» "A library is a good place to go when you feel unhappy, for there, in a book, you may find encouragement and comfort."

- E.B. WHITE

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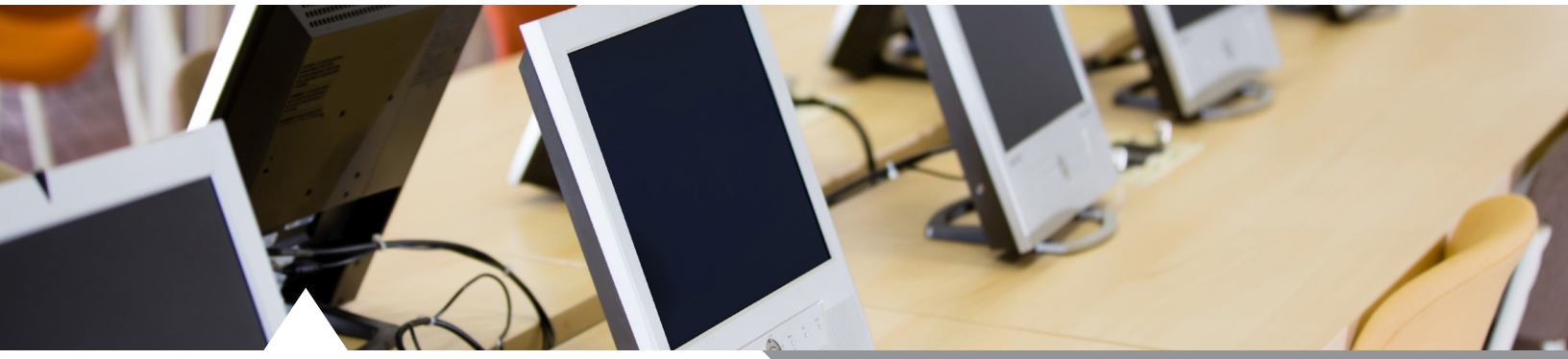

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The Favor of the People:

» What Library Leaders Can Learn from The Prince

BY JASON MARTIN

INTRODUCTION

When people think of a Machiavellian leader, they often think of someone who is duplicitous, unethical, and treacherous; a person who is willing to do whatever it takes to gain and keep power. This idea of Machiavellian leadership comes from an inaccurate and incomplete understanding of Machiavelli's book *The Prince*. While Machiavelli did write such statements as "it is necessary for a prince wishing to hold his own to know how to do wrong," (p. 34) and sometimes what a leader should do - the right thing - will lead to his downfall, so it is better to do what needs to be done even if it is immoral or unethical. These approaches to leadership are only a very small part of the book's advice.

Niccolò Machiavelli (1469– 1527) was born in Florence, Italy and spent fourteen years as a diplomat before being imprisoned by the Medicis. He wrote *The Prince* during his time in prison, so his negative opinion of human beings might be excused. But his main message throughout *The Prince* is not to do whatever it takes to gain and hold power; rather, his message is to

Niccolò Machiavelli

keep the people of your kingdom happy, or at the very least do not make them hate you. To this end he advised, "every prince ought to desire to be considered clement and not cruel." (p. 37) This is much different than the popular opinion about Machiavelli.

By keeping the people happy, a leader secures his position and protects himself from adversity. When people are happy and happy with their leadership, they will be more loyal. In organizational terms, this is called affective commitment, and it does more to reduce turnover, improve satisfaction, and lift morale than almost any other organizational factor. Too many leaders want to curry favor with the nobility - senior university administrators and library boards - but as Machiavelli explains those nobles are few in number, and leaders can easily defend themselves against them, especially when they have gained the loyalty and support of the masses. (p. 21)

The leadership lessons of *The Prince* are just as important to library leaders today as they were to 16th Century Italian leaders. Machiavelli's main point is to keep the people you lead happy, and he describes six ways to do just that: be a good leader and a competent professional, build and maintain relationships with people, stop problems before they start, empower people, have strong values and high standards, and have a vision. This article will briefly explore each of these areas and describe their importance to library leaders.

