Awareness and Attitudes about Open Access Publishing: A Glance at Generational Differences

Julia E. Rodriguez *

Oakland University, 238 Kresge Library, Rochester, MI 48309, USA

ABSTRACT

This study explores PhD faculty members' current awareness of open access (OA) and perceptions of OA publishing, focusing on demographic characteristics to understand whether these variables correspond to specific perceptions and behaviors. The majority of respondents taught in Art, Humanities and Social Sciences disciplines. Results point to a growing trend in self reported knowledge of OA across all age groups but OA publishing activity is relatively limited. The younger age brackets reported higher percentages of publishing history than older age brackets, but these younger groups tended to also be tenured. Credibility of OA journals was the top concern of respondents. Results suggest that faculty authors cannot be prejudged by their age, seniority or rank as to their perception of, or experience with OA, because these indicators no longer appear to be strong predictors.

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Librarians' roles are becoming increasingly entangled in the scholarly communications life cycle, from providing the necessary support and guidance faculty need for disseminating their research to engaging in open access outreach activities that encourage a shift to a more open and fair publishing structure. A decade ago Peter Suber (2004) defined open access (OA) literature as "digital, online, free of charge, and free of most copyright and licensing restrictions" (para. 1). OA publishing is now solidly established. The Directory of Open Access Journals (DOAJ) added nearly 1200 titles between 2011 and 2012 (Enserink, 2012). In 2011, about 17% of all papers published (1.66 million) appeared in OA journals, a total of 340,000 articles, an increase of about one percent every year over the last decade (Laakso & Bjork, 2012).

Yet, the 2009 Ithaka S+R Faculty Survey stated that even after much effort on the part of multiple stakeholders to influence scholarly communication reform, a "fundamentally conservative set of faculty attitudes continues to impede systematic change" (Schonfeld & Housewright, 2009, p. 25), stressing that faculty members' greatest concerns are for tenure and promotion. Three years later the Ithaka S+R Faculty Survey (Housewright, Schonfeld, & Wulfson, 2013) found that the free online availability of their published research is still one of the lowest priorities of faculty authors when making publishing decisions.

Librarians struggling to find effective ways to talk with faculty about OA issues have to contend with researchers' opinions and anxieties especially in regard to faculty concerns about tenure and promotion. Gaining a better understanding of authors' perceptions and concerns is crucial for librarians working to increase access to their institution's scholarship, whether by promoting OA publishing or by recruiting faculty publications for deposit into institutional repositories.

This exploratory study investigates current awareness and perceptions of OA publishing of research faculty from across disciplines, using the demographics factors of either age, seniority, rank or years teaching to understand whether these characteristics correspond to specific perceptions and behaviors.

LITERATURE REVIEW

As open access and alternative publishing models were emerging there was a great deal of interest in studying authors' perceptions, opinions, and attitudes about the new scholarly communication innovations. Studies were conducted nearly every year dating back to 1991 with a majority finding researchers either unaware or confused about OA (Xia, 2010). The bulk of recent investigations focus on authors who have already published in OA, exploring their reasons for choosing OA, their experiences with this method of publishing (Coonin & Younce, 2010; Nariani & Fernandez, 2012; Warlick & Vaughan, 2007), and their attitudes about different funding models (Solomon & Björk, 2012).

This literature review focuses on key studies published in the last decade (after 2003) that investigate faculty knowledge about and opinions of OA publishing, highlighting studies that conducted some demographic analysis.

KNOWLEDGE OF OA

Knowledge of OA has most certainly increased over the past ten years (Swan & Brown, 2004; Xia, 2010) particularly during the early to mid-2000s. Two large international CIBER Research Ltd. studies

* Tel.: +1 248 370 2490.
E-mail address: juliar@oakland.edu.

(Rowlands & Nicholas, 2006; Rowlands, Nicholas, & Huntington, 2004) documented a significant increase in self-reported knowledge of OA over only an 18 months time frame. Two separate case studies with faculty from the University of California Berkeley (Harley, Acord, Earl-Novell, Lawrence, & King, 2010; Harley, Earl-Novell, Arter, Lawrence, & King, 2007) revealed a more nuanced perspective, with members across disciplines demonstrating a minimal understanding of open access models but a good understanding of the high cost of journals.

A gap remains today between attitude and behavior, as faculty are unmotivated to make changes, due in part to ingrained habits and institutional culture. In addition, a full understanding of the importance of free and open access to information is hindered by easy online access to publications through aggregators like Google Scholar; this perception of convenient availability is further distorted at major universities with comprehensive collections (The University of California Office of Scholarly Communication and the California Digital Library eShcolarship Program, 2007).

