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From Concerned to Cautiously Optimistic: Assessing Faculty Perceptions and Knowledge of Open Access in a Campus-Wide Study

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INTRODUCTION Though open access publishing has many advantages for scholars, very few are interested in learning about and pursuing open access publishing. This article discusses the results of a survey administered to faculty across disciplines at a single university to assess their perceptions, knowledge, and perceived knowledge of open access publishing and related topics. **METHODS** Anonymous electronic survey of 240 faculty members with a response rate of 23%. **RESULTS** Although many respondents considered themselves familiar with open access, very few had practical knowledge of open access publishing. Faculty were uncertain about the value and reliability of open access publishing and were particularly concerned about its applicability in the promotion and tenure process. **CONCLUSION** Misinformation, lack of motivation, and fear appear to be the main causes of negative perceptions of open access among faculty surveyed. Though science faculty had the highest overall perceived knowledge of open access, they were also most likely to view open access negatively and to believe that the current publishing model works well. Education faculty were more likely to think highly of open access publishing, in part due to a lack of funding for that discipline. Librarians and information professionals should take a tailored approach to discussing open access with faculty by working within the knowledge of the discipline if possible.

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IMPLICATIONS FOR PRACTICE

1. Perceptions of open access publishing are varied across disciplines, age groups, and tenure status.
2. Many research faculty believe open access principles such as equal access and retaining author's rights are important but don't pursue open access publishing.
3. A lack of departmental or institutional support for open access publishing in the tenure and promotion process is a major factor in the lack of acceptance for open access.
4. Although faculty over 60 are more knowledgeable about open access, faculty under 40 are more open-minded about a changing publishing system and more likely to prefer to publish in open access journals.

INTRODUCTION

Defined as “digital, online, free of charge, and free of most copyright and licensing restrictions” (Suber, 2012), open access publishing is part of a movement with the goal of increasing access to information and lowering journal subscription costs for libraries and authors. With the serials crisis well-documented (Dingley, 2005; Panitch & Michalak, 2005; White & Creaser, 2007) and libraries and universities taking a stand against unfeasible costs, open access is increasingly considered a replacement, either in part or in full, for traditional, subscription-based publishing models. Although open access publishing has many documented advantages both for authors and libraries, scholars seem to be less interested than librarians are in learning about and pursuing open access publishing. This survey seeks to answer the question of why that is so.

Problem Statement

Many in academia view open access as an important part of the evolving scholarly communication system. However, there have been few studies that have investigated the perceptions of university faculty members regarding open access across disciplines at a single university. This study aims to fill that gap by investigating what faculty members know about open access and how their knowledge (or lack thereof) affects their opinions of open access. For faculty in a single institution which has not yet provided structured outreach regarding open access, are perceptions and knowledge about open access publishing accurate? Are there differences in perceptions and knowledge across disciplines?

The focus on responses from faculty across a single institution rather than faculty from a single discipline or faculty at many institutions creates an opportunity to analyze the culture of publishing in a relatively small community of researchers—and to better understand that community. Faculty, after all, do not work in isolation. If strong opinions on open access publishing are present, either positively or negatively, it is likely that individual responses, even few of them, may be indicative of larger trends and discussions within the institution.

LITERATURE REVIEW

Scholars' Knowledge and Perceptions, 2004-2009

Through large-scale international surveys, Rowlands, Nicholas, and Huntington (2004) and Swan and Brown (2004) found misinformation and a lack of knowledge to be the primary reasons why researchers had chosen not to utilize open access publishing. In a further study, Swan (2006) found that besides a lack of a clear understanding and appreciation for the issues related to open access, scholars had a general disinterest in the topic and did not feel that access to research literature was a problem.

Misrepresentation about open access appears to have led many researchers to write off the idea of publishing open access altogether. Schroter and Tite (2006) found that many researchers were too concerned over increased author costs with open access publishing to consider it and determined that there was little that would motivate researchers to choose journals that charge a fee, even though many traditionally published journals also charge fees. Demographics also contributed to responses to open access. Park (2009) found that researchers who had already achieved tenure were less likely to publish open access, and were more likely to view the higher acceptance rate of some open access publications negatively. Additionally, Rowlands, Nicholas, and Huntington (2004) found that older authors were inclined to stay with the traditional subscription print-based model, while younger authors were more likely to self-archive and to feel more positively toward the open access movement.

Impact factors and perceived prestige of a journal were highly valued in all studies, but mentioned particularly by Swan and Brown (2004) and Schroter and Tite (2006). Because of the previously mentioned high rate of misinformation regarding open access publishing, nearly all authors who hadn't published in open access venues believed the quality of open access journals to be lower than traditional ones, yet Swan and Brown (2004) found that authors who had previously published in open access journals reported that the feedback from and standards of peer review were the same as in traditionally published journals. However, Schroter, Tite and Smith (2005) reported that authors that had previously published in an open access journal would still consider the perceived journal quality over whether or not the journal was open access when picking a place of publication. Despite this, a later study (Gul, Shah, & Bhagwan, 2009) indicated that some authors did see the unique benefits of open access: a majority of the scholars surveyed considered open access useful to publish their work quickly, boost productivity as an author, and increase citations of their work.

Scholars' Knowledge and Perceptions, 2010-present

The SOAP (Study of Open Access Publishing) project completed a survey on scholars' attitudes and experiences with open access publishing in 2011 by surveying members of the scholarly community (Dallmeier-Tiessen et al., 2011). This study found that 89% of researchers thought that publishing open access articles would be beneficial for their field, with higher percentages in humanities and social sciences and lower numbers in chemistry, astronomy, physics, and engineering. Only 29% had not published open access articles, and of those, 42% provided a specific reason. The most common reasons scholars provided for not publishing in open access journals were funding and a concern over journal quality.

Two publishing companies have also completed open access surveys with scholars. Taylor & Francis (Frass, Cross, & Gardner, 2013) published a survey that has been (Anderson, 2014) viewed as biased, yet has some interesting findings. Notably, the survey found a large amount of discomfort with Creative Commons licenses. The strongest point this survey made, however, was that most scholars believe that the ability to pay should not limit publication and that all research should be free for everyone to read online.

In another large-scale survey, Wiley (2012) found that one-third of the respondents had previously published in an open access journal and that 79% believed open access publishing would be increasingly prevalent in their field. Consistent with findings from other surveys, scholars indicated that a lack of high-profile titles, a lack of funding for publishing fees, and a perceived lack of quality were their primary reasons for not publishing in an open access journal. Most scholars reported that they would consider publishing in an open access journal if it had a high impact factor, was well regarded by their peers, and had a rigorous peer review process.

The OAPEN-UK (2012) survey, which analyzed the attitudes towards open access publishing and Creative Commons licenses of researchers from the UK, found that scholars were predominately aware of (54%) or familiar with (39%) open access. Humanities scholars were more likely to be familiar with open access than their social science peers. Despite their familiarity with open access, however, very few scholars had previously published open access, and they demonstrated a lack of knowledge of funds available for open access publishing.

Overview

What scholars in all of these surveys have in common is a shared desire to publish their work in a distinguished venue. Impact factors, perceived journal quality, and colleague recommendations were key in researchers' minds when considering where to publish

(Swan & Brown, 2004). However, tenured researchers were less concerned about where and what to publish for career benefit (Park, 2009), but they were less likely to adapt to new technologies (even though they placed a significant weight on the perceived visible advantage of open access).

Although most of the scholars interviewed in the earlier surveys had some familiarity with the concept of open access, the majority still had limited awareness of the movement. However, there appears to be an overall increase in the knowledge about open access and the belief in its principles when one considers the studies completed after 2010. While studies completed before 2010 indicated disinterest and ignorance of an access problem (Swan, 2006), studies completed after 2010 demonstrated a support of equal access to information (Frass, Cross, & Gardner, 2013) and a belief that open access publishing will become increasingly prevalent (Dallmeier-Tiessen et al., 2011; Wiley, 2012).

Despite an increase of awareness, however, some reservations about open access have remained the same. Scholars continue to cite publishing fees associated with open access publishing (Dallmeier-Tiessen et al., 2011; Schroter & Tite, 2006; Waller, Revelle, & Shrimplin, 2013; Wiley, 2012) and the perceived lack of quality of open access journals (Laughtin-Dunker, 2014; Swan & Brown, 2004) as their primary reasons not to publish in open access venues. Many of these studies have focused on strategies to increase awareness of open access, especially highlighting the benefits related to career, visibility, authority, and technology.

While these studies have provided a wealth of information, few have focused on the knowledge and perceptions of a wide range of faculty members at a single institution. The larger, international surveys did include some discipline-specific analysis, yet the broad scope of those studies was often too large to translate to perceptions and opinions at a single university. A focus on responses from faculty across a single institution can create the opportunity to look at the larger trends and discussions happening in one campus ecosystem, and to create more effective outreach programs. This study describes one approach to understanding the open access climate at a university.

METHODS

Location

The University of Idaho is a mid-size land-grant university located in the Pacific Northwest. With a student size of roughly 12,000, the university offers 142 degree programs from ten colleges, including: the College of Agricultural and Life Sciences, the College of Art and Architecture, the College of Business and Economics, the College of Education, the College

of Engineering, the College of Graduate Studies, the College of Law, the College of Letters Art and Social Sciences, the College of Natural Resources, and the College of Science.

The University of Idaho was selected for this study not only for convenience, but also as a reflection of the average mid-size university in the United States. Faculty members at the University of Idaho may be unique, however, in that a library scholarly communications program had not been in development until 2013, allowing this study to examine how faculty members felt about open access publishing before librarian intervention. The study was classified as exempt by the University of Idaho Institutional Review Board.

Sampling

With the assistance of the University of Idaho's Office of Research, a sample of roughly 33.33% of current faculty at the University of Idaho was created. The Office of Research provided a list of 256 names to serve as an accurate sample of all faculty members across disciplines with varied job titles and campus locations.

Data Collection

After analyzing other studies mentioned in the literature review, a 19 question anonymous survey (Appendix A) meant to measure the perceived knowledge, actual knowledge, and perceptions of open access and the current state of publishing was developed. The survey asked for demographic information such as age, title, discipline, and tenure status followed by several sets of Likert scale questions to gather opinions. An 'undecided' option was not made available in order to encourage the participants to take a stance on the issues discussed. In addition to the demographic and Likert scale questions, the survey included supplemental boxes for further opinions or comments, which proved to be an excellent source of qualitative data. Survey responses were collected from October 14 to October 28, 2013.

RESULTS

240 faculty members were contacted. 15 were excluded due to incorrect contact information or undeliverable messages. Of the 240 selected for the survey, 54 (23%) took part.

Demographics

All questions received 54 responses, unless otherwise noted. The majority of respondents were from the sciences, with most from the College of Agricultural and Life Sciences (28%) and the College of Science (20%). Only one faculty member each from the College of

Engineering and the College of Business and Economics completed the survey. Of the respondents, 61% had tenure and 39% did not.

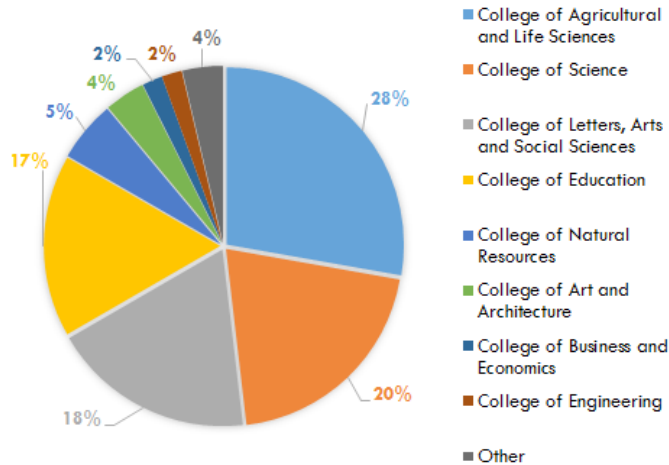


Figure 1. College affiliation of respondents (“Other” are an extension faculty member and a professor with joint appointments)

The age of respondents was split evenly with half under the age of 50 and half over the age of 50. Twenty-eight percent were between the ages of 25 and 40, 52% were between the ages of 41 and 60, and 20% were over the age of 60.

