Overview:

In the spring semester 2015, Laura Walters, Associate Director of Tisch Library, conducted in-person interviews with 41 faculty members in the schools of Arts & Sciences and Engineering. The focus of the interviews was faculty dissemination of research, with a particular emphasis on how the changing publishing landscape is affecting the ways in which faculty share their scholarly output (see Appendix 1 for questions). Laura worked with Dean Linda Abriola and Deans Nancy Bauer and Barbara Brizuela to identify possible participants, with the goal of reaching as many departments and professorial ranks as possible. The participant categories broke down as follows:

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Key findings:

- Articles in peer-reviewed journals and books are the most common modes of research dissemination, followed by conferences.
- Most faculty have Research Gate and academia.edu accounts, but they use them largely for checking the works of other scholars and not for posting their own works. The exception is “public scholars,” who are interested in wider dissemination of their policy work.
- Conferences are still the preferred way to network, but social media in some fields is beginning to supplement. This is true especially in fields with global collaborations.
- Tenure is dependent on the number and quality of traditionally published materials such as journal articles and books. The pressure to publish more is felt in all disciplines.
- The peer-review process continues to be of paramount importance to faculty. Some disciplines are experimenting with making the process more transparent and open.
- Judging the impact of research is difficult in book-based disciplines, but in the STEM fields, it is judged by traditional factors such as journal impact, citations, and H-index.
- It is increasingly difficult to publish books due to the decrease in the academic book market.
- Journals are proliferating. Faculty find it difficult to assess the quality of new journals, and they are reluctant to publish in them until their impact can be established.
- The most important criteria for deciding where to publish are fit (audience) and impact (prestige of the journal).
- Open access has caused “confusion” among faculty. This is tied to the proliferation of new journals, and the difficulty of judging their audience and impact.
- Faculty will publish in open access journals if they are well-established and have the same peer-review process as traditional journals.
• For the majority of faculty, expanding readership is not an incentive to publish in open access journals.
• Most faculty do not know about the Tufts institutional repository, beyond the fact that it contains student theses. The majority of faculty are, however, willing to deposit their work in the repository, but only if it is “automatic” or they receive institutional support.
• Faculty do not know what their publishing contracts allow them to do with their materials, and they do not have time to check.
• Faculty want institutional support to cover author processing fees.
• The most common advice given to graduate students is to publish and network through conferences.
• Faculty in book-based disciplines advise their students to embargo their dissertations for fear of intellectual property theft.
• Faculty in other disciplines also advise students not to share their work until it is close to publication.

Most common modes of research dissemination:

In the humanities and social sciences such as political science, anthropology and sociology, the most common mode of research dissemination is the book, followed by peer-reviewed journal articles and conferences. In the sciences and engineering (STEM) and social sciences such as education, child study, psychology, and community health, the most common way to share research is peer-reviewed articles, followed by conferences. Exceptions are economics, where working papers have priority, and in computer science, peer-reviewed conference papers. Faculty in computer science, math, and digital humanities also share code on public sites such as GitHub.

Conferences are important in all fields for the ability to “advertise” one’s work, receive feedback, and network with colleagues. Conferences are particularly important for graduate students in the STEM fields, and they are encouraged to give poster presentations at conferences as part of their graduate experience. Social media is viewed as the new form of “networking.” It doesn’t replace conferences but is considered “supplemental” to it. In the words of a humanities faculty member, “social media is a nice supplement, but it doesn’t replace person-to-person.” The use of social media such as Twitter and Facebook is rising with the increasing importance of collaboration, particularly with those involved in global partnerships. Disciplines such as American religion, climate change, philosophy, social anthropology, Mexican studies, global history, public performance, and medieval studies have a very active social media presence, including blogs, Facebook and Twitter. One social scientist commented that her publisher expects her to use social media to promote her book. Labs also have Twitter accounts, which are largely managed by graduate students to post new findings and publications. Faculty who consider themselves public or policy scholars are particularly interested in using social media to reach a non-academic audience. Those faculty who are funded by policy agencies also post their works on the agencies’ websites.

