

Analysis

Abstract

Open Access Repositories (OARs) are viewed as a new channel of scholarly communication and a way for scholars to disseminate their work faster to a broader audience. Finding a solution to low faculty participation in OARs is an intricate task that requires a deeper understanding of faculty perceptions of OARs. Previous studies have investigated the motivating and hindering factors using different forms of surveys that focused on external factors, which were either social or technological in context. The goal of this qualitative study was to provide an understanding of the psychology of the faculty reluctance towards their participation in OARs. The results reveal that while close to half of the faculty support the OA principles and are willing to share their work in Open Access (OA), a little over half of faculty seem to be unfamiliar with the OA goals and the purpose of OARs. In addition, faculty comments reveal a wide range of perceived concerns regarding OARs, from submission process, plagiarism, and copyright concerns to the perception of OARs as low-quality publishing venues that can have a negative impact on their academic careers. Thus, to better address faculty needs and concerns, it is crucial for OAR staff to take a multifaceted approach, targeting each faculty concern independently.

Keywords: open access, open access repositories, scholarly publishing, open access publishing

INTRODUCTION

With the evolution of digital publishing and networked distribution technologies, a whole new way of OA publishing was possible. With the Open Access (OA) movement, we have seen a paradigm shift in the way scholarly content is contributed and accessed in the online world. The development of OA publishing modes, such as Open Access Repositories (OARs) in the last two decades, has made academic libraries a key player in the debate over the future of scholarly publishing. Academic libraries have a significant role in advocating for and supporting technological solutions to expedite new forms of publishing. In brief, OARs are defined as systems that capture, preserve, and provide access to scholarly works of an institution.

Proponents of OA argue that OARs can increase the visibility of scholars' work and impact factors, and at the same time increase institutions' prestige and value. The most implemented OARs in academic institutions are institutional repositories, subject/discipline specific repositories, and data repositories. The data collected by [OpenDOAR statistics](#) show that most OARs are institutional/multidisciplinary repositories. The focus of this study was on an institutional or multidisciplinary OA repository; thus, the term OARs will be used for the remainder of the paper. Despite the increase in growth ([OpenDOAR statistics](#)), OARs remain thinly populated and faculty have been reluctant to embrace them. Msomphora (2019) explains that while most faculty are supportive of the principles of OA, they are reluctant to submit to their university OAR due to difficulty with the submission process, uncertainty over the copyright and peer review issues, and publishing prestige issues. Similar findings of low faculty participation rates were documented by Tapfuma and Hoskins (2019). Among different stakeholders in scholarly publishing, the most crucial are faculty members - who can determine the success of OARs. Faculty members at most research universities are the primary authors of

research literature, as well as the main users. Therefore, it is imperative for OAR staff to understand faculty perceptions of OARs and the goals of OA publishing.

Academic libraries play an important role in facilitating the scholarly communication process and transforming the way scholarly work is produced, disseminated, accessed, and preserved. Finding a way to assist faculty/researchers in gaining a more comprehensive understanding of the purpose of OA is a complicated task that requires a multifaceted approach. However, the foremost approach is the promotion of faculty participation through targeted education and outreach. For effective outreach, academic librarians need a better understanding of faculty and researchers' views on OARs. The goal of this study was to investigate faculty perceptions and the extent to which these views influence their participation in OARs. Based on previous research by (citation removed to facilitate blind peer review), faculty views and perceptions of OARs were grouped in two categories: motivating and hindering factors.

LITERATURE REVIEW

To develop effective outreach programs and increase faculty participation in OARs, it is critically important to understand faculty needs and concerns regarding OARs. Many studies such as Kim (2010), Creaser et al. (2010), Troll Covey (2009), Singeh et al. (2012), Laughtin-Dunker (2014), Dubinsky (2014), and Yang and Li (2015) reveal a wide range of issues concerning faculty members in regard to embracing OA publishing in general and OARs in particular. Kim identified faculty concerns regarding copyright and plagiarism. Creaser et al. found the perceived difficulty of the submission process to be one of the major barriers. The Singeh et al. study reveals that fear of plagiarism is the main cause of faculty reluctance to deposit their work into OARs. Laughtin-Dunker (2014) documented that several faculty perceived publishing in OARs as “low quality, weaker, easy to publish in, probably not scholarly,

less prestige, and less quality control than traditional journal” (p. 9). In a similar fashion, Dalton et al. (2020) notes that senior faculty tend to view OA publishing as inferior and detrimental to their tenure-track. Lack of time was one of the major concerns of faculty in the study conducted at Carnegie Mellon (Troll Covey, 2009). The survey conducted by Dubinsky with OAR administrators revealed the following hindering factors: lack of awareness of the repository, copyright concerns, prefer disciplinary repository, perceived difficulties with submission process, and fear of plagiarism. Yang and Li’s faculty survey revealed that over two-thirds of the participants were not familiar with the process of submitting their work to an OAR.

On the other hand, the study by Willinsky (2009) describes academic reward as a factor that increases scholars’ willingness to publish in prestigious journals, which raises their scholarly reputation and increases their chances for promotion and tenure. Abbott and Tiffen (2019) discuss at length the academic reward system which incentivizes authors to publish in traditional publishing modes and disincentivizes new modes of scholarly publishing, such as OARs. In addition, Woutersen-Windhouver et al. (2020) claim that faculty are more likely to submit their work to OARs once they feel that OARs carry the similar weight and recognition as submitting to an academic journal. Casey (2012) found altruism to be the primary reason tenured faculty submitted to OARs, which was the desire to make their work more easily accessible to colleagues and students. Cullen and Chawner (2011) reveal differences in faculty perceptions of OARs based on academic disciplines. Other individual differences were also identified by (citation removed to facilitate blind peer review), such as faculty age, college/department, rank, status, and employment duration at the university. The differences mentioned above that can influence faculty perception of OARs are outside the scope of this paper.

Scholarly Publication and Open Access Repositories

Before examining the views of faculty and researchers towards participation in OARs, it is important to briefly identify the significance of OARs in scholarly communication and scholarly publishing. Scholarly communication is the cornerstone of research and academic communities. In the broadest definition, scholarly communication can be described as a system intended to facilitate the exchange of ideas through a wide range of mediums. Similarly, Shaughnessy (1989) defines scholarly communication as the social phenomenon whereby intellectual and creative activity is transmitted from one scholar to another. In a slightly different fashion, Borgman (2000) defines scholarly communication as the study of how scholars in any field (e.g., physical, biological, social, and behavioral sciences, humanities, technology) use and disseminate information through formal and informal channels. In other words, the exchange of scholarly knowledge among scientists is conducted through two channels, informal and formal. The dissemination of knowledge through informal channels is usually considered to be a personal conversation, email messages, personal letters, conferences, etc. This informal form of scholarly communication is known as the *invisible college* and typically refers to an elite of mutually interacting and productive scientists within a research area (Crane, 1972). The focus of this paper is on formal channels, specifically on OARs as new channel of scholarly communication.

