# The Open Access Availability of Articles from Highly Ranked Religious Studies Journals: A Study of Ten Journals

by Joshua M. Avery

#### **Abstract**

This article explores the current state of open access (OA) scholarship from highly ranked journals covering religious studies. To examine the state of OA scholarship from journals of religious studies, the OA availability of articles from ten peerreviewed journals were examined. Using the SCImago Journal & Country Rank, a portal that includes the journals and country scientific indicators developed from the information contained in the Scopus® database, the ten most highly rated journals in mid-2015, according to the SJR indicator, were selected for evaluation. Articles that appeared in the journal volumes published in 2014 were selected for analysis, and were identified through online research databases and journal websites that provided bibliographic information. Only articles and essays dealing with research were included. A total of 377 articles were included in the study. Of the 377 articles examined, OA versions were found for 132 (35 percent) of them. Approximately one third of articles (33.3 percent) were located in multiple locations, with more than half of all OA articles found (53.0 percent) in either repositories, or, on the social networking sites ResearchGate.net or Academia. edu. Of the total number of OA articles found, 87 (65.9 percent) were found by both Google and Google Scholar, and 43 (32.6 percent) were found by only Google or Google Scholar, but not both. The results indicate that religious studies journal scholarship is not widely self-archived and made available as OA as a regular practice. Results also indicate that those scholars who publish in journals covering religious studies and who do embrace open access make strong use of either institutional or subject repositories and/or social networking sites to make their scholarship openly available. Finally, results indicate that using both Google and Google Scholar to search for OA religious studies journal scholarship yields better results than only using Google or Google Scholar.

### Introduction

The Budapest Open Access Initiative, originally published in 2002, defines open access (OA) scholarship as literature that is freely available on the public Internet, permitting any user to "read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself." Peter Suber more succinctly defines open access literature as "digital, online, free of charge, and free of most copyright and licensing restrictions."

## Modes of Open Access

OA scholarship is delivered primarily through OA journals and OA repositories (online collections, repositories, or databases of OA scholarship), although social networking sites like ResearchGate and Academia.edu have played an important role in recent years.<sup>3</sup> OA scholarship that is delivered via journals is referred to as "gold" OA, while OA scholarship made available through repositories is referred to as "green" OA. Such repositories are typically fed by authors, uploading their own work

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<sup>&</sup>lt;sup>1</sup> Open Society Foundations, "Budapest Open Access Initiative," February 14, 2002, <a href="http://www.budapestopenaccessinitiative.org/read">http://www.budapestopenaccessinitiative.org/read</a>.

<sup>&</sup>lt;sup>2</sup> Peter Suber, Open Access (Cambridge, MA: MIT Press, 2012), 4.

<sup>&</sup>lt;sup>3</sup> Mike Thelwall and Kayvan Kousha, "ResearchGate: Disseminating, Communicating, and Measuring Scholarship?" *Journal of the Association for Information Science and Technology* 66, no. 5 (May 2015): 876-89. doi:10.1002/asi.23236.

in a practice known as self-archiving. An important difference between gold and green OA is that green OA repositories often lack the ability to grant permission for users to re-use at will, an ability possessed by the distributors of most gold OA. In short, most green OA is "gratis," meaning that it may be used free of charge, but users must still seek permission to exceed fair use, while most gold OA is "libre," meaning that users have permission to exceed some licensing and copyright restrictions beyond fair use.<sup>4</sup> This paper will refer to all green, gold, libre, and gratis OA scholarship as simply OA.

#### OA Mandate Trends

While the aforementioned definitions are widely accepted across the OA movement, the potential for openly sharing research was understood long before such definitions were codified. The arXiv repository, for preprints in high-energy physics and related fields, was started in 1991 and in December of 2014 received its one-millionth upload.<sup>5</sup> In the last decade not-for-profit organizations, governmental research funders, and universities have begun to encourage, and in some cases mandate, that scholars make research openly and freely available. In 2007, the Canadian Social Science and Humanities Research Council (SSHRC) provided substantial funding for open access journals, and in 2008 began accepting applications to financially support open access journals through its Aid to Scholarly Journals program. That same year, the National Endowment for the Humanities also announced a funding program for open access projects.