Forty-four percent of respondents had been active researchers between 11 and 30 years. Twenty-eight percent of respondents had published over 50 peer-reviewed articles, and 19% had published between 1 and 5. Thirty-nine percent had published in 1-6 different journals while 48% had published in 7-15 journals.

Experience and Perceptions

Forty-one percent of respondents had previously published in an open access journal, while 59% had not. Fifty-seven percent of respondents indicated that their research field currently benefits or would benefit from journals that publish open access while 11% believed it wouldn't. Thirty-two percent were unsure.

The majority of respondents (72%) were familiar with the term ‘open access,’ yet only a small percentage understood the difference between green and gold open access (9%). Half (50%) of the respondents felt confident that they could explain open access to a colleague if

asked. Additionally, a large number of respondents were unfamiliar with Creative Commons licenses (59%). (See Figure 2).

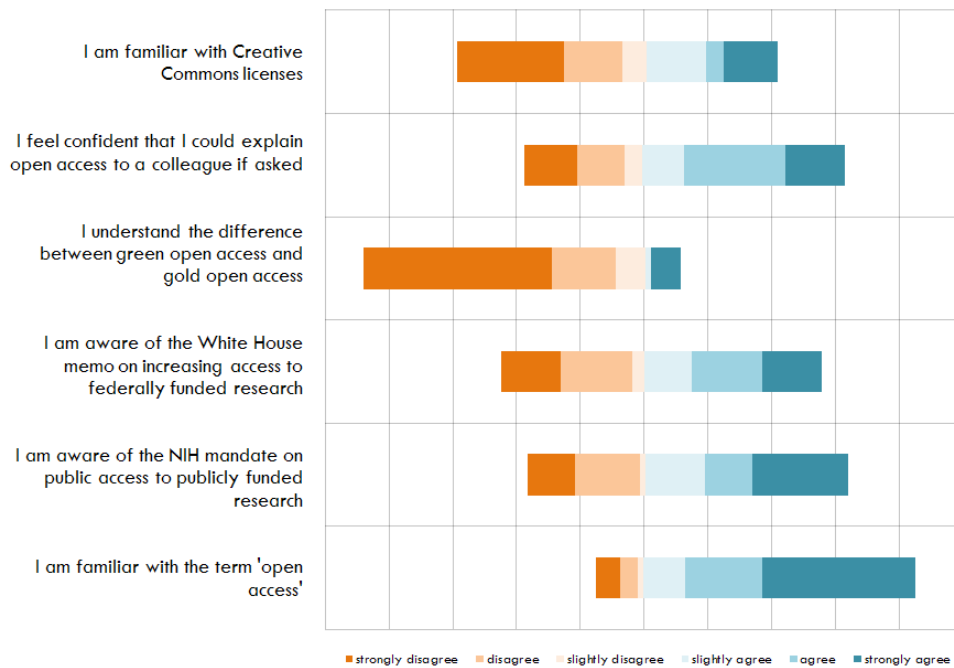


Figure 2. Experience and perceptions of respondents with open access topics and issues.

Respondents strongly believed that publicly funded research should be made available to the public without barriers (80%, n=43) and that researchers should retain the rights to their published work and allow it to be used by others (63%, n=34). However, when asked to rank which factors are most important when selecting a journal to publish in, whether the journal is open access and the copyright policy of the journal were ranked last and second to last, respectively. Respondents were evenly split in their opinion of whether open access journals were the same quality as subscription journals (50% agree/50% disagree) and whether open access is more cost effective than traditional subscription based publishing (48% agree/52% disagree). However, only 31% believed that open access articles are cited more heavily while more disagreed (69%). Only 11% of respondents felt there were no benefits to open access. Thirty-three percent believed open access journals lack peer review and half (50%) believed open access publishing would increase the publication of poor quality research. (See Figure 3, following page).

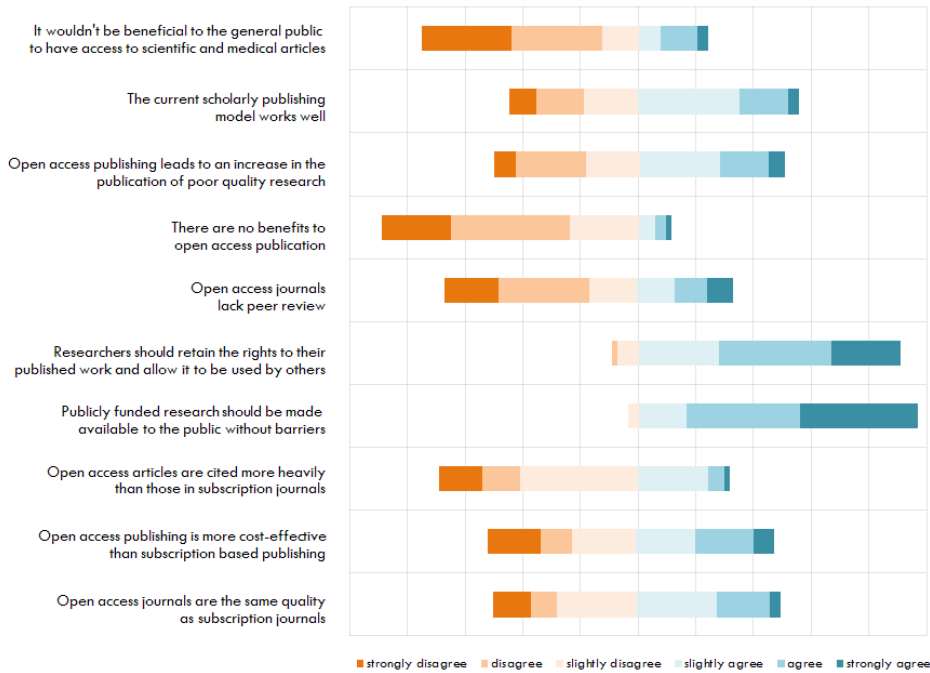


Figure 3. Perceptions of respondents regarding open access publishing.

Unsurprisingly, faculty rated the relevance of the journal to their field as their top priority when choosing a journal in which to publish. The quality of peer review, prestige or perceived quality of the journal, and a previous positive experience were also rated highly. As mentioned previously, the copyright policy and open access policy of the journal were ranked last. Also ranked low was the absence of journal publication fees, including submission charges, page charges, or color charges (see Figure 4, following page).

The majority of respondents (80%) felt it was important that the general public could access and read their research, yet only 44% preferred to publish in open access journals. Sixty-seven percent believed publishing in open access journals would increase the visibility of their research and 72% would like to publish in open access journals in the future. Sixty-one percent believed that publishing in open access journals would be beneficial to their career. Only 15% felt they had institutional/departmental support to publish open access (35% felt that they did not, while 48% were unsure) (see Figure 5, following page).

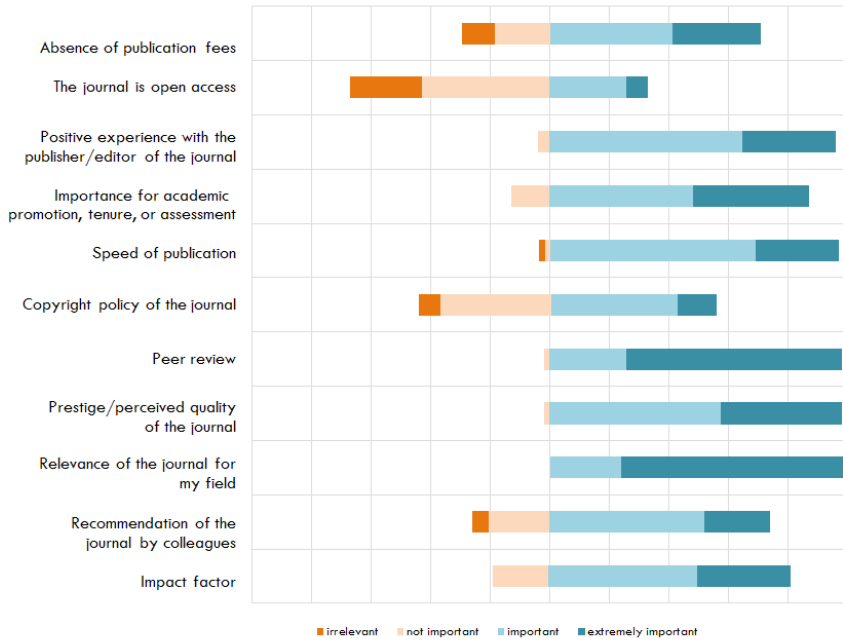


Figure 4. Priorities when selecting a journal in which to publish.

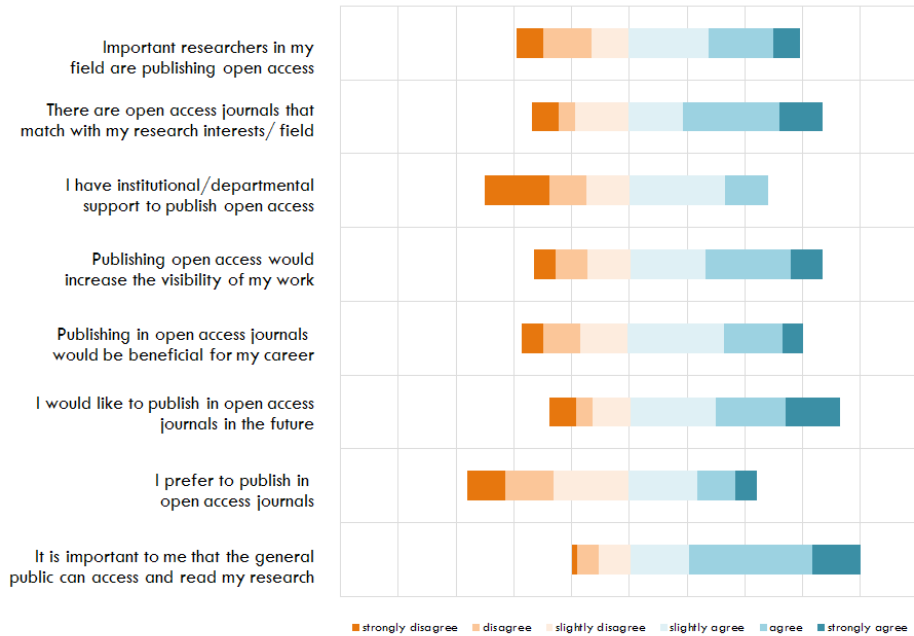


Figure 5. Factors that may influence a decision to publish in an open access venue.

When asked about potential future trends, 70% of respondents believed that traditional subscription-based publishing would continue to be the primary research outlet for scholarly publications, and that impact factors will continue to be the primary metric in assessing the value of journals. Fifty percent believed a new kind of publishing outlet accommodating new types of research will become dominant, 52% believed that most research will be published as open access, and 57% believed an alternative metric system will become more important than impact factors in assessing the value of research.

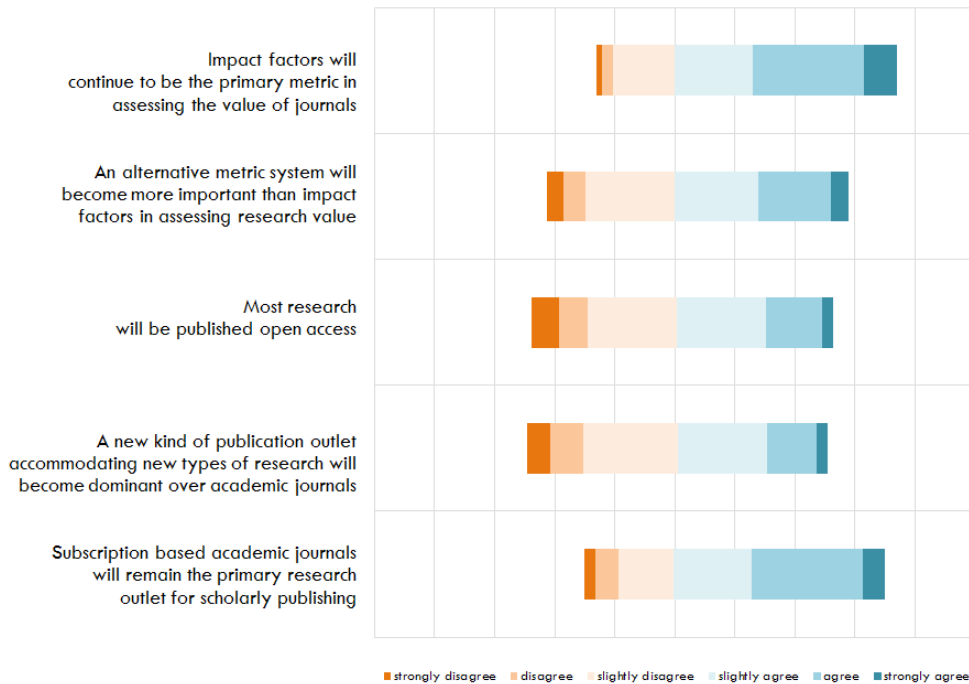


Figure 6. Agreement/disagreement with predictions regarding the next ten years in scholarly publishing.

