

» “If peace had a smell, it would be the smell of a library full of old, leather-bound books.”

— MARK PRYOR, THE BOOKSELLER

Strategic Library™



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Connecting with Faculty and Students through Course-Related LibGuides

BY KELLY A. CLEVER

Academic librarians have always faced challenges when marketing their collections and services to faculty and students. In-person outreach, email lists, social media, flyers on bulletin boards, programming, and more have all been tried with great success in some situations and less success in others (Edwards, Norton, Tennant, Stoyan-Rosenzweig, & Daley, 2015; Piekart & Lafazan, 2015). Now, with a large percentage of courses being taught online or by adjunct faculty who may not attend department meetings, librarians face new challenges in outreach to instructors and in turn their students (Lederman, 2018; National Center for Education Statistics, 2018, 2019).

LibGuides are a tool that librarians can leverage to reach both faculty and students with instruction and library resources, regardless of course delivery format or faculty status. In this project, I personally selected and recommended specific LibGuides to faculty for inclusion in the course learning management system as a form of outreach to both professors and students.

LITERATURE REVIEW

Existing literature indicates that LibGuide usage is strongly correlated to library instruction. In particular, guides that are created or edited in consultation with the course instructor show higher levels of use (Adebonjo, 2010; Gonzalez & Westbrook, 2010). This collaboration with subject faculty can be done at a casual level, in which the faculty member merely reviews the completed

TWEETING TENNESSEE'S COLLECTIONS

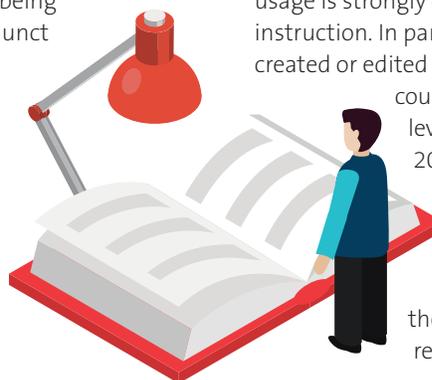
A Case Study of a Digital Collections Twitterbot Implementation

CURIOSITY AS OUTREACH

Flipping Outreach on its Head

“YOU NEED TO MAKE IT AS EASY AS POSSIBLE FOR ME”

Creating Scholarly Communication Reports for Liaison Librarians



guide and makes suggestions for additions or improvements, or the course instructor can determine the level of detail on the guide and can have very specific requests (Adebonojo, 2010).

In many cases, face-to-face meetings and library instruction sessions are not possible, and some librarians see opportunities for LibGuides to help fill the gap for distance and online programs (Fagerheim, Lundstrom, Davis, & Cochran, 2017; Gonzalez & Westbrook, 2010). The Association of College and Research Libraries' (2008) standards specify that all constituents of an educational institution should have equitable access to its library's resources and services, regardless of where or how they work or take classes. LibGuides can be a powerful tool to facilitate this access (Kickham-Samy & McCarthy, 2018).

Many libraries with the necessary staffing and technological support have chosen to embed LibGuides into classes via the course management system, or learning management system (LMS) (Adebonojo, 2010; Fagerheim et al., 2017; Gonzalez & Westbrook, 2010; Hristova, 2013). The most popular method of integrating LibGuides into LMS courses is to use a learning tools interoperability (LTI) tool to automate the process. Many libraries use the LTI tool available in Springshare's own CMS package (Richards, 2016), but some institutions have created their own LTI program (Daly, 2010; Fagerheim et al., 2017). Automating the integration process can present technical or logistical challenges, but the alternative of manual linking has been viewed as unsustainable and/or inconsistent (Chiware, 2014; Fagerheim et al., 2017; Garofalo, 2014; Hristova, 2013).

Still, an alternative to automated integration is for course instructors to personally link to LibGuides from their LMS courses. This faculty involvement typically leads to the faculty having a greater understanding of the resources and services offered by the library (Gonzalez & Westbrook, 2010; Hristova, 2013). They often find the effort



well-repaid, particularly if they teach the same course repeatedly and do not have to re-import or re-add the library guide into their course shell from term to term (Hristova, 2013). New Mexico State University saw high usage of the guides that were embedded by faculty (Gonzalez & Westbrook, 2010). Jarrell and Wilhoite-Mathews (2014) observe that the most effective marketing typically takes place one-on-one, and Fagerheim et al (2017) believe that subject librarians should make an effort to follow up on an individual basis with faculty members to encourage them to promote LibGuides.

The literature does not address librarians matching guides to courses individually and then personally suggesting them to faculty for inclusion in the LMS in a systematic fashion. While this is a time- and labor-intensive approach to the situation, it has the potential to reap significant returns on the investment in the form of better library-faculty relations, more information literacy instruction sessions, improved student research products, and increased usage of library resources. Librarians seeking to improve their departmental liaison relationships, to increase the awareness of particular library resources, or who lack access to an LTI tool to do the matching for them may find such a project to be worthwhile.

BACKGROUND

Seton Hill University is a small liberal arts university which serves more than 2000

students in 80 undergraduate and 13 graduate programs. It is divided into five schools: Business; Humanities; Education and Applied Social Sciences; Natural and Health Sciences; and Visual and Performing Arts. Every academic school is served by a liaison librarian; each librarian is partnered with one or two schools. Liaison duties involve attending academic school meetings, serving on academic program review committees, performing some collection development work, and teaching instructional sessions as requested by faculty.

Many close working relationships have developed between faculty members and liaison librarians, and these faculty frequently request classes, guides, tutorials, and reference assistance from the library. Other instructors, however, have been more difficult to reach. This is particularly true of adjunct and online faculty, who do not attend academic school meetings and who may rarely or never be on campus. The library has not had a presence at faculty orientations, so reaching these "invisible" instructors and thus their students has been a challenge.

Point-of-need research help that is directly related to course content is generally understood to be an effective form of information literacy instruction and also as a way to forge connections between faculty and students and the university library. While the Seton Hill librarians believed that placing LibGuides into course LMS shells would be tremendously helpful to the students, we did not have the ability to automate the process. Due to financial and personnel issues, neither the Springshare CMS solution nor an in-house LTI option was possible. Late in the fall 2018 semester, I decided to personally match and suggest guides for each course being taught in the spring 2019 semester in my liaison area, the School of Education and Applied Social Sciences.

REACHING OUT

I sent an email in early January 2019 to the faculty teaching courses in the School



of Education and Applied Social Sciences for the spring 2019 semester. The email suggested that they add a specific LibGuide to their Canvas course(s) (Appendix A). I contacted 29 full-time and adjunct faculty who were teaching a total of 58 course sections. At mid-term, I sent a check-in message to say hello, and near the end of the semester, I sent a follow-up email, asking them to provide their feedback via a brief questionnaire (Appendix B).

The faculty questionnaire needed to be brief to encourage participation. The survey asked whether or not they had used the suggested guide; if not, why not; and if so, whether or not they believed it had been helpful. It also asked if they would like to receive similar suggestions in future, and faculty were provided with the opportunity to leave any further feedback that they wished.

To determine whether or not the LibGuides themselves saw increased usage as a result of the outreach effort, I also compared usage statistics from the previous spring semester with the numbers for the spring 2019 term for the selected guides.

RESPONSE AND IMPACT

Faculty Feedback

There were only seven responses to the faculty survey, though four other instructors shared thoughts and suggestions via email, for a total response rate of 37.9%. Two of the survey respondents said that they did not add the guide(s) to their courses because they received the suggestion too late to incorporate them into the courses. One of these instructors did indicate that they forwarded the link on to the students, however. Of the five survey respondents who did add the guide, three believed that it had a positive impact on the quality of the students' work, while the other two were unsure. All of the respondents indicated that they would like to receive similar suggestions in the future.

The four instructors who responded via email indicated that they did not use the guide suggestions. The reasons they gave were: a lack of research assignments in the course; not teaching the class, though they had originally been scheduled to teach it; personal issues that had distracted them from adding the guide; and being unable to make changes to the course because the degree program was ending.

The feedback on the faculty questionnaire indicated that they would like to

Appendix A

First Email to Faculty

Hi _____,

I am the library liaison for the School of Education & Applied Social Sciences, which makes me your librarian-- and your students'! I was reviewing the course schedule for the spring semester and see that you are teaching a few classes this coming semester. The library has online research guides that can help your students with any research projects you may be assigning for your course(s).

My suggested guides for the classes you're teaching are:

- SSW 122 Understanding Addictions -- Addiction & Recovery <https://setonhill.libguides.com/addiction>
- SSW 271 The Helping Relationship -- Social Work <https://setonhill.libguides.com/social-work>

An easy way to help your students is to add a link to the guide right into your Canvas course. I've attached instructions for one way to do that.

I'm also happy to come to your class to meet with your students or to work with you to create a more tailored guide or tutorial video for the course. And please make sure that your students know that I'm always happy to help them with their research projects!

I'm also attaching the library's spring newsletter with some news and information about the library more generally.

Have a great semester, and please let me know if there's anything I can do to aid your teaching.

--(Author)

receive similar suggestions in the future, but that guide suggestions should be sent earlier (I sent the initial emails a week and a half before the beginning of the spring semester, with the thought that course preparation would be at the forefront of faculty's minds). One instructor indicated that, due to some accelerated-format courses beginning in early January, the information should be sent out in early December. Another stated that the beginning of the term "was a little crazy... so [I] wasn't able to get to everything I wanted to."

While only seven of the 29 faculty instructors completed the formal questionnaire, 14 individuals did respond via email to one or more of the three email messages throughout the semester. Several of the email responses indicated that the guide suggestions should be sent farther in advance of the beginning of the academic term. From the faculty comments, it seems that they would prefer to receive guide suggestions approximately one month before the start of the course.

One instructor who completed the questionnaire indicated reluctance to link directly from the LMS, explaining in the survey, "I did direct my students to the

LibGuides on the library site. Actually, I want them to get used to both using the Reeves [library] site and visiting the library, so I am a little conflicted about putting everything in Canvas and not requiring them to engage in resources; they can find other stuff when they do that!" This echoes concerns that the Seton Hill librarians have heard from faculty in previous years about potentially doing too much of the work for the students. By contrast, however, another professor who responded by email said "After you... recommended sharing the LibGuide... in Canvas -- which I thought was a fantastic idea -- I've been including that in the first module with the 'important information for the class' in all my classes." Recommending the guides to the instructors personally instead of automating guide inclusion in course shells thus allows instructors to integrate the material in a way that they feel best achieves their information literacy goals for the course.

Three instructors requested librarian class visits as a direct result of the outreach effort. They indicated that the LibGuides had served as examples of what the library and the librarians had to offer to them and their students. In two cases, the courses had previously featured information literacy

Table 1. Guide Usage Statistics for January 1 – May 31, 2018 and 2019

| Guide | 2018 | 2019 |
|---|------|------|
| Addiction & Recovery | 131 | 59 |
| Children's Literature | 10 | 26 |
| Criminal Justice | 36 | 149 |
| Health Sciences | 139 | 98 |
| Law | 1 | 19 |
| Psychology | 377 | 370 |
| Sociology | 14 | 33 |
| Spirituality | 15 | 21 |
| Social Science Research Methods | 24 | 246 |
| Human Behavior & The Social Environment | 11 | 13 |
| Teaching Health | 6 | 4 |
| Total | 764 | 1041 |



class visits, but the library session had been dropped when new instructors took over the courses. After reviewing the emailed guide suggestions, the new course instructors reached out to the library with class requests, reinstating the library involvement in those courses. The third class had never incorporated a library session or dedicated information literacy instruction before and was an entirely new opportunity to connect with the professor and their students. All three instruction sessions were well-received, and in two cases, resulted in a close working relationship between the faculty instructor and the liaison librarian. These faculty began referring students and colleagues to the library for reference help and copyright questions. One began consulting the library for help identifying appropriate venues for publication.