Scholarly publication is the formal channel by which faculty and researchers exchange their information and knowledge. Scholarly publishing is a crucial subset of scholarly communication focusing on the works that are published, primarily as peer reviewed journal articles and in other forms that can be made available in open access publishing platforms, online journals, or any type of web-based digital repository. The impact of OA publishing on the

creation and dissemination of scholarly works is profound. Among different web-based digital repositories, OARs are the most common among academic institutions ([OpenDOAR statistics](#)).

OARs provide long-term sustainable storage, preservation, and open access to resources. OARs also serve as tangible indicators of an institution's productivity and thereby increase an institution's visibility, prestige, and value. Previous studies by Harnad and Brody (2004) show a significant advantage in citation counts of articles that are made available through OA by their authors. However, this is a value that must be communicated to faculty and researchers as they are an integral part of the scholarly publishing process and major stakeholders. Demetres et al. (2020) claim that one of the main challenges facing OARs is faculty reluctance to deposit their work. The same authors noted that OARs are also important platforms for faculty to disseminate their work and increase exposure and citation counts.

Open Access Publishing

One of the primary objectives behind most outreach efforts by scholarly communication librarians is to educate faculty and researchers about OA goals and the purpose of OA publishing. Open Access is defined by Suber (2012) as literature in digital format, online, free of charge, and free of most copyright and licensing restrictions. The concept of OA publishing has proliferated after three OA declarations, commonly known as

BBB declarations. These are the [Budapest Open Access Initiative](#) released in February 2002, the

[Bethesda Statement on Open Access Publishing](#) released in June 2003, and the [Berlin](#)

[Declaration on Open Access to Knowledge in the Sciences and Humanities](#), released in October 2003. The Berlin OA declaration defines open access as a comprehensive

source of human knowledge and cultural heritage. There are several criteria set out by the Berlin Open Access declaration concerning legal and financial aspects. However, the underlying notion behind these OA declarations is to provide the public with unrestricted, free access to scholarly research—much of which is publicly funded. In a nutshell, the idea behind all three OA declarations derives from an understanding of knowledge as a public good.

Faculty Perceptions of Open Access Repositories

Despite the increased popularity of OARs worldwide, they have been met with resistance by faculty members. A study conducted at a large public university in the South-Central United States (citation removed to facilitate blind peer review) reveals that 63% of faculty were unfamiliar with any of the OA declarations and 66% have never submitted to any type of OAR. While there is growth in numbers of OARs worldwide ([OpenDOAR statistics](#)), there is no evidence that OARs are increasing access to scholarly publishing literature through faculty initiatives. Overall, research shows that faculty and researchers have been reluctant to embrace OA publishing in practice. A study conducted by Morris and Thorn (2009) with scholars in Europe, the Americas, and Asia reveals that the majority of respondents support the idea of OA publishing in principle. However, the same study shows that there is less awareness of self-archiving practices (48.25%), and even less certainty of repositories (23.27%) than of OA journals (74.11%). A study by Oguz and Assefa (2014) reveals that over half (53%) of faculty members had positive perceptions of repositories. More than half (59%) of the faculty surveyed by Primary Research Group (2009) understood the term *open access digital repositories*. Fitzgerald and Jiang (2019) found that 71% of participants felt that the impact of their work would be broadened by OA; 68% felt that authors who publish in a journal should have the right

to deposit their work into an OAR; and 55% of participants felt that their career would benefit from OARs.

On the other hand, a study conducted by Kocken and Wical (2013) at the University of Wisconsin-Eau Claire revealed that most faculty do not have a satisfactory understanding of OA, and around 70% of respondents are not aware of OA and its goals. The overall results from the Primary Research Group (2009) study showed that 37.9 % of faculty do not understand it or are not sure what the OA movement stands for, and only 3.5 % do not sympathize with OA goals (2009). While 30.5% are not interested in it or have some sympathy with OA goals, they feel it is more important to cooperate with commercial publishers. Singeh et al.(2013) found that lack of time is the second major barrier to faculty self-archiving. O’Hanlon et al. (2020) found that while faculty did view OARs as a viable option to disseminate their work, they were reluctant to do so due to concerns over predatory journals and author publishing fees. Most of these studies that investigate faculty attitudes towards OARs have employed a quantitative approach using surveys focused on external factors, and they have not directly addressed the reasons faculty members choose to deposit or not to deposit their work into an IR. According to Quinn (2013), the problem of faculty members’ non-participation in OARs is more one of indifference than active resistance. Therefore, to better understand faculty perceptions of OARs, we asked faculty to describe what motivates them or deters them from participating in OARs via an open-ended questionnaire.

METHODS

Research Question

This study was guided by the previous findings that investigated faculty views on OARs and investigated faculty perceptions, motivations, and barriers regarding participation in OARs.

The researcher(s) utilized Qualtrics to develop and distribute the survey. To gain a more in-depth understanding of the factors that influence faculty and researchers to participate in OARs, the respondents were asked via an open-ended questionnaire to elaborate on what motivates them and deters them from participating in OARs. The first question asked the respondents to describe the reasons that motivate them to participate in OARs. The second question provided an opportunity for the respondents to express the deterring factors, or their overall concerns regarding participation in OARs.

Background

The survey was conducted at a Carnegie Tier One public research university, with an enrollment of around 39,000 students and more than 1,100 faculty and teaching staff, as a part of doctoral dissertation research. This study was based at a public university that implemented an OAR in 2010 and adopted an OA policy in 2012 and investigated the factors that affect faculty attitudes towards participation in OARs. To increase the sample size and achieve more objective results, this study invite all university faculty members who teach undergraduate and graduate courses to participate.

Data Collection

Prior to the data collection, the researcher(s) received approval from the Institutional Review Board. An invitation letter detailing the survey was included in an e-mail one week prior to the authentic survey invitation to inform the faculty about the survey. The informed consent included a description of the study and the survey's intent. The informed consent also emphasized that participant data would be collected anonymously, and any information obtained during this study that may identify individual participants would be kept strictly confidential.

The survey included a brief definition of the OAR as described by the university. Data was collected through anonymous, web-based confidential questionnaires administered through the online tool Qualtrics. All faculty, researchers, and teaching staff were invited to participate in the survey via e-mail. Of the 1158 faculty invited to participate in the survey, a total of 172 surveys were completed. Out of 172 respondents on the quantitative survey, 72 (39%) respondents chose to further comment on the factors that motivate or deter them from participating in OARs.