BE A GOOD LEADER AND A COMPETENT PROFESSIONAL

"Therefore, one who becomes a prince through the favour of the people ought to keep them friendly, and this he can easily do seeing they only ask not to be oppressed by him." (p. 22)

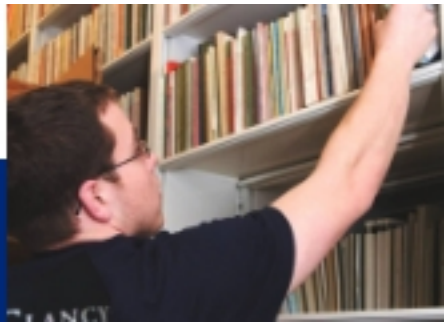
To be a good leader, Machiavelli tells us, is to keep the people we lead happy. If they are happy with us and our leadership, then they are more loyal, more engaged, and more apt to create a healthy culture. The first lesson for leaders on how they can keep the people they lead happy - and maybe the most important way - is to be a good leader. Library leaders can be good leaders in several ways, the first of which is to be a competent and experienced librarian. Machiavelli states leaders "who solely by good fortune become princes from being private citizens have little trouble in rising, but much in keeping atop." (p. 13) Having good fortune is nice, but the best fortune is to keep the people you lead happy. Librarianship is an applied profession. To be a good leader, you need to know the work of the library. This does not mean you can do all the work in the library, but that you have the experience to understand the work and can have meaningful conversations with librarians and library staff about work issues. Being knowledgeable about the work of the library earns the respect of the librarians and library staff. With a leader they can respect, they are happier than with one they do not respect.

In order to be a good leader, a library leader should study both librarianship and leadership. Machiavelli instructs his readers, "A prince ought to have no other aim or thought, nor select anything else for his study, than war and its rules and discipline." (32) In the time The Prince was written, a prince's main duty would have been engaging in war, both to protect his kingdom and expand it. Today's library leaders are obviously not going to lead a library into battle, but they must study the work of the library and leadership. Personal development is a key factor in success for anybody in any field, this is especially true of leadership. Library leaders ought to ask themselves every day not only how they can become better leaders, but how they can become better librarians. Studying librarianship and leadership will also help library leaders keep up with changes in the profession. Successful leaders focus their "actions according to the spirit of the times." (p. 58) A library leader needs to know not only the spirit of the times, but anticipate when and how those spirits might change.

A good prince must be a "fox to discover the snares and a lion to terrify the wolves." (p. 39) The same is true for library leaders. They need to know who on their campus or in the city or county government are library allies and who are not. They need to know how to advocate for the library in different venues and to different audiences. In short, they need to be political and able to play the game. They need to know how to fight for the library and be able to evade political traps that could cost them and the library dearly. This is difficult for many leaders, not just library leaders. Being politically aware often means having a high level of emotional intelligence, especially empathy. Through the use of empathy a library leader is better able to understand the motivations of others and the political situation of their library and the greater community in which it operates.

Finally, in order to be a good leader, a library leader must assemble a good leadership team. Assembling a leadership team is of "no little importance" (p. 53), and the leadership team is "good or not according to the discrimination of the prince." (p. 53) The makeup and quality of the leadership team is a direct reflection of the leader. This leadership team provides several critical duties. They represent the library when the dean/director is unable to. Leaders must make sure their leadership teams are good representatives of the library, and both know the library message and can stay on it. The leadership team also helps fill in the leadership gaps of the dean/director and must have a diverse array of skills and abilities on the team. If a library dean/director is detailed oriented, then the leadership team should have someone who is big picture. All factors of effective leadership should be represented on the leadership team.

The most important duty of a leadership team is to provide counsel to the dean/director.



In this regard, library leaders must do two crucial things. One, they must explain to the leadership team telling "the truth does not offend." (p. 54) Not only does this keep "flatterers" at bay, but it also allows leaders to hear important and sometimes painful information. When library leaders learn they have not been told the truth, they must "let [their] anger be felt." (p. 54) Two, library leaders must be "a constant inquirer, and afterwards a patient listener concerning the things of which he inquired." (p. 54) If library leaders ask for honest advice, then they must listen to it and act on it. This also means library leaders have enough knowledge and awareness to understand what they do not know and enough confidence to ask for that information.