Six of the 14 instructors who responded via email at some point in the semester were adjuncts; four of them taught on-campus classes and two taught only online. As a result of the outreach initiative, the Dean of the School of Education and Applied Social Sciences also invited the library to partici-

pate in orientation for new faculty, including adjunct and online-only instructors. These closer partnerships will hopefully endure and grow going forward.

Guide Usage

Table 1 presents the guide usage statistics for the spring semesters of 2018 and 2019 for the 11 recommended guides.

Children's Literature, Criminal Justice, Law, Sociology, Spirituality, and Social Science Research Methods showed significant increases in traffic over the same time period in the previous year. The other five guides did not. The total views for the 11 guides did increase by 36.2%, due mostly to increases in views on the Social Science Research Methods and Criminal Justice guides.

LIMITATIONS

The survey responses are from a self-selected sample of instructors, and the survey was not pre-tested. The low response rate to the questionnaire form was disappointing but not surprising, and it was somewhat offset by emailed responses from four other faculty. The surveys were distributed at a busy point in the semester in hopes that faculty

would not yet be away from their teaching duties for the summer.

The guide use statistics may have been impacted by potential variables such as new instructors, different assignments, or differences in the students enrolled in courses. Many of the guides, particularly the Health Sciences and Law guides, are also used heavily by students and faculty in other academic schools.

RECOMMENDATIONS AND CONCLUSION

As a result of the feedback from faculty, future guide suggestions will be emailed to instructors about one month before the beginning of the academic term. When workloads and time constraints prohibit matching and suggesting guides for every possible course, the suggestions may only be sent to select faculty. High-priority groups for this form of outreach would be online instructors, new faculty, faculty teaching newly-designed courses, adjunct instructors, and faculty teaching in programs that have been challenging for the librarians to reach via other outreach methods.

Feedback from faculty via the questionnaire and particularly by email indicates that instructors found the recommendations helpful and would like to receive them again in future. Proactively recommending specific guides and resources for courses opened the door for information literacy instruction and strengthened faculty-librarian partnerships, potentially making such

Appendix B

FACULTY QUESTIONNAIRE

Did you add the suggested LibGuide to your Canvas course? (Answer “yes” if you added a suggested guide to at least one course, even if you did not add them to others)

• Y/N

2a. [CONDITIONAL] If no, why not?

- Process too complicated
- No research component to course
- Didn't see the benefit
- Other [optional short-answer]

2b. [CONDITIONAL] If yes, did you get the sense that it was helping your students and/or improving their work?

• Y/N/not sure

3. Would you like to receive these guide suggestions for your courses again in the future?

• Y/N/not sure

projects a worthwhile investment of effort and time for librarians who are seeking to improve their liaison relationships. ■

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Tweeting Tennessee's Collections

» A Case Study of a Digital Collections Twitterbot Implementation

BY MEREDITH L. HALE

This article demonstrates how a Twitterbot can be used as an inclusive outreach initiative that breaks down the barriers between the web and the reading room to share materials with the public. These resources include postcards, music manuscripts, photographs, cartoons and any other digitized materials. Once in place, Twitterbots allow physical materials to converge with the technical and social space of the Web. Twitterbots are ideal for busy professionals because they allow librarians to make meaningful impressions on users without requiring a large time investment. This article covers the recent implementation of a digital collections bot (@UTKDigCollBot) at the University of Tennessee, Knoxville (UTK), and provides documentation and advice on how you might develop a bot to highlight materials at your own institution.

LITERATURE REVIEW

Are bots effective?

Before launching into the process of making a Twitterbot, some evidence on their effectiveness in creating meaningful impressions on patrons is warranted. Existing literature indicates that bots, generally, are positively received and that they have had an impact specifically on library marketing and communication. In addition, bots are becoming more and more prevalent. As of 2017, it was estimated that 15% of Twitter's users were bots rather than humans (Veale and Cook 2018).

A common initial reaction to proposing that library social media accounts consist of bot-created posts instead of solely human-created content is that automated content creation will not be as accepted or interesting for patrons. A study by Edwards et al. disproves this assumption; people typically interact with bots in the same way that they communicate with accounts run manually by humans (Edwards et al.

| Twitterbot Handle | Owner | # of Followers | Creation Date |
|-------------------|------------------|----------------|---------------|
| @ArtBrowsing | @tinysubversions | 230 | 2017-06 |
| @BklynMuseumBot | @backspace | 1,571 | 2014-08 |
| @boschbot | Nig Thomas | 44,800 | 2016-11 |
| @BruegelBot | Nig Thomas | 14,200 | 2018-12 |
| @cooperhewittbot | @backspace | 842 | 2014-08 |
| @digitalNZbot | Digital NZ | 130 | 2013-10 |
| @DPLAbot | Creator unknown | 755 | 2013-07 |
| @HistoricalCats | Creator unknown | 1,006 | 2014-01 |
| @ImagesDArt | @White_Fangs | 2,933 | 2015-12 |
| @LACMABot | @backspace | 395 | 2016-08 |
| @MADMuseumBot | @backspace | 684 | 2014-08 |
| @MuseumBot | @tinysubversions | 8,301 | 2014-05 |
| @NYPLdcBot | Creator unknown | 84 | 2014-12 |
| @NYPLEmoji | @lolibrarian | 3,880 | 2016-06 |
| @NYPLphotobot | @backspace | 456 | 2016-01 |
| @NYPLpostcards | @backspace | 663 | 2016-01 |
| @PhilaMuseumBot | @backspace | 770 | 2014-09 |
| @pomological | @xor | 17,300 | 2015-05 |
| @postcards_past | @xor | 761 | 2016-02 |
| @RijksMuseumBot | @backspace | 1,030 | 2014-08 |
| @TateBot | @backspace | 1,623 | 2014-08 |
| @TroveEmojiBot | @lolibrarian | 57 | 2016-10 |
| @V_and_A_Bot | @backspace | 1,122 | 2014-11 |
| @WaltersBot | Creator unknown | 209 | 2014-01 |
| @WoodsonRC_bot | @scottythered | 38 | 2017-08 |
| @YUDLbot | @ruebot | 171 | 2014-05 |

Table 1. Cultural heritage Twitterbots listed alphabetically (March 2020).

2014). Its results align with the Computers are Social Actors (CASA) paradigm. In their study, Edwards et al. had college students rate the credibility, interpersonal attraction, communication, and following likelihood of two Twitter feeds, one generated by a bot and another by a human. Participants were

informed of the source of the feed upon viewing screenshots of each. Both feeds appeared to be generated by the Center for Disease Control (CDC) and shared content on STDs. The authors note that using the CDC as their test feed might have resulted in higher credibility scores than normal and

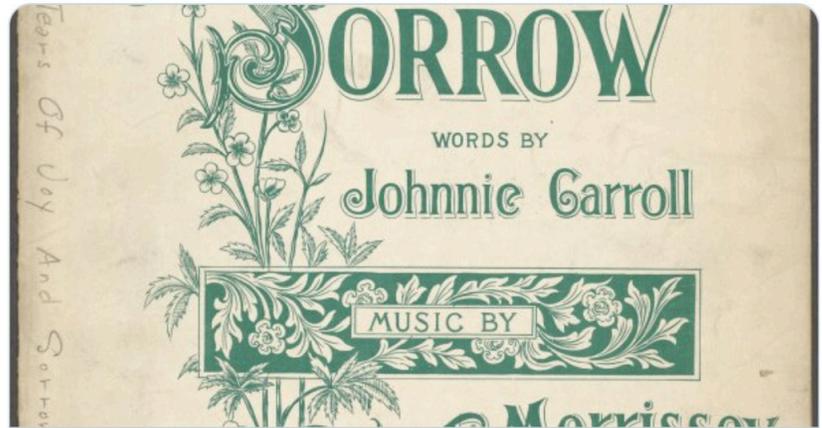
indicate that future research should focus on more socially-focused agents more typical of Twitter. Because library accounts are often associated with established academic, community, or cultural heritage institutions, this attribution of credibility might also be given to library Twitterbots. Ultimately the study concluded that Twitterbots are viable substitutes for humans in transmitting credible information in a relatable way on social media.

In considering bots and how they are perceived by the Twittersphere, one also should recognize that human language itself is not always creative. Just like with tweets from bots, “natural” human products often rely on socially constructed clichés and catchphrases. Bots are made by humans and therefore project many human idiosyncrasies. Veale and Cook suggest that those skeptical of the creativity of Twitterbots compare the language they tweet to conversations at parties and country clubs. Formulaic tweets are also likened by the authors to the language used by children with chatterbox syndrome, which is characterized by the use of words that are not understood by their speaker for the sake of impressing others or socially passing (Veale and Cook 2018). Like with bots, these children repeat phrases they have heard from others or learned from media, but often the context in which the phrases are delivered is not quite appropriate. These children are considered smart and likeable, despite the lack of creativity and social awareness in the words they share. These examples show that comparing human and automated content may make individuals reevaluate what it means for something to be “creative.” In this way, bots can be used to spur critical conversations.

Ultimately, the goal of making a Twitterbot is not to see if it can pass as human, but to share content that can be trusted and spark ideas. As Veale and Cook state, “Twitterbots are not fake humans, nor are they designed to fool other humans” (Veale and Cook 2018). In fact, many established standards guiding how bots are named and used make no attempt to conceal their automated nature. Instead these characteristics are highlighted. For instance, it is typical protocol for a Twitterbot’s handle to include the word “bot” and for the description to indicate that tweets are automated rather than individually curated by hand. Identifying bots as bots actually makes users more comfortable about interacting with them (Veale and Cook 2018).



NYPL Emoji Bot @NYPLEmoji · Jan 8



Tears of joy and sorrow

One of hundreds of thousands of free digital items from The New York Public Library.

digitalcollections.nypl.org



Figure 1. Tweet from @NYPLEmoji posted on 01-08-2020

TWITTER & CULTURAL HERITAGE INSTITUTIONS

The examples given above provide evidence that Twitterbots can make meaningful impressions on patrons, but this research and assessment does not include examples directly relevant to cultural heritage institutions. There are many instances of library and museum Twitterbots that can be used to assess the effectiveness of this communication method and for inspiration in making your own. Included is a brief list of some favorite bots tied to cultural heritage materials along with the creator and numbers of followers associated with each. In creating this list, the method was to find any and all Twitterbots in existence that are associated with a Gallery, Library, Archive, or Museum (GLAM) that focus on sharing images from established collections on a regular basis. While sources like Veale and Cook’s bot index were consulted to find more instances of GLAM bots, ultimately the bots noted below came from my own efforts over the past year and a half to identify bots similar in function to @UTKDigCollBot. Other Twitterbot listings focus on bots that meet different goals than those typically desired by GLAMs.

