Institutional Repositories, Open Access and Copyright

What are the Practices and Implications?

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REPOSITORIES, OPEN ACCESS, AND COPYRIGHT

Abstract

A number of factors are driving open access to full text journals: constantly rising prices of journal and database subscriptions; granting agencies requirements for recipients to submit their research publications into open access repositories; pressure on libraries to create Institutional Repositories (IR) to promote the institutions’ reputations. Research proves that open access promotes the dissemination and use of scholarly works and citations for authors. This paper examines the interactions between open access, institutional repositories, and copyright management. The research described herein investigates how institutional repositories are managing copyright and licensing issues that can interfere with open access.

Introduction

Laakso and Bjork studied the trends in open access (OA) journals between 2000 and 2011 (2012). These authors found OA articles were primarily published by scientific societies or professional organizations until 2005. After 2005, commercial publishers dramatically increased their role in OA publications. They estimate that 17% of articles published in 2011 were open access when including embargoed materials. These authors concluded that OA is disrupting the traditional subscription model. Schimmer, et al concluded recently that the present business model with paywalls for articles can be broken when institutions provide open access to their researchers’ publications (2015). There are several ways that OA articles are created. Clobridge (2014), Neugebauer and Murray (2013) and Willinsky (2010) discuss the two types of OA and problems associated with each type. With Gold access, authors pay publishers to publish their works openly but predatory publishers are creating problems for authors to determine credibility. The lack of peer review of some of these published articles in this format generates concerns for authors’ academic reputation and worries of work being stolen or plagiarized (Yang & Li 2015).
Green OA publications circumvent these problems because the works are published in peer reviewed journals with publishers giving permission to deposit such items into open access repositories or authors’ websites. However, not all versions of publications are permitted to be downloaded into repositories, but pre and post-prints are allowed by many publishers. In some cases, published articles in pdf format can be submitted to open access repositories or other venues by paying a high fee to the publisher (Hansen 2012). Peroni and co-authors cite studies showing that OA allows discoverability for research articles and datasets "made publicly available increase citation rates of article between 9% and 30%” (2015). A recent report was published online that included the dataset that showed a large increase in citations for authors who deposited their full text articles into Academia.edu (Niyazov et al 2015). A blogger read this study, reanalyzed the data, and found the citation rate slightly inflated (Davis 2015). The authors were notified and made adjustments to their calculations as result of this interaction which is noted at the bottom of the Davis blog stating the increased citation rate was 73% versus the previous claim of 83%. This example illustrates the power of having datasets and articles freely available online for discoverability and reviewing of research. It is estimated that over 300 funding agencies require researchers receiving grants to publish the results in open access repositories within 1 year of publication (Mounce 2013). Lastly, the US government is requiring more of its agencies that are funding research to have publications be available online (ACRL Research Planning 2015). One example is the National Institutes of Health in the US requires grantees to deposit their publications into PubMed Central within one year after publication. These forces will increase pressure to publish as OA articles in the future.

Institutional repositories (IR) are increasingly interested in providing open access to copyrighted materials. More and more institutions are setting up repositories to house publications of their
faculty to provide open access of these articles as a means of disseminating and showcasing their institution’s scholarly output (ACRL Research Planning 2015). Research shows that faculty favor open access as it disseminates research findings widely and generates more usage statistics. However, institutional repositories face the challenges that stem from the copyright permissions and ownership of published articles. This paper examines how those institutional repositories tried to accomplish open access and deal with copyright issues. Specifically, a research project was carried out to look into current practices dealing with copyright permissions by institutional repositories. Libraries will face the copyright challenges when they build repositories with open access to full text publications. By sharing these findings, libraries that hope to build such repositories can avoid mistakes and focus on more important issues. Established institutional repositories may find this study helpful in revising or updating their policies.