In 2005, the National Institutes of Health began requiring that "NIH-funded investigators are requested to submit to the NIH National Library of Medicine's (NLM) PubMed Central (PMC) an electronic version of the author's final manuscript upon acceptance for publication." In 2013 the European Commission (EC) mandated that research outputs, funded under Horizon 2020 (the European Union research framework), must be made open access. The Research Councils UK (RCUK) released its current OA policy in 2013 which aims to "achieve immediate, unrestricted, on-line access to peer-reviewed and published research papers, free of any access charge" for research supported by any of the UK's seven research councils. Also in 2013, the Australian Research Council enacted a policy requiring that any publications arising from an ARC supported research project must be deposited into an open access institutional repository within a twelve (12) month period from the date of publication. As of 2017, more than 800 governmental, non-profit, research, and academic organizations have adopted open access mandates.8

# OA Journal and Availability Trends

Between 2000 and 2009 the average annual growth rate was 18 percent for OA journal titles, compared to an overall 3.5 percent increase in journal publishing in general. OA journal scholarship continues to flourish with the greatest gains seen among the sciences. At the time of writing, there were 9,397 separate titles listed in the Directory of Open Access Journals (DOAJ), with 182 titles (1.9 percent) addressing "religion" within the scope of the title's scholarly coverage.

In 2014, researchers found that the bulk of web-accessible OA scholarship was related to medicine, physics, social science, biology, chemistry, and/or mathematics.<sup>10</sup> A 2016 study examining eleven open access mega-journals (defined as such

<sup>&</sup>lt;sup>4</sup> These definitions are drawn from Suber, Open Access.

<sup>&</sup>lt;sup>5</sup> Tracy Vence, "Q&A: 1 Million Preprints and Counting: A Conversation With ArXiv Founder Paul Ginsparg," *The Scientist*, December 29, 2014, <a href="http://www.the-scientist.com/?articles.view/articleNo/41677/title/Q-A--One-Million-Preprints-and-Counting/">http://www.the-scientist.com/?articles.view/articleNo/41677/title/Q-A--One-Million-Preprints-and-Counting/</a>.

<sup>&</sup>lt;sup>6</sup> National Institutes of Health, "Policy Notice NOT-OD-05-022," February 3, 2005, <a href="http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-022.html">http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-022.html</a>.

<sup>&</sup>lt;sup>7</sup>Research Councils UK, "RCUK Policy on Open Access and Supporting Guidance," accessed February 26, 2018, <a href="http://www.rcuk.ac.uk/documents/rcukopenaccesspolicy-pdf/">http://www.rcuk.ac.uk/documents/rcukopenaccesspolicy-pdf/</a>.

<sup>&</sup>lt;sup>8</sup> Registry of Open Access Repository Mandates and Policies, "Total Mandates," accessed February 26, 2018, <a href="http://roarmap.eprints.org/">http://roarmap.eprints.org/</a>.

<sup>&</sup>lt;sup>9</sup> Mikael Laakso et al., "The Development of Open Access Journal Publishing from 1993 to 2009," PLoS ONE 6, no. 6 (2011). doi:10.1371/journal.pone.0020961.

<sup>&</sup>lt;sup>10</sup> Madian Khabsa and C. Lee Giles, "The Number of Scholarly Documents on the Public Web." *PLoS ONE* 9, no. 5 (2014). doi:10.1371/journal.pone.0093949.

due to size, scope, business model, and peer-review policy), found that articles relating to the humanities accounted for only 4.0 percent of total journal output.<sup>11</sup> A 2014 study examining OA papers published in peer-reviewed journals between 1996-2013 revealed that Gold OA (i.e., scholarship published in OA journals) was lowest among general arts, humanities, and social sciences (accounting for only 2.6 percent of OA journal scholarship).<sup>12</sup>

## Aim of Study

The OA availability of scholarship from journals of religious studies is not fully understood and relatively little research has been done to examine the global implications of the OA movement for scholarship in journals of religious studies. <sup>13</sup> The main aim of this study is to provide scholars with a better understanding of the availability of OA scholarship among top-ranked journals of religious studies. To accomplish this, the OA availability of articles from ten peer-reviewed religious studies journals published in 2014 were examined.