Table 1 shows that it is possible to reach hundreds, thousands, or even occasionally tens of thousands of people with a Twitterbot. At the very least, this means that

having a Twitterbot raises the likelihood that the public will encounter content from your institution. Both @pomological, which shares images from the USDA Agricultural Library, and @boschbot, which shares tiny sections of paintings by Hieronymus Bosch, are noteworthy bots in terms of their total followers. Every bot listed creates posts that include an image and text, typically a title pulled from the metadata. Because the bots essentially tweet out existing data, they are characterized as “feed bots” (Veale and Cook 2018). These bots are passive in nature, in that they do not react to other users on Twitter. Outside of the cultural heritage realm, there are “watcher bots” that actively respond to the tweets of public Twitter users based on some criteria. For instance, @StealthMountain seeks out tweets with the phrase “sneak peak” and asks users if they’ve made a spelling mistake (e.g. “sneak peek”). In libraries and museums, it seems that this kind of interaction might be frowned upon as invasive as no instance of this type of bot in those environments exists. A 2012 study of academic library Twitter use broadly found that very few libraries use the social media platform for two-way conversation (Del Bosque et al. 2012). Beyond anecdotal evidence, there is no research showing why GLAMs have limited direct interaction with followers, but Twitter accounts managed by cultural heritage institutions routinely show



UTK Digital Collections Bot @UTKDigCollBot · Oct 7, 2019

Looking Southwest from Cove Mountain - Find it at:



Looking Southwest from Cove Mountain

No description given.

digital.lib.utk.edu



Figure 2. Example tweet from @UTKDigCollBot.

the same distanced behavior.

Of those listed in, @NYPLEmoji is the only bot that breaks away from the “feed bot” characterization. When users tweet an emoji to @NYPLEmoji, the bot returns an image from the New York Public Library’s collections that relate to the emoji initially sent. For instance, if a user tweets a calendar emoji, a photograph or drawing in NYPL’s collections that depicts a calendar will be tweeted. While often simply a matter of visually matching, occasionally there’s less of a direct relationship between the visual content of the emoji and the resulting tweet. For example, in response to the “face with tears of joy” emoji, @NYPLEmoji sent a piece of sheet music titled “Tears of joy and sorrow” (Figure 1). As all of the emoji matches were hand coded, relationships like these are possible. A JSON file of emojis and their matching collection items can be found on Lauren Lampasone’s GitHub page for the bot¹.

Although randomness is a key feature of many feed bots, posts by @NYPLEmoji are the result of a considerable amount of human control. Beyond having a curated list of emoji-image matches, the code also includes a few exclusions. In the NYPL-Emoji-Bot GitHub repository a file named “blacklist.json” shares five emojis that the bot will not post a reply to. The list includes the gun, knife, bomb, no one under eighteen, and poop emojis. As long as content can be

programmatically identified, it is possible to exclude sensitive or undesired content from a Twitterbot.

One interesting feature of Twitterbots, supported by the table above, is that typically creators of Twitterbots have no direct affiliation with the institutions whose content they are promoting. In most instances, this information on the creator is given in the Twitterbot’s profile in order to be transparent. For instance, Darius Kazemi, perhaps better identified here as @tinysubversions, created two of the bots listed in Table 1. Ten of the bots were also created by John Emerson, whose handle is @backspace. Kazemi is a computer programmer and artist who previously organized the Bot Summit. Emerson is the founder of backspace, a design consultancy, and he identifies himself an “activist, graphic designer, writer, and programmer.”² Both individuals have strong interests in art and the public good and try to share the open access resources cultural heritage institutions make available. While individuals like these are disseminating images from major art museums, archives, and aggregators across the Twittersphere, smaller institutions are not as likely to be represented. Even when collections from an institution are represented in an aggregator bot, like @DPLAbot, this type of an account does not have the same focus as an institution-specific account. While Kazemi, Emerson, and others should be applauded

for promoting (and having fun with) the digital content of GLAMs, I would urge cultural heritage institutions to actively share their own digital materials. This gives institutions more control over what materials are being shared and how, while also making it easier to attract users through an institution-specific account that has targeted content.

COPYRIGHT AND IMAGE SHARING

One of the major concerns most librarians have when dealing with digital collections is copyright. So, if you decide that you do want to invest the initial effort in creating a Twitterbot, you may likely ask if you need to consider any legal issues. First, before posting any digital items online, the institution should have ascertained whether or not it has the right to do so. Assuming this work has been done, creating a Twitterbot that further promotes these materials should cause no problems. Due to Open Graph tags,³ you can “share” an image on Twitter without actually uploading any content to the site. The link you include from your digital repository will allow a preview of the image to appear on Twitter. Therefore, if you have the right to share the image on your local repository, you have the right to create a Twitterbot that shares image previews through links. In a society focused more and more on “user-found” rather than “user-created” content (Carpenter 2013), Twitterbots are a legal source of information for users to both digest and retweet.

METHOD

To create UTK’s Digital Collections bot, I began by creating a new Twitter account and activating developer access for it on the Twitter developer website.⁴ Within Twitter apps, you can retrieve all of the codes needed to interact with Twitter’s API (Consumer Key, Consumer Secret, Access Token, and Access Token Secret). I used PyCharm as my IDE for Python and Heroku for hosting. If you are interested in a less technical solution for a Twitterbot at your institution, there are several options you can consider. Tracery⁵ and Google sheets⁶ are two options that have extensive documentation already present online. In terms of documentation, I personally benefited greatly from Jeanette Sewell’s presentation “The Wonderful World of Bots” given for an online Amigos Library Services conference⁷ as well as Scott Carlson’s “You Should Make a Twitter Bot for Your G/L/A/M’s Digital Collection(s).”⁸

In order for you to be successful in mak-

ing a Twitterbot, it is critical that certain technologies have been implemented for your digital collections. First and foremost, Open Graph tags must be present in the metadata online for each record page in order for an image to appear when you tweet a link. To check and see if you have Open Graph tags, simply go to “View Page Source” or test a link to a digital object in Twitter’s card validator.⁹ If you have Open Graph tags, you will see some of the following tags in your page source: `og:image`, etc. Twitter’s card validator is also very simple to use to check this. Simply insert a link to a digital object to preview what the tweet will look like. The validator also indicates how many metatags are present and reports if the Twitter card can be loaded successfully. When first beginning this project, Open Graph tags were not present in UTK’s Islandora records. Our Digital Initiatives department helped add these tags using Islandora’s Social Metatags module.¹⁰ This addition was not only helpful to the Twitterbot, but enhanced the use of Digital Collections links across our social media outlets through the inclusion of more images.

Another technology that I relied heavily upon is the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). In order to avoid having to manually add links and titles to a spreadsheet, you should find an automated way of generating this information. For institutions that contribute to the Digital Public Library of America (DPLA), the organization’s API¹¹ is a great alternative to OAI-PMH. Visit @dpl_eh (a Canadian Twitterbot) to see how this can be executed. Code is also present online in GitHub for this implementation.¹²

Following the precedent set by many of the cultural heritage feed bots mentioned in the previous section, I decided to keep the output of the Twitterbot simple and focused on highlighting Digital Collections content. Each tweet included the title taken from the metadata followed by the “- Find it at:” with the link. Because Open Graph tags have been implemented, the image shows rather than the link text. Below is an example tweet that demonstrates the daily product the Twitterbot shares (see Figure 2). The complete code for @UTKDigCollBot can be found on GitHub.¹³

CHALLENGES

While there is significant documentation in existence to help guide the creation of bots, several issues arose in my work that re-



Figure 3. Fuzzy image from @DPLAbot reflecting the importance of considering image quality.

solutions. In initially testing the bot, I found that some of the images I shared on Twitter were appearing grainy when posted. By going to the webpage and opening “View Page Source” to look at the files directly, I discovered that these images were thumbnails rather than full jpegs. Upon looking through the collections affected by this issue, I quickly discovered that this was due to the Islandora content model selected for each collection. Collections using Islandora’s compound or book models had thumbnails present in their Open Graph tags while collections using the large image content model supported high quality image sharing. To address this, I altered my program so that it only selected random images from particular collections by including only a portion of our OAI sets. As the Libraries continue to add collections, I also need to update the code to include this OAI set name so that this new content finds its way into the Twitter feed. Other Twitterbots seem to face similar image quality issues, but not all decide that displaying high quality images is important. The feed for @DPLAbot for instance, includes many grainy images (Figure 3), though this may be because the varied nature of its content from all DPLA institutions made it impossible to troubleshoot this problem effectively.

Being able to select particular collections to include in the Twitterbot also made it possible for me to avoid collections with known metadata issues and discover new issues. Throughout my time working at the University of Tennessee, I have worked to

lowing migration to Islandora and a transition from following the Dublin Core schema to MODS. Through completing this project, I also became aware of new metadata issues that I needed to address in remediation. For instance, Figure 2 demonstrates that there are metadata records in our collections that have no abstract or description value. Because there is no value given in the MODS metadata, no description value can be included in the Open Graph tag. This results in the text below the image stating, “No description given.” While the visual content of the image may be able to overcome this lack of metadata and still gain the interest of the user, posting objects without descriptions likely does not promote engagement and may reflect badly on the institution creating the records. Since starting the Twitterbot, I have pointed to some of the empty descriptions highlighted through the Twitter posts as a way to advocate for spending more time to provide this information in metadata creation. Even a blanket description used for each and every item in a collection provides users with more context than “No description given.”

In addition, having the ability to select particular sets has also made it possible to exclude potentially sensitive or problematic content. Like many institutions, the University of Tennessee’s Digital Collections include racist content. For instance, within the university’s collection of sheet music, there are numerous illustrations of minstrelsy with degrading lyrics. Photographs of blackface are also present. While these digital

```

class Record:
    def __init__(self, contents):
        self.contents = contents
        self.title = None
        self.object_in_context = None

    def get_title(self):
        if type(self.contents["metadata"]["mods"]["titleInfo"]) is collections.OrderedDict:
            self.title = self.contents["metadata"]["mods"]["titleInfo"]["title"]
            print(f"titleInfo is an ordered dict: {self.title}")
        elif type(self.contents["metadata"]["mods"]["titleInfo"]) is list:
            self.title = self.contents["metadata"]["mods"]["titleInfo"][0]["title"]
            print(f"titleInfo is an ordered list: {self.title}")
        else:
            print(f"titleInfo was not an OrderedDict or a list. "
                  f"It was a {type(self.contents['metadata']['mods']['titleInfo'])}.")
            self.title = None

```

Figure 4. Handling multiple data types possible for title values.

objects are made publicly available in the Digital Collections interface for research purposes, I felt strongly that highlighting individual works of this type without context on Twitter would both portray the university in a negative light and not meet the expectations of bot followers. In the same way that @NYPLEmojiBot forbids image results from certain emojis, I decided to not include any sets that had content which might be offensive. While I believe that this type of material needs to be preserved and shared as part of the historic record, it seemed unproductive to share these images on Twitter without being able to provide additional information.