Literature Review

A literature review was conducted to locate and analyze similar studies. Studies on copyright permissions examined how institutional repositories tried to strike a balance between protecting holders’ copyright and disseminating information. Some of those studies include digital archives that add some complexity to the results because there is a mixture of historical, archival materials (digital archives) with open access publications in defining the types of institutional repositories (Pickett and Knapp 2014). In addition, some repositories contain datasets, another type of deposited material. Dryden analyzed 96 repository websites and conducted surveys and interviews on the copyright policies, the reasons behind those policies, and the technical means that repositories and archives have deployed for copyright compliance (2014). In another study, Koulouris and Kapidakis reviewed policy statements of the digital repositories of 100 American institutions (2005). They studied the relationship between the acquisitions of the digital materials
and the term and conditions of use towards users. Schlosser studied copyright statements of 786 digital collections of 29 libraries in the Digital Library Federation, a consortium of 37 academic libraries (2009). These studies defined how users can use the materials in these collections; however, their findings indicate that only half of the collections have copyright statements and most of those statements are vague or misleading.

Very few studies are on copyright issues for authors who need to submit their publications to institutional repositories. Very little research is found on how librarians have dealt with publishers’ copyright restrictions to display repository materials and provide open access. This is a very much desired area that needs to be explored because of the practical implications for libraries. Libraries will encounter copyright issues either during the planning or building of a repository. Some institutions integrated SHERPA/RoMEO, a database on publishers’ copyright policies, into their repositories to address the uncertainty of copyright. Faculty can query this database before self-depositing their publications. However, most institutions are struggling with the copyright issues in depositing materials. The study described in this article will fill in the void by exploring what libraries have done to cope with copyright restrictions when they built repositories and how much they have achieved toward open access.

**Research Method**

The authors reviewed copyright policies and other parameters on the websites of one hundred institutional repositories or archives. Those policies or guidelines are intended for internal use for librarians and contributors for copyright clearance before they deposit materials into repositories.

A sample of one hundred entries (see Appendix- Repositories/Archives in the Sample) is taken from the Registry of Open Access Repositories (ROAR) including institutional or departmental
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repositories and archives (2016). ROAR and OpenDOAR (DOAR’s acronym means “Directory of Open Access Repositories;” http://www.opendoar.org/) are considered the two leading open access directories worldwide (Garcia-Vera, Roig-Vila, Ferrandez, and Marti 2015). ROAR is the larger directory and allows direct submissions to the directory. OpenDOAR controls submission of materials and is dependent on the discretion of its staff. OpenDOAR requires open access of scholarly publications whereas ROAR allows other types of materials to be included (Garcia-Vera, et al, 2015; Anderson and Hodges 2015). ROAR (http://roar.eprints.org/) allows filtering by country, type of repository, and sorting by repository name. For this study, the ROAR directory was selected because of the ease of filtering. The list was restricted to the United States because of familiarity of copyright laws. Research Institutional/Department types of repositories were selected, sorted by name, and then downloaded as “Harvest status.csv” into an MS Excel file. There were 503 repositories collected, and every 5th repository was chosen until 100 names were selected, starting with number 5 on the Excel sheet. The following information was examined: Institution Type based on content, websites including broken URLs noted, the name of the repository, presence or absence of policies on obtaining copyright status for inclusion into the repository, submission procedures, open access status, presence or absence of altmetrics data, and the listing of other registries. Some of the policies were listed in the OpenDOAR directory (http://www.opendoar.org/) entries, some were embedded in the FAQs page of the IR website, and some had separate webpages for policies. All of these places for policies were examined and used to determine the number of IRs having any policies as well as the types of policies.
Research Questions explored include the following:

- Do registries impose copyright restrictions on use?
- Do registries provide authors with copyright information and submission procedures?
- How do libraries deal with publishers’ agreements and copyright in order to provide open access?
- Who is responsible for obtaining copyright permissions for open access journal articles?

The results were compiled into a MS Word document and a MS Excel file for further analysis.

