widespread depositing of articles in arXiv has not dramatically reshaped reported usage behaviors: physicists do not vary substantially from their peers in their *use* of these sorts of materials or repositories (see Figure 5). This is surprising, and requires further exploration. Perhaps this indicates that physicists may be more conscious of their depositing activities than they are of their usage of repositories, either because discovery happens elsewhere or because they do not distinguish repositories from numerous other sources of content.

The published article remains all-important. The material type that most faculty have the greatest interest in both depositing and using is the traditional published article (see Figure 6), which remains the basic unit of scholarship for many faculty members.

Figure 6: Percent of faculty indicating that they have deposited each type of materials in a repository or have used materials of each type deposited by others

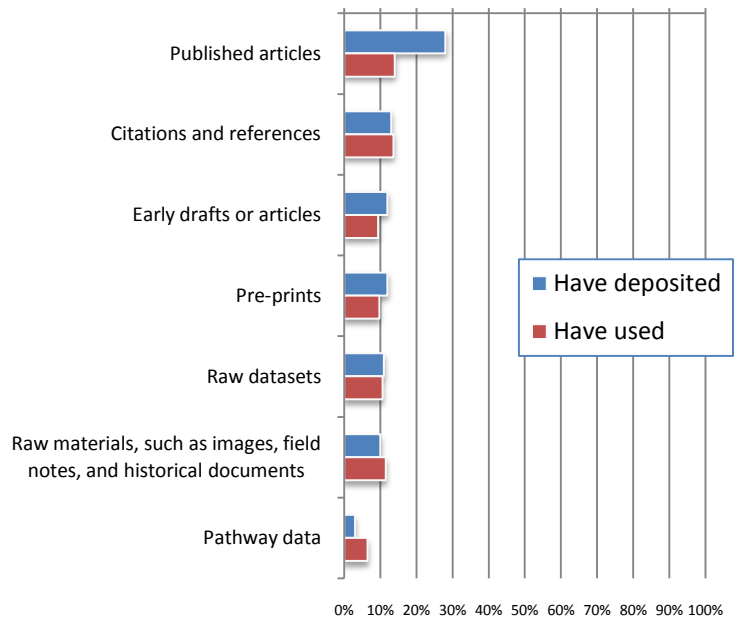
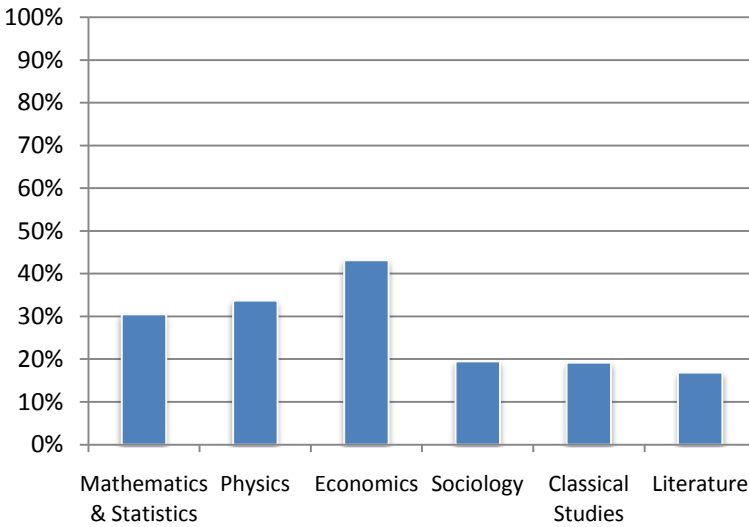


Figure 7: Percent of faculty agreeing strongly with the statement “I continue to use working papers and pre-prints even after the final version of the corresponding article is published,” in selected disciplines



Outside of a few specific disciplines – notably economics, math, and physics – only a handful of faculty continue to use pre-prints and working papers after the published version is made available (see Figure 7). The current attitudes and behaviors of faculty demonstrate that traditional publications continue to dominate research practices, in addition to their important reputational and career-advancement roles.