The most challenging aspect of this project was figuring out how to host the bot so that it was truly automated and did not require any intervention. A simple method is to run your program on a computer that is always on, although posts may be interrupted due to computer maintenance. Rather than relying on a spare computer or using library server space, I used Heroku, a free cloud application program, to run my Python program continuously. Running a program periodically can be achieved in Heroku by using either `apscheduler` or the

Heroku scheduler add-on.¹⁴ Heroku scheduler allows you to run jobs at pre-established intervals while `apscheduler` is more customized and allows you to specify any time or frequency for your job. While more complex than necessary for my needs, I am running UTK's Digital Collections bot using `apscheduler` so that it is more flexible in the future. Another method for hosting you can explore is Amazon Web Services (AWS) Lambda.¹⁵

Titles also posed an additional metadata-related obstacle to be overcome. Initially after completing the code and implementing the Twitterbot, there were times when no tweet would be posted for the day. Looking through error messages in the log on Heroku, it was determined that the code did not account for the possibility of multiple titles being returned. When additional handling was added to account for a list of titles being returned, as the metadata often contained both supplied and transcribed titles, the program successfully ran again. **Figure 4** shares the code that handles these possibilities. In the "get_title" function, the first "if" statement accounts for the metadata that contains only one title. In this case, the function will retrieve a key-value pair following the dictionary data type. The second "if"

statement is included to find instances in which multiple strings are associated with the title field in the form of a list. Only the first title in this list is retrieved, as is indicated by including an index of zero. Finally, an else statement is included to deal with the possibility of the title data not conforming to either a dictionary or a list format.

ASSESSMENT

At the writing of this article, UTK's Digital Collections bot had been regularly posting for nineteen months. In this time, the bot gathered a total 100 followers. Twitter analytics were used to gather more granular information about engagement with the Twitterbot.¹⁶ A total of 46,197 impressions were collected, resulting in 838 engagements. An "impression" simply refers to the number of times users saw the tweet while an engagement records a more active interaction. On average, a single post resulted in 77 impressions and 1.5 engagements. The 838 engagements are composed of the following actions: 459 URL clicks, 246 likes, 62 expand details clicks, 51 user profile clicks, and 19 retweets. These numbers show that the Twitterbot brought 459 users to the Libraries Digital Collections website. Some of these users potentially were viewing the site for the first time. The most popular link was clicked a total of nine times and was associated with a sketch from the Anna Catherine Wiley sketches collection titled "Charcoal figure drawing of woman reclining."¹⁷

While the bot did gain interest from the Twittersphere, active engagement through comments were completely lacking. A few retweets elicited written responses from users, but no comments were made directly on @UTKDigCollBot. Given that the objective for this bot was to increase the visibility of the University of Tennessee's Digital Collections without daily upkeep, not having to respond

» **The most challenging aspect of this project was figuring out how to host the bot so that it was truly automated and did not require any intervention. A simple method is to run your program on a computer that is always on, although posts may be interrupted due to computer maintenance. Rather than relying on a spare computer or using library server space, I used Heroku, a free cloud application program, to run my Python program continuously.**

to comments can be seen as an asset. Still, for those that want to foster an active conversation through Twitter, a bot that simply posts materials may not meet your needs.

The metrics reported above did meet expectations, which, admittedly, were somewhat low as I was unsure what effect the bot might have given the paucity of information on the engagement library Twitterbots have produced at other institutions. Discussions have been had in the past on ways to more fully integrate the Twitterbot's content with the Libraries' official handle (@UTKLibraries), but the planning and curating of tweets for this main feed has proven to be a bit incongruent with the random tweets of @UTKDigCollBot. On occasion though, randomness and meaning have collided, which has made the tweets even more special. For instance, the Twitterbot tweeted an image from the Virginia P. Moore collection the same day a colleague was giving a presentation on it. When this happens, retweets and smiles follow.

CONCLUSION

This paper has demonstrated that creating a Twitterbot is an achievable goal for librarians. While they can be technical undertakings, there are also lower barrier solutions that can be implemented using Tracery or Google Sheets. Currently cultural heritage Twitterbots typically simply share content from cultural heritage institutions, but there are instances that demonstrate that GLAMs can create more dynamic and interactive feeds. @NYPLEmoji is an example of a cultural heritage bot that both matches visual content and elicits active posting from followers. Going forward, it would be helpful to better define what the engagement goals of Twitterbots should be for a particular institution to determine if these creations are meeting their purpose. The fact that many cultural heritage bot creators have no direct association with the institutions whose content is being tweeted suggests that GLAMs have yet to fully embrace this technology and that bots have potential to be a fruitful opportunity for outreach. It also indicates that for many the creation of a Twitterbot is a fun technical experiment more akin to art than a part of a formalized social media campaign. And, as Veale and Cook's writings advocate, Twitterbots at their core will always have a bit of whimsy. Now that you can make a Twitterbot, it is important to seriously consider what it is you hope to achieve. ■

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FOOTNOTES:

- 1 <https://github.com/lolibrarian/NYPL-Emoji-Bot>
- 2 <https://backspace.com/is/in/the/house/address.html>
- 3 <http://ogp.me/>
- 4 Set up developer access at <https://developer.twitter.com/en/apps>
- 5 <https://cheapbotsdonequick.com/>
- 6 <http://www.zachwhalen.net/posts/how-to-make-a-twitter-bot-with-google-spreadsheets-version-04/>
- 7 <https://www.amigos.org/node/4753>
- 8 <http://www.scottcarlson.info/you-should-make-a-twitter-bot>
- 9 <https://cards-dev.twitter.com/validator>
- 10 <https://github.com/Islandora-Labs/islandora-social-metatags>
- 11 <https://pro.dp.la/developers/api-basics/>
- 12 <https://github.com/ruebot/dpleh>
- 13 <https://github.com/mlhale7/UTKDigCollBot>
- 14 <https://devcenter.heroku.com/articles/clock-processes-python>
- 15 <https://aws.amazon.com/lambda/>
- 16 <https://analytics.twitter.com/>
- 17 <https://digital.lib.utk.edu/collections/islandora/object/acwiley%3A322>

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Curiosity as Outreach

» Flipping Outreach on its Head

BY PAULINA BORREGO, ANNE GRAHAM, ELLEN LUTZ, MELANIE RADIK, AND REBECCA REZNIK-ZELLEN

ABSTRACT

Science and Engineering Library staff at the University of Massachusetts Amherst visited several sites on campus in a novel outreach initiative that involved all nine staff members taking “field trips” without agendas. We demonstrate that outreach without the explicit goal of promoting a specific resource or service can be an effective use of time, and can build social capital that shares the goals of traditional outreach. Involving all staff in this outreach effort was a valuable team building experience, exposing the depth of our interests and expertise to each other and to our campus community.

INTRODUCTION

Curiosity is an element of librarianship that is defined by Kathleen M. Fisher as “a relentless inquisitiveness about the world around and beyond us, a continual scrutiny and questioning of experience” (Fisher 2000). As librarians we take the role of helping people find information to satisfy some curiosity. In reference interviews we probe and ask clarifying questions, trying to extract details about a project, inquiry, or line of thought. We also make connections between people, resources, and services. We are curious in nature and honor that curiosity in others by our daily professional service.

Outreach in libraries is typically about offering our various services to others. In an organic moment, we turned that model on its head and let curiosity be our guide for outreach. Our curiosity-as-outreach initiative began when one librarian went exploring to track down a title on permanent loan to the Herbarium. From there, conversations often took the form of “you should visit”

and quickly evolved to “we should visit” and finally “let’s all visit.” The group expanded to include all staff that work in the Science & Engineering Library. With whiteboard at hand, we created a list of “field trip” destinations, and our curiosity map took form. We visited people, places, and services on campus and asked: what do you do, how do you do it, and why do you do it? We let people tell their story, all with the idea of learning about them and what they do.

LITERATURE REVIEW

Outreach is an integral part of public services and plays an increasingly important role as libraries evolve in response to socioeconomic and technological influences. As early as 2001, outreach was articulated as a core component of the liaison role by the Reference and User Services Association; and more recently the Association of College and Research Libraries presented an outward-looking liaison model focused on engagement (Jaguszewski & Williams 2013; Silver & Trott 2014). As Forbes and Keeran (2017) state, “the purpose of outreach is to ‘reach out’ to a library’s clientele to actively educate them about the services a library may offer as opposed to passively waiting for them to come to the library.” Outreach is critical to librarianship; it educates communities about the services and resources their library provides, it plays an important role in establishing and maintaining relationships, and it demonstrates the enduring value of the library.

What constitutes outreach is less straightforward, and definitions can vary from library to library (German & LeMire 2018). Initiatives can range from book clubs and film screenings, to curated exhibits and digital collections, to bookmobiles, computer literacy classes, yoga classes, story-times, and more. Handbooks such as Carol Small-

wood’s (2010) *Librarians as Community Partners*, Bradford Eden’s (2016) *Marketing and Outreach for the Academic Library*, or Ryan Sittler and Terra Rogerson’s (2018) *The Library Outreach Casebook* present a dizzying array of possibilities.

In academic libraries, outreach as part of the liaison role is often focused on teaching and research support. Liaison librarians promote their skills and services for providing information literacy instruction, performing collection development, and supporting the curriculum; liaisons participate in new student and new faculty orientations, serve on university and faculty committees, provide training for graduate student teaching assistants, or are embedded in departments (Anthony 2010). More involved outreach that is undertaken by liaisons or by dedicated outreach librarians includes planning workshops on a variety of topics, hosting events such as book talks, lecture series, or scavenger hunts, creating exhibits, and developing programs that showcase the library’s collections or services (Fabian et al. 2003; Meyer 2014).

In science and engineering libraries, outreach activities fall along the same lines. The Science & Technology branch library at the University of Akron curated a permanent exhibit of science faculty journal covers to reconnect faculty with the physical branch (McCullough 2015). The Zuckerman San Francisco General Hospital Library created an interactive display during two local events to promote awareness of library services (Barr-Walker & Nevels 2018). The University of Tennessee John C. Hodges Library developed outreach programs for secondary- school students to expose them to science in the university setting (Flash et al. 2017). A librarian at the Science and Engineering Information Center of the University at Buffalo utilizes a combination

of one-on-one faculty lunches and on-site reference service to answer questions about library resources and increase visibility (Wagner 2015). Other science and engineering liaisons employ various face-to-face efforts to champion library services to traditionally hard-to-reach graduate students and research groups (MacKenzie 2014).

In the broad sweep of these engagements, the librarian always carries the purpose of “reaffirm[ing] the importance of their services, proactively promot[ing] the use of their services, and demonstrably involv[ing] themselves in the institution’s missions of teaching and research” (Anthony 2010). This means that when we do ‘outreach’ across disciplines we typically approach each interaction with an agenda. Emily Ford regrets front-loading the outreach endeavor, suggesting instead that “we have the ability to be in our communities, to engage them and offer specific targeted services” (Ford 2009).

Curiosity, by definition, does not have an agenda. It is an inquisitiveness about the world that invites learning through exploration and asking questions. Curiosity is fundamental to the higher education experience and enables the development of a rich intellectual life (Fisher 2000).

Curiosity has been presented as a natural characteristic of librarians (Smith 2018). Librarians discuss leveraging curiosity as a tool for information literacy instruction and modelling curiosity during reference and research consultations (Deitering & Rempel 2017). Only Smith makes an explicit connection between curiosity and outreach, encouraging librarians to demonstrate their range of expertise beyond information literacy and library resources. Her discussion focuses on various classroom collaborations that stem from the librarian’s natural curiosity and cultivated amateurship as a way of modeling scholarly inquisitiveness to students (Smith 2018).

We present an approach to outreach that broadens Smith’s account. Starting from a posture of unencumbered curiosity, we demonstrate that outreach without the explicit goal of promoting a specific resource or service can be an effective use of a liaison’s time, and build social capital that shares the traditional objectives of outreach.