Disciplinary Differences

The College of Agricultural and Life Sciences, the College of Art and Architecture, the College of Education, the College of Letters Arts and Social Sciences, the College of Natural Resources, and the College of Science are represented in the following analysis. The College of Business and the College of Engineering are not included, as there was just one response from each of those colleges.

Knowledge of Open Access

Faculty in the College of Science demonstrated the greatest knowledge of open access principles as they had the highest understanding of the difference between gold and green open access (Figure 7) and the most confidence that they could explain open access to a colleague if asked (Figure 8, following page). Additionally, faculty in the College of Science were more aware of various open access mandates than their colleagues in other colleges (Figure 9, following page). Faculty in the College of Art and Architecture, on the other hand, were the least confident that they could explain open access, had no understanding of green and gold open access, and had no familiarity with the government mandates on public access. However, Art and Architecture faculty had the highest familiarity with Creative Commons licenses (Figure 10, page 14).

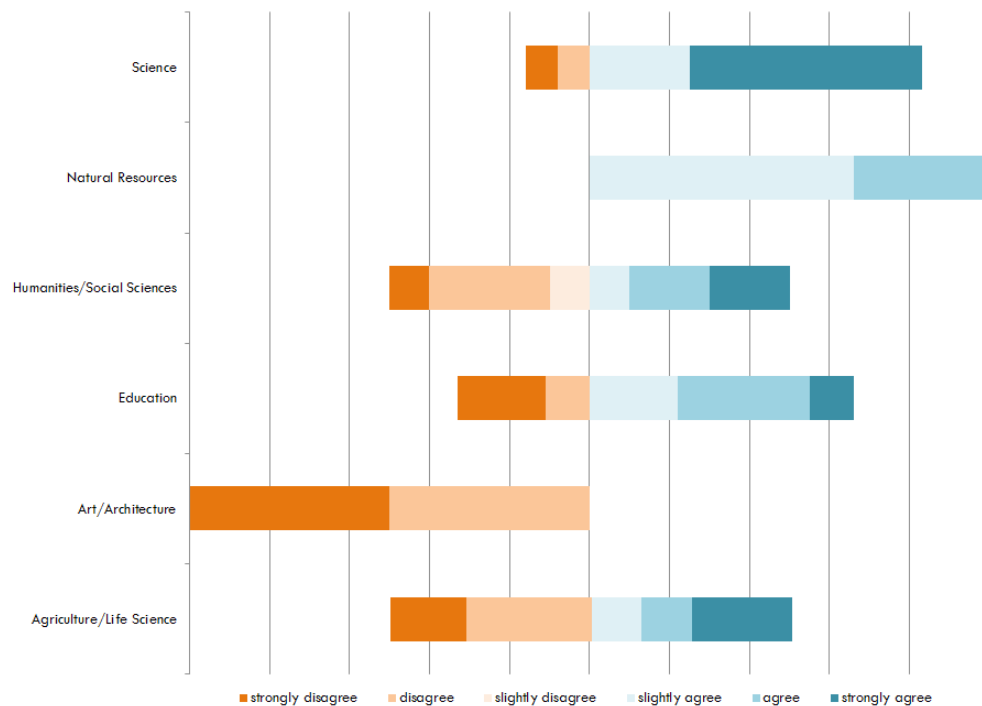


Figure 7. I understand the difference between green open access and gold open access (by college)

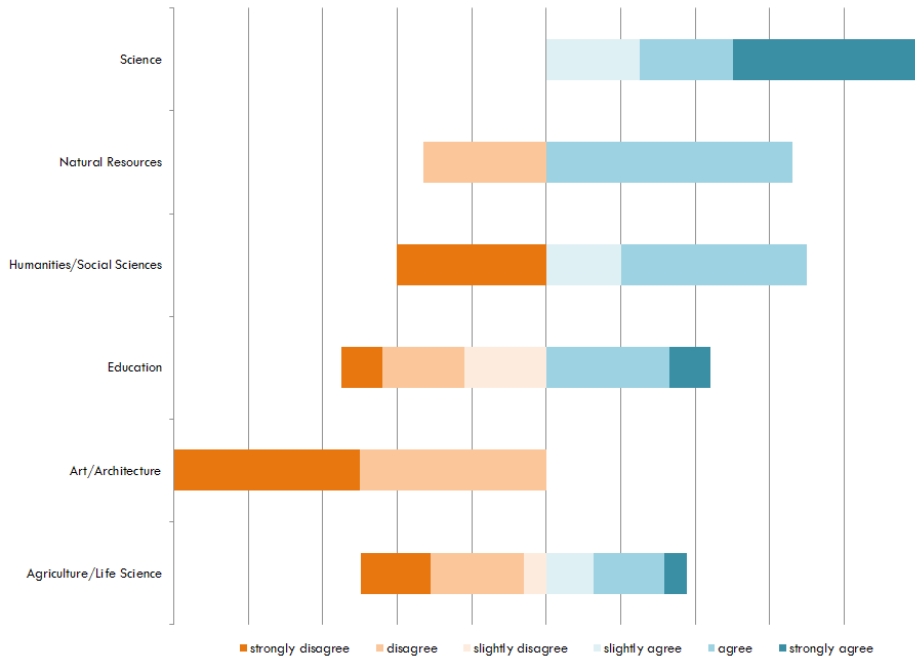


Figure 8. I feel confident that I could explain open access to a colleague if asked (by college)

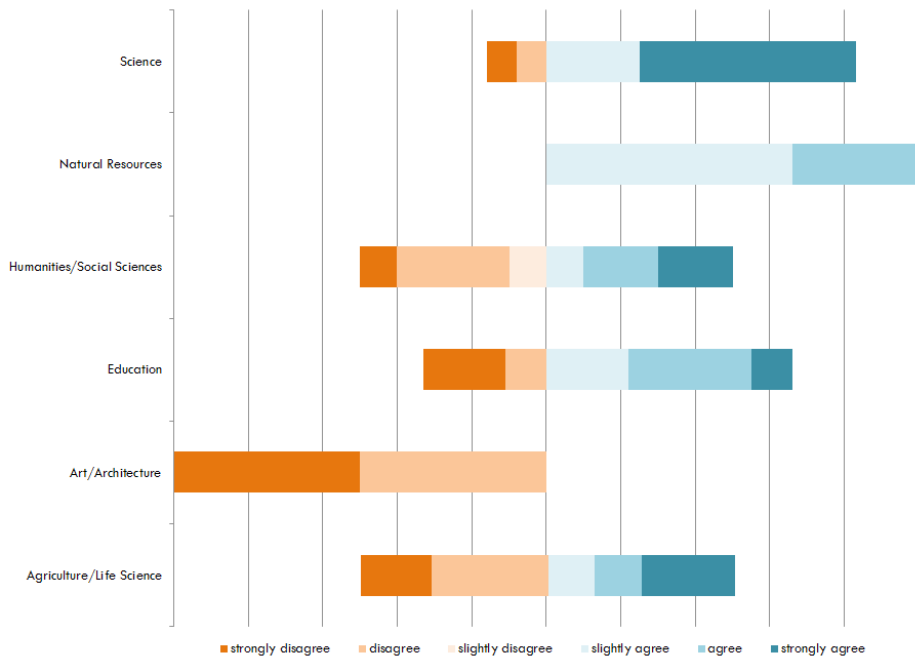


Figure 9. I am aware of the NIH mandate on public access to publicly funded research (by college)

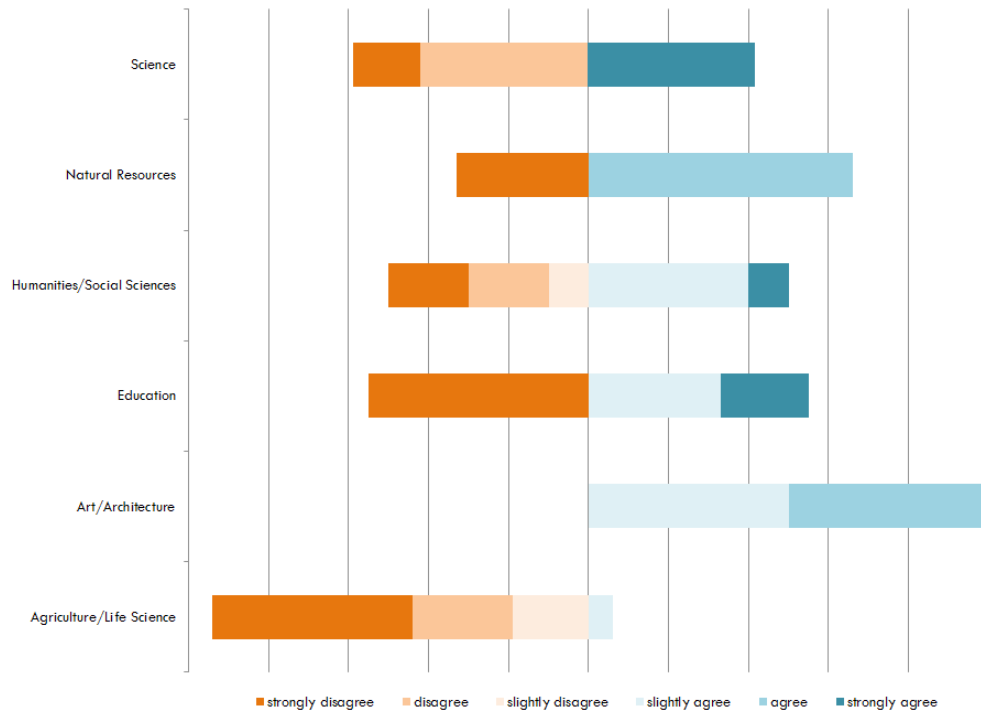


Figure 10. *I am familiar with Creative Commons licenses (by college)*

Perceptions of Open Access

More than in the other colleges, faculty in the College of Education believed that open access articles are cited more heavily (Figure 11, following page) and that open access journals are the same quality as subscription journals (Figure 12, following page). Faculty in the College of Science were the strongest believers in the notion that open publishing leads to an increase in the publication of poor quality research (Figure 13, page 16) and that the current publishing model works well. Opinions seem to vary wildly both between and within the colleges on the quality of open access journals. However, almost all respondents agreed that publicly funded research should be made available without restrictions (Figure 14, page 16) and that researchers should retain the rights to their published work and allow it to be used by others.