At least two-thirds of the faculty interviewed have a Research Gate or academia.edu account. Faculty in STEM gravitate towards Research Gate and those in humanities and social sciences to academia.edu. Many also have a Google Scholar account, which they use as a primary way to track their citations. Pre-tenured faculty have these research sharing accounts, but they seldom use them due to time constraints. They have these accounts, in their words, to “hedge” their bets. This sentiment is best
captured by a faculty member who said he has “to be strategic before tenure and manage my time well and do things that have a known payoff.” Several humanists also noted that they don’t post works in progress on these sites for fear that their ideas will be “stolen,” mentioning that they knew instances where this had happened. On the whole, most of the faculty interviewed use these services to check for other scholar’s publications and only post their own news intermittently.

In the STEM fields and lab-based social sciences, lab websites are a major way to share publications and findings. The audience for these sites are prospective students and colleagues in other institutions. All faculty had a departmental website and a few had their own websites where they post their publications, but, in STEM, lab websites take precedence. There was a general understanding of copyright rules around the posting of Pdf’s, and the vast majority of faculty post only the titles of their articles or links to the journals.

Tenure:

All these new ways of sharing are considered supplemental to traditional publishing. In the words of a humanities faculty member, “now we have to do the traditional things and more.” Several faculty used the word “behind” to refer to tenure standards, noting that nothing replaces traditional publishing for tenure. This is true also for public/policy scholars who are held to the same publication standards for tenure as faculty who do “pure” academic research. One public scholar in the humanities noted that “public scholars and activists are trying to show ways that scholarship is demonstrated in the public sphere. At some point in the future will this count for tenure? I’m not so sure. We’re trying to create models of what scholarship will look like in terms of social media interactions, and I’m not sure this is understood by senior faculty.” If anything, faculty believe that the tenure stakes have increased in terms of number of publications. In the humanities and some social sciences such as anthropology, sociology, and political science, the standard for tenure is still the book, with several articles showing progress towards a second book. In the STEM fields and lab-based social sciences, the standard is publication in prestigious peer-reviewed journals or, in the case of Computer Science, peer-reviewed conference papers. Grants are also of importance in STEM. All faculty mentioned that the standard not only for tenure, but also for a first job, has risen greatly, with the expectation that graduate students in the humanities and some social sciences will have a book contract in hand, while those in STEM will have several journal publications. In the humanities, this increasing pressure for book publication comes at a time when fewer books are being published, and the competition for a book contract is ever growing. While conferences and networking through social media don’t directly count towards tenure, many faculty noted that you have a better chance of publishing if you are known to publishers and external reviewers through these venues.

Peer review process:

There was almost unanimous agreement that the peer-review process is invaluable to the scholarly enterprise and must continue to be rigorous. In the words of one social scientist, “peer review is the one process that is sacrosanct and can’t change. It’s the tool used to say that the quality of the research coming out is valid and vetted. It’s the best check—if anything we should make it more rigorous, but we don’t have the capacity for that.” Indeed, several faculty said they were wary of sites like academia.edu and Research Gate because they are uncontrolled and lack a referee process. There was an acknowledgement, however, that the peer-review process can be flawed, and scholars in some disciplines are attempting to make the process more open and “collegial,” with much discussion and
debate on what a different process would look like. In the words of a senior engineer, “The peer review process has worked for 150 years. We know it’s changing, but how? We know that the system is not the best system. But would we be happy with change? How would we assess in a new non-traditional way?” In his opinion, it’s up to established faculty like himself to make suggested changes. In those disciplines that are discussing change, the charge is being led by senior scholars at the urging of their younger colleagues. In medieval studies, a group of scholars is trying to model more open reviews and crowd-sourced reviews so the process is less “combative.” According to the medievalist interviewed, it has to do with “accountability,” with the hope that if the reviews are open, the process will be more productive, and it will provide an opportunity to “engage in a public conversation with the reviewer.”

This type of experimental approach was also noted by faculty in anthropology, psychology, political science, climate change, engineering, and biology. An example mentioned by an engineering faculty is elfisciences.org, which was started by a group of reputable scientists who are trying to improve the peer review process by shortening the time and making it more transparent. One senior faculty member in the humanities noted that opening the process would be beneficial due to the issue of gatekeeping that often disproportionately affects women and people of color.