Demographic data of respondents

The respondents rate by age were as follows: age groups 31 to 40 with 16%, 41 to 50 with 25.4%, 51 to 60 with 27.2 %, and 61 to 70 with 24%. There was a somewhat low response rate for faculty over 70, with 5%, and a lower response rate for a faculty under 30, with 2%.

Demographic data also shows that male respondents were slightly higher (54.5%) than female respondents (45.5%). For this research study, faculty members are defined as individuals who hold appointments in one of the following ranks: Professor, Associate Professor, Assistant Professor, Lecturer, or Instructor. The faculty with the highest response rate were from College of Information (50%), followed by Others (35%), and College of Public Affairs and Community Services (34%). It is worth noting that in the category *Other*, 12 out of 18 cases were identified as librarians. The College of Education was the third highest participating college, with 17%, followed by College of Arts and Sciences with 14%, College of Business with 10% and College of Engineering with 9%. The lowest participating rates were from the College of Music and College of Visual Arts and Design, both with 6%.

Data Coding

According to Lofland (2005), coding is the process of organizing and sorting qualitative data. The process of coding qualitative data is an important part of developing and refining

interpretations of data collection such as interviews, open-ended questions, etc. Following instructions by Lofland (2005), the open-ended questions were downloaded into a Word document and the content was organized into categories of different themes. Among many different factors that influence faculty views on OARs, two major themes emerged from the faculty responses: the motivating and hindering factors. Motivating and hindering factors were then synthesized into different ‘coding themes’. The analysis was started with pre-set codes (themes), which were factors affecting faculty perceptions of OARs that were identified from the previous studies (Kim, 2010; citation removed to facilitate blind peer review), e.g., copyright concerns, plagiarism concerns, difficulty with submission, etc. In addition to pre-set codes, emergent codes were created from faculty responses. These are themes that emerged from the faculty comments regarding their motivation and concerns about OARs. According to Taylor and Bogdan (1998), the *emergent codes* are those ideas, concepts, actions, relationships, meanings, and so on, that come up in the data and are different from the pre-set codes (e.g., copyright, plagiarism, lack of peer review, etc.). Every participant was assigned a unique identification (ID) number. The identification numbers were divided into two categories. Participants that commented on the reasons that motivate them to deposit their work to an OAR were assigned ‘MO’ before their ranking number, while participants that commented on their overall concerns (hindering factors) regarding submissions to an OAR were assigned ‘HN’ in front of their ranking number. Table 1 is an example of themes that emerged from the faculty comments, the coding, and the assigned participant ID. To view the complete comments of all the participants in the qualitative analyses see Appendix A.

Table 1

Example of Coding Process

Participant's comments regarding participation in OAR	Code	Assigned participant #
"Some of the items I tried to submit in the past were tied up under the agreements with the original publisher."	Copyright	HN001
"Other researchers may use my results without citing me."	Plagiarism	HN003
"My institution does not recognize publications in an OA toward tenure."	Academic reward	MO15
"As a form of scholarship in the 21st century it is an attractive and timely idea."	Support for OA	M002
"To receive more citations"	Access and readership	M003
"Most are full of "SSRN" fake literature and research. Much of which has bad grammar along with poor research. Don't want my hard-earned work published alongside this trash."	Low quality publishing venues	M004
"POTENTIAL of more broad-based dissemination (e.g., number, type of reader)."	Wide dissemination	M027
"Time needed"	Lack of time	HN050

RESULTS

Faculty Perceptions of Open Access Repositories

The results reveal many responses out of 72 respondents who chose to further elaborate on hindering and motivating factors that influence their participation in OARs. The reader needs to keep in mind the qualitative nature of this study, that many respondents chose to comment on both motivating and hindering factors and included multiple reasons (factors) why they chose to participate or not participate in OARs. In turn, this increases the number of extracted responses above the total number of respondents. For instance, the following respondent expressed three different responses regarding copyright concerns, difficulty with submission, and lack of academic reward: "I don't understand the process, I don't understand copyright considerations,

and I don't see a huge benefit. In the cost-benefit analysis, I don't see enough benefit to motivate me to take the initiative to pursue the matter” (MO29).

Therefore, please note that in the results section, the responses were quantified to illustrate faculty major concerns and motivation for participating in OARs and do not necessarily add up to a total number respondents. The primary focus of this qualitative study is to obtain a more comprehensive understanding of faculty views towards OARs. Thus, we have extracted themes and tried to quantify the factors for illustrative purposes. The most prevalent themes commented by faculty were access and readership, the support for open access and its goals, academic reward and culture, discoverability of items, providing access for their work that, in turn, will increase their readership (i.e., visibility), and preservation of their work. At the same time, the results reveal many concerns faculty have regarding OARs, such as difficulty with the submission process, plagiarism and copyright concerns, lack of time, and the perception of OARs as low-quality publishing venues. A summary of both motivating and hindering factors is provided in Table 2 below.

Table 2

Faculty Views Regarding Participation in OARs

Hindering factors	Motivating factors
Unfamiliar with the submission process	Support for OA (Altruism)
Not familiar with OA goals	Academic reward
Concerned about copyright laws	Part of academic culture to share
Concerned about plagiarism	Discoverability (wider dissemination)
Low-quality platforms	Provide access (increased visibility)
Lack of time	

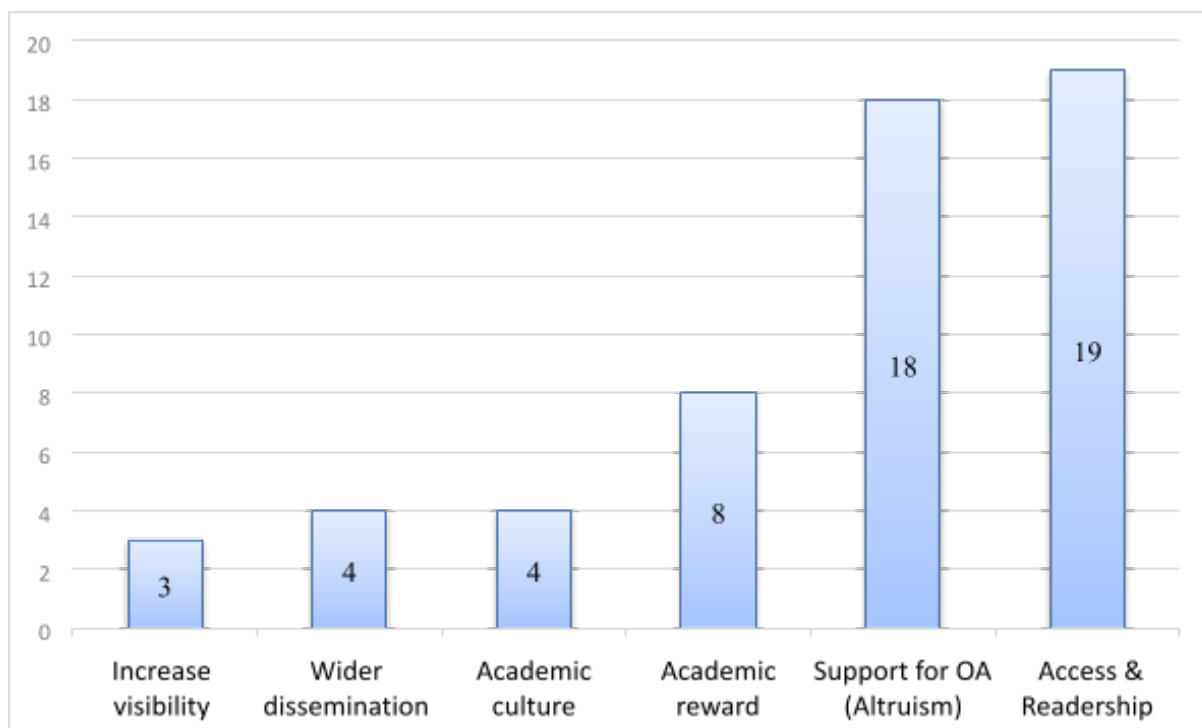
The following sections will elaborate on the degree of influence by each of these factors.