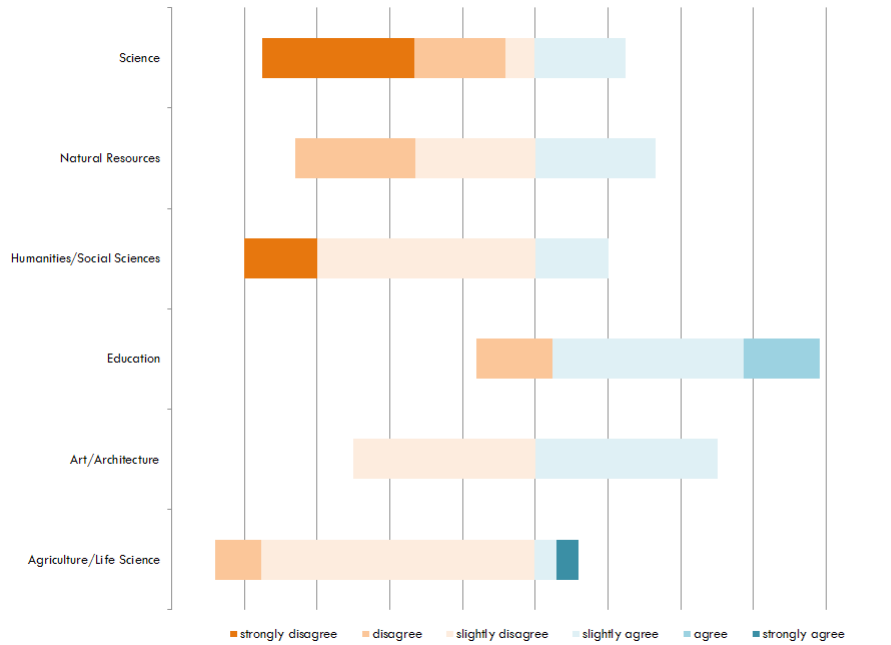


Figure 11. Open access articles are cited more heavily than those in subscription journals (by college)

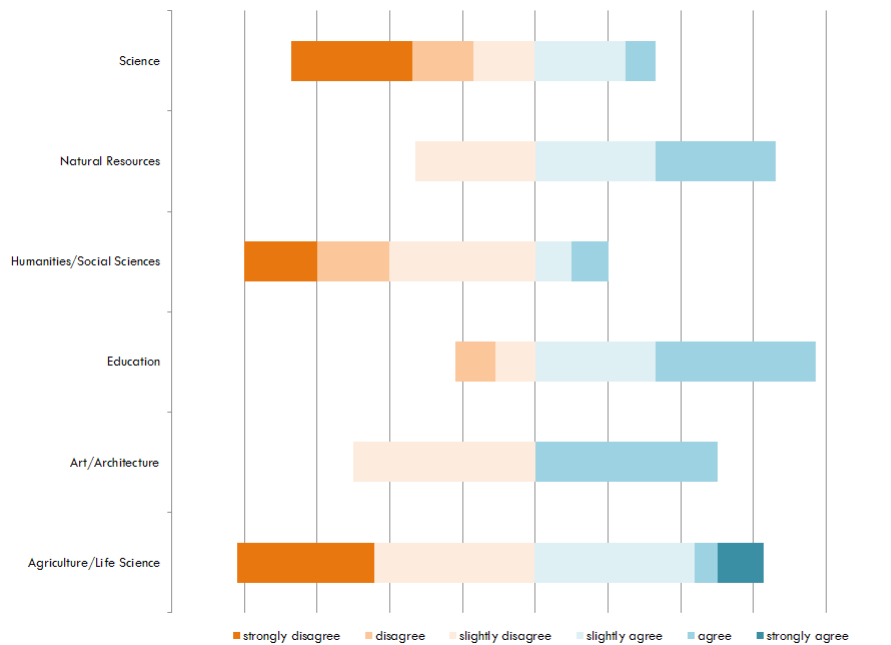


Figure 12. Open access articles are the same quality as subscription journals (by college)

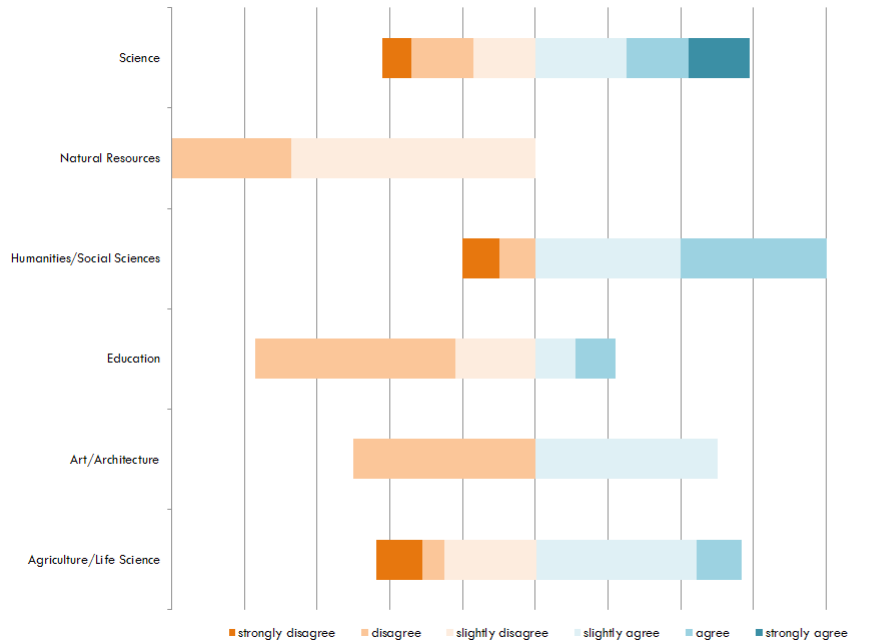


Figure 13. Open access publishing leads to an increase in the publication of poor quality research (by college)

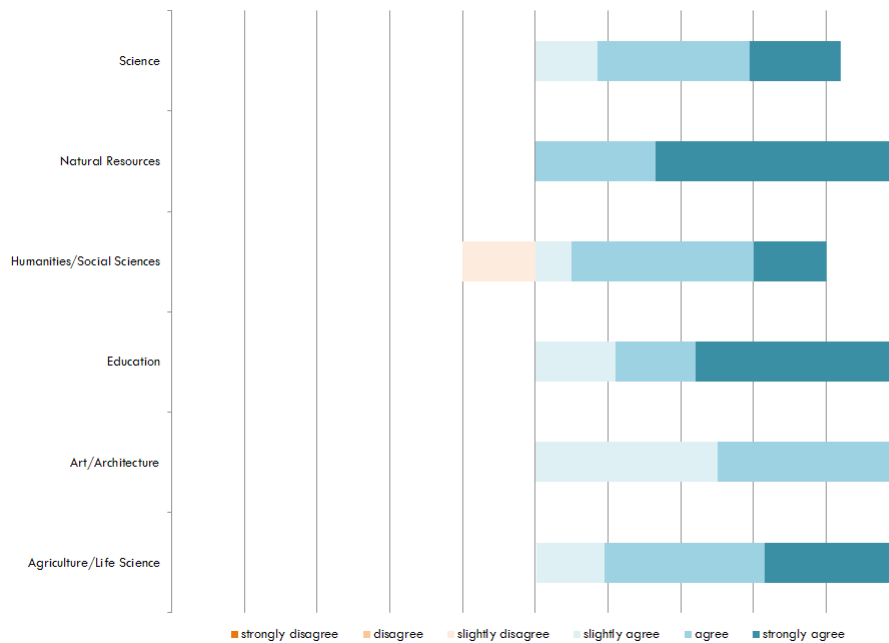


Figure 14. Publicly funded research should be made available to the public without barriers (by college)

The cost of open access publishing was a common critique. Many respondents referred to the relatively common practice of prominent subscription-based journals offering an open access publishing option for a fee:

- Many of our journals already have open access—but at horrendous prices to the author. Those costs need to be reeled in and we need an entirely new model for how research is published. [College of Natural Resources]
- Open access is expensive! [College of Science]
- Other universities have funds to support OA publishing. UI needs that. [College of Science]
- There seem to be two versions of open access in my field. One is the proliferation of fee-based journals coming mostly out of third world countries. The other is the option whereby one publishes in an established journal but pays an extra fee (typically \$1000) for open access. Doing that seems to be a way to show off your status. [College of Agricultural and Life Sciences]

Another common concern with respondents was the perceived lack of support from their department, or confusion over whether an open access article would ‘count’ for promotion and tenure:

- On a personal level I am concerned about whether my department will accept open access articles when considering promotion and tenure. [College of Letters, Arts and Social Sciences]
- We need a new model of how research productivity and output are measured with regard to tenure and promotion. [College of Natural Resources]
- What will we value at tenure and promotion? That will be the predominant driver of what we as a university community do. If public outreach and measure of its effectiveness can be captured and it becomes highly valued—then maybe that’s what we’ll be doing instead. However, given the molasses-like rate of change at universities—I doubt much will change soon. [College of Natural Resources]

Current Publishing Practices

Faculty in the College of Natural Resources were the least concerned with a journal’s copyright policy when considering which journal to publish in while faculty in the Humanities/Social Sciences were the most interested (Figure 15, following page). Natural Resources faculty were also the least concerned with whether a journal was open access (Figure 16, following page), while Art and Architecture faculty were the most concerned with the lack of publication fees (Figure 17, page 19).

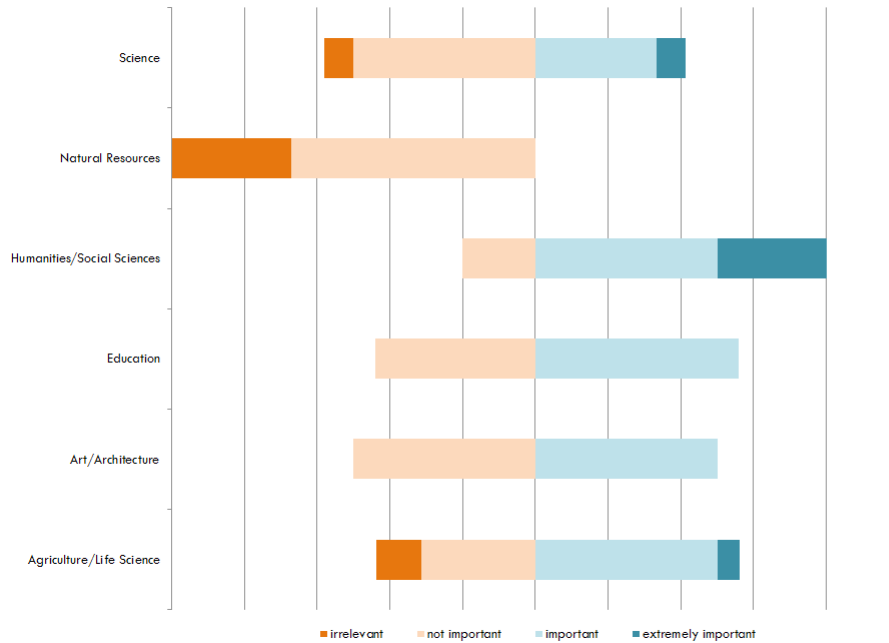


Figure 15. Importance of the copyright policy when selecting a journal for submission (by college)

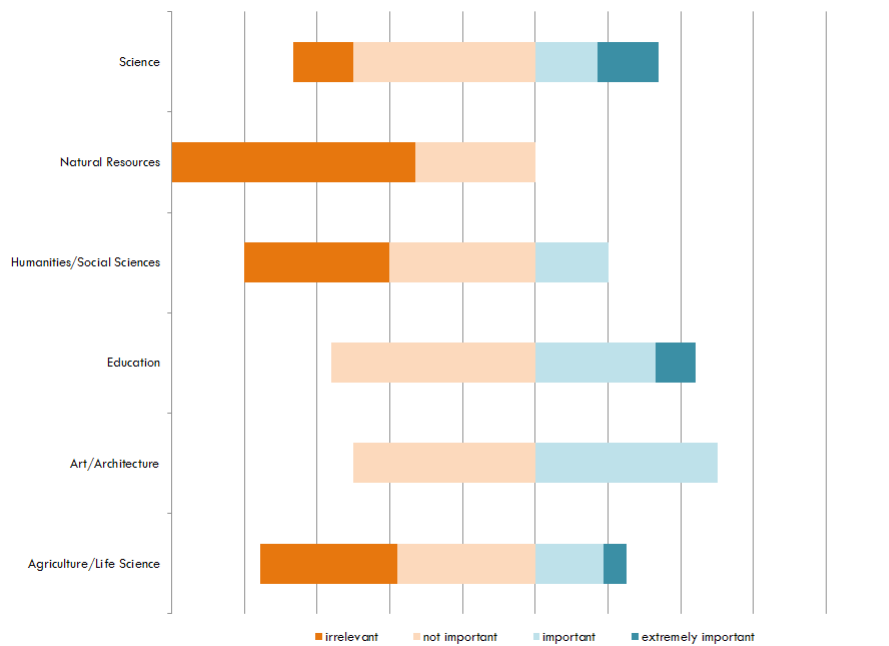


Figure 16. Importance of the open access status of a journal when considering submission (by college)