BUILD AND MAINTAIN RELATIONSHIPS

One of the crucial ways library leaders can make those in their library happy is to build relationships with them. This is tricky to do, however. For some deans/directors, their library is too big to build relationships with everyone in the library. Instead, they should focus on building relationships with their direct reports and mentoring and coaching them to build relationships with their direct reports and so on. The point of building relationships is to build community and trust which will support innovation and collaboration in the library. But relationships should not be built only with those people whom leaders already have good standing. In *The Prince*, Machiavelli declares an enemy "ought to either be well treated or crushed." (p. 4) Machiavelli's point is leaders either need to destroy an enemy so terribly they will not be able to be a problem again, or they need to treat them so well they will never want to be a problem again. Enemies is a strong word for a library, but every library has its share of disgruntled, unhappy, and dissatisfied employees. One of the best things library leaders can do is to build relationships with those librarians and library staff as well as members of the larger community who are in some way dissatisfied with the library. They may not be successful, but when they are those relationships help make the library a more functional organization.

When a prince acquires new territory, Machiavelli advises the best thing they can do to hold on to those lands is "go and reside there." (p. 4) By becoming part of the new population, they make themselves known and learn the customs and culture of the people. This helps the new prince be accepted as a ruler. For library leaders to build relationships, they need to be visible. They need to be out and about in their library - and on their campus and community - to build those important relationships. Library leaders need to be approachable. They need to be human and allow others to get to know them. Both of these require emotional intelligence. To be approachable, library leaders need to be open to and aware of others. They also need to manage their emotions. If they fly off in a rage one time but are cool and collected another, then people will be afraid to approach them because they do not know what response they will get.

The openness and awareness of emotional intelligence is also important in allowing others to get to know a library leader. The farther removed a librarian or staff member is from a library leader, the less human the library leader feels to them. By humanizing themselves through sharing of hobbies, telling of family stories, and discussion of a shared love of cats (or dogs or rabbits or snakes), a library leader becomes more human and more approachable.

Machiavelli advises any current or would be prince to "follow the paths beaten by great men." (p. 11) For library leaders this means getting a mentor, especially in leadership areas that are not your strengths, but it also means to be a mentor. No better way exists to build a relationship than to be a mentor to someone. Finally, in order to make people happy, a leader should "entertain the people with festivals and spectacles at convenient seasons of the year." (p. 52) Library leaders need to celebrate not only the work of the library but the people of the library as well. The most important resource of a library is its people, and they should be celebrated for all that they do for the library.

STOP PROBLEMS BEFORE THEY START

While getting to know people during library parties is fun and easily makes people happy, sometimes library leaders need to take action that will not only make them uncomfortable but will most likely upset others in the short term. This has to be done because this action taken now will actually make people happier and the library run better in the long term. Machiavelli writes, all prudent princes...have to regard not only present troubles, but also future ones, for which they must prepare with every energy, because, when foreseen, it is easy to remedy them; but if you wait until they approach, the medicine is no longer in time because the malady has become incurable; but in the course of time, not having been either detected or treated in the beginning, it becomes easy to detect but difficult to cure." (p. 5-6)

Put simply, good library leaders need to take action and be aggressive in order to stop small problems before they become big problems. One of the worst ideas a library leader can have is, "The problem will take care of itself." They rarely do. And if library leaders wait until they have to take action, then the problem is big, complex, and has made a lot of people unhappy not just in the present but for the foreseeable future. So library leaders need to take action to stop problems not only when they are small but through empathy and big picture thinking anticipate and stop problems before they start. While it might seem a lot for library leaders to anticipate and correct problems before they start, Machiavelli warns, "if he who rules a principality cannot recognize evils until they are upon him, he is not truly wise." (p. 32)

This is another benefit to library leaders for being approachable, visible, and having relationships with librarians and library staff: leaders are more likely to have people come to them with problems and seek mutually beneficial solutions. Machiavelli states, "a prince ought to live amongst his people in such a way that no unexpected circumstances, whether of good or evil, shall make him change." (p. 21) By being out and about in the library, library leaders can learn what is happening in the library long before it makes it to their office at which time it will be too late.

EMPOWER PEOPLE

In order to make the library happy, library leaders need to empower the librarians and library staff. Library leaders need to give them the freedom to innovate, try new services, explore new solutions to old problems, and most importantly the freedom and safety to fail.