The pressure to publish more has culminated in a proliferation of article submissions and a concomitant proliferation in new journals, resulting in increased pressure to find reviewers. Faculty in a majority of disciplines noted this pressure and commented that it is now extending to graduate students. While most faculty appreciate the opportunity to review for the chance it gives them to develop good working relationships with publishers, they have to guard against overcommitting in this area, and they advise their graduate students to do the same. The rise in the number of article submissions is also one of the factors in the growing length of time it takes for articles to be published. Some faculty believe that a more open review process could also speed up the reviewing time. Economists have solved this problem of speed by their long tradition of working papers, which are the precursor to published journal articles. Working papers, however, do not count towards tenure. Scholars in Computer Science “are constantly tinkering with the review process.” People are invited to present at conferences, and conference papers are reviewed through a relatively open process in which the author meets face-to-face with 30 reviewers after a blind review. This turns the review into a conversation, giving the author an opportunity to respond in person and ask questions. The transparency also results in better reviewing “because if you do a bad review twenty-nine other experts know.” A chemistry faculty member mentioned a new web service called Publons, which aims to address the problem of slow reviewing time and the difficulty of finding reviewers by “turning peer reviewing into a measurable research output” that can be tracked by individuals and universities. The faculty member, however, wondered if universities would really care about this level of tracking since reviewing counts towards service and not research in the tenure portfolio.

How is the impact of research assessed?

There was wide agreement in the humanities and the book-based social sciences that the assessment of research in their disciplines is subjective and difficult to quantify. Some factors that might be considered are the prestige of the book publisher; the “buzz” around the work at conferences; book awards; book reviews; and whether the book is adopted for courses. In STEM and non-book based social sciences, the measures are journal impact factor, citation numbers, and the new H-index. These are not, however, considered to be valid measures in small fields or in fields like math, where impact is not measured for a long time. Some STEM senior faculty question the validity of these quantitative measures, noting that
there are many ways to “game the system,” from self-citing to publishers that require authors to cite from their publications. These faculty contend that quantitative measures are too superficial and don’t really measure the impact of research over time. In the words of a senior scientist, “can editors really predict the future impact of research”? His sentiments are echoed by another senior colleague who said “impact should be assessed by how research influences future research. Can you really measure this by citations? Can citations measure how your research added to the development of new techniques/approaches”? Although there are doubts about the validity of these quantitative measures, they are used in tenure decisions, and pre-tenured STEM faculty know the journal impact factor of all the journals in their disciplines. They also closely track their citations, many of them through Google Scholar.

On the policy side, impact is assessed by “the practical effects in the real world” and “how many policy changes came from the work.” A public scholar says she measures her impact on the non-academic side of her work by how many emails she receives after her public appearances. For all the public scholars interviewed, this is in addition to their academic work, where impact is assessed in traditional ways.

**Factors in choosing where to publish:**

The most important factors in choosing where to publish are fit (in terms of both topic and readership) and prestige (impact) of the journal, or in the case of books, the publisher. These were the factors mentioned by every interviewee, across all disciplines and ranks. An important secondary factor was speed of publication; while several people in the sciences mentioned where the journal is indexed. The balance between fit and prestige is best captured in the words of a senior scientist who said “pick the best journal you can publish in that reaches the audience you want to reach,” or, in the words of a pre-tenured humanist, “pick the most selective, prestigious journal that fits your topic.” Faculty agreed that prestige is not always the most important factor, although it does have special importance for non-tenured faculty. Even pre-tenured faculty, however, agreed that the most important consideration is readership. Faculty are most concerned with whether their work will reach the readership that “can do something with the research,” or, in the words of another faculty member, “will my research reach the right audience”? There is widespread knowledge about who reads which journals and what research topics each journal publishes.