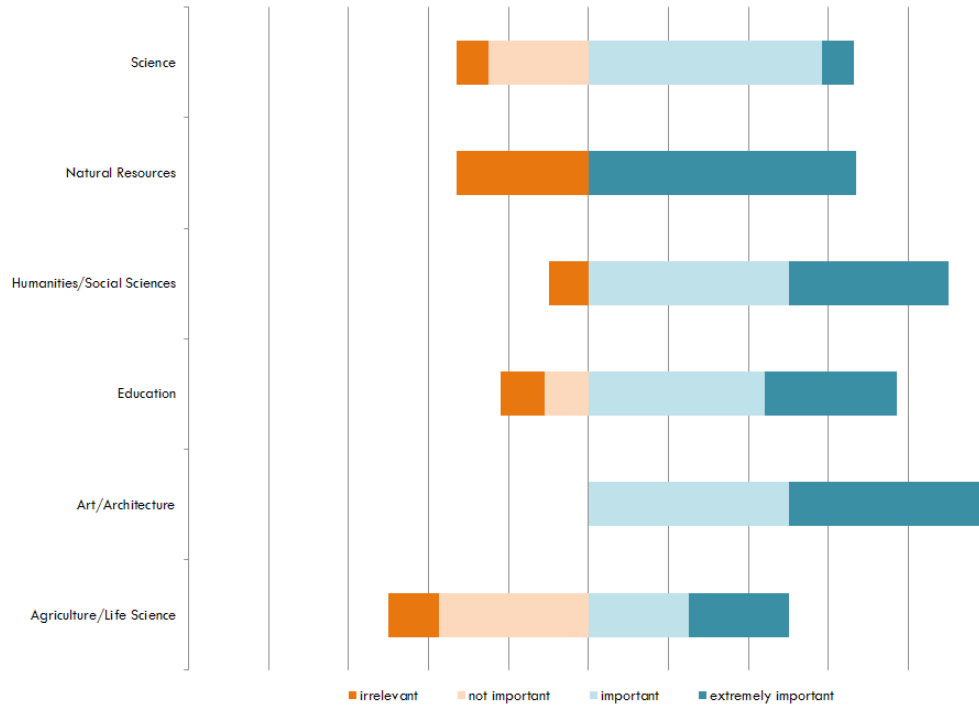


Figure 17. Importance of the lack of publication fees when considering submission (by college)

Faculty in the College of Education felt that it is important that the general public access and read their research and was one of three colleges (including Art and Architecture and Natural Resources) that was highly interested in publishing in open access journals in the future (Figure 18, following page). College of Science and Humanities/Social Sciences faculty felt that they had the least support to publish open access (Figure 19, following page), had the least desire to publish open access in the future, and the least preference to publish in open access journals. These two colleges also had the lowest perceptions of open access being beneficial to their careers and increasing visibility of their research. Humanities/Social Sciences faculty additionally felt most strongly that there were no open access journals that matched their research interests (Figure 20, page 21).

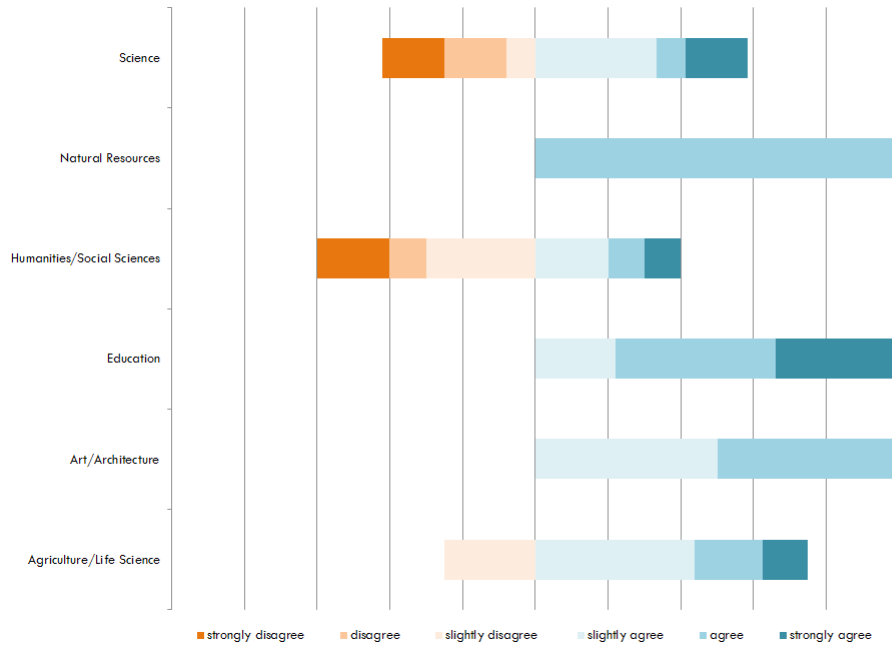


Figure 18. *I would like to publish in an open access journal in the future (by college)*

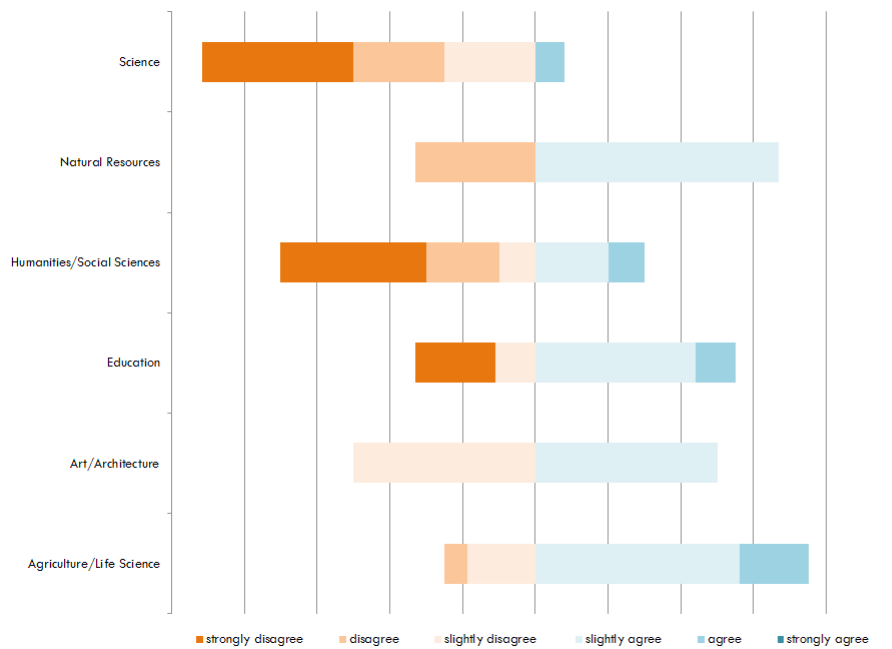


Figure 19. *I have institutional/departmental support to publish open access (by college)*

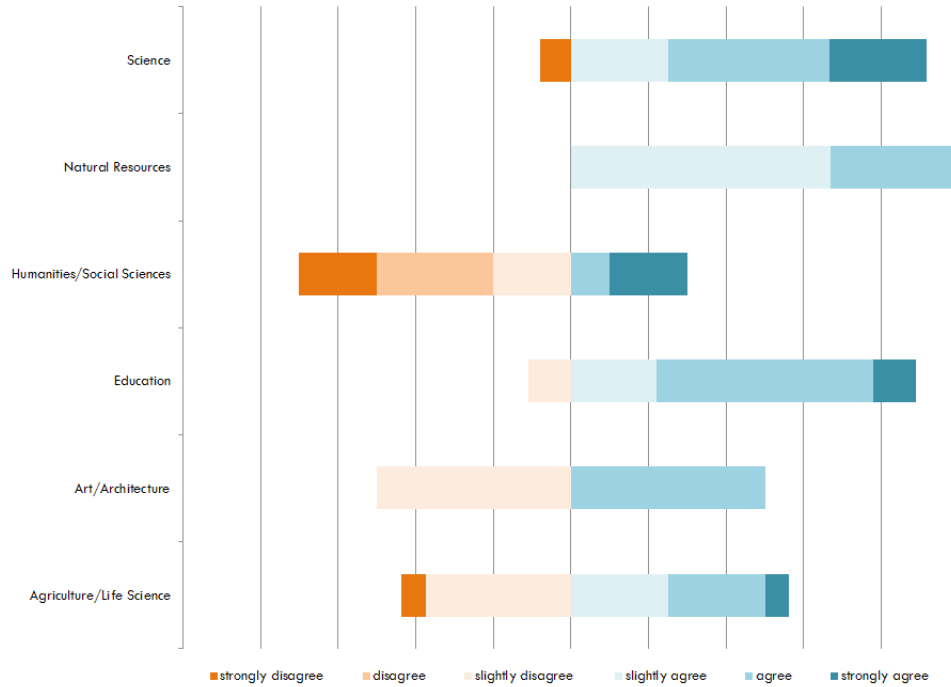


Figure 20. *There are open access journals that match my research interests/field (by college)*

College of Education faculty’s favorable view of open access publishing is further explained in the open-ended comments:

- The disability studies and education fields are typically not as well-funded as other fields and therefore subscriptions to major journals can be cost prohibitive.”
- The field of education, in general, is a poor one—with open access, practicing school teachers, administrators, and students can have access to research that they might not take the time, nor spend the money on otherwise.”

Clearly, the lack of funding is pushing faculty in the College of Education to consider non-traditional publishing models. While College of Education faculty considered subscription fees of traditional journals too high and were concerned about access to their work, some respondents in the science fields wanted to keep scientific knowledge away from those that might use it ‘badly’:

- Open access lets unqualified readers get confused, write letters to their congressmen, and challenge research based on political grounds. Consider how

politically charged areas such as stem-cell research suffered. Also, con artists will re-interpret results to bias them for commercial gain. [College of Engineering]

- Open access means Wikipedia, which anyone can edit without regard to credentials. Someone could start an open access journal for creation theory and get tons of support from the Christian right. Open access is no place for serious scientific research. [College of Engineering]

Future Publishing Practices

Although opinions varied on what publishing would look like in the future, those from the College of Natural Resources expressed the most belief in a new kind of publication model and an alternative metric system emerging (Figure 21). Both Agricultural/Life Sciences and Humanities/Social Sciences faculty believed strongly that subscription based journals would remain the primary research outlet (Figure 22, following page). Science and Humanities/Social Sciences scholars didn't believe most research would be published open access (Figure 23, following page) and didn't believe new publication venues would be created that would become dominant over academic journals.

