



*Using Evidence in Practice*

**An Evidence Based Approach to Supporting Library Staff Scholarly Communication Competencies**

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**Setting**

The University of Calgary is a research-intensive university with 14 faculties offering more than 250 academic programs and serving more than 30,000 students. Libraries and Cultural Resources (LCR) delivers front line reference services in a variety of channels (in person, email, chat, and SMS) to students, staff and faculty through seven physical libraries and via our website, which is powered by Springshare's LibApps platform. Library patrons, including faculty, students, staff, alumni, and members of the community,

engage with front line reference staff to pose a wide variety of questions, including in the complex and rapidly-changing area of scholarly communication.

**Problem**

The scholarly communication ecosystem has been in a period of disruption for a number of years, leaving both novice and experienced information seekers with unanswered information needs (Myers, 2016). As defined by the Association of College and Research Libraries (2006), scholarly communication is

“the system through which research outputs are created, evaluated, disseminated, and preserved” (para. 1). Much of the research literature to date has focused on training librarians in scholarly communication, even though front line staff may often be the first point of contact. If these staff have not been provided training to respond adequately, the quality of the reference interaction may be negatively impacted.

We were interested in assessing the frequency with which patrons approached front line staff members with questions related to scholarly communication and assessing whether or not staff members had adequate training and support to answer or appropriately refer these questions. To do this, we implemented a project to collect and analyze reference transactions before and after a training program. This allowed us to assess baseline competencies in scholarly communication, as well as the impact of the training program on reference transactions.

### Evidence

Reference transactions were collected by all library staff members in the LibApps platform via three channels:

1. LibChat chat reference, which recorded transcripts of chat reference conversations
2. Reference Analytics, where staff members input queries they received at any service point
3. Tickets, which recorded email and SMS inquiries that may be answered or referred

For the project, we examined anonymized reference transactions collected through all three channels.

To capture reference transactions relating to scholarly communication, we searched for a variety of keywords. The keywords were selected based on content in a document developed by the Joint Task Force on

Librarians’ Competencies in Support of E-Research and Scholarly Communication (Calarco, Shearer, Schmidt, & Tate, 2016), which described competencies in four categories:

1. Scholarly publishing services
2. Open access repository services
3. Copyright and open access advice
4. Assessment of scholarly resources

The document outlines competencies in terms of knowledge, understandings, and abilities. We judged that front line staff members should be able to answer or refer basic questions in the *knowledge* categories and should be able to appropriately refer more complex questions.

We selected 12 keywords: *publishing*, *open access*, *PRISM* (our institutional repository), *repository*, *deposit*, *ORCID*, *impact*, *copyright*, *predatory*, *host*, *DOAJ*, and *Creative Commons*. Duplicates, transactions that were not complete enough to categorize, and irrelevant results were manually removed.

We analyzed and compared data between two time periods: (1) September to December 2017, and (2) September to December 2018. We sought to eliminate potential differences between fall and winter terms by comparing two fall term periods. The staff training sessions were held between the two time periods, in summer 2018.

Data from 2017—the period before training—revealed 70 unique reference transactions. Questions including the keyword *copyright* were by far the most common (Figure 1), and Copyright and Open Access Advice was the most common category as defined by the Joint Task Force profile (Figure 2). Some keywords garnered no results (*deposit*, *ORCID*, *Creative Commons*). Questions on *open access* were second most frequent, while questions about the institutional repository, *PRISM*, were third most frequent.

The range of questions was broad. Questions in the Copyright and Open Access Advice competency area included course reserve inquiries, use of third party materials (particularly images) in teaching and learning resources, fair dealing, scholarly sharing, and requests for advice around open access publishing. Transactions in the Open Access Repository Services category included a large number of questions about access to electronic resources for alumni or community members, as well as questions about both the University of Calgary's institutional repository, PRISM, and third party scholarly sharing sites.