Machiavelli knew this when he wrote, "he who would keep a city accustomed to freedom will hold it more easily by the means of its own citizens than in any other way." (p. 10) His advice here is to not take away people's freedom in order to tighten your rule. This will only cause a leader to swiftly and more easily fall. Instead, people need to have their freedom. Leaders need to

treat people with dignity and respect, like they are adults capable of making their own decisions (because they are). Weak leaders fear this freedom will be used against them, but strong library leaders know this freedom will build trust and support throughout the library. Library leaders become more powerful when they give power to others.

HAVE STRONG VALUES AND HIGH STANDARDS

To be a good library leader, have a well-functioning library, and make librarians and library staff happy, library leaders must emulate the clever archers who, "designing to hit the mark which yet appears too far distant, and knowing the limits to which the strength of their bow attains, take aim much higher than the mark...[and] with the aid of so high an aim to hit the mark they wish to reach." (p. 11)

Library leaders need to set their standards high, both for themselves and for those who work in the library. At first glance, this might seem like the opposite way to make people happy. Setting low standards and letting everybody skate by on the bare minimum of work would seem to be the real way to make employees happy, but in truth people like to be challenged (within reason) and to grow and develop both personally and professionally. Setting high standards allows them to grow and inspires and motivates those in the library, which is a hallmark of transformational leaders. The best way to reach your goal is to aim higher than you want to go.

The foundation for these high standards needs to be a strong value system. Machiavelli explains a leader "who has established himself as above, who can command, and is a man of courage, undismayed in adversity, who does not fail in other qualifications, and who, by his resolution and energy, keeps the whole people encouraged" is a leader who "has laid his foundations well." (p. 22) Values guide everything good library leaders do from where to allocate funds to how to build a collection to what services the library offers to how to treat people. A strong value system that is consistently used to guide personal and professional decisions keeps a library leader from being thought of as "contemptible" and "considered fickle." (p. 41) A library leader with strong values demonstrates "his judgments are irrevocable, and maintain himself in such reputation that no one can hope either to deceive him or to get round him." (p. 41) Being guided by values also makes a library leader a role model known for "setting a fine example." (p. 50)

Library leaders need to use their standards and values to overcome obstacles and persevere. Machiavelli states, "princes become great when they overcome the difficulties and obstacles by which they are confronted." (p. 48) Each obstacle overcome, each difficulty bested makes a leader stronger, better, and more knowledgeable. Leaders then use their improved strength, ability, and knowledge to overcome the next, more daunting challenge. To quit on a vision or in the middle of a change process is demoralizing to everyone in the library. Library leaders also need to take responsibility for their actions. Good leaders must never blame "fortune for the loss of their principalities after so many years' possession, but rather their own sloth." (p. 56) Library leaders need to take responsibility for everything that happens in the library. This not only improves trust with both librarians and library staff and university administration or county or city governments, but it also inspires everyone in the library to take responsibility.

HAVE A VISION

"And it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things." (p. 12)

Change. How many library leaders have been undone by failure to successfully lead change? Librarians and library staff are often unfairly regarded as reluctant to change, but this is not true. All human beings are averse to change because change brings with it the unknown, but humans can and do change all the time when they know the change - no matter how much uncertainty it brings - is for the better. People who quit smoking, drinking, or drugging, who start a new life in another city across the country, or who leave abusive relationships all made tough changes, but they were encouraged, motivated, inspired, and fueled by the knowledge their current life was not beneficial to them and they needed to change. Machiavelli understood this when he wrote, "a powerful and courageous prince will overcome all such difficulties by giving at one time hope to his subjects that the evil will not be for long." (p. 24) If library leaders want to be successful not just in change but in leading their libraries, then they must have a vision for the future of the library. This vision gives hope, it explains the important and much needed "why" of organizational change, it builds community and unity in the library, and makes people happy by giving them hope for the future. All good library leaders must have a vision for the library and successfully share that vision.