METHODS

The University of Massachusetts at Amherst is a 1,450-acre campus located in rural Western Massachusetts. Established in

Table 1: Sites visited during the initial months of the University of Massachusetts Amherst Science & Engineering Library curiosity initiative.

| LOCATION | DESCRIPTION | DATE |
|---|--|-----------|
| Institute for Applied Life Sciences https://www.umass.edu/ials/ | Multiple core facilities translate fundamental research into innovative product candidates, technologies, and services that deliver benefits to human health and well-being. | 2019-2-22 |
| Herbarium https://www.bio.umass.edu/biology/facilities/herbarium | Regional resource with roughly 241,300 mounted vascular plants, algae and bryophytes as well as a fruit and seed collection. Currently undergoing digitization for inclusion in online catalogs. | 2019-2-26 |
| North Chiller Plant https://www.umass.edu/dcm/chiller-plant-upgrades | Provides consistent uninterruptible chilled water to several research buildings. In addition to providing a critical service, the 2017 building is LEED-certified and an engineering infrastructure demonstration site. | 2019-3-28 |
| Glassblowing Laboratory https://www.cns.umass.edu/research/glassblowing | A core facility providing high-quality affordable priced standard and non-standard labware, glassware modifications, repairs and custom designs for instructional and research needs. | 2019-4-5 |
| Human Performance Lab http://www.ecs.umass.edu/hpl/ | Researches automobile driver behavior and driver safety using driving simulators and equipment such as eye trackers, head trackers, and portable camera systems. | 2019-5-5 |
| TickReport Lab https://www.tickreport.com/ | A tick testing service available to public individuals and agencies determining whether or not found ticks carry the pathogens that cause Lyme Disease and more than twenty other tick-borne diseases. | 2019-7-11 |
| Franklin Permaculture Garden https://www.localumass.com/franklin.html | Engages visitors to learn about organic food production, rainwater harvesting, solar charging stations, beekeeping, mushroom cultivation, and more. | 2019-7-24 |
| Soil and Plant Nutrient Testing Laboratory https://ag.umass.edu/services/soil-plant-nutrient-testing-laboratory | A soil and plant nutrient testing service available to public individuals and agencies. Test results identify soil nutrient levels, soil pH, excess nutrients that can pollute local waterways, and elevated levels of lead or other toxic heavy metals. | 2019-7-31 |

1863 as the land-grant Massachusetts Agricultural College (Mass Aggie), the University evolved into an R level research institution with approximately 20,000 undergraduates and 7,000 graduate students. The Science & Engineering Library (SEL) is the only branch library, situated on the north end of the campus near the science and engineering laboratories and classrooms. Approximately one half of the faculty, graduate students, and undergraduate students on campus are in departments and programs supported by SEL, which employs five librarians and four full-time staff.

Our methods evolved after one of our colleagues visited the Herbarium on campus to resolve a library collections question.

Interest in seeing the collection generated enthusiasm for an all-staff tour, which was requested and enjoyed by all who were able to attend. After that initial experience, a casual lunchtime conversation between staff generated a list of 15 additional, little-known campus locations. Brainstorming continued informally, and a whiteboard was used to record potential destinations. Due to a small staff at our branch, the lines between professional librarian and service point staff often overlap and an all-hands-on-deck philosophy is common. All staff members were invited to set up field trips and participate in visits. Staff with long time connections to the campus leveraged well-established relationships to add value to the



Figure 1: Photograph of one of the many pressed flowers from the Herbarium's collection that are being digitized.

destination list.

Once the list of destinations was created, a protocol was quickly established:

- Staff members volunteered to take point to set up tours of each of the sites. They contacted people they knew, or made cold calls to contacts in person or through email to set up tours for the nine-person staff.
- The point person checked schedules of staff and tour guides to determine dates and times for each tour. Timing of tours was limited to two a month during the academic year, with more frequent visits possible during the summer months. The calendaring system in use by the Libraries allows us to view all staff members' availability. This facilitated scheduling of SEL staff. Accommodating the schedules of as many staff members as possible was prioritized. A calendar invitation was sent to all staff members and the tour guide(s).
- Small gifts (library logo coffee/tea mugs) and University of Massachusetts Amherst Libraries thank-you cards were procured and prepared before each tour. All staff attending each tour signed the thank-you cards.
- On visiting day, the point person led the library staff to the tour location at the

scheduled time. Introductions were made at the beginning of each tour. Library gifts and thank-you notes were given to the tour guides. We provided a brief overview of our curiosity initiative, and obtained consent to take photos. Staff listened, learned, took photos, and made connections with tour guides in this person-to-person setting.

- Post-tour, follow up thank-you emails were sent. Photos were stored in a campus online digital storage location and shared with our hosts after interest was expressed in use for their own outreach.

RESULTS AND DISCUSSION

SEL staff have so far visited eight science research locations on campus that sparked our curiosity:

In the wake of these visits, we found that we have been able to fulfill some of the needs described to us, and often in mutually beneficial ways. At a minimum, every visit resulted in a positive new connection with a researcher and new campus knowledge for liaisons and service point staff. In addition to gaining knowledge for ourselves, we are better able to promote and describe any ser-

vices provided by the researchers to patrons and fellow staff at the library. This social capital is a valuable benefit to many groups we visited, as they provide a cost-recovery service to the campus community or to the public, and rely on use of the service to fund the work. In addition, the majority of our tours sparked tangible benefits for both researchers and library staff:

Institute for Applied Life Sciences

A strong partnership and mutually beneficial event grew from our very first visit. The Institute for Applied Life Sciences (IALS) will exhibit materials produced by and photos of their core facilities in SEL in spring of 2020. SEL will gain an amazing spring exhibit and IALS will promote the capabilities and services of their core facilities to the campus community.

Herbarium

During our visit, Herbarium staff mentioned a need for a summer intern, as they had many projects over the summer that would benefit from an intern's time and attention including a digitization project. This seemed a good fit for an archives-track library student, and we were able to advise on posting a position to the local library school job board. Shortly thereafter, the life science liaison was serendipitously put in touch with a biology and classics student from another campus, who was in search of a summer internship that would be good experience for their current interests as well as future plans to pursue a library degree. The Herbarium gained a summer intern to continue their collection digitization project into an Open Access repository of Herbaria (see Figure 1). The librarians involved at both campuses were able to facilitate student success and improvement of the accessibility of the Herbarium's collection.

North Chiller Plant

We were delighted by the concept of a working facility deliberately designed with a "visual learning" element to engage and assist mechanical engineering students in learning about the real-life infrastructure around them. This concept of incorporating learning opportunities into the functioning of the academy is something we hope to bring into our own practice.

Glassblowing Laboratory

We are able to accurately describe this service for researchers on campus. This is

particularly useful for the chemistry and chemical engineering liaisons. Ideally, increased use of this service will allow our campus to fund an assistant or second full-time glass blower, which would enable the glass blower to teach a glassblowing course for graduate students (see Figure 2).

Human Performance Lab

The Human Performance Lab gained a volunteer on the spot for a study one of us qualified for, and we now post their “volunteers needed” flyers in the library. Our staff person was intrigued to be involved in their research, and we are actively supporting research on campus. In addition, the PI later invited the Engineering liaison to teach a graduate-level research methods class.

TickReport Lab

Two of our staff have already made use of the service, and found peace of mind in pursuing their love of hiking. We found the research conducted in this lab to be a natural expansion of the information and resources provided by the Mass Aggie Seed Library, a program offered by SEL, and we actively promote their service to those interested in gardening. A recent seed librarians’ symposium at SEL boosted the signal of this service yet further, as seed librarians brought pamphlets back to their home libraries.

Franklin Permaculture Garden

Our visit to the Franklin Permaculture Garden may result in our most impactful partnership yet. Our host, the head of permaculture gardening on campus (see Figure 3), stated a goal of converting underutilized, high-maintenance monoculture lawns on campus to productive permaculture gardens. We suggested the lawns in front of our building as a prime candidate. We have submitted a joint proposal to the facilities group in charge of the grounds. We have hopes that our proposal will be accepted and the work can be carried out by the Permaculture undergraduate class taught by our host in fall semester 2019. Not only do we gain a lovely and productive permaculture garden, but we put into practice the North Chiller Plant-inspired idea of supporting learning with real-life applications.

Soil and Plant Nutrient Testing Laboratory

The soil and plant testing services of this lab are another natural fit with the Mass Aggie Seed Library. We have been actively promoting

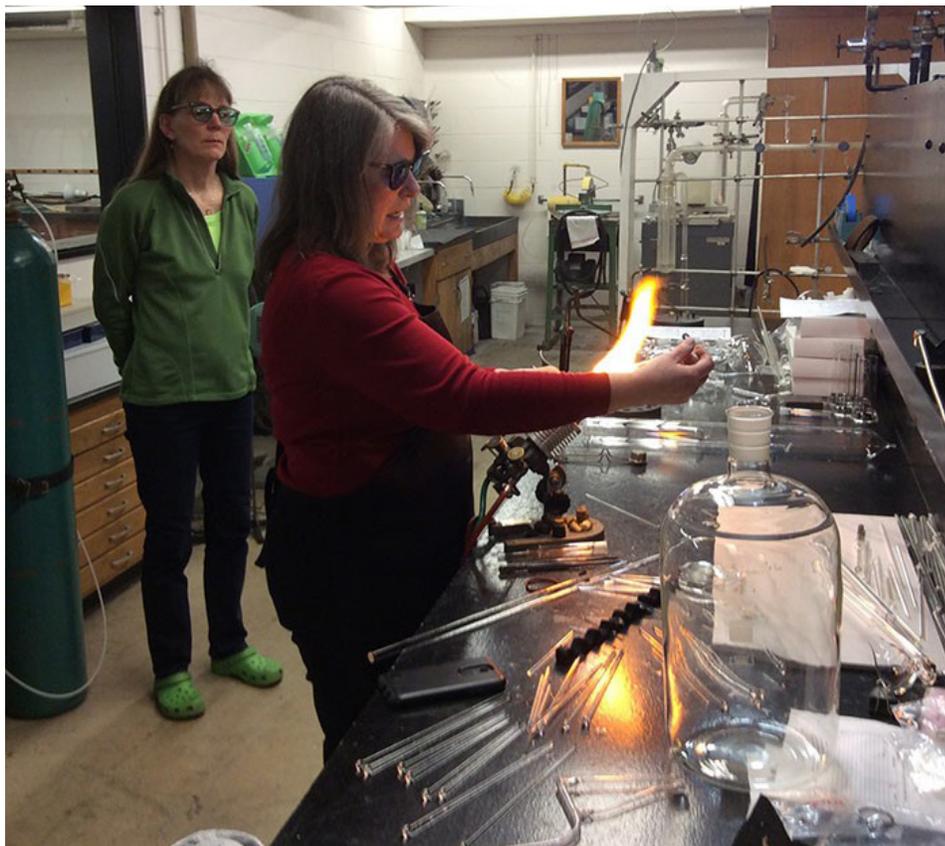


Figure 2: A demonstration of glassblowing by Sally Pratsch at the Glass Lab.



Figure 3: Tour of the Franklin Permaculture Garden led by Daniel Bensonoff.

» **Many outreach efforts are based around either a “Look what we can do for you” or the more open-ended “What can we do for you?” models. Even in more traditional face-to-face interactions such as new faculty welcome events, a librarian’s outreach goal is to educate on library resources and services.**

the service, and are able to speak knowledgeably about it. Fellow seed librarians agree, and took resources on this service back to their home libraries as well.