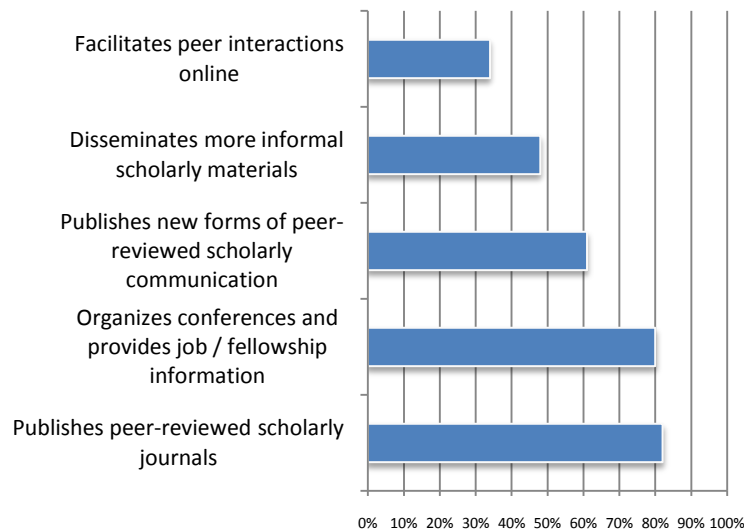
The scholarly society

Further evidence for the importance of professional networks can be seen in an examination of scholars’ priorities for their scholarly societies. There is a fairly well-established service model for the scholarly society, built around facilitating interactions among scholars with similar interests. In many cases, one or several core journals serving as some of the most prestigious publishing venues in the field generate at least a modest surplus; this income allows the society to sponsor conferences at which professional networking and job searches coexist equally with the formal delivery of scholarly papers. In an increasingly electronic environment, scale has become all-important, and scholarly societies have increasingly turned to outside partners for their journal publishing. At the same time, the economic recession and the ease of online communication are leading some to question whether annual face-to-face conferences are feasible or appropriate. In sum, the internet has generated new forms of professional networking, scholarly dissemination, and placement services, all of which are generating important strategic questions for the scholarly society.

To take a first step in examining faculty demand for services from their societies, the survey asked faculty how important it is to them that their society:

- Publishes peer-reviewed scholarly journals
- Organizes conferences and other in-person meetings and provides information about fellowships and jobs
- Publishes new forms of discipline-specific or interdisciplinary peer-reviewed scholarly communication
- Disseminates more informal scholarly materials, such as pre-prints, conference proceedings, datasets, images, etc.
- Facilitates peer interactions via listservs, blogs, and other group collaboration tools.

Figure 8: Percent of faculty responding “very important” to the question “How important is it to you that your scholarly society provides each of the functions below or serves in the capacity listed below?”

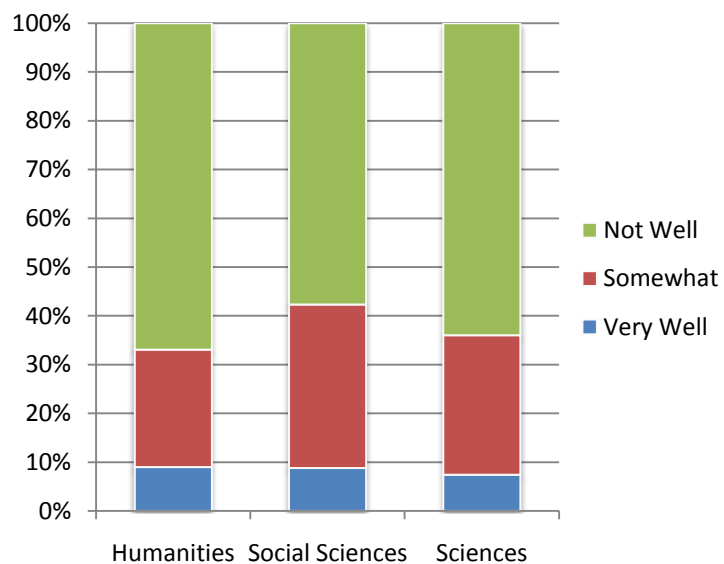


Publishing peer-reviewed journals and organizing conferences, in-person meetings, and facilitating communication about fellowships and jobs are roles of the scholarly society viewed as having paramount importance by faculty. On the other hand, facilitating peer interactions online is a distant last-place priority. In general, faculty value the most traditional roles of their scholarly societies – traditional publishing and organization of meetings – most highly, and show far greater skepticism about newer roles related to more informal and non-traditional scholarly communications (see Figure 8).

Additionally, the Faculty Survey found that peer networks remain among the most important factors for faculty in learning about and being encouraged to try new electronic research resources. Word of mouth is by far the most common way in which faculty learn about new research resources, and recommendations and awareness of use by peers of a resource are key drivers in motivating faculty to try a new resource.