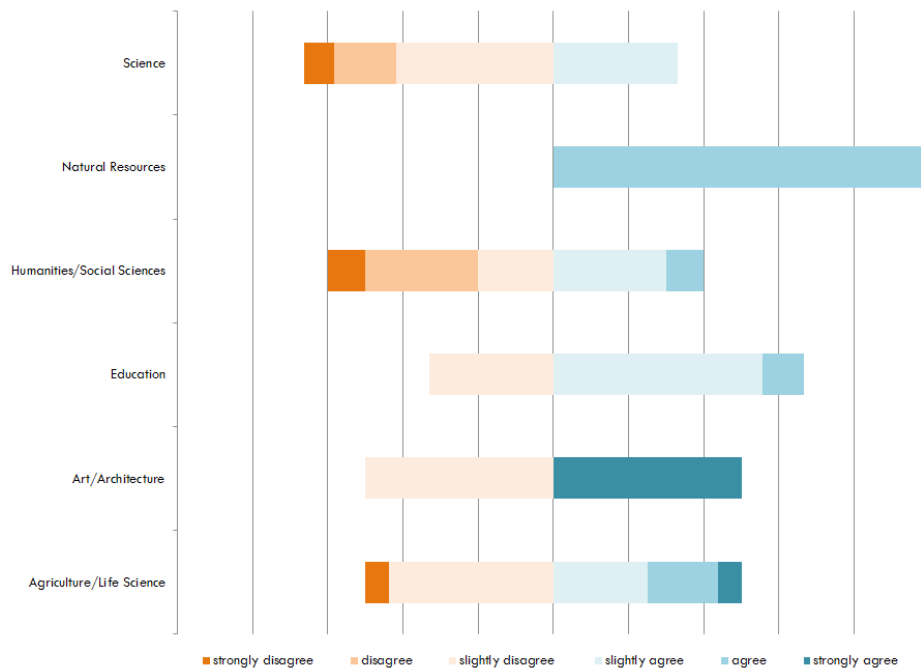


Figure 21. A new kind of publication outlet accommodating new types of research will become dominant over academic journals (by college)

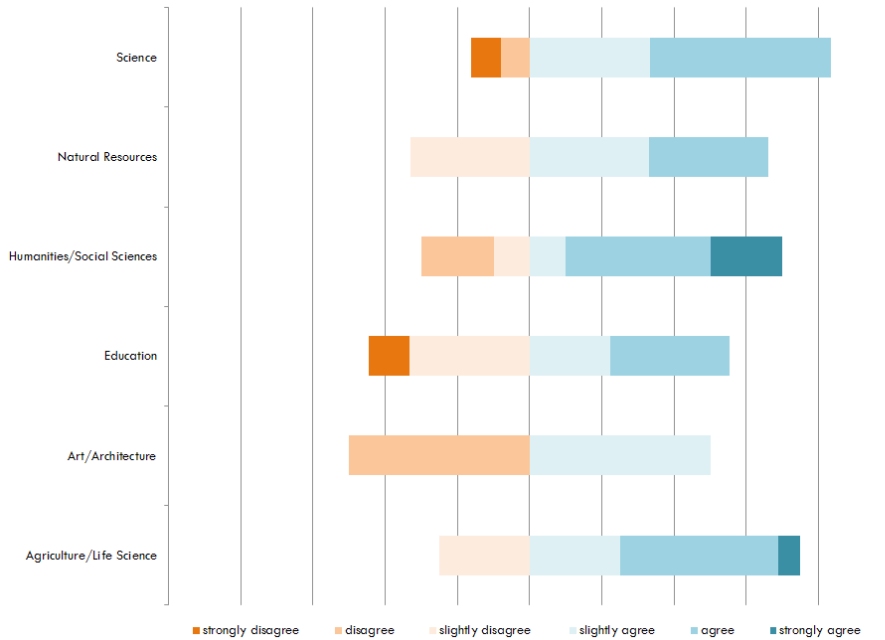


Figure 22. Subscription based journals will remain the primary research outlet for scholarly publishing (by college)

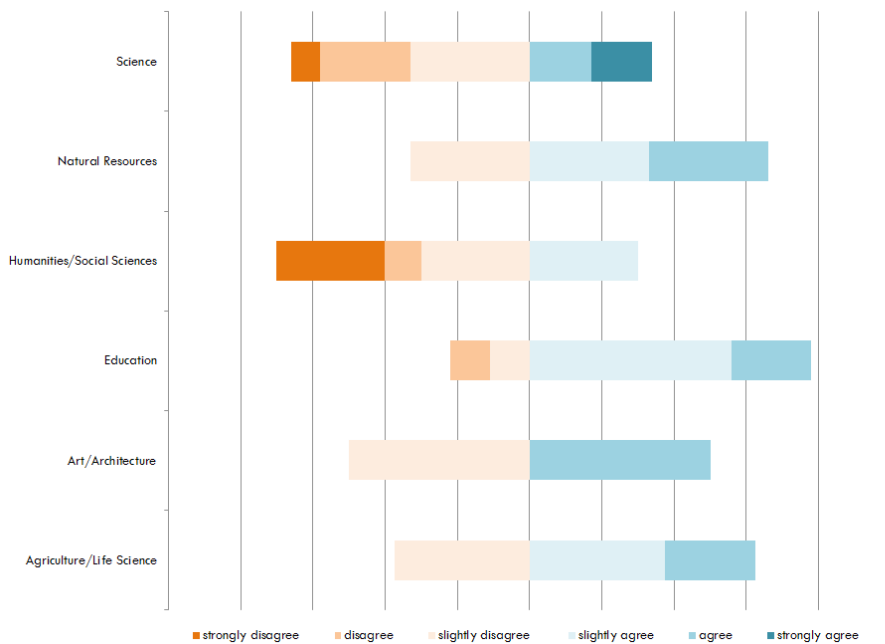


Figure 23. Most research will be published as open access (by college)

Respondents additionally speculated on the future of scholarly publishing in open comments:

- Web-based publishing should become more prevalent as well as more accepted. I do see more signs of this right now. I find it odd that publishing in these venues is still stigmatized in academia as lower-echelon publishing status compared to traditional print media. But the old journal system has expensive subscription cost for institutional libraries. Access to those materials is less immediate than internet resource access. So, new internet publishing methods will tie in with needs for ready access to the materials, search systems, etc. [College of Letters, Arts and Social Sciences]
- ARXIV (and things like it) will be more important, but as a supplement to OA journals. Society journals will all become OA eventually. [College of Science]
- More online interactive presentation of results/scholarship...specifically open data-sets attached to articles to allow readers to verify and build upon the original research. [College of Education]
- Blogs and wikispaces as something to count toward tenure. [College of Education]
- Proliferation of new journals, many open access, will make publication easier, and the traditional journals therefore more valuable than ever, as gatekeepers of the big, significant ideas. [College of Letters, Arts and Social Sciences]
- I don't see that [the traditional publishing model] can be replaced under our current demand for completion of peer-reviewed scholarly products. However, I do think more journals will become "gold" open source. [College of Agricultural and Life Sciences]
- Scholarly publication in high quality, peer reviewed journals, including high quality open access journals, will remain the gold standard in science for some time to come. There is a need for venues for reporting negative results. This is difficult to do in publications and is VERY important to the progress of science. This is under discussion at NIH because of the high profile cases of results that cannot be replicated. I think scientists will make greater use of other methods to publicize their work (Utube [sic], Facebook, Blogs, Websites etc.), but these will not replace peer reviewed publication. [College of Science]
- Scholarly publishing in peer-reviewed journals (regardless of OA policies) has served science exceptionally well. It will continue to do so. [College of Science]

Age and Tenure

Although a substantial difference was expected when comparing perceptions and knowledge of open access across generations and tenure status, there was little to differentiate between the groups. Those differences are explored below.

Knowledge of Open Access

As the age of respondents increased, scholars became more familiar with open access principles and aware of government mandates. Similarly, those with tenure were more familiar with open access, felt more comfortable explaining it to a colleague, and were more aware of the difference between green and gold open access. (See Figures 24-27).

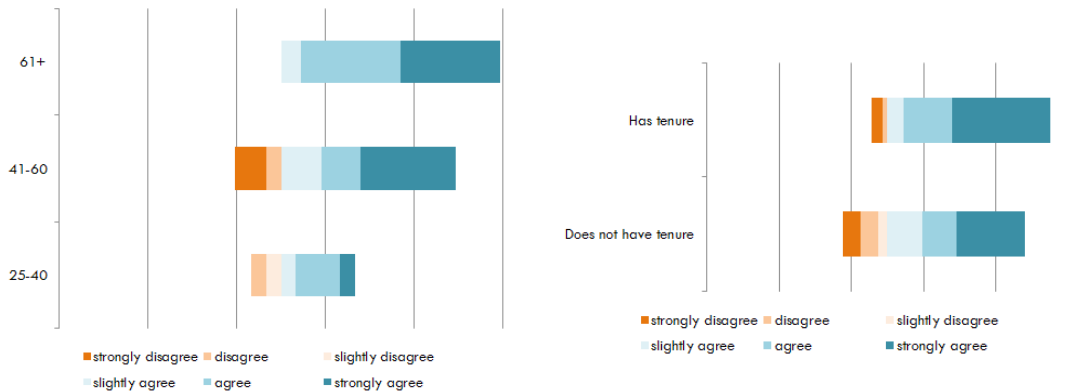


Figure 24. *I am familiar with the term “open access” (by age (left) and tenure status (right))*

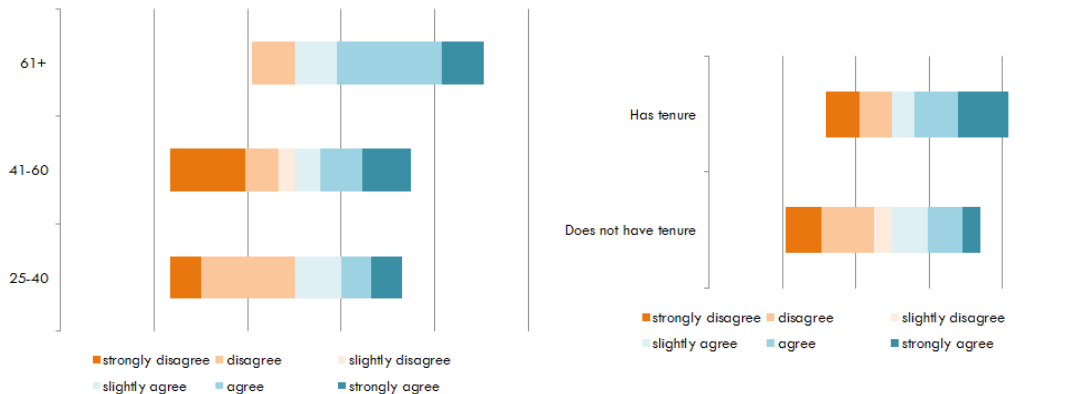


Figure 25. *I am aware of the White House’s memorandum on increasing access to the results of federally funded research (by age (left) and tenure status (right))*

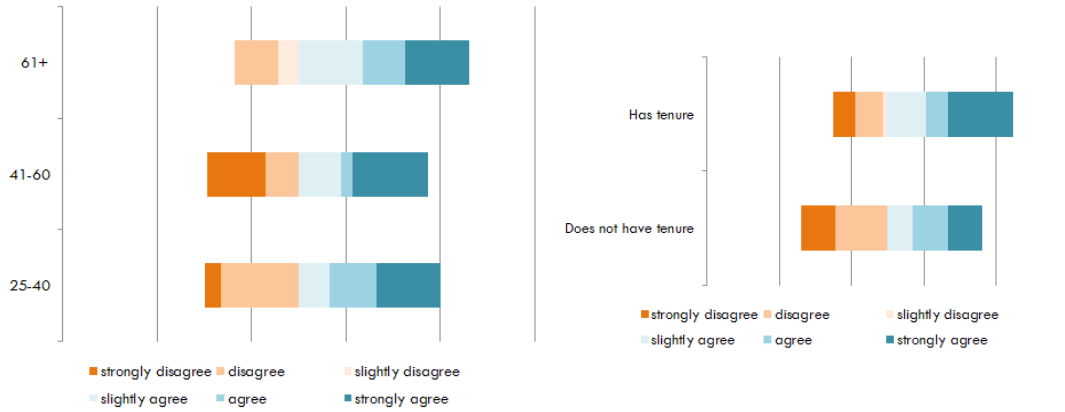


Figure 26. *I am aware of the NIH mandate on public access to publicly funded research (by age (left) and tenure status (right))*

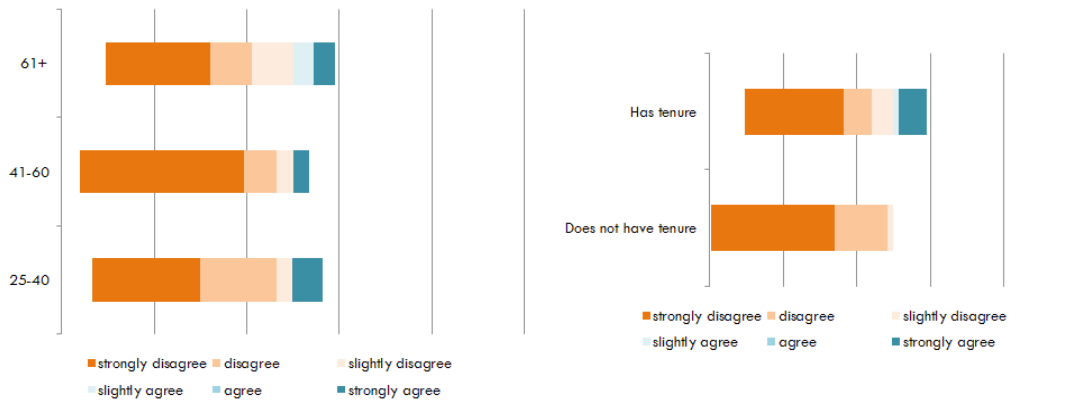


Figure 27. *I understand the difference between green open access and gold open access (by age (left) and tenure status (right))*

Perceptions of Open Access

Respondents aged 41-60 exhibited less belief that open access journals are the same quality as subscription journals, more belief that open access articles are cited more heavily, and more belief that open access journals lack peer review. Those with tenure believed more than those without tenure that the current scholarly publishing model works well, possibly because they have successfully used the current scholarly publishing model to achieve tenure. (See Figures 28-31, following pages).