# Methodology

Using the SCImago Journal & Country Rank, a portal that includes the journals and country scientific indicators developed from the information contained in the Scopus® database, the ten most highly rated journals in mid-2015, according to the SJR indicator, were selected for evaluation. The SJR indicator of a specific journal is calculated by computing a citing journal's impact and its closeness to the citied journal using the cosine of the angle between the journal's co-citation profiles. Additionally, a journal's accumulated impact is divided by the fraction of the journal's citable documents.

Drawing from methods used by Way in 2010, articles that appeared in the journal volumes published in 2014 were selected for analysis. Articles were identified through online research databases and journal websites that provided bibliographic information. Only articles and essays dealing with research were included. Columns, letters, editorials, etc. were excluded. A total of 377 articles were included in the study.

A search was performed in both Google (web) and Google Scholar, using the title and author(s) as search terms.<sup>17</sup> If the results were inconclusive, additional terms and/or search limiters were then used. In addition, other search strategies (addition of quotes, etc.) were employed when no results were returned from the original query. All search queries were duplicated across both search engines to ensure uniformity.

<sup>&</sup>lt;sup>11</sup> Simon Wakeling et al., "Open-Access Mega-Journals: A Bibliometric Profile," *PLOS ONE* 11, no. 11 (2016). doi:10.1371/journal.pone.0165359.

<sup>&</sup>lt;sup>12</sup> Éric Archambault et. al., "Proportion of Open Access Papers Published in Peer-Reviewed Journals at the European and World Levels—1996–2013," Rapport, Commission Européenne DG Recherche & Innovation; RTD-B6-PP-2011-2: Study to Develop a Set of Indicators to Measure Open Access, 2014.

<sup>&</sup>lt;sup>13</sup> A notable exception to this is Danielle Cooper et al., "Supporting the Changing Research Practices of Religious Studies Scholars," *Ithaka S+R*, February 8, 2017, <a href="http://www.sr.ithaka.org/wp-content/uploads/2017/02/SR">http://www.sr.ithaka.org/wp-content/uploads/2017/02/SR</a> Report Religious Studies 020817.pdf.

<sup>&</sup>lt;sup>14</sup> http://www.scimagojr.com/. SRJ journal rankings fluctuate depending on various factors (e.g., citations, etc.) and the ten journals that were leading in the SRJ rankings in mid-2015 may not be the same at the time of this essay's publication.

<sup>&</sup>lt;sup>15</sup> Further discussion of the SJR indicator, its methodology, and reliability can be found in Matthew E. Falagas et al., "Comparison of SCImago Journal Rank Indicator with Journal Impact Factor." *FASEB Journal* 22, no. 8 (August 2008): 2623-28, doi: 10.1096/fj.08-107938; and Vincente P. Guerrero-Bote and Felix Moya-Anegón, "A Further Step Forward in Measuring Journals' Scientific Prestige: The SJR2 Indicator." *Journal of Informetrics* 6 (2012): 675-88, doi: 10.1016/j. joi.2012.07.001.

<sup>&</sup>lt;sup>16</sup> Doug Way, "The Open Access Availability of Library and Information Science Literature," *College & Research Libraries* 71, no. 4 (2010): 302-09. doi:10.5860/crl-38r1. Similar methods are also used by Mikael Laakso and Juho Lindman, "Journal Copyright Restrictions and Actual Open Access Availability: A Study of Articles Published in Eight Top Information Systems Journals (2010–2014)," *Scientometrics* 109, no. 2 (2016): 1167-89. doi:10.1007/s11192-016-2078-z.

<sup>&</sup>lt;sup>17</sup> For information on the reliability of Google Scholar as a reliable source for discovering available literature see Gali Halevi, Henk Moed, and Judit Bar-Ilan, "Suitability of Google Scholar as a Source of Scientific Information and as a Source of Data for Scientific Evaluation - Review of the Literature," *Journal of Informetrics* 11, no. 3 (2017): 823-34.