When deciding where to publish, the first question many faculty ask is “is this a broad topic or a topic that is best published in a specialty niche journal”? The large prestigious journals tend to publish the broader, more general research, while the next tier publishes more specialized or “niche” research. Many faculty pointed out that the highest prestige is not necessarily the best fit. Publishing in niche journals in one’s subfield is important for establishing reputation. Several faculty also noted that lower-impact niche journals often publish more innovative research than the more general journals. In addition, the most prestigious journals have a longer turn-around time, which is of particular importance to pre-tenured faculty. Several pre-tenured faculty have spreadsheets that list journals by their impact factor and their turnaround time. Tenured faculty who publish with graduate students are aware of the importance of positioning their graduate students for success and noted that, when publishing with a graduate student, they put more emphasis on the prestige of the journal than they would when publishing on their own. Many interviewees spoke of journal selection as a “balancing act”—that is, one has to balance the prestige and fit of the journal with the likelihood that “you’ll get in.” Faculty think it important to mentor their graduate students in this process and to help them understand the
significance of the balancing act and the fact that you have to experiment, starting with the top tier and working your way down.

Only one faculty mentioned open access as a factor in deciding where to publish. This faculty member is a policy person who is interested in reaching a non-academic audience for her public policy work. Other policy people also look for ways to disseminate their research outside of traditional publishing. This includes blogs, websites and other forms of social media. An engineering faculty member who does policy research teaches her graduate students to write a 30 page report; 4 page fact sheet; and 1 page fact sheet that can be shared on venues that will reach practitioners in the field. These public policy faculty all note, however, that for tenure purposes, they must consider the same factors of prestige and fit when deciding where to publish.

An art historian stated that she looks for publishers who can handle multimedia materials, which are becoming increasingly important in her field.

**Publishing challenges:**

In book-based disciplines, the greatest challenge is the increasing difficulty in getting a book published, due to declining book sales in the academic book market. Many faculty pointed out that there are fewer opportunities for book publishing at the very time that there is increasing pressure for humanities graduate students to have a book contract in hand in order to land a first job. In the words of one faculty member, “the demands and constraints of the non-academic book world shape the academic market. Publishers are looking for cross-over books; for books that will be read outside the field; and for books suitable for undergraduates.” Faculty doing interdisciplinary research particularly feel challenged in identifying the right publisher for their work. While there is a smaller market for books, the market for articles is growing, as there is a proliferation of new journals in many disciplines. Humanities and some social science faculty point out, however, that this increase in the number of new journals does not benefit them since the standard for tenure is still the book.

The proliferation of new journals is seen as a challenge to almost all the faculty interviewed. The growth of new journals is perceived as resulting from the increase in the number of articles submitted for publication due to tenure pressures. New journals pose a problem because they are difficult to assess in terms of impact and readership. Faculty expressed a concern about the lack of ability to sense the quality of new journals and to distinguish predatory journals from legitimate journals. Because a fair number of new journals are open access journals, it’s easy to equate predatory with open access. Most faculty, however, pointed out that their concern with new journals is not whether they are open, but with their validation. Faculty are “besieged” by requests to publish in or edit new journals. Many faculty ignore these requests “because they already know the quality journals.” When faculty do take the time to assess the new journals, they do so by looking at the editorial boards and the publisher. Even then, however, most faculty wait until a journal is well-established before taking the “risk” of publishing in or editing a new journal. This is exemplified by the experience of a pre-tenured STEM faculty member who was asked to be on the editorial board of a new Elsevier journal. He was advised by his chair not to accept the offer. Likewise, a tenured faculty member in chemistry noted that he wouldn’t publish in a new journal even though it was sponsored by the American Chemical Society. One faculty member knew about Beall’s list of predatory journals, but most said they were too busy to take the time to check the validity of new journals when there are so many well-established journals to choose from.
Publishing changes:

When asked about the changes they saw in publishing, the most common answer was the rise of open access. All faculty had heard of the open access movement, and the topic of open access is being discussed to some extent in every discipline. Many faculty, however, admitted to not understanding what open access is, with one senior scientist stating that it has caused “chaos” in the publishing industry and “confusion” among authors. There is a tendency to link open access and predatory journals due perhaps to the author processing charges, which, in the words of several faculty, could be confused with “self-publishing.” There is also some tendency to equate online publishing with open access. One faculty member, for example, thought that, because his book was available online through Project Muse, it was open. The biggest area of misunderstanding, however, is the linking of open with non-peer reviewed. This linkage rises largely from the newness of open access journals and the difficulty of judging their validity.