Faculty Support for Open Access Publishing

Upon further examination, the results revealed that a majority of the participants (n=37) share the view of OA proponents who argue that OA is a new form of scholarly communication that stems from the notion that scientific knowledge as a public good, with an emphasis on sharing scientific knowledge for the advancement of science and increasing access to their work and readership. See Figure 1.

Figure 1

Motivating factors



Support for OA (Altruism)

In this study, 19 comments (26%) indicated faculty support for OA and their willingness to provide access to their work to a wider audience. The above views align with the main goal of OA initiatives. The following comments from respondents are some examples that illustrate this point: “Research supported by publicly-funded grants or conducted during the course of work at a public institution should be freely available to the public” (MO074). “Open access for scholars everywhere” (MO044). “Belief in scholarly dissemination. Belief in free access to information” (MO025). These statements made by faculty members do align with the core principles of the Budapest OA initiative, which says “making the research publicly available to everyone—free of charge and without most copyright and licensing restrictions—will accelerate scientific research efforts and allow authors to reach a larger number of readers” ([Budapest Open Access Initiative](#)).

Overall, the qualitative analysis also revealed several different notions of support for OA.

For instance, respondent MO037 expressed clear support for OA and its goals: I believe in open access, open science in order to further the growth of science. And the publishers have too strong a hold on the publication of scientific and scholarly information, data, etc., which allows some to access the knowledge but blocks many who deserve the access. We need to lessen their hold.

Respondent MO067 stated that “it enhances research by sharing more freely.” A statement that aligns with the OA goals that freely available scholarly work enhances research.

In the current study, the concept of altruism was defined as faculty members' motivation to deposit for the benefit of others and the extent to which this attitude is aligned with the principles of OA. Swan and Brown (2005) found that one of the major reasons faculty and researchers choose to publish their work is to communicate their research to colleagues. In concordance with these principles, here is what respondent MO010 stated:

It is an unconscionable state of affairs that the results of intellectual labor (often paid for by taxpayers) is confined behind fortresses of paywalls that only major institutions can afford to pay - and pay a lot! This system must change. Freedom of information was a promise of the internet, but it seems that information worth accessing is still information that is prohibitively costly - how can students in poor nations possibly hope to compete on the international stage if they're laboring away with decades-old textbooks (a situation I saw recently at a Pakistani university).

Based on this respondent's statements, OA publishing can be viewed as means to help mitigate the *serial crisis* problem that most academic libraries are facing. The inability to pay for ever increasing journal subscription prices is a prevalent issue among many institutions, especially in developing countries. Respondent MO011 stated, "publications that derive from research that was supported with public funds should be freely available to the public." In addition, MO040 expressed the altruistic motivation for sharing their work with others: "I highly value OA, and value sharing my knowledge with others." Most of these responses shared the belief of knowledge as a public good and the importance of providing access to their work to others and contributing to the research knowledge. According to Jurchen (2020), this view is

shared by many academic librarians as a potential solution to the problem of serials pricing and budget pressures.

Increased Access and Readership

Increasing their readership or citation also proved to be an important motivating factor for many faculty (n=18) to participate in OARs. For instance, in answering the question of what motivates them to participate in OARs, respondent MO003 simply stated, “to receive more citation” while MO067 & MO068 stated, “more citations.” In response to the same question, respondent MO016 stated, “the hope that it might be read”, indicating the readership as a reason they are willing to deposit their work in OARs.

Providing wider access to their work appeared to be another popular theme among reasons faculty chose to participate in OARs. Respondent MO054 stated, “I like to access other's work freely; so, I figure that I should return the favor.” For respondent MO062, it was important to provide “easier access to buy others to my published materials that otherwise requires a subscription to access.” A few other respondents expressed their interest in providing “wider access to my work” (MO005) and “wider dissemination options” (MO020).

Another respondent, MO027, stated, “POTENTIAL of more broad-based dissemination (e.g., number, type of reader).” The same belief about works submitted in an OAR was shared by another faculty, MO028, who stated, “the work is more widely disseminated, read, and cited.” Overall, these responses lead us to believe that providing access to their scholarly work and increasing their readership is an influential factor for faculty and researchers.

Academic Reward

The academic reward factor was perceived as both motivating and hindering, depending on if faculty are being incentivized or disincentivized for submitting in OARs. A few respondents (n=4) commented on the influence of this factor as best described by respondent M0051, “Funding bodies look to see what progress has been made on previous grants and databases or data collections which are not published in traditional journals must be made available in the form of working papers or corpora.” Another respondent, MO036, stated, “The only time I would use a repository is if the funding agency required the data to be open access.” The respondent acknowledges the importance of the academic reward, but at the same time voiced their concern that publishing in OARs will affect him/her negatively. Similar to findings by Casey (2012), some respondents expressed the importance of the academic reward factor, which can be both motivating or deterring for tenure-track faculty. One faculty, HN011, stated, “As a junior scholar, it is too risky to submit to an OA institutional repository without first getting it published in a peer-reviewed venue appropriate for my tenure requirements.” Respondent HN015 shared a similar view, stating that “the work will not ‘count’ if it isn't published by a mainstream publisher.” Findings from Dalton et al. (2020) show similar results, that the faculty decisions on where to publish are determined by prestige and career impact. The same authors also noted that senior faculty tend to dismiss OA publishing, considering it inferior, and junior faculty are reluctant to participate due to its perception as detrimental to advancement in tenure-track careers.