Our explorations have resulted in eclectic new pockets of knowledge for our service point as a whole, and helped us build diverse and impactful partnerships. Of course, as with any outreach activity, there are costs and challenges. One third of researchers approached did not respond to cold calls or emails. Scheduling the visit takes the time of a librarian or staff person: consulting and coordinating nine calendars is not simple. For each visit we committed an hour of up to nine people’s time. One of our particular challenges is that as a branch library, SEL must be staffed at all times. Service-point staff or librarians who must stay behind to ensure coverage miss out not only on the tour itself but on a relationship-building exercise with our colleagues.

CONCLUSION

Many outreach efforts are based around either a “Look what we can do for you” or the more open-ended “What can we do for you?” models. Even in more traditional face-to-face interactions such as new faculty welcome events, a librarian’s outreach goal is to educate on library resources and services. Our curiosity-as-outreach initiative, premised on asking “What do you do?”, allowed for a more organic and extended interaction in which learning about the day-to-day operations, upcoming projects, and overall goals of our hosts surfaced ongoing or upcoming needs of the researchers. We did not always have an immediate solution for these needs, but we are librarians. We make connections, organize information, and share it with our patrons.

Our novel outreach initiative has been a resounding success. Tapping into

the curiosity that makes us good librarians—asking questions, learning about new things and meeting new people—has been rewarding and engaging. The visits enliven us and excite us as we learn about tools and resources our hosts use. We feed on the interactions and they make us even more curious!

We believe the relationships we build through our field trips generate a return on investment that is worth the time it takes for planning and attending them. Although we are taking an hour of several staff members’ time at once, the total number of hours for these visits is comparable to the time spent in planning, preparing, and executing many of the more traditional types of outreach events. Since we are the attendees for these events, our time is not idle, and there is no wasted investment in food or beverages. We have already connected researchers to test subjects, matched an eager student with a group that needed some assistance for the summer, and provided a newer institute on campus with the opportunity to share and educate those who visit our branch library.

In addition to exploring eight science research locations on campus, we have used this project to develop new and deeper relationships within our library system. Members of our Scholarly Communications unit joined us for the tour of the Institute for Applied Life Sciences. We visited the basement of our main library, learning from our colleagues about science-related materials that are stored there. An anthropology professor who has partnered with the library for several years of ethnographic research joined us on tours of two off-site storage locations shared by the Five College Consortium (University of Massachusetts Amherst, Amherst College, Hampshire College, Mount Holyoke College, and Smith

College). The original facility is located in a former Strategic Air Command Bunker and the newer facility was completed in 2017.

We intend to continue letting our curiosity guide us to learn about and explore our campus. We have made lasting connections and have built evidence that being curious is an effective way to ‘reach out’ to our communities. We encourage you to unleash your own curiosity and begin your own fun and rewarding outreach experience. You do not need to choose science-related locations like those we focused on: look for places or events around your campus that spark your curiosity, or take the opportunity to learn about the interests of your faculty. ■

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“You Need to Make it as Easy as Possible for Me”

» Creating Scholarly Communication Reports for Liaison Librarians



BY JESSICA LANGE AND CARRIE HANSON

Scholarly communications (SC) is becoming a core function of liaison librarians' work. As noted in Bonn's (2014) article "[we are seeing a heightened expectation that librarians who support disciplinary scholarship are fluent in the language of scholarly communication and can address its opportunities and challenges. **Scholarly communication literacy has become a core competency for academic librarians**" (emphasis added) (p. 132). This is part of a greater trend within liaison librarianship. The typical trifecta of liaison librarian positions (collections, reference, and teaching) is evolving, and the role now demands greater integration into the research life cycle at the university. Scholarly communications is a notable example of an area where liaison librarians can expand their capabilities to assist students and researchers. While liaison librarians adapt to these changing roles, the question of how to best upskill liaison librarians in SC is timely and still in flux. Although much of the literature focuses on training as a means to develop SC competencies,

training is often one-shot and not specifically tailored for disciplinary differences. To fill the gap between what general training sessions can provide and what is specifically happening in a particular department, the McGill Library launched a pilot program to create scholarly communication reports for liaison librarians. These reports provided department-specific information about faculty publishing patterns, open access uptake among faculty members, as well as the disciplinary publishing culture. As Malenfant (2010) noted in her article about integrating scholarly communication competencies into liaison work, "[i]n every department there's a different hook, a different key...You have to find specific examples from their societies, their journals, and point out prohibitive language in agreements they actually would be signing" (p. 68). These reports would provide that "hook" or "key" to the departments, allowing liaison librarians to demonstrate superior understanding of the scholarly communications landscape in their departments and integrate themselves more fully into research discussions. Furthermore, these reports would respond to one liaison

librarian's dictum in Malenfant's (2010) article that "since you're expecting me to do a new thing [scholarly communications], you need to make it as easy as possible for me" (pp. 67–68).

LITERATURE REVIEW

Changing Roles of Liaison Librarians

The integration of scholarly communications into liaison librarian roles saw greater discussion starting in mid-2000s when many libraries launched their institutional repositories (IR). Articles from this era focus on how libraries could leverage liaison librarians to promote these repositories (Bailey, 2005; Beaubien, Masselink, & Tyron, 2009; Jenkins, Breakstone, & Hixon, 2005; Philips, Carr, & Teal, 2005; Walters, 2007). These articles describe how and why liaison librarians (sometimes also referred to as subject specialists or reference librarians) are ideally suited for promoting IRs. The articles reflect on the natural extension of subject librarians' familiarity with "the general academic milieu and the cultures of different disciplines" and how libraries could harness this knowledge in repository

promotion (Jenkins et al., 2005, p. 315). Over time, the literature developed beyond describing liaison librarians as simply promoters of IRs to liaison librarians becoming more active and embedded participants in the research process. Several articles and reports discussed this changing role of liaison librarians (Auckland, 2012; Cambridge, 2009; Kenney, 2014; Ippolitti, 2017; Jaguszewski & Williams, 2013; Malenfant, 2010; Miller & Presley, 2015; Rodwell & Fairbarin, 2008; Turtle & Courtois, 2007). The 2015 Association of Research Libraries (ARL) SPEC Kit Evolution of library liaisons noted several areas that were emerging as part of the liaison portfolio, the top three among them: assistance with scholarly impact and metrics, promotion of the institutional repository, and consultation on open access issues (Miller & Presley, 2015). Going further, Bruns, Brantley, and Duffin (2015) declared that, “researchers will be better served if scholarly communications is considered a core competency of subject librarians, similar to reference, instruction, and collection development” (p. 138). Given the literature presented, it is not surprising that the integration of SC topics into liaison librarian roles has advanced to the extent that liaison job postings often require scholarly communications competencies (Finlay, Tsou, & Sugimoto, 2015; Malenfant, 2010; Mears & Bandy, 2017).

Challenges

As liaison librarian positions continue to evolve, librarians and library administrators are exploring how to best prepare liaison librarians to integrate scholarly communications into their work and develop core competencies in this area. Common challenges cited in the literature include faculty perceptions of librarians’ roles, lack of confidence, as well as concerns about ever-expanding responsibilities (e.g. jack-of-all-trades, master of none) (Beaubien et al., 2009; Bruns et al., 2015; Vine, 2018).

Faculty perceptions of librarians as primarily “content buyers” makes it difficult for liaison librarians to sell their new skills to faculty (Burpee and Fernandez, 2014; Vine, 2018). In their interviews with librarians with SC responsibilities at Canadian academic institutions, Burpee and Fernandez (2014) noted some respondents reported that, “the library was seen as a service support unit for the institution rather than an academic partner in the research enterprise” (p. 10). Because faculty do not see librar-

Table 1 provides an example of a table featured in one of the reports.

| Journal | Publisher | Journal Type |
|--|--------------------|--------------|
| Acta Politica | Palgrave | Hybrid |
| American Political Science Review | Cambridge | Hybrid |
| British Journal of Political Science | Cambridge | Hybrid |
| Canadian Journal of Political Science | Cambridge | Hybrid |
| Canadian Political Science Review | Independent | Open Access |
| Comparative Political Studies | SAGE | Hybrid |
| Cooperation and Conflict | SAGE | Hybrid |
| Electoral Studies | Elsevier | Hybrid |
| Études Internationales | Université Laval | Hybrid |
| French Politics | Palgrave | Hybrid |
| International Organization | Cambridge | No OA option |
| International Studies Quarterly | Oxford | Hybrid |
| Journal of Elections, Public Opinion and Parties | Taylor and Francis | Hybrid |
| Nations and Nationalism | Wiley | Hybrid |
| Political Communication | Taylor and Francis | Hybrid |
| Political Research Quarterly | SAGE | Hybrid |
| Political Studies | SAGE | Hybrid |
| Political Theory | SAGE | Hybrid |
| Problems of Post-Communism | Taylor and Francis | Hybrid |
| PS - Political Science and Politics | Cambridge | Hybrid |
| Review of International Political Economy | Taylor and Francis | Hybrid |

Table 1. Top 21 Journals for McGill University political science professors, based on publishing patterns

ians as the primary support people for SC questions Bruns et al. (2017) argued that librarians are therefore not likely to prioritize the development of these areas. Mullen’s (2011) article examining open access and how it connects to liaison librarian roles also discussed the issue of prioritization. Mullen (2011) stated that liaison librarians might not feel “that ‘scholarly communication’ or ‘open access’ has much relevance to their busy roles in the library” (p. 8). Disconnect over priorities was also an issue at the ARL Library Liaison Institute. Bakkalbasi, Rockenbach, Tancheva, and Vine (2016) remarked that, “[w]hile scholarly communication issues surfaced at the [ARL Library Liaison] Institute, they did not rise to the top of the list for most liaison librarians. We have identified this as a possible area of disconnect between institutional goals and individual liaison goals” (p. 121).

Another commonly-identified challenge in the literature is anxiety and a lack of confidence in learning the new skills required to be fluent in SC issues. Vine (2018) agreed that for liaison librarians connecting with researchers on SC issues could be “daunting” (p. 422). Anxiety and a lack of confidence

in assisting researchers in SC topics is also reflected in Burpee and Fernandez (2014), Bruns et al. (2017), Ippoliti (2017), and Wirth and Chadwell (2010). As Beaubien et al. (2009) found during the discussion period of a workshop series to familiarize liaison librarians with SC topics, “there emerged a natural apprehension that the project would lead to increased workload and an insecurity about confidently representing the interests of the library to the rest of the university community” (p. 101). During the integration of SC roles at University of Minnesota Libraries, Malenfant (2010) remarked, that amongst the liaison librarians, there was a “continuing lack of confidence” (p. 67).

Lack of confidence is often coupled with the subject of time, both in terms of the time to upskill but also the time to take on additional tasks. Feelings of trying to balance expanding workloads are mentioned in the SPEC Kit, Evolution of library liaisons (Miller & Presley, 2015) and appear in several articles relating to changing liaison librarian roles and SC competencies. For example, one interviewee in Burpee and Fernandez’s (2014) study said, “[t]he real issue for us is time. The liaison librarian is such a busy

role...If I could give my librarians anything it would be more time” (p. 10). Malenfant (2010) also noted the liaison librarians felt like they have to “take everything on” (p. 71) and Mears and Bandy (2017) reflected, “adding duties to reference and instruction librarian responsibilities is often seen as the solution, but this may not be viable in the long term because the scholarly communications landscape has significantly expanded.” (p. 148). Vine (2018), Ippoliti (2017), and Kenny (2014) also mentioned lack of time and the difficulty liaison librarians face in appropriately prioritizing and managing their workloads.