Respondents in the humanities and most of the social sciences noted that there are few if any prestigious open access journals in their disciplines, and, while they think open access will become more prevalent in the future, they believe it will take a long time to get there. In the words of a humanist, “it will take a lot of time because of the tenure system and the need for validation.” A tenured social scientist noted, “open access is unavoidable because there is pressure for more publishing venues, government mandates, and the unsustainable economics of journal publishing.” He thinks the tipping point will occur when there is an “age shift” and a concomitant “cultural shift.” In his opinion, we “need to have a critical mass of good open access journals for the shift to happen.”

It’s this need for a critical mass of good open access journals that is the stumbling block to further acceptance of open access in the humanities and social sciences, causing a chicken and an egg effect. It’s not the “openness” of the journal that is a hindrance to faculty publishing in open access journals, it’s that they are untested. One tenured social scientist said she’d like to publish in an open access journal, but because the ones in her field are low prestige, she won’t do so “until the yardstick for success shifts.” She herself notes that this is “unfortunate because it’s a real commercial enterprise now to create and disseminate knowledge.” This sentiment was echoed by another social scientist who noted that she would be happy to publish in open access journals, but not until they have “seasoned” and the “impact of the journal can be assessed.” According to another senior social scientist, “the first open access journal in my field will be a hard sell. It would have to have the same rigorous and peer-reviewed process as non-open journals.” In the words of a humanist, “open access would be fine as long as it has the same standards for refereeing and tenure.” Because there are few high-prestige open access journals in their disciplines, scholars who want to make their work open noted that they prefer to publish in already established commercial journals and pay a fee to make the article open. The impact factor of established commercial journals is a known quantity, and prestige of the journal is of paramount importance. This is, of course, particularly important to pre-tenured faculty, most of whom noted, in the words of one humanist, that “open access is the luxury of the tenured.” A social scientist said that “one only has energy to put into certain things before tenure,” while a humanist stated, “you have to be choosy about where you put your time. How can you find time to look at the open stuff when you already know the quality of the non-open”? Several pre-tenured faculty from a variety of disciplines said that they would never try to negotiate their publishing contract to include the right to publish in open journals or to put their work in a university repository for fear that they would hurt their
chances for publication. In the words of a tenured social scientist, “pre-tenure, no one wants to fight for their rights, they just want to get published.”

Latin Americanists are accustomed to open access publishing, which is common in Latin America due to government support of open publishing. The two Latin Americanists interviewed have published in open access journals, and they noted that they like open access because it’s more “democratic” and contributes to the “free circulation of knowledge.” Because the journals they published in had a strong peer-review process they saw no tension between prestige and open. Open access is also common in digital humanities, where there tends to be more collaboration and sharing of code. Open access is most established in the STEM fields, due perhaps to the collaborative nature of research and, no doubt, government mandates. STEM faculty were the most knowledgeable about open access, and most knew about the government mandates. Many of the tenured STEM faculty had published in open access journals (PLoS being the most common); and several pre-tenured STEM faculty had published in hybrids. Even in the sciences, however, there is unevenness of quality, and tenured faculty in disciplines lacking a high-impact open access journal had also published in hybrid journals, using either the Provost’s Open Access Fund or FRAC funds. All the tenured faculty who published in pure open access journals emphasized that they did so because they were just as prestigious as non-open access journals in their fields. Even with that, however, one senior scientist said that he himself “would just publish in the high prestige open access journals in my field, but it wouldn’t be fair to my junior colleagues.” A senior scientist who edits and produces an open access journal for his discipline’s scholarly society reported that he is often asked for the impact factor of his journal by prospective authors. Because his journal is not indexed by either Scopus or Web of Science, he can’t supply this metric.

If prestige of the journal is the first motivation for publishing in open access journals, there are several secondary motivations. A few faculty referred to open access as being more “democratic.” A couple of faculty object to the business model of commercial publishing in which faculty produce intellectual property and give it free to commercial publishers who then sell it back to universities at a large profit. In the words of one senior scientist, “just because you have a printing press doesn’t mean you should control the market. Literature should be free, and the peer review process the ultimate criterion.” This sentiment was echoed by another senior scientist who liked the peer review process of PLoS, stating that “once a paper meets technical competency, let the future be the judge of the research.” Interestingly, however, neither of these scholars thought that open access publishing would increase their intended audience. In fact, for at least half the faculty interviewed, increasing readership is not an incentive for either publishing in open access journals or putting their open materials in the Tufts institutional repository.