Other respondents (n= 4) voiced their concerns over the influence of colleagues and/or departments. For instance, one respondent stated, “My discipline privileges traditional publishing methods. I am not knowledgeable of the impact that OA would have on both my career and for

my work” (MO035). Abbott and Tiffen (2019) noted that some authors found the current academic reward system to be the greatest problem, which incentivizes practices perpetuating traditional publishing while disadvantaging faculty exploring new modes of scholarly publishing (i.e., OARs). Another respondent expressed an unfavorable view regarding the influence of the department towards OARs due to lack of familiarity with OA benefits and therefore favoring traditional publishing:

A researcher's research reputation nowadays is often judged on the basis of bibliometrics (numbers of citations, impact factors of journals). Open access repositories and journals in my field do not help in this regard, and in many cases may be viewed negatively. (MO036)

While a different respondent, MO024, expressed a direct influence from the department to deposit in OA, stating, “My department requires that all papers and presentations given at conferences be deposited to our IR.”

Overall, 19 out of 72 respondents (26%) expressed a positive attitude towards OA publishing. While some expressed clear support for OA and its goals, others strongly believed in sharing their knowledge and that publicly funded research should be available to all. Some faculty view OA publishing as a way to contribute to the advancement of science, while others see it as a supplementary form to traditional publishing.

Faculty Concerns Regarding OARs

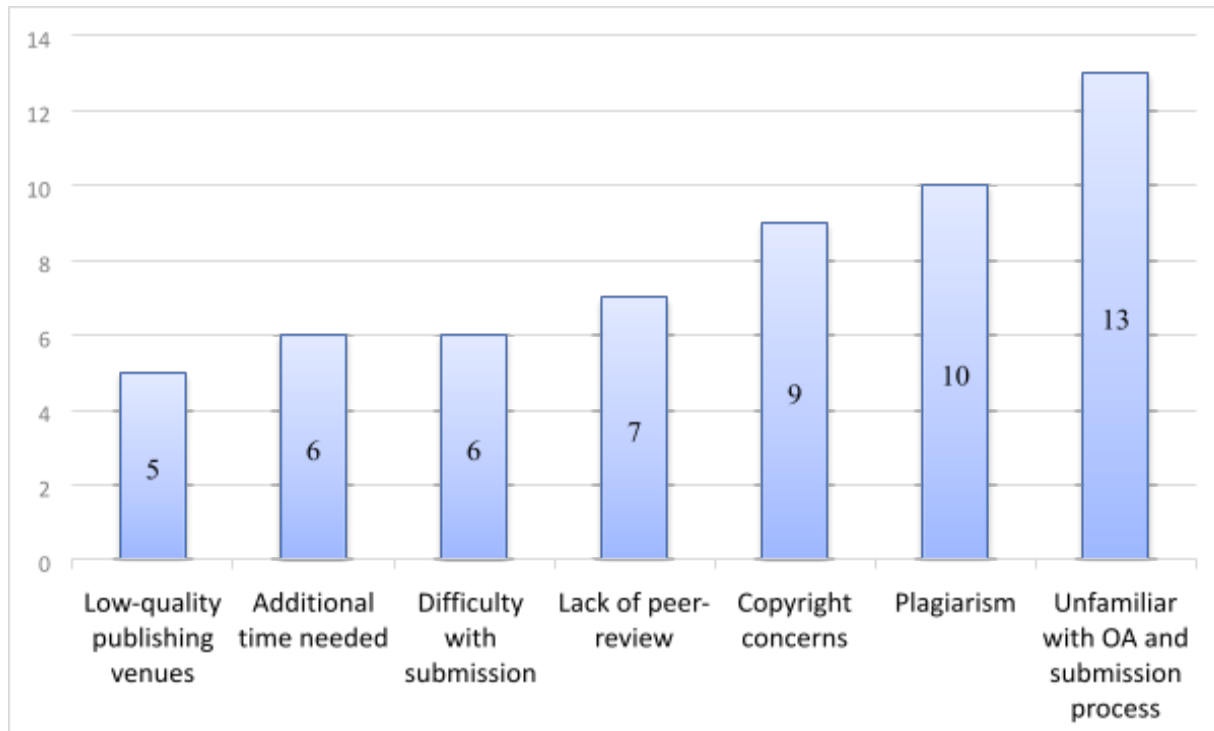
In addition to expressing support for OA publishing, faculty members also voiced their concerns regarding participation in OARs. To better understand the hindering factors that impede faculty participation in OARs, the respondents were asked to describe their overall concerns about submitting their work to an OAR. Based on the findings the following themes emerged.

The most prevalent theme was unfamiliarity with OA goals and their benefits. At the same time, like previous findings discussed in the literature review section, qualitative analysis revealed that the faculty's most common concerns were unfamiliarity with OA, copyright concerns, plagiarism issues, the perception of OARs as low-quality publishing venues due to the lack of the peer review process, difficulty with the submission process, and additional time needed. The deterring factors for faculty are summarized in Figure 2.

In the current study, a major issue expressed by thirteen participants (18%) was a lack of familiarity or understanding of OA and its principles, as well as the process of submitting their work. This is despite the fact that OAR staff have been very active in promoting the university OAR via library and university websites, and several departmental and individual meetings. In addition, faculty also expressed other concerns with submitting their work to an OAR, ranging from plagiarism concerns (n=10), copyright concerns (n=9), lack of a peer-review process (n=7), and difficulty or unfamiliarity with the submission process (n= 6). A smaller number of faculty (n=6) also expressed lack of time to submit to OARs, while others (n=5) perceived participation in OARs as low-quality publishing venues likely to have a negative impact on their academic career.

Figure 2

Summary of hindering factors



On the other hand, some respondents expressed awareness of OA and its goals but felt it is more important to cooperate with commercial publishers:

I'm old school, and while the principle of open access sounds fine, I do not believe it holds the same value in any sense as peer-reviewed publications in scholarly journals and books that have been vetted by publishers/reviewers for publication. (MO038)

This is likely due to the current academic reward system that incentivizes faculty publishing in traditional journals (Abbott & Tiffen, 2019). Therefore, while supporting the principles of OA, most faculty are inclined to publish in traditional publishing and perceive OA publishing as supplementary. Respondent MO014 states, "At the moment, I would only consider depositing work to an OA if I am unable or unwilling to publish it with a peer-reviewed journal

or academic press.” These responses are similar to findings from Dalton et al. (2020) that faculty decide where to submit their work based on perceived benefits it might have on their career.

Unfamiliar with OA Goals and Submission Process

Most of the respondents (n=13) seem unfamiliar with OA goals and do not know the purpose of OARs. A few respondents simply stated the following: “not familiar” (MO058), “no real concerns...simply not familiar” (HN049), “do not know enough about it” (MO018), and “don’t really know exactly what is meant by that term” (HN032).