But despite the importance of these networks, there is little indication that online connections have begun to encroach on traditional forms of communication. Faculty preferences would drive scholarly societies to focus on traditional meetings over facilitating online peer interactions. And, in response to a newly introduced baseline question, virtually no faculty members find their online interactions with peers among their most valuable (see Figure 9). These patterns do not vary substantially based on discipline or seniority in the field. Although there can be no doubt that online communications technologies have changed and will continue to change how faculty relate and interact, the evidence provided by this study suggests that, as yet, these changes have remained relatively marginal, and faculty members cannot imagine traditional forms of interaction being supplanted by online mechanisms. Still, today’s preferences

Figure 9: Percent of faculty agreeing strongly with the statement “I have more valuable interactions with my peers online via listservs, wikis, and blogs than I do in more traditional formats such as scholarly conferences and symposia,” by disciplinary grouping



Still, today’s preferences

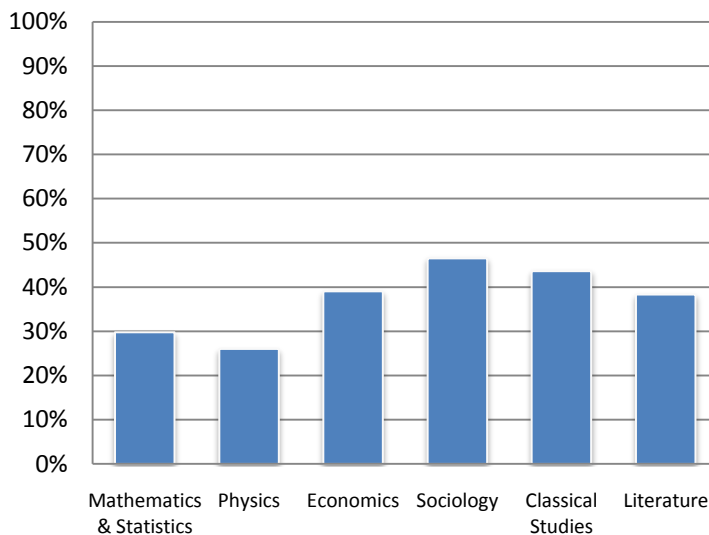
among faculty members is only one ingredient in the strategic planning process for the future of a scholarly society in an environment of tremendous change.

Tenure & promotion

The tenure and promotion system is said to enforce a set of relatively conservative norms for faculty research and publishing practices. Traditional publications continue to dominate dissemination practices, in large part due to their important reputational and career-advancement roles. The recent work led by Diane Harley is the most prominent and complete documentation of this important constraint on reform.⁷ In our survey, roughly one-third of faculty members strongly agree that tenure and promotion practices “unnecessarily constrain” their publishing choices, which suggests

that a non-trivial share of faculty members would take different approaches to the dissemination of their work if they could. This belief is stronger among social scientists and humanists than among scientists (see Figure 10). Despite the concerns of faculty with the unnecessary constraints of tenure and promotion practices around publishing and dissemination choices, career incentives based on traditional practices are likely to continue unless there is an overall cultural shift and structural change driven from the highest levels of academic administrators.

Figure 10: Percent of faculty agreeing strongly with the statement “Tenure and promotion practices unnecessarily constrain the publishing and dissemination choices made by scholars in my field,” in selected disciplines



Summary

Many of the issues examined elsewhere in this study focus on ways in which digital technologies can enable faculty to work more efficiently or effectively, but the topics discussed in this chapter are even more central to scholars’ self-interests, relating directly to how scholarly work is recognized and reflects upon its author. On these core issues, faculty members are generally unwilling to experiment in ways that

⁷ Harley et al., “Assessing the Future Landscape of Scholarly Communication: An Exploration of Faculty Values and Needs in Seven Disciplines.”

might negatively affect their ability to make an impact in their field and advance their own career, especially when there is relatively little concrete reward associated with such a risk. Traditional models of scholarly communications are transitioning to the digital realm, but for scholarly communications to be *transformed* will require new models. The 2009 Faculty Survey clearly shows that in the aggregate faculty members cannot be expected to lead the transformative change in scholarly communications that many believe to be necessary or even inevitable. The direction forward, if desirable, is probably to offer clear and direct benefit to faculty members, in conjunction with structural change in how scholarly work is recognized and rewarded. Further exploration of the possible ways in which information services organizations can help faculty to maximize the value and impact of their research is certainly called for.