As mentioned above, people in all disciplines know their audience, and it is that audience for which they write and which guides their choice of publication venue. In the words of a senior social scientist, “when I write I imagine who I am writing for and I structure the work with those people in mind.” For humanists and some social scientists, the audience can be rather small, consisting of the scholars who work in the same research niche. For lab-based faculty, the audience is “people who can do something with my work.” This was a sentiment echoed by every STEM faculty member. Across disciplines, the majority of the faculty interviewed believe that the people “who can do something” with the work have access to it through institutional affiliations. This feeling is best expressed by one senior scientist who stated, “I’m not sure access restrictions are a barrier to the dissemination of my work. People who can follow up and do something practical with my work already have access. It’s nice if the armchair
scientist wants to read my work, but they can’t do anything with it, which is what I really care about.” A junior scientist estimates that about 85% of the audience she wants to reach has access to her work, and she’s not “sure open access publishing would be of benefit to the places that don’t have access.” She finished by noting that, as a pre-tenured faculty member, she “doesn’t have the time to think about it.” Another senior scientist noted that he doesn’t think of open access as being about maximizing readership, stating that “if you’re doing your job right, you’re already secured with the people who can do something with your research.” Several humanities faculty stated that they have no objection to open access if the journal is a prestigious one, but “who would be the audience”? In discussing depositing his work in the repository, one senior social scientist said, “I wouldn’t be the first in line to deposit because people who want access have access.” This opinion was seconded by a humanist who noted, when asked if he would put his work in the repository, “I would, I guess, but I wonder who it would reach that it hasn’t already reached.”

Faculty also noted that they are happy to share their work with anyone who asks. They use Google Scholar, academia.edu, and Research Gate to connect with other scholars interested in their work, and they will send copies of their journal articles when asked. To these faculty, this lessens the need for open access because they are already “open” in their sharing. Faculty across disciplines said that they welcome the direct request because they can have a conversation with the requestor and discover how their research is being used. When asked if receiving metrics that measure how many times their work was accessed through the repository would be helpful, the same people noted that it’s not the access that counts, it’s how the material is being used. Hence, citations (a proxy for use) is a more important measure than access.

This is not to say that faculty are not open to the idea of depositing their work in the repository. Although the vast majority of the faculty interviewed were unaware that they could deposit their works in the Tufts’ institutional repository, most of the faculty expressed a willingness to deposit as long as the process is simple and they can receive institutional support. Three faculty specifically said that they believe depositing would increase access to their work. One social scientist noted that she had never really thought about increasing access to her work, but she realized during the interview that it’s “probably elitist to think everyone has access to my work.” An engineer shared this sentiment, stating that he is interested in both open access publishing and depositing his work in the repository because “colleagues from other countries don’t have access to all the journals, and it bolsters their ability to do research.” Several faculty who want to reach policy makers in developing countries see the value of having their work openly available through the repository. Two faculty mentioned that they like the idea of the repository because it is “local,” in contrast to national discipline-based repositories. A tenured humanist, who is not in support of open access publishing, was much in favor of depositing his published essays in the repository because he saw it as an alternative to a print anthology of his work, one that is searchable via Google. One social scientist saw the repository as a good alternative to posting links to her articles on her website.

As this faculty member illustrates, there is not a direct correlation between willingness to publish in open access journals and depositing work in the repository. Faculty are more open to having their published work in the repository than they are to publishing in not yet established open access journals. Many faculty seem to have the opinion that “it can’t hurt” to put their work in the repository, but they don’t have the time to think about it. The chief stumbling block is checking whether they have the right to deposit. Faculty across disciplines do not know what is in their publishing contracts, and they don’t
have the resources to check their old contracts. The few faculty who do know what’s in their contracts are concerned about embargoes and said that they would deposit only “if they didn’t have to worry about embargoes.” The consensus was that depositing should be made as “automatic” as possible. One senior scientist suggested that the library make a list of journals in his field with a one-liner as to what that journals allows an author to do. Several others would like assistance understanding contracts. Faculty in book-based disciplines wondered how the repository would work with books and whether they could ever get permission from publishers to deposit their published monographs.