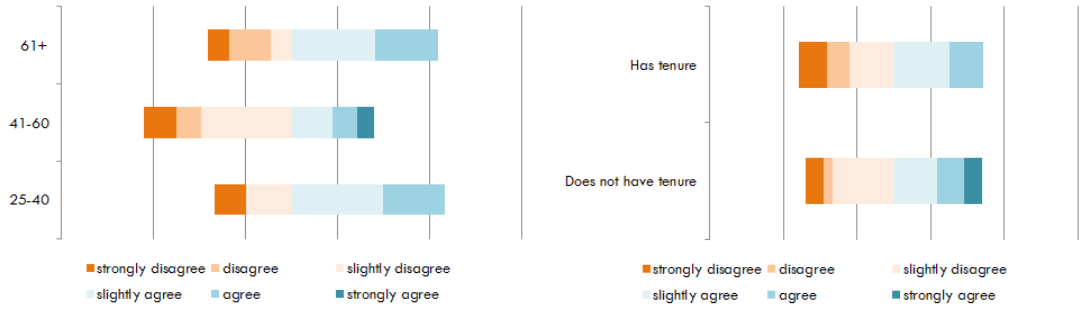


Figure 28. Open access journals are the same quality as subscription journals (by age (left) and tenure status (right))

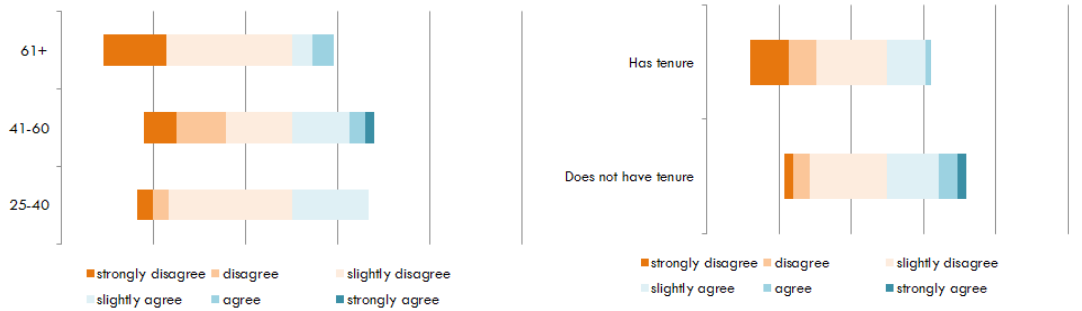


Figure 29. Open access articles are cited more heavily than those in subscription journals (by age (left) and tenure status (right))

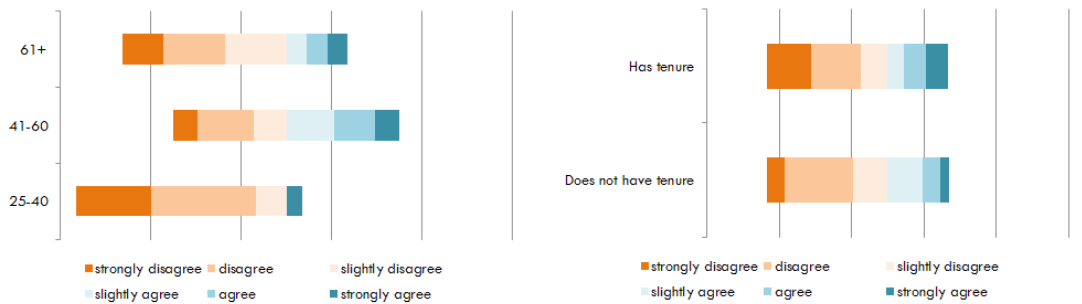


Figure 30. Open access journals lack peer review (by age (left) and tenure status (right))

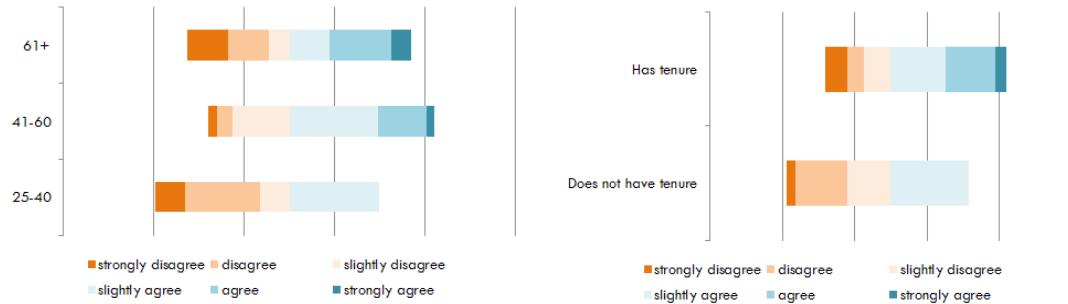


Figure 31. *The current scholarly publishing model works well (by age (left) and tenure status (right))*

Current Publishing Practices

When selecting a journal in which to publish, faculty over the age of 60 more frequently considered the copyright policy of the journal than their younger peers (Figure 32). Additionally, untenured faculty were more concerned with open access publication fees than their tenured counterparts (Figure 33, following page).

Respondents under the age of 40 preferred publishing in an open access journal more than their peers (Figure 34, following page). This younger age group also believed publishing in open access venues would be beneficial for their career and would increase the visibility of their work. Faculty without tenure had a stronger perception of open access publishing as beneficial to their career and as a way to boost visibility of research (Figure 35, following page; Figure 36, page 30).

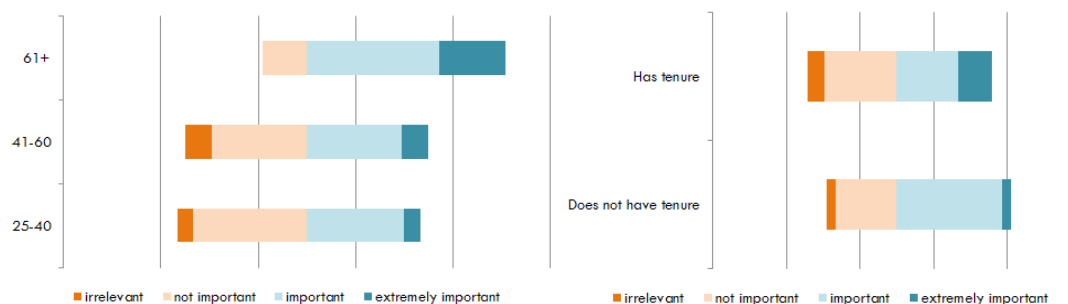


Figure 32. *Importance of the copyright policy of the journal (by age (left) and tenure status (right))*

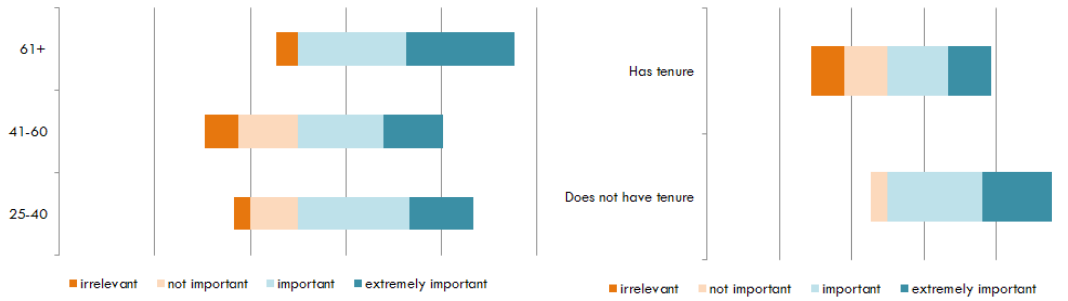


Figure 33. Importance of absence of journal publication fees (by age (left) and tenure status (right))

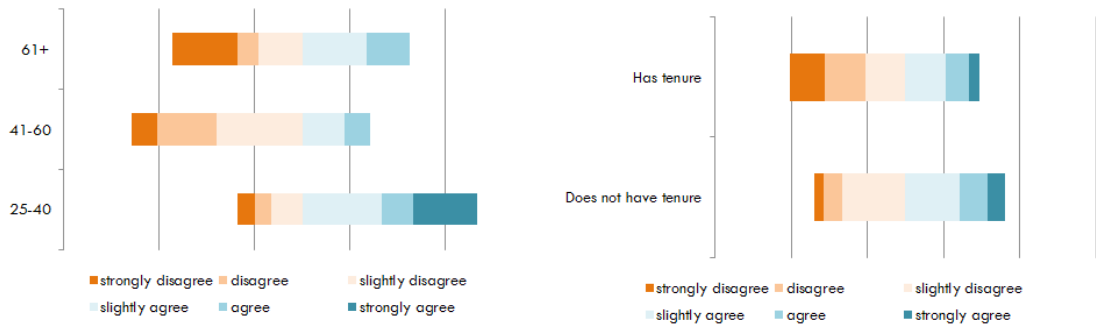


Figure 34. I prefer to publish in open access journals (by age (left) and tenure status (right))

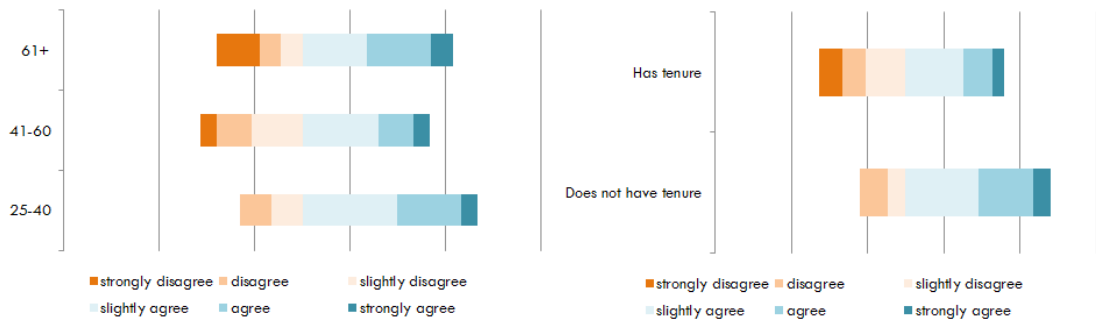


Figure 35. Publishing in open access journals would be beneficial for my career (by age (left) and tenure status (right))

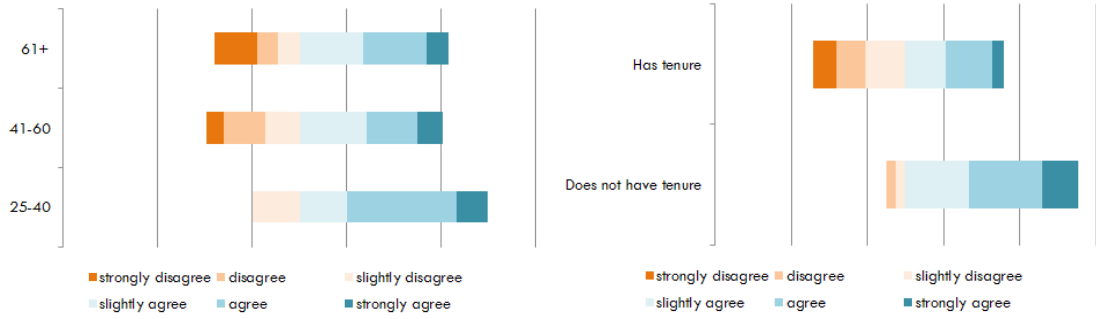


Figure 36. Publishing open access would increase the visibility of my research (by age (left) and tenure status (right))

Future Publishing Practices

Faculty under 40 reported less belief that subscription-based academic journals would remain the primary research outlet for scholarly publishing (Figure 37) and more belief that most research will be published open access in the future (Figure 38).