#### **Results**

Of the 377 articles examined, OA versions were found for 132 (35 percent) of them. Table 1 shows each journal's SJR ranking, number of articles published, and percent of OA articles found. The percent of OA articles found by journal varied from 5.9 to 100 percent. None of the journals in the study are fully OA, though some of the publishers offer their authors an OA publishing option on a per article basis.

Journal	SRJ (2015)	Articles (#)	OA (%) (2016)
Journal for the Scientific Study of Religion	1.127	43	41.9%
Psychology of Religion and Spirituality	0.758	35	45.7%
Sociology of Religion	0.634	25	20.0%
Journal of Religion and Health	0.478	156	31.4%
Intl. Journal for the Psychology of Religion	0.477	20	65.0%
Religious Studies	0.47	31	22.6%
Journal of Empirical Theology	0.469	12	33.3%
Journal of Management, Spirituality & Religion	0.456	17	5.9%
Journal of Health Care Chaplaincy	0.424	11	100%
Journal of Contemporary Religion	0.416	27	29.6%

Table 1. Percentage of OA articles by journal

Table 2 shows the location of the OA articles in terms of what percentage were found in institutional repositories, personal or organizational websites, OA journal websites, and other sites. Approximately one third of articles (33.3 percent) were located in multiple locations, with more than half of all OA articles found (53.0 percent) either in repositories either in repositories, or on the social networking sites <a href="ResearchGate.net">ResearchGate.net</a> or <a href="Academia.edu">Academia.edu</a>.

1	nstitutional / Subject Repository	Personal Website	Org. Website	Academia.edu/ ResearchGate.net	Other	Multiple
	70 (53.0%)	13 (9.8%)	19 (14.4%)	70 (53.0%)	4 (3.0%)	44 (33.3%)

Table 2. OA articles by location

Of the total number of OA articles found, 87 (65.9 percent) were found by both Google and Google Scholar, and 43 (32.6 percent) were found by only Google or Google Scholar, but not both. Table 3 provides information regarding what percentage of articles were found by only one search engine.

Search Engine	Google	Google Scholar
	20 (46.5%)	23 (53.4%)

Table 3. OA articles found by only one search engine

In total, 132 OA articles were found by Google and Google Scholar, with 105 (79.5 percent) found by Google and 107 (81.1 percent) found by Google Scholar. In the single instance in which all published articles in a journal were available OA (*Journal of Health Care Chaplaincy*), 100 percent of the articles were found by both Google and Google Scholar. Table 4 gives information on a journal-by-journal basis regarding the number of articles available OA, and which search engine performed best in locating the available articles.

Journal	OA Articles (#)	Google	Google Scholar
Journal for the Scientific Study of Religion	18	9 (50.0%)	11 (61.1%)
Psychology of Religion and Spirituality	16	13 (81.3%)	15 (93.8%)
Sociology of Religion	5	4 (80.0%)	4 (80.0%)
Journal of Religion and Health	49	37 (75.5%)	45 (91.8%)
Intl. Journal for the Psychology of Religion	13	13 (100%)	7 (53.8%)
Religious Studies	7	5 (71.4%)	6 (85.7%)
Journal of Empirical Theology	4	4 (100%)	1 (25.0%)
Journal of Management, Spirituality & Religion	1	1 (100%)	0 (0.0%)
Journal of Health Care Chaplaincy	11	11 (100%)	11 (100%)
Journal of Contemporary Religion	8	8 (100%)	7 (87.5%)

Table 4. OA articles found by search engine and journal

#### **Discussion and Conclusion**

# Search Engine Findings

The findings of this study would seem to indicate that both Google and Google Scholar are reliable tools for finding OA content, although scholars will likely see additional benefit from using both search engines when seeking OA religious studies journal scholarship.

## OA Availability of Religious Studies Journal Scholarship

The results indicate that religious studies journal scholarship is not widely self-archived and regularly made available as OA. However, results also indicate that those scholars who publish in journals covering religious studies and who do embrace open access make strong use of either institutional or subject repositories and/or social networking sites to make their scholarship openly available. These findings are supported by a 2017 study that found that among religious studies scholars, "awareness and engagement with open access is low but the perceived importance of more freely sharing work as enabled by social media platforms such as Acaedmia.edu is high." Additionally, a 2015 study of OA scholarship in Germany found that scholars from non-natural science disciplines (e.g., business, philosophy, art, religion) were less likely than those in natural sciences to have experience with OA publishing.