In addition, around half of the responses show that faculty were not familiar with the process of submitting their work or how they could potentially benefit from it. For instance, respondent MO012 stated, “I am not familiar with the reasons to deposit my work to an Open Access repository.” Other respondents expressed a lack of awareness with the submission process itself. They stated the following: “lack of familiarity with the process” (MO055), “I don’t understand the process and advantages/disadvantages” (HN055), and simply “I honestly do not know much about it” (HN058). In summary, faculty responses reveal that most faculty remain unfamiliar with OA goals, the purpose of the OARs, and are unaware of the submission process. These findings align with the Center for Postsecondary Research, Indiana University School of Education (2018), which revealed that the most common reason faculty did not submit their work to an OAR was a lack of awareness of the process.

Plagiarism Concerns

This section will present a few responses (n=10) that illustrate faculty plagiarism concerns. In describing the overall concerns about submitting to an OAR, faculty stated the following: “I feel it is an opportunity for others to ‘steal’ my work” (HN033), “plagiarism, not having work cited, alteration or misrepresentation of my work” (HN046). Another respondent,

HN022 stated, “the issue of plagiarism and not getting properly cited.” The next respondent, HN029, expressed similar concerns regarding plagiarism, “Afraid of being plagiarized...” A few more responses that implied plagiarism include: “...an abuse of my results by unscrupulous others” (HN007), “Theft of ideas or data, plagiarism...” (HN026).

In addition, improper citation seemed to concern respondent HN003, “Other researchers may use my results without citing me.” While another respondent elaborated on plagiarism concerns, stating “abuse of my results by unscrupulous others” (HN007). Respondent HN034 included a personal experience, “There have been instances where I have found entire pages of my work plagiarized into other articles that came from my OA publications. These responses reveal that while some faculty are clearly concerned about plagiarism, others seem to imply that works posted in OARs are not properly cited.

Copyright Concerns

A few respondents (n=9) expressed their concerns regarding copyright or were unaware of the right to deposit already published work. One respondent clearly stated, “I am concerned about my rights to deposit already published work” (HN006), while respondent, HN001, stated that “some of the items I tried to submit in the past were tied up under the agreements with the original publisher.” Respondent HN023 had a similar response, “I am concerned about my rights to deposit already published work.” HN023 voiced their concern about “possible conflicts with the policies of scholarly publishers.” According to Salo (2008), there is a common concern among faculty that submitting their work to OARs violates copyright agreements with the publishers.

In addition, another respondent, HN026, voiced their concern regarding plagiarism and restrictions imposed by publishers, “Theft of ideas or data, plagiarism, limitations on subsequent

ability to publish. Restrictions on depositing already published work.” The responses reveal that faculty views on copyright concerns remain similar to the findings from Swan and Brown (2005), which revealed a significant number of faculty members did not know who retained copyright. Copyright agreements are very important issues in the open access discussion because these agreements dictate what authors are permitted to do with their work.

Perceived Difficulty with the Submission Process

In addition to previous concerns, around 8% of the faculty responses (n=6) illustrate concerns over difficulty with the submission process. For instance, respondent HN013 stated, “I need training and time to deposit my works.” MO029 elaborated more, “I don’t understand the process, I don’t understand copyright considerations, and I don’t see a huge benefit. In the cost-benefit analysis, I don’t see enough benefit to motivate me to take the initiative to pursue the matter.” In addition to making clear the difficulty with the submission process, the statement from MO029 also reveals that some faculty have multiple concerns and these factors are interrelated with one another. Similar to findings from Creaser et al. (2010) and Yang and Li (2015), around 8% of participants in this study remain unfamiliar with the submission process. This lack of awareness of tools and resources is an important factor of low faculty participation in OARs.

Perceived Additional Time Needed

Another important concern that faculty have in regard to participation in OARs is the perception that it takes too much time and/or it is often too complicated to deposit their work. Around 10% of faculty commented on the lack of time as an important hindering factor. Respondent HN012 stated, “I do not have time to publish in peer-review journals and OA.” Several respondents voiced their concern by simply stating the following: “I need training and

time to deposit my works” (HN013), “finding the time to do it” (MO052), “time needed” (HN050), “time commitment” (HN037), “time-consuming...,” (HN023), and “I have been lazy about taking the time to submit” (HN057). The responses reveal that perceived lack of time remains a significant barrier to deposit in an OAR, similar to those found by Singeh et al. (2013).

Perception of OARs as Low-Quality Publishing Venues

Similar to previous findings by Laughtin-Dunker (2014), the current research found that around 9% of faculty perceived OARs as low-quality publishing venues, described by different notions such as “low quality”, “weaker”, “easy to publish in”, “probably not scholarly”, “less prestige”, and “less quality control than traditional journal.” In the current study, respondent HN017 was not sure how publishing in an OAR would affect their work, and stated, “My concerns are how materials that are submitted to an OA repository are considered by my profession. Would they have less value than works submitted to other publications?” Another respondent, HN010, described their belief that publishing in IR might have “less prestige or weight in evaluations of my scholarly productivity.” A similar response recorded from respondent HN043 was, “Some view OA repositories as a place where you can buy a publication due to the poor quality of articles within the journals. As with all things, the OA journal needs to be reviewed for quality and a place to publish scholarly work.” These responses are an indicator that faculty were afraid that publishing in an OAR could have a negative impact on their career. Other respondents expressed the importance of peer review, including HN056’s statement that “peer-reviewed publication is the hallmark of academic success.” Another respondent, HN024, simply stated, “lack of peer review.” Respondent HN025 appeared to be more adamant on the matter of the peer review process and chose to elaborate more:

It seems to me that putting one's work out there in a non-peer-reviewed format is a complete waste of time. If you're good enough, you publish in a peer-reviewed journal, or you publish your book with a peer-reviewed press. Only exception to this is if you're so good, you've made full professor, your reputation is such that anything you write has credibility, you don't need the status of peer-review publication for your career advancement or raises, so you have the luxury of putting your work out there in whatever format you damn well please. Other than that, open access is stupid.

These statements expressed by faculty members show faculty concerns regarding OARs as low-quality publishing venues, especially the lack of quality control (peer review). The lack of a peer review process for the works deposited in OARs appears to be a deterring factor and a reason why faculty choose not to participate in OARs. Publications in peer reviewed journals are considered to be the most important criteria in tenure and promotion decisions. Thus, it is no surprise that faculty are reluctant to deposit in OARs because of they fear it will taint their work.