Faculty who are interested in publishing in open access journals or making their articles open in a hybrid journal that charges author processing fees also asked for institutional support. Many faculty mentioned that they are concerned about how to fund author processing fees, noting that, in many disciplines, these fees are not funded by grants. In the words of one senior faculty, “if Tufts finds a way to support funding, they should make the payment and reimbursement process as easy as possible.” Two faculty are the editors of open access journals or open access books, and they would like to discuss possible institutional support, particularly server hosting.

**Advice to graduate students around research dissemination:**

The most common advice that faculty across all disciplines give to graduate students is to attend conferences and to publish. All faculty commented on how much more difficult it is now to get a first job than it was when they were graduate students. Applicants in the book-based disciplines must now come in with a book or book contract; while those in STEM and non-book-based social sciences need 2 articles for which they are the first authors. Faculty take their role as mentors extremely seriously in advising students where to publish. Faculty in lab-based disciplines publish with their students, and they try to strategically position their students in terms of authorship. Faculty also advise students to be realistic regarding publishing and to understand the publishing process. Many faculty mentioned advising their students on how to select journals to publish in, emphasizing the need to find the balance between the prestige of the journal and fit with the readership. To find the proper fit, they encourage their students to read widely; to look at editorial boards; and to see where their favorite writers are publishing. In the words of a social scientist, “I tell my students to publish in journals that have articles they’ve been inspired by.” Several faculty mentioned the importance of urging graduate students to be “strategic and reasonable” and to have “realistic expectations.” “Don’t aim too high” and “understand the trade-off between quality and quantity” were also common forms of advice. Faculty, especially those in lab-based disciplines, mention that they discuss these issues with their students, and one engineering faculty teaches the publishing process in her graduate seminar.

In the words of a lab-based social scientist, “getting things published in journals is the main business we’re in. We make a living as writers.” Another scientist tells his students that “writing is part of the science. Think about your research in terms of how you would frame it in a journal article.” Several other scientists echoed this advice, with one engineer noting that students “should look at their project as an article and have the way they would present the data in the article frame the actual research.” Faculty in book-based disciplines similarly advise their graduate students, telling them to think of their dissertation as their first book.

Faculty are rather traditional in their advice around research dissemination. Less than a handful of faculty mentioned networking through social media or the web. Indeed, many faculty, across all ranks, cautioned against sharing through social media for fear of intellectual property theft. This was most
pronounced in the humanities and book-based social sciences. Faculty in these disciplines noted that “graduate students are the most vulnerable to stealing of ideas,” and several related stories of actual incidents of intellectual property theft. Faculty in the humanities who are themselves proponents of open access admitted that they advised their students to be much more cautious than they are in sharing their works. Faculty in book-based disciplines, with the exception of the Latin Americanists, advise their students to embargo their dissertations until they have a book contract in hand. Faculty used the words “torn” and “conflicted” about giving this advice, but they prefer their students “to err on the side of caution” when it comes to openness. In the words of one humanist, “I tell my students to work for change, but protect your work.” Humanists also tell their graduate students to be careful in how much they publish in the form of journal articles. They suggest that students not publish more than two articles from their book for fear of hurting the chances of the book’s ultimate publication. A common bit of advice in this area is “to save the publishing for when it matters.” Faculty in other fields also suggested that students should share in conferences, but they should not post works until they were ready to publish. “Keep your work close to your chest until you’re ready to publish” was a common refrain.

One non-traditional way to share research was suggested by two engineers who encourage their graduate students to speak to high school students about their work. This “gives students a different perspective and helps them explain their work to a wider audience.”