Results

A total of 100 entries are reviewed in the ROAR database including departmental as well as institutional repositories and archives. Most of the entries (75%) are the type that contains research and publications by faculty and researchers in an institution. An institutional repository (IR), sometimes called a digital repository, is defined in this paper as a web-based database which contains scholarly works and research data by faculty, employees, and students of that institution. Digital archives often contain materials about the parent institution such as its president’s letters, office memos, newsletters, commencement speeches, etc. Only seven (7%) of the registries examined are digital archives, containing historical, archival materials, while fourteen (14%) are hybrids containing both faculty research output and archival materials. This implies that many institutions are collecting research and publications from their faculty to showcase their achievements (Figure 1). Three consortiums have a number of libraries participating and it is difficult to categorize them. Generally speaking, digital archives are the copyright holders of their own content and only need to decide the terms of use. It is the
institutional repositories that try to provide open access to their faculty and students’ research output, and they, more than digital archives, need to address the publishers’ permissions and copyright. One repository in the list from ROAR cannot be located anywhere on the Internet and thus is listed as “missing” in the subsequent figures.

Figure 1 Registries by Content Type

All the repositories and archives in the sample contain full text publications or links to remote websites where full text or abstract materials reside as well as citations to faculty publications. How much open access do libraries provide to full text portion of the repositories and archives? Figure 2 demonstrates the “openness” of full text materials in the institutional repositories and archives studied. The authors determined the “openness” of a repository or archive by its policy statement. If a repository or archive only accepts materials that authors own the copyright or can produce written permissions from publishers, it is assumed that this repository or archive provides open access. About 65% of the repositories and archives studied are considered open access. Thirty percent of these repositories allowed some open access and restricted some access.
which is labelled “hybrid.” A very small number (2%) were totally restricted and provided no access to full text materials. This data includes one ROAR repository that cannot be found on the Internet and is labeled as missing, along with two consortia that made it difficult to discern whether they were open, closed or a combination of access.

Figure 2 Open Access versus Closed Access

Copyright is a challenge to repositories that strive to provide open access to the scholarly publications by its faculty and students. Authors cannot load their publications into the repositories without publishers’ permissions and sometimes embargo periods are imposed. Most scholars and students do not understand copyright issues even though they welcome the idea of open access and institutional repositories (Abrizah 2009; Dutta and Paul 2014; Jihyun 2011; Shukla and Khan 2014). Copyright information will be a great help to faculty and students who want to submit their publications.

Figure 3 shows how repositories and archives display the information on copyright, submission procedures or a combination of both on the web. Most repositories and archives in the sample
provide both copyright information and instructions for submitting their publications (77%). In comparison to 50% reported in a previous study around 2009 (Schlosser 2009), this is great progress over a seven year period from 2009 to 2016. However, some institutions (17%) still do not provide any information about these processes. The two missing entries in Figure 3 include one repository that cannot be located on the Internet and one entry that is a federation of repositories leaving the copyright information and submission steps to the individual repositories and archives.

<table>
<thead>
<tr>
<th>Copyright &amp; Submission</th>
<th>No Copyright &amp; Submission</th>
<th>Copyright info only</th>
<th>Submission info only</th>
<th>Missing</th>
</tr>
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<tbody>
<tr>
<td>77%</td>
<td>17%</td>
<td>2%</td>
<td>2%</td>
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Figure 3 Repositories and Archives with and without Copyright and Submission Information for Authors

Figure 4 shows the kinds of entries in ROAR that do not provide copyright and submission information for authors. Of the 17 that did not display such policy on the web, further investigation revealed that these sources were almost evenly divided between archives and institutional repositories. While archives may not face the challenge from copyright permissions
because they may own the rights to their materials, repositories striving for open access should definitely post copyright information for potential authors.