Reasons for these findings may include both of lack of interest or ambivalence toward OA publishing and a lack of opportunity.<sup>20</sup> None of the journals examined were fully OA and some literature has suggested a disciplinary bias toward scholarly monographs.<sup>21</sup> Additional reasons may include issues of tenure and promotion, concern over copyright/intellectual property rights, and preferred venues for distribution of secondary research outputs.<sup>22</sup> It is important to note, however, that much of the scholarship published in religious studies journals is interdisciplinary or transdisciplinary. It should also be noted that professional theologians, librarians, musicologists, psychologists, archeologists, historians,

<sup>&</sup>lt;sup>18</sup> Cooper et al., "Supporting the Changing Research Practices," 30.

<sup>&</sup>lt;sup>19</sup> Thomas Eger, Marc Scheufen, and Daniel Meierrieks. "The Determinants of Open Access Publishing: Survey Evidence from Germany," *SSRN Electronic Journal*, 2013. doi:10.2139/ssrn.2232675.

<sup>&</sup>lt;sup>20</sup> More on this can be found in Cooper et al., "Supporting the Changing Research Practices," 32-34.

<sup>&</sup>lt;sup>21</sup> For more on this, see Beth Sheppard, "By the Numbers: Bibliometrics and Altmetrics as Measures of Faculty Impact in the Field of Religion," *Theological Librarianship* 9, no. 1 (2016): 28–36.

<sup>&</sup>lt;sup>22</sup> For more on this see Richard Lane, "Innovation through Tradition: New Scholarly Publishing Applications Modelled on Faith-Based Electronic Publishing & Learning Environments" *Scholarly and Research Communication*, 5, no. 4 (16 December 2014), and Cooper et al., "Supporting the Changing Research Practices," 32-35.

scholars of comparative religion, and various members of the clergy all contribute to journals covering religion and religious studies and it is unlikely that common attitudes toward OA scholarship cross these disciplinary and vocational boundaries. Additionally, the recent development of such article sharing options as Humanities Commons<sup>23</sup> and ScholarlyHub,<sup>24</sup> combined with publisher (and user) pressure on Academia.edu and ResearchGate, may have future implications for the OA availability of articles from journals of religious studies.<sup>25</sup>

<sup>&</sup>lt;sup>23</sup> https://hcommons.org/

<sup>&</sup>lt;sup>24</sup> https://www.scholarlyhub.org/

<sup>&</sup>lt;sup>25</sup> More on this can be found at Anastasia Salter, "MLA Commons CORE and Open Access." *ProfHacker* (blog), September 26, 2016, <a href="https://www.chronicle.com/blogs/profhacker/mla-commons-core-and-open-access/62840">https://www.chronicle.com/blogs/profhacker/mla-commons-core-and-open-access/62840</a>; David Matthews, "Scholars Launch Non-profit Rival to ResearchGate and Academia.edu," *Times Higher Education*, November 8, 2017, <a href="https://www.timeshighereducation.com/news/scholars-form-non-profit-rival-to-researchgate">https://www.timeshighereducation.com/news/scholars-form-non-profit-rival-to-researchgate</a>; Richard Van Noorden. "Publishers threaten to remove millions of papers from ResearchGate," *Nature*, October 10, 2017, <a href="https://www.nature.com/news/publishers-threaten-to-remove-millions-of-papers-from-researchgate-1.22793">https://www.nature.com/news/publishers-threaten-to-remove-millions-of-papers-from-researchgate-1.22793</a>; and Sarah Bond, "Dear Scholars, Delete Your Account at Academia.Edu," *Forbes*. January 23, 2017, <a href="https://www.forbes.com/sites/drsarahbond/2017/01/23/dear-scholars-delete-your-account-at-academia-edu/">https://www.forbes.com/sites/drsarahbond/2017/01/23/dear-scholars-delete-your-account-at-academia-edu/</a>.