DISCUSSION

A deeper analysis of open-ended responses reveals that there are confounding messages expressed by faculty regarding OARs, from very favorable to very unfavorable (See Appendix A). A substantial number of respondents included both favorable and unfavorable views at the same time and expressed a lack of understanding of the purpose of OARs. This indicates that understanding why faculty choose to or not to participate in OARs is a complicated task that requires a multifaceted approach. In addition, this leads us to believe that faculty have not been communicated on the purpose and value of OARs.

Thus, the findings from this study can be used by academic institutions that have an OAR or plan to establish one to develop clear and engaging outreach programs that will bridge the gap between faculty perception of OA publishing and the goal of OA as articulated by its proponents.

Faculty responses reflect similar faculty sentiment to the findings from Kocken and Wical (2013), where 70% of respondents were not aware of OA and its goals. In addition, our findings show unfamiliarity with the benefits of submitting their work in OARs and the ambiguity of the term *open* can lead faculty to misunderstand the purpose of OARs. Therefore, academic librarians responsible for developing and implementing OARs should work closely with faculty members to promote the benefits of OARs and establish individual relationships with faculty to reduce confusion regarding the purpose of OARs and their benefits to faculty. Overall, these findings can assist OAR staff in developing a well-informed outreach program that is likely to increase faculty familiarity with OA principles and policies and thus likely to prove beneficial to the success of OARs.

Limitations

This study is an attempt to gain a deeper understanding of why faculty choose to or not to participate in OARs and it has its limitations. The focus of this study was limited to faculty members who volunteered to participate in the study. Thus, since the invitation to participate in the survey was sent to all faculty (a total of 1100) via Qualtrics and only a small portion (13 %) decided to participate, the assumption was rendered that faculty who chose to not participate in the survey are more likely unaware of OA goals and its purpose, or the meaning of open access; or are not interested. In turn, this can lead to the potential biases that in the general population outside of the sample in this study, the faculty views on OARs are even less favorable than the research suggests. Also, this study reflects only the views of a rather limited number of faculty

from one academic institution and does not include individual differences of faculty (i.e., age, academic discipline, rank, and status).

Future Research

The results of this study are only a first step that explored faculty views towards OARs by allowing them to elaborate on motivating and hindering factors. Considering the results were derived from a rather small sample size and from only one public university in the south-central region of the United States, future studies should obtain a more comprehensive sample of faculty that allows for better generalization of results. Second, the results from the current research are obtained at one point in time and reveal that more than half of the faculty are not familiar with OA and are unclear on what the term “open” means. However, considering that the term *open* continues to be used in new ways, depending on the context and time frame, a longitudinal study is warranted to fully understand faculty views towards participation in OARs. In addition, there are differences regarding faculty perceptions of OARs by age, academic discipline, rank, and status that were outside the scope of this study. Future research can use cross tabulation techniques to get a better understanding of faculty members’ perceptions of OARs based on age, academic discipline, rank, and status. A cross tabulation is a useful technique for measuring the association between two or more categorical variables. Chi-square tests of independence could be used to measure the relationship of each perceived motivation or hindering factor with faculty age, academic discipline, rank, and status.

CONCLUSION

The development in OA publishing platforms, including proliferation of OARs, have made libraries a preeminent participant in the debate over the future of scholarly publishing. Academic libraries play an important role in facilitating the scholarly communication process

and transforming the way scholarly work is produced, disseminated, accessed, and preserved via OA. Thus, it is imperative for scholarly communication librarians to engage with research that enables them to understand faculty as the major stakeholders in scholarly publishing. By doing so, they will continue the vision shared by OA proponents of utilizing information and communication technologies (ICT) in transforming scholarly communication and taking a more active role in the scholarly publishing process. This paper extended that vision by empowering academic librarians in taking a more proactive approach in promoting and educating faculty as major stakeholders involved in the scholarly publishing process to break the hold by commercial firms over academic publishing.

Overall, around half of the respondents supported the OA principles and agreed with the idea of sharing their work with their colleagues for the benefit of science, collaboration, and altruistic motivations, and for wider dissemination of their work. However, at the same time faculty were reluctant to participate in OARs due to myriad of concerns. Similar to the findings by Msomphora (2019), most faculty supported OA principles but were less keen to submit their work to an OAR due to many concerns, which seem to stem from their misunderstanding regarding the purpose of OARs. More than half (62.3%) of faculty members surveyed remain unfamiliar with OA declarations or OA goals. Less than half of the faculty surveyed (34%) expressed concerns with copyright, plagiarism, difficulty with submission, and perceived OARs as low-quality platforms. In summary, it appears that the overall views of faculty towards OARs have remained rather unchanged from previous findings. This qualitative analysis also confirms that previously identified factors (see literature review section) have a significant influence in faculty perceptions of OARs. The results show the complex nature of faculty views toward OARs and revealed inconsistencies and confusion among faculty regarding the purpose of

OARs. This puts pressure on OAR staff that design, develop and promote OARs to consider each factor separately in any outreach efforts. In addition, this multitude of mixed messages and the ambiguity of the term *open* leads to misunderstanding and misinterpretations regarding the purpose of OARs. The overall faculty perception of OARs could be described as a confusion and misunderstanding of the term *Open Access*, which is likely due to the faculty indifference towards OA rather than active resistance. Thus, academic libraries should use broad faculty gratitude campaigns when educating faculty regarding OA publishing to help them embrace a culture of open scholarship.

References

- Abbott, S. W., & Tiffen, B. (2019). Democratising the knowledge commons: The shared goals of open and community-engaged scholarship. *Gateways: International Journal of Community Research and Engagement*, 12(2), 1-18.
<https://doi.org/10.5130/ijcre.v12i2.6480>
- Abrizah, A. (2009). The cautious faculty: Their awareness and attitudes towards institutional repositories. *Malaysian Journal of Library & Information Science*, 14(2), 17–37.
- Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. (2003).
<https://openaccess.mpg.de/Berlin-Declaration>
- Bethesda Statement on Open Access Publishing. (2003).
<http://legacy.earlham.edu/~peters/fos/bethesda.htm>
- Borgman, C. L. (2000). Digital libraries and the continuum of scholarly communication. *Journal of Documentation*, 56(4), 412–430. <https://doi.org/10.1108/eum0000000007121>
- Budapest Open Access Initiative. (2002). <https://wiki.lib.sun.ac.za/index.php/BOAI>
- Casey, A. M. (2012). Does tenure matter? Factors influencing faculty contributions to institutional repositories. *Journal of Librarianship and Scholarly Communication*, 1(1), 1–11. <https://doi.org/10.7710/2162-3309.1032>
- Center for Postsecondary Research, Indiana University School of Education (2018). Carnegie Classification of Institutions of Higher Education. <http://carnegieclassifications.iu.edu>
- Crane, D. (1972). Invisible colleges. Diffusion of knowledge in scientific communities. *Historia Mathematica*, 1(4), 477–479.
- Creaser, C., Fry, J., Greenwood, H., Oppenheim, C., Proberts, S., Spezi, V., & White, S. (2010).