Figure 4 Entries without Copyright and Submission Information by Content

Copyright is very complicated and involves not only the rights of authors, but also, how individuals may access and use materials. The study reviewed copyright regulations or terms of use by repositories and archives (Figure 5). Only 17 repositories and archives in the sample were found to instruct users in the types of permissions to use materials from the repositories. Out of the 17 entries that impose conditions of use included 12 repositories, 2 archives, and 3 that are mixed content. The majority (82%) did not have a policy towards users listed. It may be an indication that many repositories and archives provide true “open access” and impose no restrictions on user and use. Contrary to the common belief that repositories aim at open access without strings attached, and archives may impose restrictions, most those with conditions for use are repositories in this study.
Libraries using Bepress as their repository platform often share a pre-composed boiler plate questions and answers for authors. This standard Q&A outlines the copyright clearance expectations for authors. Figure 6 provides an example of a typical “boiler plate” set of instructions to authors who are solely responsible for obtaining copyright permissions for their published works, and refers authors to the Sherpa RoMEO (http://www.sherpa.ac.uk/romeo/) database that lists publishers’ policies for copyright and self-archiving publications. When these policies appeared, these sources were considered as open access repositories because the submitted materials had to have copyright permissions that the authors obtained.
Figure 6 Can I post?

Figure 7 outlines responsibilities for obtaining copyright permissions for open access materials submitted to institutional repositories in this study. Most repositories do not deal with copyright issues. Instead they require the author to get this permission (53%). Further evaluations showed some repositories providing a minimum of support by librarians who can advise faculty authors by researching the publishers’ policies for faculty authors but the final responsibility rests with the faculty members to obtain those rights (13%). There are instances where the library will contact the publishers on behalf of the faculty and obtain these rights (10%). Five libraries created their own copyright agreement that faculty must use with publishers: four Caltech repositories and Harvard (Harvard Library Office for Scholarly Communication 2015), giving control over the copyright of materials produced by its faculty. If publishers are unwilling to accept these agreements, waivers can be granted. One library (Rice) was so determined to incorporate open access journal articles into its repository that they will pay the fees to the
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publishers for this access provided that certain criteria are met (Fondren Library 2015). There were a number of Institutional Repositories that did not report any policy that was evident on their website or in the directories inspected (18%). Those IRs include one that is currently missing as noted previously.

Figure 7 Responsibilities for Copyright

These examples demonstrate various efforts by libraries to move towards open access repositories. Even though most libraries fall into the category of “Authors responsible for copyright,” it remains a subject for discussion if this is the best that libraries and repositories can do.

Discussion

Open Access

Open access (OA) refers to the availability of full text articles and other materials freely on the Internet. It is becoming a trend and also an ideal for many institutional repositories. Open access is the key area for investigation for this paper. The authors explored how libraries have progressed so far in this direction. ROAR repositories and archives in the sample contained full text publications with open access to varying degrees. It is safe to say that IRs have achieved open access only to a certain degree, and still have a long way to go. One of the major obstacles to open access is copyright permission to display full text publications of the faculty. So far libraries have handled the copyright complications in one or more of the following ways:

1. If the repository has government content, it is open access. There is no copyright issue.
2. Libraries do not deal with copyright complications. It is authors’ responsibility to clear copyright and get permissions from publishers. This approach places the burden on authors who do not understand copyright and may not want to spend time studying it. Taking the extra step to get the permission from a publisher could be a daunting task. This approach is not very encouraging for faculty authors, and makes it difficult to solicit submissions. Most libraries follow such a practice.

3. Libraries help the authors to various degrees. A few libraries take the total responsibility from obtaining the copyright permissions to loading the materials into the repository. Some libraries even set up funding to pay for the publishers’ copyright permissions. For instance, CalTech Library only solicits citations from its faculty. It takes care of the remaining work including tracking down the full text and negotiating copyright permissions from the publishers. This approach encourages submissions, but libraries may face increased workload. Very few libraries can afford to do it.

4. Institutions develop their own addendum to the publishers’ agreement and offer waiver or opt-out options. Repositories can make faculty publications open access under such agreement for the future publications. Copyright is still an issue for older publications.

5. Institutions adopted open access policy under which each faculty member agrees to give the repository a nonexclusive, irrevocable, paid-up, worldwide license or permission to make their publications open access. This option seems to leave the authors to negotiate with publishers. Faculty can ask for a waiver or opt-out option from the institution.

6. Repositories use final versions before publication and impose embargoes when publishers require such a delay.
Repositories have used one or a combination of above approaches to achieve open access. Each has pros and cons. Libraries must weigh those options based on their circumstances and needs. So far there is no perfect solution to achieve open access.