Other Observations:

There are some interesting observations that came out of this study that might not lead to immediate action items, but nonetheless are noteworthy. These observations may be worthy of follow up in future research, and their ramifications could become clearer over time. They are:

- When asked how they disseminate their research, faculty most usually confined their response to traditional publishing, although the interviewer encouraged them to think more broadly when framing the question. Upon prodding, faulty mentioned their web pages and communications networks such as Research Gate and academia.edu, but these ways of sharing are not really seen as research dissemination.
- Attending conferences is extremely important in all disciplines and is seen in a positive light. Faculty refer to conference attendance as “networking.” This is in contrast to using social media, such as blogs and twitter, to share work, which faculty often referred to in a negative way as “advertising.”
- Given this view towards social media, it is perhaps not surprising that faculty did not mention alternative ways to track their research dissemination beyond traditional citation metrics. “Alternative metrics” that capture other aspects of the impact of a work, such as mentions in social media and news media, received no mention except in the case of a “public scholar,” who is interested in public reaction to her work.
- Few faculty mentioned sharing data when asked about research dissemination, although data sharing is now mandated by most federal granting agencies. When discussing data at all, faculty referred to the need for closed data storage.
- When discussing Tufts’ institutional repository, only one faculty member demonstrated a knowledge of university-wide initiatives at other institutions that mandate that faculty deposit their works in the university’s open institutional repository.
Action Items:

Three major categories of action items were identified based on these key findings:

- Changes in the publishing industry and federal funding have caused confusion around the quality of new publications, author’s rights, publishing contracts, and federal mandates. Faculty could use assistance around the “business” of publishing.
- Faculty are interested in depositing materials into the Tufts Digital Library (also known as the institutional repository), but they do not know what they can deposit or how. They are concerned about copyright/embargoes and would like assistance with the process.
- Many of the same issues facing faculty also face graduate students. In addition, given the importance of conferences to graduate students, they could use special assistance in this area.

Given these key findings, we propose the following action items, many of which are interrelated:

1. Expand services to assist scholars in the “business” of publishing. These might include:
   - Consult on reading and interpreting publishing contracts.
   - Provide workshops on understanding author’s rights.
   - Assist with understanding the publishing requirements of funding agencies around publications and data.
   - Consult on data management plans required by funding agencies.
   - Assist with the assessment of new journals (subscription-based or open access), including how to find impact factors.
   - Provide workshops on how to organize information and cite sources (RefWorks, EndNote, Zotero).
   - Build conversations between Tisch librarians and faculty involved in editorial and journal/book production roles.

2. Ensure that our digital infrastructure and the services the library provides fully support Tufts’ scholarship:
   - Educate faculty and graduate students on the existence of the Tufts Digital Library (TDL) and its capabilities.
   - Provide assistance with copyright and embargo issues.
   - Create a variety of ways for faculty and graduate students to deposit their work into the TDL.
   - Work with publishers to automatically ingest open access articles published by Tufts researchers into the TDL. Educate researchers to let them know this is happening.
   - Build the capacity for the TDL to supply usage analytics.
   - Develop the mechanism to access Tufts scholarship as a collection.

3. Create programming that supports graduate student scholarship, particularly around research dissemination. This would include the items in #1 and #2, but geared specifically to graduate students in different disciplines. In addition:
• Develop services to support graduate student conference work. This includes DDS workshops on designing and producing conference posters; using the equipment in the DDS recording room; depositing conference papers in the TDL.
Appendix 1 Faculty Research Study Questions:

- What is your general field of research and your specific subfield?
- What is the most common mode of research dissemination in your discipline?
- What is the expectation for promotion and tenure in your discipline?
- Is the peer review process changing in your discipline?
- How is the impact of research assessed in your discipline?
- How have you shared your most recent research? Do you share supplementary materials like data sets, lab notes?
- Are there ways you share and disseminate your research other than the traditional forms of publishing? (pre-print archives, blogs, social media)
- What are the factors you consider when deciding where to publish?
- Are there challenges you face when you consider where to publish?
- Do you tend to publish with other research collaborators?
- Are you the editor of a journal?
- Do you see publishing changing in your discipline?
- Are you familiar with open access publishing?
- Have you published in open access journals?
- Do you have any concerns about open access publishing?
- Do you know about the Tufts Institutional Repository? Would it be valuable if you could deposit your scholarly output into the Tufts Institutional Repository and have the library provide reports on how often it has been accessed and downloaded?
- What advice would you give a graduate student or junior colleague about publishing?