- Authors' awareness and attitudes toward open access repositories. *New Review of Academic Librarianship*, 16, 145–161.
<https://doi.org/10.1080/13614533.2010.518851>
- Cullen, R., & Chawner, B. (2011). Institutional repositories, open access, and scholarly communication: A study of conflicting paradigms. *The Journal of Academic Librarianship*, 37(6), 460–470. <https://doi.org/10.1016/j.acalib.2011.07.002>
- Dalton, E. D., Tenopir, C., & Björk, B. (2020). Attitudes of North American academics toward open access scholarly journals. *portal: Libraries and the Academy*, 20(1), 73-100.
<https://doi.org/10.1353/pla.2020.0005>
- Demetres, M. R., Delgado, D., & Wright, D. N. (2020). The impact of institutional repositories: A systematic review. *Journal of the Medical Library Association*, 108(2), 177–184.
<https://doi-org.ezp.twu.edu/10.5195/jmla.2020.856>
- Dubinsky, E. (2014). A current snapshot of institutional repositories: Growth rate, disciplinary content and faculty contributions. *Journal of Librarianship and Scholarly Communication*, 2(3), 1–22. <https://doi.org/10.7710/2162-3309.1167>
- Fitzgerald, S. R., & Jiang, Z. (2020). Scholarly publishing at a crossroads: Scholarly perspectives on open access. *Innovative Higher Education*, 45(6), 457-469.
<https://10.1007/s10755-020-09508-8>
- Harnad, S. R. (1992). Sidebar: PSYCOLOQUY; A model forum for scholarly skywriting. *Serials Review*, 18(1-2), 60.
- Harnad, S., & Brody, T. (2004). Comparing the impact of open access (OA) vs. non-OA Articles in the Same Journals. *D-Lib Magazine*, 10(6), 1.

- Jurchen, S. (2020). Open access and the serials crisis: The role of academic libraries. *Technical Services Quarterly*, 37(2), 160-170. <https://doi.org/10.1080/07317131.2020.1728136>
- Kim, J. (2010). Faculty self-archiving: Motivations and barriers. *Journal of the American Society for Information Science and Technology*, 61(9), 1909–1922. doi: 10.1002/asi.21336.
- Kocken, G. J., & Wical, S. H. (2013). “I’ve never heard of it before”: Awareness of open access at a small liberal arts university. *Behavioral & Social Sciences Librarian*, 32(3), 140–154. <https://doi.org/10.1080/01639269.2013.817876>
- Laughtin-Dunker, K. (2014). Assessing the scholarly communication attitudes and practices of faculty: Lessons from a “failed” survey. *Journal of Librarianship and Scholarly Communication*, 2(3), 1–13. <https://doi.org/10.7710/2162-3309.1164>
- Lofland, J. (2005). *Analyzing social settings: A guide to qualitative observation and analysis*. Wadsworth/Thomson Learning.
- Morris, S., & Thorn, S. (2009). Learned society members and open access. *Learned Publishing*, 22(3), 221–239. <https://doi.org/10.1087/2009308>
- Msomphora, M. R. (2019). UiT-researchers’ attitudes and practices towards open access publication: lessons learnt for improving self- archiving in institutional repository. *LIBRES: Library & Information Science Research Electronic Journal*, 29(1), 14–36.
- Oguz, F., & Assefa, S. (2014). Faculty members’ perceptions towards institutional repository at a medium-sized university. *Library Review*, 63(3), 189–202. <https://doi.org/10.1108/lr-07-2013-0088>
- O’Hanlon, R., McSweeney, J., & Stabler, S. (2020). Publishing habits and perceptions of open access publishing and public access amongst clinical and research fellows. *Journal of the*

Medical Library Association, 108(1), 47–

58. <https://doi-org.ezp.twu.edu/10.5195/jmla.2020.751>

OpenDOAR statistics. v2.sherpa. (n.d.). Retrieved December 20, 2021, from

https://v2.sherpa.ac.uk/view/repository_visualisations/1.html

Primary Research Group. (2009). *The Survey of Higher Education Faculty: Use of Digital Repositories and Views on Open Access*. MyiLibrary.

<http://www.myilibrary.com?%2Fid=390770>.

Quinn, B. (2013). Reducing psychological resistance to digital repositories. *Information Technology and Libraries*, 29(2), 67-75. <https://doi.org/10.6017/ital.v29i2.3145>

Salo, D. (2008). Innkeeper at the Roach Motel. *Library Trends*, 57(2), 98-123.

Shaughnessy, T. W. (1989). Scholarly communication: The need for an agenda for action-a symposium. *Journal of Academic Librarianship*, 15(2), 68.

Singeh, F. W., Abrizah, A., & Abdul Karim, N. H. (2013). What inhibits authors to self-archive in open access repositories? A Malaysian case. *Information Development*, 29(1), 24–35.

<https://doi.org/10.1177/0266666912450450>

Suber, P. (2012, June). *The Rise of Libre Open Access*. Earlham College.

<https://legacy.earlham.edu/>.

Swan, A., & Brown, S. (2005). *Open Access Self-Archiving: An Author Study*. Cogprints.

<http://cogprints.org/4385/1/jisc2.pdf>.

Tapfuma, M. M., & Hoskins, R. G. (2019). Attitudes of scholars towards self-archiving in institutional repositories of Zimbabwe's public universities. *Mousaion*, 37(4), 1–22.

<https://doi-org.ezp.twu.edu/10.25159/2663-659X/5997>

- Taylor, S. J., & Bogdan, R. (1998). *Introduction to Qualitative Research Methods: A Guidebook and Resource*. John Wiley & Sons.
- Troll Covey, D. (2009). Self-archiving journal articles: A case study of faculty practice and missed opportunity. *portal: Libraries and the Academy*, 9(2), 223–251.
<https://doi.org/10.1353/pla.0.0042>
- Willinsky, J. (2009). *The Access Principle: The Case for Open Access to Research and Scholarship*. The MIT Press.
- Woutersen-Windhouver, S., Méndez Rodríguez, E., Sondervan, J., & Oort, F. J. (2020). Consolidating institutional repositories in a digital, free, open access publication platform for all scholarly output. *Liber Quarterly: The Journal of European Research Libraries*, 1–15. <https://doi-org.ezp.twu.edu/10.18352/lq.10323>
- Yang, Zheng Ye (Lan). & Li, Y. (2015). University faculty awareness and attitudes towards open access publishing and the institutional repository: A case study. *Journal Of Librarianship & Scholarly Communication*, 3(1), 1-29.