We found that the vast majority of questions were either answered or referred adequately. In the 2017 time period, 96% (n=67/70) of questions were deemed successfully answered or referred.

### Implementation

Due to the diverse and fluid nature of scholarly communication topics, and because LCR did not have any internal training opportunities for current staff, the authors developed a training program. The training program involved two key components:

#### *Website Updates and Improvements*

Libraries and Cultural Resources (LCR) used frequently asked questions (FAQs) through the SpringShare platform to both answer queries and direct patrons to more detailed information resources such as research guides. These were popular tools for both patrons and reference staff. In the spring and summer of 2018, we identified, reviewed, and updated or created new FAQs relating to scholarly communication. Topics included predatory publishers, bibliometrics, embargoes in the institutional repository, tools to legally access open access literature (e.g., browser extensions), and assessing the copyright status of digital images found online for use in teaching and learning. These topics reflected questions that were found in the initial assessment of reference transactions and were

not adequately answered by current website content. We promoted library staff awareness of the scholarly communication FAQs during the training sessions and using email and word of mouth to maximize impact.

#### *Training Sessions*

Two interactive one-hour training sessions were designed and delivered to library staff members to promote knowledge and awareness of common scholarly communication questions. The content for the sessions was based on the Joint Task Force on Librarians' Competencies in Support of E-Research and Scholarly Communication. Our aim in designing the sessions was to ensure that front line staff members would have the capacity to correctly answer or refer queries in the *knowledge* categories in all four of the scholarly communication categories as defined by the Joint Task Force document. The sessions included training regarding when to refer more complex questions. Training sessions were structured in a series of scenarios, which small groups attempted to resolve and then discussed with the larger group. These were adapted from scenarios developed by the COPPUL Scholarly Communication working group (2018).

In total, 15 library staff members attended the two interactive training sessions. Staff members represented a mix of academic and support staff. No formal assessment of these sessions was done but participants noted that the sessions were useful and that they planned to reuse the scenarios in their own teaching and reference practice.

### Outcome

Data from 2018 – which represented the time period after training – contained 76 unique reference transactions, representing an increase of 9% between time periods. Generally, the categories of questions being asked were similar between the two time periods, although questions relating to *open access* showed a dramatic increase from 0.0