FACULTY OPINIONS OF OA

Even with increased knowledge and awareness, misconceptions persist alongside the growth in OA publishing. Many faculty still equate OA's free access with little or no quality control measures and thus believe open access means lower quality (Harley et al., 2010). The concerns about the quality of OA journals and the relationship between OA and the existing tenure and promotion models are found throughout the literature (Dallmeier-Tiessen et al., 2011; Meadows, 2012; The University of California Office of Scholarly Communication and the California Digital Library eShcolarship Program, 2007). Particularly in early studies, concerns about peer review were paramount in faculty authors' minds (Swan & Brown, 2004) and continued to be hotly debated (Bosman, 2013; Housewright et al., 2013; Buckland, Eve, Steel, Gardy, & Salo, 2013). Additional concerns exist about costs to authors and the impact or prestige of OA journals (Morris & Thorn, 2009).

A recent investigation by the Study of Open Access Publishing (SOAP) explored international biological and medical science researchers' attitudes about OA; the study reported that a majority of respondents (90%) felt that OA benefited their fields, but that the lack of institutional funding for publishing in OA journals and low perceptions of journal quality were top concerns (Dallmeier-Tiessen et al., 2011). Bias found in both the survey design and analysis lead Davis (2011) to further analyze the SOAP data, wherein he found the top five factors that influence publishing choice to be prestige, relevance for community, impact factor, likelihood of acceptance, and positive experience. Open access as a motivation for publishing choice actually fell to the bottom, along with concern about copyright, which confirms previous studies (Rowlands et al., 2004). The SOAP survey did collect some demographic data, but unfortunately the limited published report did not analyze this dataset specifically.

DEMOGRAPHICS ANALYSIS

Studies that collected and reported on demographic information tended to group academic participants into categories, either by faculty seniority (junior = pre-tenure and senior = tenured) or by the years they have been teaching or publishing. The general assumption across studies is that tenured faculty members are older than untenured, but few analyze any demographic data in detail, such as considering how participants' ages may impact their perceptions. There is not enough consistency or commonality across studies that did collect and report demographic data to allow for a longitudinal comparison of age or other demographic characteristics (Xia, 2010).

The literature is contradictory around the notion of younger authors being open to new publishing models. Early CIBER studies concluded that an author's age was a major determinant for predicting their attitude toward open access, with older researchers–those over 35–being less likely to be accepting of new publishing models (Rowlands et al., 2004; Rowlands & Nicholas, 2006). While a few studies reported a lack of negative opinions of OA by younger respondents, Morris and Thorn (2009) found that younger authors were less likely to have published or to know whether they had published in an OA journal, indicating uncertainty about the meaning of open access. Younger authors also expectedly demonstrated concern about negative impacts on tenure (Harley et al., 2010).

Investigations looking at rank or tenure status also are inconsistent. Norwick (2008) found that tenured faculty tended to feel less favorably toward OA, but also no evidence to suggest that pre-tenured faculty–at least those in the biosciences–avoid OA journals. In contrast, recent case studies of University of California Berkley faculty (Harley et al., 2007; Harley et al., 2010) found that while there is no evidence indicating that younger graduate students are embracing new publishing options, senior scholars "seem to exercise significantly more freedom in the choice of publication outlet" when compared to their untenured colleagues (Harley et al., 2010, p. ii).

An unpublished Wiley and Sons report claims researcher rank influenced OA publishing decisions, citing a statistical significance of those with five or more years of professional experience being more likely to publish in OA journals (Meadows, 2012). This five-year measurement is problematic in that researchers with less than five years experience would have much less publishing activity and it cannot be assumed that those with more experience automatically have tenure or some higher rank.

A fact that must be considered is that those who were younger or mid-career when many of these studies were conducted have now moved into the tenure ranks and senior roles, which would mean that the perceived threat to tenure review is likely to be less (each year) than may have been previously assumed. No study to date has specifically investigated opinions of senior faculty, who are more likely to sit on tenure review committees (Hurrell & Meijer-Kline, 2011).

This inconsistency of younger authors having positive perceptions of OA together with concerns for tenure, while senior researchers are demonstrating increased acceptance of OA, suggests that there's opportunity for further investigation of open access publishing activity relevant to the tenure review process.

METHODS

The data reported in this article are a subsection of a larger data set collected through a web-based Institutional Review Board (IRB) approved survey titled: *What Is Your Research Generation?* This survey focused on research faculty members' habits, technology use, perceptions of the library and their own research skills. The survey was delivered via Survey Monkey from April 6 to May 30, 2011. The target audience was any academic research faculty member possessing a PhD at U.S. universities and colleges which intrinsically excluded most librarians and a few other disciplines that do not require a PhD as a terminal degree. These groups were chosen under the assumption that they had completed significant research and were likely to be currently preforming some research that required engagement with the library and online resources. The survey was distributed via email to all faculty members at the author's home institution; a medium-sized public university located 30 miles north of Detroit, Michigan. In addition, colleagues at other universities promoted and distributed the survey to their faculty; it was also distributed on several library- and university-related listservs with the request to further share the link with other research faculty colleagues. Calls for survey participation were also posted to Academia.edu and the *Chronicle of Higher Education*'s research faculty forum. Taking into account studies of online survey design and incentive-based participation (Deutskens, De Ruyter, Wetzels, & Oosterveld, 2004), respondents were given the opportunity to partake in a lottery-style incentive system to win a gift card. Their decision to