**Institutional Repositories and Copyright**

Dramatic increases in costs to journals and books are pushing many libraries and library organizations to advocate for open access to these materials. In addition, libraries are creating Institutional Repositories for their faculty members to submit full text articles, making them more quickly available to their respective communities and worldwide. Clobridge describes open access repositories, some of the software platforms to house these materials, and the types of skills needed to operate such a resource (2014). In addition, the author points out the reasons for expending the time and expense of creating IRs: increase researchers’ visibility and readership of their articles; institutions gain perspectives on the research output of their communities, and IRs allow the storage and retrieval of many types of materials such as thesis, reports, archival materials, etc. into one central location. Altmetrics, in the form of counts of downloaded articles or page views integrated into IRs, provide data on usage (Clobridge 2014; Konkiel and Scherer 2013). These actions increase access and exposure to citation analysis and altmetrics but produce issues of author copyright options and publishers’ concerns, also addressed by Clobridge (2014).

A general observation about these repositories in this study should be noted. This study was initiated over one year ago, and while many of these repositories have been revisited recently, not all of them have been reviewed again. There have been changes to information in some of these websites and it is inevitable that some of the findings have changed. Over 10% of the IRs
studied had broken links, changed names of their repository, or moved to a new website. It is obvious that the organizations are not updating their information in ROAR. Secondly, OpenDOAR has a policy tool that makes it easy to update or add policies to its registry (OpenDOAR 2014). There are five policies outlined: metadata, data, content, submission, and preservation. As noted in the result section, many IRs do not have their policies stated. Also many that do state policies, most were incomplete when examining the best practices list in the OpenDOAR policy tool website. It would be helpful to the users and authors to have these policies included in the IR websites. Some of these policies are needed for data management plans when researchers submit applications for grants now.

Conclusion

This study provides an environmental scan of policies and procedures that many repositories have adopted. The evidence shows that there is no easy way to achieve open access. If institutions are contemplating initiating an institutional repository, this information provides useful guidance and evidence to consider when creating policy decisions and logistics for operating such an enterprise. Libraries and librarians may have to be more proactive and be more involved in helping faculty to obtain copyright permissions. This may encourage more faculty participation in institutional repositories. This study provides discussion points with faculty to encourage them to submit their publications into their IRs.

If the sample provides a glimpse into reality, most libraries do not deal with the publishers’ copyright permissions. Instead they place the burden on the authors to know the terms and conditions of the copyright to their publications. Research indicates that faculty and students know very little about copyright, both as users and authors (Dryden 2012; 2014). In spite of the
enthusiasm for open and web-based access, copyright is one of the major deterrents for participation of faculty and students in repositories. Educating users on copyright is necessary; repositories and archives have the obligation to help authors to understand copyright issues.

For teaching faculty, it is time consuming and takes a steep learning curve to understand the copyright issues involved in posting materials in a repository and seeking permissions from a publisher. It is a great idea that librarians become expert on publishers’ copyright so they can help faculty to deal with complicated copyright issues. Due to the shortage of labor and economic difficulty, not many libraries can afford to take over the responsibility to check on copyright status of publications.

This study is preliminary and will be expanded by delving more deeply into the nature of registries used by IRs, best policies and practices by IRs to increase the quality and quantity of submissions, the costs associated with obtaining permissions for self-archiving of articles into IRs, and the impact of altmetrics data on IRs. More pertinently for Rider University Libraries, there are three types of repositories on the home page (http://www.rider.edu/academics/libraries): Special Collections, Digital Collections, and Rider University Faculty Scholarly and Creative Activities. Presently, discussions are taking place on how to use, combine, and register these into one source such as ROAR. In addition, marketing efforts need to be devised to make the faculty more aware of this resource and as a means of demonstrating value for the library by promoting our faculty publications to a broader audience.

References


Davis, Phil. 2015. “Citation boost or bad data? Academia.edu research under scrutiny.” The Scholarly Kitchen. http://scholarlykitchen.sspnet.org/2015/05/18/.