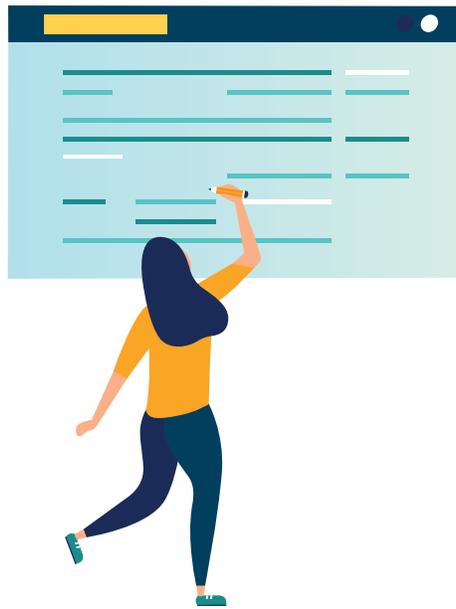
To address these challenges (lack of confidence, lack of time, and faculty perceptions), the literature discusses three primary approaches: developing training opportunities, creating sets of SC resources, and completing environmental scans.

UPSKILLING

Workshops and Training

One of the primary methods for introducing liaison librarians to scholarly communications is holding workshops or training sessions, and training is continually advocated for in the literature (Bakkalbasi et al., 2016; Vine, 2018;). The Association of College and Research Libraries (ACRL) Scholarly Communications Roadshow is one example, but the literature outlines initiatives developed internally at libraries as well. The depth and length of the training varies. Some libraries undertook more in-depth training, including several work-shops on various topics for librarians (Ippoliti, 2017; Tierney & Kuyper-Rushing, 2016). Beaubien et al. (2009) described their Scholarly Communication Education Program; a four-part series of workshops to introduce topics related to the repository and other scholarly communications issues around author rights. Rodriguez (2015) also discussed a training program at Oakland University, where they held several training opportunities on open access topics in preparation for Open Access Week and the launch of the institutional repository. Other articles described single workshops such as Wirth and Chadwell (2010) and Bruns et al. (2015) which both discussed author rights workshops held at their institutions. Hurrell and Murphy (2019) similarly outlined a one-time training program for front-line staff to improve scholarly communication competencies.

Libraries sometimes combine training efforts with other approaches to create a greater support structure. For example,



Sewell and Kingsley (2017) described a training program held at Cambridge University on SC topics, although their training took an additional approach of locating interested librarians within their organization who wanted to become “ambassadors” and take a more active role in scholarly communications on campus. These ambassadors then became point people within the library on these topics and led training efforts. Kirchner (2009) also positioned training as one component in a multi-pronged approach at the University of British Columbia, where in addition to a training program, librarians completed an environmental scan of their areas and some librarians participated in an ARL research project on changes in scholarship models.

Some institutions also distribute surveys to liaison librarians to gauge their knowledge and comfort of SC topics (Bresnahan & Johnson, 2013; Klain-Gabbay & Shoham, 2016; Malone & Burke, 2016). These institutions then used the survey results to identify further training opportunities.

Toolkits, Resource Lists, and Guides

As described above, training is one of the primary means of upskilling, but training should be part of a continual learning effort. As noted in Kirchner’s (2009) article on integrating SC responsibilities into liaison librarian work at the University of British Columbia, although the training period and work by the Steering Committee fostered a sense of enthusiasm and interest in SC topics, they noted a drop-off in engagement after the initial, concerted push. One approach for engaging liaison librarians beyond training workshops is the develop-

ment of toolkits or sets of resources (Bruns et al., 2015). These resources could include lists of professional development resources and other opportunities for self-directed learning that go beyond a single instruction session (Cohen, 2017).

Environmental Scans

Another method for developing scholarly communications competencies for liaison librarians is completing environmental scans. Environmental scans can take different forms, but a resource that is often referred to is the “Faculty Activism in Scholarly Communications: Opportunity Assessment Instrument” (Van Orsdel, 2007). This document includes several checklist items such as how many faculty serve on editorial boards, which grant funding agencies have open access requirements, whether or not faculty members have published in OA journals, and locating disciplinary repositories in the field. Bruns et al. (2015) described having liaison librarians complete environmental scans of their faculty/department as one part of a three-pronged approach to create “scholarly communication coaches” at their library. The environmental scan included reviewing major journals and repositories for their discipline, investigating the discipline’s scholarly societies and associations’ positions on open access, as well as reviewing faculty deposits in the institutional repository. In addition to completing these environmental scans, liaison librarians also attended a workshop on author rights and had a toolkit of resources available for their use. Kirchner (2009) and Malenfant (2010) also described environmental scan approaches taken at their institutions. As demonstrated in the review of the literature, there are many approaches to upskill liaison librarians in scholarly communications. Training is the primary method but has several drawbacks: it is often one-shot, not necessarily discipline-specific, nor immediately relevant to a liaison’s individual context. Furthermore, training does not address the third challenge outlined in the literature: lack of time and workload balance. To overcome these two challenges, the Scholarly Communications Librarian at McGill University developed a pilot project to create scholarly communication reports (similar to environmental scans) for two liaison librarians. A practicum student from the McGill University Master of Information Studies program created and developed the reports, which was mutually beneficial.

Firstly, the liaison would receive a tailored report about the scholarly communication practices of their faculty, thus alleviating them of the time to create such a report themselves. Secondly, the practicum student would receive deeper training in scholarly communications issues.

CONTEXT

McGill University is a large research-intensive university based in Montreal, Canada, with a population of over 40,000 undergraduate and graduate students. The McGill Library operates on a combined liaison/functional specialist model. The Library employs over 30 liaison librarians who act as direct connections to various departments, schools, and faculties on campus. Their roles include the traditional model of reference, collections development, and instruction. However, like trends in other academic libraries, their roles have been expanding into areas such as digital humanities, research data management, and scholarly communications, among others. These additional areas are not specifically included in job descriptions for liaison librarians at this institution. As such, the development of SC competencies, for example, is largely at the individual liaisons' discretion.

The Library has employed several functional specialists in areas such as copyright, scholarly communications, data, and user experience. These positions act as "super liaisons," who work across all disciplines and act as resources on these topics to other library staff and librarians. Similar to the articles described in the literature review, McGill Library has undertaken several initiatives to improve scholarly communications competencies. These initiatives have included distributing a needs analysis survey, offering workshops and training on author rights, as well as creating a toolkit on the McGill Library intranet with relevant resources for engaging in scholarly communications (e.g., sample email templates to solicit deposits for the repository). There also exists a Scholarly Communications Standing Committee and the Scholarly Communications Librarian frequently blogs, on the library's intranet, about major changes in the scholarly communications landscape.

DESCRIPTION OF THE PILOT PROJECT

Practicum

The practicum program at McGill University is a one-semester course credit for second-year Master of Information Studies

students. The practicum provides students with the opportunity to obtain course credit while also gaining practical experience. The practicums include one hundred hours of work over twelve weeks and are unpaid.

In Fall 2018, the Scholarly Communications Librarian submitted a practicum proposal to the School of Information Studies. The posting included the following description:

The practicum student will assemble a scholarly communications report specific to two disciplines at McGill University (one from a sub discipline within the humanities and social sciences, and one from a sub discipline within the physical sciences, life sciences, and engineering).

This is a pilot project for the Library to determine the relevance and usefulness of these types of reports to liaison librarians. As such, in addition to creating the reports, the practicum student may conduct a brief evaluation at the end of the project.

Once the Scholarly Communications Librarian selected the practicum student, the first two weeks of the practicum involved the student reviewing SC topics and literature in order to obtain a basic understanding of key terms and concepts such as open access, self-archiving, ORCIDs, grant-agency open access policies, etc. Although courses in the Master of Information Studies program cover SC topics to some extent, there is no dedicated course on scholarly communications issues. As such, a review of these issues was necessary in order for the student to complete the project successfully.

Once the student obtained the necessary background information, they were required to interview both of the liaison librarians selected for this project. The student used these interviews to assess the specific user needs of the liaison librarians: which scholarly communications topics did they want to know more about for their department? Which specific challenges did they hope these reports would address? The student designed the interview questions themselves and took notes during the interviews for analysis afterwards. While the liaison librarians had similar information needs overall, two specific information requests came out of the interviews: the social sciences liaison would like additional information about journals' data deposit policies and the science liaison wanted information on cross-institutional collabora-

tion between their department and external organizations. The student added this information to the reports for the liaison librarian in question.

The student spent the remainder of the practicum researching and compiling the reports, as well as documenting their research methodology.

COMPOSITION OF THE REPORTS AND REPORT METHODOLOGY

The practicum student structured the reports based on the interviews with the liaison librarians as well as an in-house template that the Scholarly Communications Committee developed called the "Scholarly Communications Opportunity Assessment Instrument." The Committee modeled this template off Van Orsdel (2007). Using this assessment instrument alongside feedback from the interviews, the student and Scholarly Communications Librarian reviewed the potential topics within the timeframe of the project, and decided which topics the reports would include.

A sample table of contents is included below:

Contents

- Scholarly communication in the field
- Definitions: Green, gold, and hybrid open access
- Top journals for McGill University political science professors, based on publication patterns

Top publishers of these journals

- Article processing charges
- Embargos
- Grant agency open access policy compatibility
- Copyright policies

McGill University political science professor publishing habits

- McGill University political science professors publishing in gold OA journals
- Percentage of articles published by McGill University political science professors in hybrid journals which were made open access
- McGill University professors who paid an article processing charge (APC) in a hybrid journal to publish open access

Other McGill University political science publishing patterns

- Former political science professors publication patterns

- McGill University political science graduate students' publication patterns

Appendix A: Political science journals, APC table

Appendix B: Political science journals, APC graph

Appendix C: Political science journals embargo lengths

Appendix D: Grant agency compatible political science journals

Appendix E: Grant agency incompatible political science journals

Appendix F: Political science journals licensing and copyright policies

The student developed the report methodology in consultation with the Scholarly Communications Librarian. The student retrieved the data from several sources:

- Scopus and Web of Science databases (faculty publishing patterns)
- SHERPA/RoMEO (journal policies)
- Directory of Open Access Journals (DOAJ) (gold open access journals)
- Publisher websites (APCs, hybrid options)
- SciVal (cross-institutional collaboration)
- McGill University departmental webpages (names of faculty members)

ASSESSMENT

Following the creation of the two reports, the liaison librarians had one month to review the reports after which the Scholarly Communications Librarian scheduled a 30-minute in-person interview. The Scholarly Communications Librarian sent the discussion questions to the liaison librarians in advance. The questions included:

1. Why did you choose to participate in this pilot project?
2. How well did the report meet your expectations? (on a scale of 1-5, 1= did not meet my expectations at all, 5=completely met all my expectation)
3. Would you describe the report as valuable to you in your role as a liaison librarian?
4. If yes, please elaborate.
5. Which components of the report were the most valuable?
6. Were there any components of the report that were not relevant/useful? If so, why?
7. If another report was to be made for you again in the future, do you have any suggestions for improvement?
8. Do you foresee this report being used in your work? If so, how? Describe any scenarios in which this report would be relevant/useful.