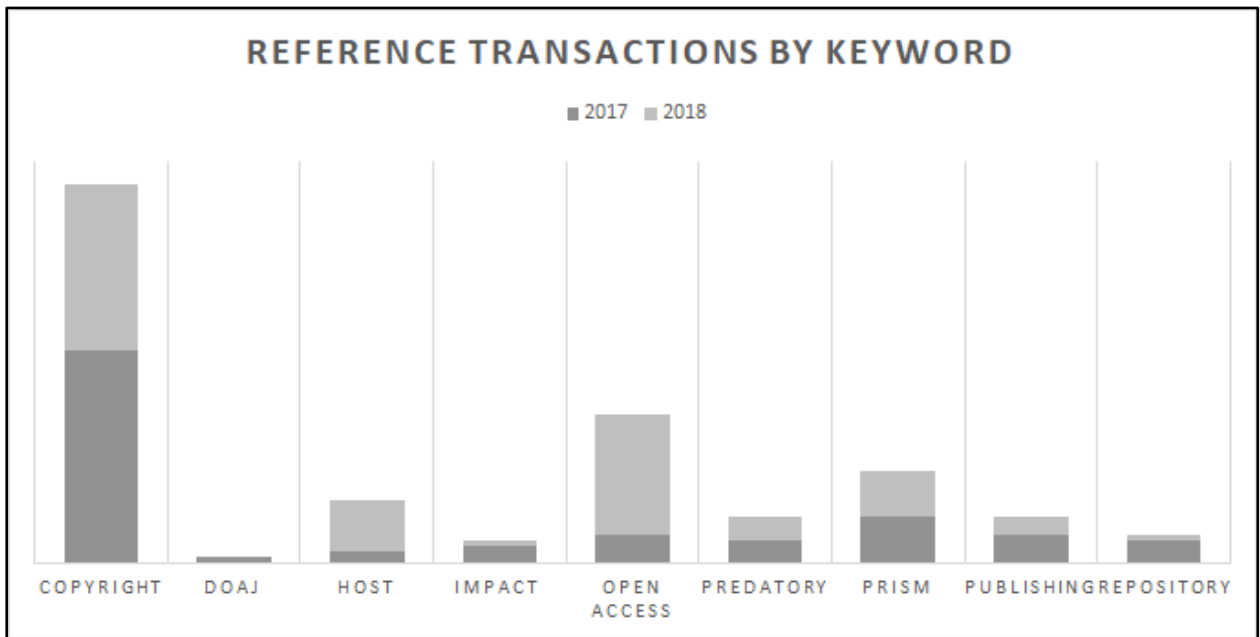


Figure 1  
Frequency of transactions based on keywords present in reference transactions.

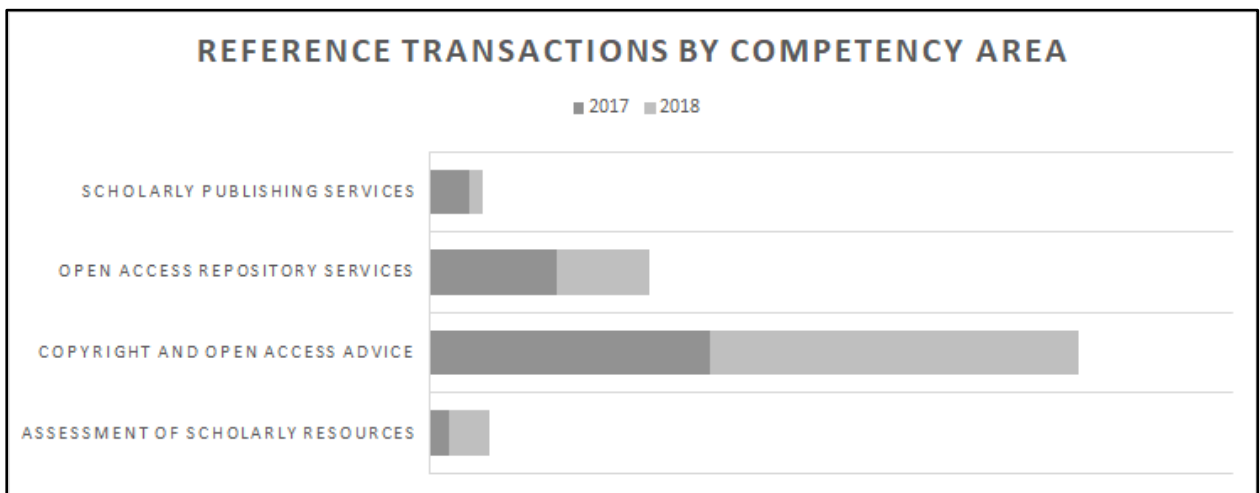


Figure 2  
Frequency of interaction based on COAR Task Force Profile.