**Appendix-Repositories/Archives in the Sample**

1. Allen Park Veterans Administration Hospital Archives
2. Auburn University Repository
3. Bard Digital Commons, Bard College
4. Boston University Institutional Repository
5. BYU Law Digital Commons/Brigham Young University Law School
6. The CalTech Collection of Open Digital Archives (CODA)
7. CalTech Graduate Aeronautical Laboratories Solid Mechanics
8. CalTechBOOK
9. CalTechGALCITFM
10. Carolina Digital Repository
11. Chicago Unbound, University of Chicago Law School
12. Combined Arms Research Library Digital Library
13. CREATE Research Archive
14. CU Scholar
15. DataSpace at Princeton University
16. Digital Archives of Colorado College
17. Digital Collections @ Dordt
18. Digital Commons, Boston College Law School
19. Digital Commons, East Tennessee State University
20. Digital Commons, Kent State University Libraries
21. Digital Commons, RIC | Rhode Island College
22. Digital Commons, West Chester University
23. Digital Commons, Brockport | The College at Brockport
24. Digital Commons at Salem State University
25. Digital Common USM | University of Southern Maine Research
26. Digital Library Federation Publications
27. Digital Repository of The University of Toledo
28. Digital@USanDiego
29. DigitalCommons, Fairfield | Fairfield University Research
30. DigitalCommons, FVSU
31. DigitalCommons, Olin | Olin College of Engineering Research
32. DigitalCommons, RWU
33. DigitalCommons, the Texas Medical Center
34. DigitalCommons, University of Nebraska - Lincoln
35. DigitalCommons, WPI | Worcester Polytechnic Institute Research
36. Dominican Scholar | Dominican University of California
37. DSpace at Lancaster Theological Seminary
38. DSpace at SUNY
39. Duke Law Faculty Scholarship Repository
40. e-Publications, Marquette University
41. eCommons, the institutional repository at the University of Dayton
42. EliScholar
43. eScholar@Salve Regina
44. eScholarship@BC
45. Ferris Institutional Repository (FIR)
46. Georgia Tech’s Institutional Repository: SMARTech
47. HKS Research Administration office/Research Central
48. Humboldt eScholar
49. Indiana Historical Society Digital Image Collections
50. Institutional Repository for Northern Michigan University
51. ISU Electrical and Computer Engineering Archives
52. Jean Monnet Working Papers
53. Johnson & Wales University Scholar’s Archive@J&W
54. Knowledge Box | Georgia College Research
55. Lake Forest College Publications | Lake Forest College Research
56. Loyola eCommons | Loyola University Chicago Research
57. Mason Archival Repository Service
58. MINDS@UW: Digital Repository of the University of Wisconsin
59. The Mouseion at the JAXlibrary
60. National Science Foundation of Sri Lanka, Digital Repository
61. New York University Faculty Digital Archive
62. NSU (Nova Southern University) Works Nova Southeastern University Institutional Repository
63. Ohio State University: Knowledge Bank
64. Open Works, College of Wooster
65. Opus: Research & Creativity at IPFW
66. Pepperdine Digital Commons, Pepperdine University
67. The Repository at St. Cloud State University
68. Rice Digital Scholarship Archive
69. S@L: Scholarship at Lesley
70. SCARAB | Bates College Research
71. Scholarly Commons @ IIT Chicago-Kent College of Law
72. Scholarly Commons at Miami University
73. Scholarly Repository | University of Miami Research
74. (Eastern Carolina University’s Institutional Repository)
75. Scholarship, Research, and Creative Work at Bryn Mawr College
76. ScholarWorks @ UNO | University of New Orleans
77. ScholarWorks SFA, Stephen F. Austin State University Research
78. ScholarWorks@UMass Amherst
79. Smithsonian Digital Repository
80. SOPHIA
81. St. John's Law Scholarship Repository
82. Tennessee Research and Creative Exchange (TRACE)
83. TigerPrints | Clemson University Research
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