Additional questions or prompts for information occurred during the interview as questions or clarification naturally arose. The Scholarly Communications Librarian sent the interview notes afterwards to the liaison librarians in order to confirm that the summaries accurately reflected their comments. This also provided an opportunity for the liaison librarians to add any additional reflections.

The liaison librarians gave their consent for their comments to be included in this article. Formal ethics approval was not required as it fell within “Quality assurance and quality improvement studies, program evaluation activities, and performance reviews... management or improvement purposes,” which do not require research ethics approval (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council, 2018, p. 18).

MOTIVATION TO PARTICIPATE

The initial motivation for the two liaison librarians was slightly different. One liaison librarian had intuitions about the publishing patterns and open access culture in their area and wanted them confirmed. This liaison librarian also mentioned that they wanted to offer better service to faculty members and that the reports could help identify areas in which they could offer additional services. For example, this liaison librarian noted that from reading the report it “seems profs don’t know much about green open access so there’s more that could be done in that regard.”

The other liaison librarian had prepared a touch table exhibit highlighting faculty research outputs and thought it would be timely to have the report. Overall, both liaison librarians agreed that the reports were valuable to their work and that the reports met their expectations (reported 3.5 and 4 respectively, with 1= not at all, 5=completely).

In reviewing the comments from the two interviews, several additional themes emerged:

Graduate Students as a Target Audience

Both liaison librarians mentioned that they saw the reports as particularly useful for targeting and reaching out to graduate students. They mentioned these reports could assist them in “better preparing graduate students who were entering the field” and help graduate students know what to consider when publishing.

Interest/Surprise in APC Information

Both liaison librarians found the information about APCs to be particularly relevant. One noted the APCs in their discipline were “shockingly high” while the other appreciated having this information readily available, as it is sometimes difficult to locate on publisher websites.

Sharing

Both thought there was potential to share the reports to a greater audience. One liaison librarian mentioned they could share the list of journals and the requirements for grant agency OA policies with researchers

or new faculty, for example “we have these lists, this can be useful, especially if you’re writing a grant and you need to account for these APCs.” Both mentioned that the reports contained information that could be shared at a departmental meeting, with one specifying further that it could be used to discuss national granting agencies’ open access requirements.

Finally, one liaison librarian remarked on the usefulness of the information on data sharing policies of journals as they were expanding their knowledge in that area. This liaison librarian further commented on the timeliness of the report, as a data policy from the national funding agencies was on the horizon and this could be a “good time to remind them [faculty members] of the regular OA requirements since they’re complementary.”

Suggestions for Improvement

Both liaison librarians had suggestions for future improvement, particularly information they would like to have seen included in the reports:

- List of professors who had received a grant from a national funding agency that had an open access policy
- List of journals that require ORCIDiDs
- Raw data used to compile the report
- Clearer methodology (e.g. including information on whether name disambiguation was undertaken)
- List of professors who had deposited in McGill Library’s institutional repository
- An analysis of open access in their department before and after the introduction of open access mandates for Canada’s national funding agencies.
- List of countries (rather than regions) for collaborating institutions

CHALLENGES: LACK OF TIME AND FACULTY AWARENESS

Earlier in the paper, the literature highlighted that lack of time was a reason why liaison librarians do not always engage in scholarly communications activities. In their interviews, one liaison librarian directly stated that they wanted to participate in this pilot project because they did not have a lot of time and they planned to do similar reports for their other disciplines in the future. By having this first report created for them, they received a “good push in that direction.” This liaison librarian later went on to state that they “would love to do a report like this and also add researcher portraits ...

it would be something to share with faculty if they were interested.” One of the liaison librarians also addressed another challenge mentioned earlier: that faculty do not see the library as having expertise in scholarly communications areas. They mentioned that the SC report is “also a way to integrate myself with their [the faculty member’s] work...they [faculty] can think of the library when they have questions like that [related to open access and SC], which they don’t do right now but that’s not surprising.”

NEXT STEPS

The initial pilot was promising, and the liaison librarian interviews demonstrated the value and relevance of creating such reports. Additionally, follow-up with the practicum student confirmed that the project had provided the student with deeper scholarly communications training. The student remarked:

Before completing the practicum, I had basic knowledge of the open access movement. I was only vaguely aware of terms like gold OA, article processing charges, and embargos. However, by the end of the practicum, I could explain and discuss each term at length. I feel I could comfortably explore any of these topics in a variety of academic fields.... While I did not pursue a scholarly communications librarian position following graduation, I work in a university setting with academic faculty and staff, and I feel comfortable speaking with librarians and faculty on this topic. While I am still by no means an expert in the topic, I feel I can be an advocate for open access in my university.

Beyond the scholarly communications training, the student noted the practicum was valuable for learning how to sift through and synthesize large amounts of information and data. With only two liaison librarians included in the original pilot, there is only preliminary information as to whether the reports sufficiently helped to overcome some of the challenges outlined earlier in the paper: lack of time and workload balance, lack of confidence, and faculty awareness of SC services.

Although one liaison librarian directly referenced lack of time and their desire to increase faculty awareness of the library, neither liaison librarian expressed that a lack of confidence in SC topics was their motivation for participating in the pilot project. This could be a self-selection bias, in that

liaison librarians who were already comfortable and fluent in SC topics were the ones to put their names forward. For example, one liaison librarian stated that their initial inclination to join the pilot was to confirm if their impressions about their faculty were correct, and both demonstrated fluency with SC topics in the interviews. It seemed to the Scholarly Communications Librarian that the reports served to fill the last gap in their SC knowledge, facilitating easy access to information they could share with faculty. There are still demonstrated benefits to creating the reports (as discussed in the liaison librarian interviews) but at this moment, it is unclear if creating reports on behalf of liaison librarians would alleviate anxiety and lack of confidence around these issues.

In spite of the initial, encouraging results, the Scholarly Communications Librarian has not decided whether the pilot will continue. Although using a practicum student to run the pilot and compile the reports was successful and beneficial to both the institution and student in the short term, relying on a practicum position to continue this work is neither sustainable nor ethical, as it relies upon temporary, unpaid labor. Even without these considerations, practicums only occur once a year during the winter semester. This schedule means that a student could only produce two reports a year using this method. That stated, now that a methodology and template already exists, the Scholarly Communications Librarian might explore other opportunities to collaborate with liaison librarians to work on these reports together. For example, they could experiment with holding “research report retreats” whereby the Scholarly Communications Librarian organizes a time for the liaison librarians to work on creating the reports together, having the Scholarly Communications Librarian present in the room to assist with any questions.

The authors are also aware that most institutions will not have access to students in a master’s program in library and information studies. In such cases, institutions could explore the creation of SC reports by using existing staff members or student workers from any disciplinary background who have an interest in and aptitude for scholarly communications topics. The practicum student herself noted that their knowledge on open access was minimal prior to completing the practicum. Thus, having a library and information studies student is not necessarily a prerequisite for creating SC reports. In

APPENDIX A

Methodology for Creating the Scholarly Communications Reports Locating Faculty Publications Using Scopus and Web of Science

SCOPUS

To search in Scopus, the student used the search query for affiliated organization and searched “McGill University” found in the field code section on the right side of the page. The student then combined the University name with the department name in parentheses and filtered for results in the last ten years.

The student selected all the articles and exported the relevant data as a CSV file to Microsoft Excel. The student then cleaned up the spreadsheet so that only the following information was on the document:

Author; Title; Source title; Year; Authors with affiliations

There was a column for access type, but often journals that Scopus listed as “Open Access” were in fact hybrid journals, so this was not a reliable source of information for access type.

WEB OF SCIENCE

For Web of Science, in the advanced search, the student clicked on the index for “Organization-Enhanced.” Upon searching “McGill University,” the student chose the first result and clicked “add” to the advanced search. Running this search showed McGill University, which the student selected. This gave a list of all the articles from McGill University researchers in the database. Scrolling down this page, on the left side of the page, there is an option to narrow by “Web of Science Categories.” On this page there is an option for all the different departments at McGill University, so the relevant departments were selected.

The student then narrowed their search to the last ten years of publications, and, if necessary, narrowed the results by document type so that only articles appeared, not book chapters, meeting abstracts, or other unrelated documents.

The student exported the data by clicking “Create Citation Report” and “Save to Excel File.” Note that Web of Science can only export five hundred records at a time.

COMBINING DATA

The student combined the results from Scopus and Web of Science through copy and paste, and then removed duplicates using the “Data” tab of Excel, then the “Remove Duplicates” button, and then remove based on duplicates in the article title column.

IDENTIFYING AND RESEARCHING TOP JOURNALS

The student sorted the data on “Journal title” and identified the

top journals by locating instances of three or more publications from McGill University professors in that department in that particular journal. The number of journals this resulted in varied by discipline. Once the student identified the top journals, they looked for information on each of those journals. This was a three-step process:

1. First, they consulted SHERPA/RoMEO to find copyright and licensing information for each journal, as well as embargo length if applicable. The student added this information to new columns on the Excel spreadsheet entitled “Policies” and “Embargo length.”
2. Next, the student verified if the journal was Gold OA via the Directory of Open Access Journals and added this information in another new column, “Access type.”
3. Finally, the student visited the website for each journal. These websites provided information on the publisher of the journal, as well as if there was a hybrid option; if so this information was added to the “Access type” column. If there was a paid open access option in a traditionally closed journal, the Article Processing Charge (APC) was added to the spreadsheet as well.

In order to see the full number of open access articles published (not just those in gold open access journals), the student looked at articles in hybrid journals that faculty published with an open access option. To do this, the student completed the work off-campus in order to see which hybrid journal articles were open. The student searched the title of the article in Google Scholar to see if there was open access to the document from that journal publisher’s website. Another final column was added for “Was the article published OA?”

At this point the spreadsheet contained the following columns:

Authors; Article title; Journal title; Publisher; Year; Policies; Access type; Embargo length; APC; Was the article published OA”

IDENTIFYING CROSS-INSTITUTIONAL COLLABORATION

One liaison librarian requested information on collaboration of McGill University researchers with other institutions. Web of Science lists the affiliations of co-authors, but Scopus does not, so that data was incomplete. Instead, the student searched the database SciVal using this strategy:

Selected “Collaboration,” Filtered on subject ‘Plant Science,’ Years 2015–2017

SciVal does not show the exact collaborations of the articles themselves, but it gave the liaison librarian an idea of which institutions the department is collaborating with overall.

fact, using full-time or part-time staff may be more suitable to long-term sustainability than a one-time practicum student. Libraries could take advantage of any slow periods for staff (e.g., slow desk shifts) to assign work on a project like the SC reports. Creating and updating SC reports could be a good backup project for staff or student workers, depending on the institution and its priorities.

CONCLUSIONS

Creating scholarly communications reports for liaison librarians is not a panacea for all the challenges in changing the liaison librarian model. However, the reports can be part of a larger upskilling agenda alongside SC training and resource toolkits. This pilot project provided an additional method of integrating scholarly communications into liaison librarian roles and overcoming one of

the common challenges: lack of time. These reports can assist liaison librarians with the first major obstacle in developing SC competencies: learning the research nature and culture of their department(s). SC reports have the potential to increase liaison librarians’ confidence in exploring SC issues with faculty members and reduce anxiety about their own SC knowledge. Libraries could explore other staffing scenarios to make the

creation and updating of these reports more sustainable in the long term. ■

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