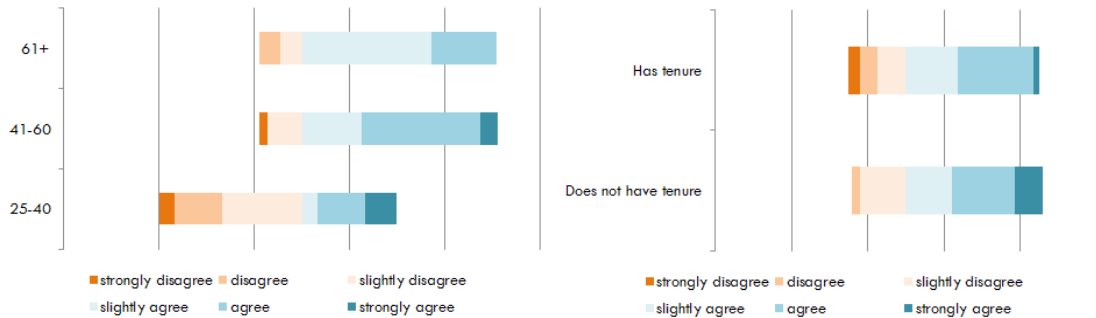


Figure 37. Subscription based academic journals will remain the primary research outlet for scholarly publishing (by age (left) and tenure status (right))

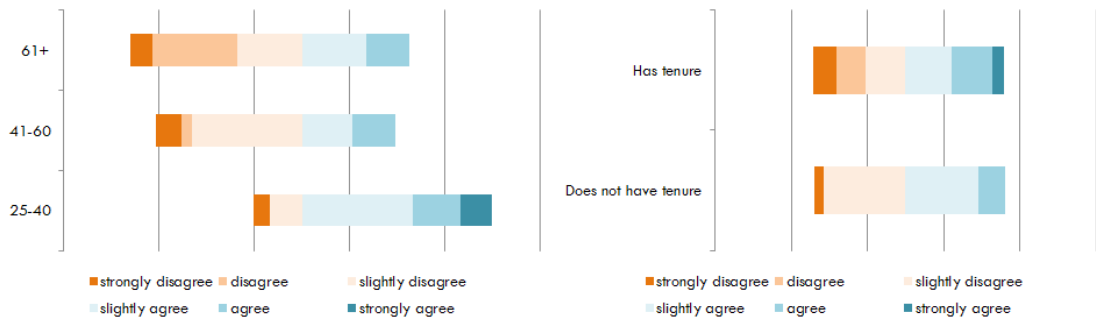


Figure 38. Most research will be published open access (by age (left) and tenure status (right))

Limitations

The data collected from this survey are useful for understanding the knowledge and perceptions of faculty at the University of Idaho. However, no study is without limitations. With a sample size of 54 respondents it is possible to make general, cautious assumptions of faculty attitudes toward open access at the University of Idaho, but readers should be wary of projecting these findings onto faculty at different universities and in different contexts. With a larger sample size, it might be possible to make more confident assumptions. Additionally, the disciplinary representation in the limited sample did not allow for an accurate picture of all colleges. Notably there was only one response each from the College of Engineering and the College of Business, thus that data was not included in the examination of discipline-specific responses.

As mentioned previously, an ‘undecided’ option was not made available in the survey instrument in order to encourage the participants to take a stance on the issues discussed. However, a few participants noted that this was unhelpful to them as they had little knowledge of the topic and therefore didn’t feel comfortable stating an opinion. In the future, providing more information to the participants and/or including an ‘undecided’ option in the Likert scale questions would improve the accuracy of the data.

CONCLUSION

- I think open access is a great concept. I value publications being out sooner and available to a larger audience. The downsides to open access are the low quality among some journals and the high submission fees. [College of Agricultural and Life Sciences]

This quote illustrates the overall faculty perception of open access publishing: fairly positive, yet with significant reservations about the quality of peer review and the effect open access publishing may have on their careers. Common concerns found in this study include a large cost to the author, a perceived lack of peer review, a perceived lack of quality, and a lack of departmental/institutional support, especially in regards to promotion and tenure. These findings are consistent with the recent studies (completed after 2010) discussed in the literature review. With more understanding of some of the main concepts behind open access, many of these negative perceptions could be reconceived. Educating faculty about the similarities between open access and traditional publishing may also help. For example, just as with traditional subscription-based publishing, not all open access journals are high quality. Also, many subscription journals, including several journals run by academic associations, require an author fee for publishing. Overall, open access journals are not

significantly different from traditional journals; authors should still research the journal before they choose to publish in it, weigh the cost of submission with the benefit to their career, and consider the quality and level of peer review at their journal of choice.

So why the unforgiving perception of open access journals? There appear to be three main causes: misinformation, lack of time/motivation, and fear.

Misinformation is a key factor in the lack of interest in open access. Thirty-two percent of respondents were unsure if their research or research field would or wouldn't benefit from open access publishing. Very few respondents believed in the documented advantages of open access publishing—including increased citation rates and being more cost-effective—and had very little understanding of the differences between green and gold open access, Creative Commons licenses, or recent open access mandates. This clear lack of practical knowledge on the topic of open access implies that faculty members are relying on hearsay and rumor for information rather than seeking information from reliable sources, such as librarians. Librarians should create new faculty outreach programs that will interest faculty, not overwhelm them, and not take too much time out of their busy careers. Several programs have been successfully implemented in different kinds of universities across the country, including at Gettysburg College (Wertzberger, 2014), Miami University (Bazeley, Waller, & Resnis, 2014), and Grand Valley State University (Beaubien & Eckard, 2014), among many others. What these programs in particular have accomplished is a tailored outreach strategy to meet the needs of individual faculty at their institutions and to counter misinformation.

One reason for the lack of reliable information may be that faculty members are typically very busy individuals. If a faculty member is working to make tenure, for example, they may be more focused on just getting their research into 'reputable journals' rather than considering retaining their rights as authors or the best interests of the public readership. Some of the pressure for tenure may also be a contributing factor to misinformation if the promotion and tenure guidelines do not clearly allow open access articles (as many respondents indicated). Libraries should work with faculty governance and administrators to clearly define promotion and tenure practices in such a way as to allow and/or encourage open access publishing within certain parameters (e.g., requiring peer-review).

In addition to the pressure and lack of time faculty members may feel in relation to tenure and promotion, there may also be a fear of the unknown in their hesitance to embrace open access publishing. One recurring phrase in responses of faculty members and in research on this topic was 'it's always been this way,' indicating that faculty are reluctant to alter their familiar publishing practices for this new, untested, and questionable publishing format. This survey found that younger faculty members were more receptive to open access

publishing and publishing alternatives while older faculty members remained entrenched in the traditional publishing system and were unlikely to try something new. Again, this is a tremendous opportunity for librarians to play a proactive role in educating faculty members in regards to publishing.

While there are common barriers for faculty to adopting open access publishing practices, not all disciplines have the same publishing needs, perceptions of publishing, or tenure and promotion requirements, and would therefore approach publishing differently. Using the data in this study, along with further analysis within their own university ecosystems, librarians, administrators, and information professionals can begin to create a tailored approach for library outreach by matching each discipline or department's specific needs to information that is relevant to them. This kind of tailored outreach will likely be necessary to combat the inertia caused by misinformation, a busy schedule, and fear of the unknown: although a majority of faculty members surveyed found value in the basic principles of open access publishing (increased access, reduced cost, and retaining author rights), few respondents indicated interest in changing their current publishing practices. Change will require librarians to play a more engaged role in educating faculty in this new and ever-changing publishing environment.

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APPENDIX A

Survey Instrument

Part 1: Demographics

1. What is your job title?

2. Do you have tenure?
 - a. Yes
 - b. No

3. Which college do you work in?
 - a. College of Agricultural and Life Sciences
 - b. College of Art and Architecture
 - c. College of Business and Economics
 - d. College of Education
 - e. College of Engineering
 - f. College of Law
 - g. College of Letters Arts and Social Sciences
 - h. College of Natural Resources
 - i. College of Science
 - j. Other

4. What department do you work in?

5. How old are you?
 - a. 25-30
 - b. 31-35
 - c. 36-40
 - d. 41-45
 - e. 46-50
 - f. 51-55
 - g. 56-60
 - h. 61-65
 - i. 66-70
 - j. 71+

6. Approximately how many years have you been an active researcher?

- a. 0
- b. 1-5
- c. 6-10
- d. 11-15
- e. 16-20
- f. 21-25
- g. 26-30
- h. 31-35
- i. 36-40
- j. 41-45
- k. 46-50
- l. 50+

7. Approximately how many peer reviewed articles have you published?

- a. 0
- b. 1-5
- c. 6-10
- d. 11-15
- e. 16-20
- f. 21-25
- g. 26-30
- h. 31-35
- i. 36-40
- j. 41-45
- k. 46-50
- l. 50+

8. Approximately how many different journals have you published in?

- a. 0
- b. 1-3
- c. 4-6
- d. 7-9
- e. 10-12
- f. 13-15
- g. 16-18
- h. 19-21
- i. 22-24
- j. 25-27

k. 28-30

l. 31+

9. Have you made submissions to open access journals before?

a. Yes

b. No

10. If so, how many?

Part 2: Likert scale (all randomized) and supplemental questions

11. Please rate how strongly you agree or disagree with the following statement (strongly agree, agree, slightly agree, slightly disagree, disagree, strongly disagree):

a. I am familiar with Creative Commons licenses

b. I understand the difference between green open access and gold open access

c. I am aware of the NIH mandate on public access to publicly funded research

d. I am familiar with the term 'open access'

e. I feel confident that I could explain open access to a colleague if asked

f. I am aware of the White House's memorandum on increasing access to the results of federally funded scientific research

12. Please rate how strongly you agree or disagree with the following statement (strongly agree, agree, slightly agree, slightly disagree, disagree, strongly disagree):

a. Open access publishing leads to an increase in the publication of poor quality research

b. Publicly funded research should be made available to the public without barriers

c. The current scholarly publishing model works well

d. Open access journals lack peer review

e. Open access publishing is more cost-effective than subscription-based publishing

f. There are no benefits to open access publication

g. Researchers should retain the rights to their published work and allow it to be used by others

h. It wouldn't be beneficial to the general public to have access to scientific and medical articles

i. Open access journals are the same quality as subscription journals

j. Open access articles are cited more heavily than those in subscription journals

13. Do you feel your research or research field benefits, or would benefit from journals that publish open access articles?

- a. Yes
- b. No
- c. I'm not sure

14. Please briefly explain your answer:

15. How important are the following factors when selecting a journal to publish in (extremely important, important, not important, irrelevant):

- a. Speed of publication
- b. Positive experience with the publisher/editor of the journal
- c. Relevance of the journal for my field
- d. Impact factor
- e. Peer review
- f. Copyright policy of the journal
- g. Recommendation of the journal by colleagues
- h. Prestige/perceived quality of the journal
- i. The journal is open access
- j. Importance of the journal for academic promotion, tenure, or assessment
- k. Absence of journal publication fees (submission charges, page charges, color charges)

16. Please rate how strongly you agree or disagree with the following statement (strongly agree, agree, slightly agree, slightly disagree, disagree, strongly disagree):

- a. I have institutional/departmental support to publish open access
- b. I prefer to publish in open access journals
- c. I would like to publish in open access journals in the future
- d. Important researchers in my field are publishing open access
- e. Publishing open access would increase the visibility of my work
- f. It is important to me that the general public can access and read my research
- g. There are open access journals that match with my research interests/field

17. Please answer the following questions while considering what you think will happen in the next ten years concerning scholarly publishing. Please rate how strongly you agree or disagree with the following statements (strongly agree, agree, slightly agree, slightly disagree, disagree, strongly disagree):

- a. Subscription based academic journals will remain the primary research outlet for scholarly publishing
- b. A new kind of publication outlet accommodating new types of research will become

dominant over academic journals

c. Most research will be published open access

d. An alternative metric system will become more important than impact factors in assessing the value of research

e. Impact factors will continue to be the primary metric in assessing the value of journals

18. What alternatives to scholarly publishing do you see in the future?

19. Please add any additional comments you have on any issues raised in this survey or on open access or scholarly publishing in general.