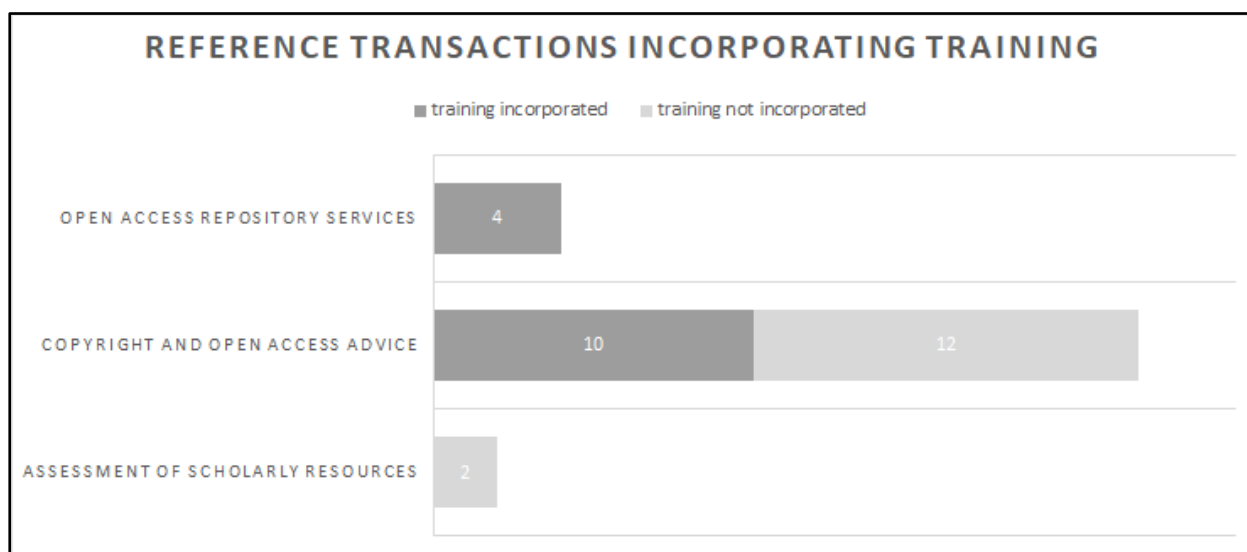


Figure 3

Reference transactions from the 2018 period that incorporated training materials.

to 28% of total questions between time periods. This is likely due to a change in LCR's Open Access Authors Fund which occurred in October 2018.

In the 2018 data, 97% (n=71/73) questions were successfully answered or referred, representing a 1% increase from the 2017 period. Additionally, there were 28 reference questions that directly addressed topics covered in the training. Based on our analysis, half (n=14) of these transactions referenced the training in some way, either by directing patrons to a website FAQ, or rephrasing content from the training in a direct response (Figure 3).

### Reflection

The primary goal of this project was to target the skill development of front-line academic library staff members. It was also important to make use of data that staff members collected daily and use it for evidence based training and quality improvement.

Using three communications channels to collect data on scholarly communication transactions proved to be successful and provided a broad overview of the types of interactions the library received through chat,

in person, email, or other. A weakness of the data was that it likely did not reflect all interactions. Although most LCR staff were encouraged to record all transactions, there may have been transactions that were not entered, and some specialized staff (e.g., those in the Copyright Office) did not follow this workflow. Additionally, Reference Analytics transactions that staff members manually entered were sometimes lacking details, making them impossible to categorize.

Training initiatives were well-received and appear to have had an impact on competencies. However, the number of transactions captured in the second time period specifically related to training was small (n=28). Of these, half showed evidence of training effects. More frequent training opportunities, and more outreach and engagement with front-line support staff would be beneficial. The combination of online tools and interactive in-person workshops were well-received by library staff but offering more options and on a more regular basis would be beneficial. The model employed at East Carolina University provided a useful template for such initiatives (Shirkey, Hoover, & Webb, 2019).

Two resources were invaluable for structuring this project. The profile developed by the Joint Task Force on Librarians' Competencies in Support of E--Research and Scholarly Communication (2016) provided scholarly communication categories and competencies. Secondly, the training scenarios developed by the COPPUL Scholarly Communications Working Group (2018) provided compelling interactive scenarios for staff to engage and discuss key concepts and challenging questions in scholarly communication. Incorporating both resources added to the success of the project.

### Conclusion

Trends and developments in issues of copyright, open access, predatory publishing, and other realms of scholarly communication are continuing to unfold. Scholars and students often look to the library to stay current and compliant with regulatory changes and best practices. As the first point of contact for many of these queries, it is essential to ensure library staff are well-equipped to respond and direct patrons toward success. Using evidence from routinely-collected library data can assist libraries in continually improving their reference services.

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