CONCLUSION

The Prince by Niccolò Machiavelli is as relevant to leaders today as it was when it was written in the 16th Century. The main message of Machiavelli is to keep the people you lead happy. This runs counter to the incomplete and superficial understanding many people have of Machiavelli. The Prince describes six ways to keep people happy: be a good leader and a competent professional, build and maintain relationships with people, stop problems before they start, empower people, have strong values and high standards, and have a vision. One final thought from Machiavelli, library leaders should enjoy their work and do all they can for their libraries because "a prince may be seen happy today and ruined tomorrow without having shown any change of disposition or character." (p. 57) Leadership is fragile, and you never know when you will no longer have the great privilege of leading others. ■

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Say You Want a Renovation

» Using Instagram to Document a Library Renovation at Lehman College

BY JOHN P. DELOOPER AND MICHELLE EHRENPREIS

INTRODUCTION

The Leonard Lief Library began a major renovation in December 2018, relocating its main service points, reference and circulation desks, and library faculty offices to the concourse level of the building. Recognizing that the Library's renovation would cause service changes and disruptions, the Electronic Resources and Web Services librarians (Michelle Ehrenpreis and John DeLooper) sought ways to keep students up to date and engaged in the renovation process and to create a documented record of the renovation process. These librarians decided to use Instagram for this purpose because of its visual medium for posting photos and popularity among students.

BACKGROUND

Lehman College is CUNY's senior college in the Bronx, offering more than 90 undergraduate and graduate programs in the liberal arts, sciences, and professional education. With a student body of more than 14,000, Lehman serves students from all backgrounds. The Library acts as a student center on campus, offering a space for research and instruction for the college community. The Library's website features many online resources for student, faculty, and staff research, and utilizes social media as its primary medium for promoting programming, events, and updates.

WHAT IS INSTAGRAM?

Instagram is a social media network focused on sharing user-submitted photographs. Founded in 2010, it was originally released for iPhone, and added support for other platforms including Android in 2012 and desktop browsers in 2016. Instagram was bought by Facebook in 2012 and has hosted more than 40 billion photos since its launch (Alba, 2015). In the years since Instagram launched, many libraries have also begun to adopt Instagram for outreach and advertising purposes.

HOW DO LIBRARIES USE INSTAGRAM?

Libraries have used Instagram since at least 2013. Early uses included creating a location-based photo stream (Kroski, 2013) and posting library information, events, and staff information ("9 Ways to Use Instagram for Your Library," 2012). Over time, libraries' use of Instagram has evolved: library and book-based communities have formed, and new features like library challenges and hashtags have become a staple of Instagram library pages (Jess, 2015). In addition, libraries continue to use Instagram to post updates about programs, services, and library history, and to share library-themed memes.

HOW HAVE LIBRARIES DOCUMENTED RENOVATIONS?

As far as documenting renovations, libraries have utilized many strategies to document progress and change. Methods have ranged from newsletters (Mwesigwa, n.d.; Probeyahn, 2017) to renovation websites ("Library Renovation," 2017; "Space Renovations," 2018) to LibGuides (Van Houten, 2013) to blogs ("Library 2.0," 2017). To the best of our knowledge, Instagram has so far only been used at the end of library renovations to showcase completed construction (Baez, 2016; Laurent, 2016).

LEHMAN SOCIAL MEDIA PRIOR TO INSTAGRAM

In September 2018, the Web Services-Online Learning librarian, John DeLooper, conducted a website audit to determine the relevance and currency of material on the Leonard Lief Library's website. This

audit was conducted in preparation for the college's decennial Middle States re-accreditation. As part of the audit, DeLooper examined the Library's use of social media platforms. He determined that the Leonard Lief Library's social media channels had become stale and needed updating and a defined direction. Lehman had profiles on several different platforms, specifically Twitter, Facebook, Pinterest, and Instagram, and a newsletter. While most of the Lief Library's librarians could edit each social media page (with the exception of the newsletter), they rarely added content. Post frequency averaged once a month on Facebook and Twitter, and less on Instagram and in the newsletter. Of these, Instagram was the most neglected, as it had only three posts and three followers and had not been updated at all in a year.

GETTING STARTED

After surveying the Library's social media presence, we—the Electronic Resources Librarian and the Web Services-Online Learning Librarian—decided that we needed to be strategic about how the Library used social media and how this technology could better connect the Library with its students. We were also aware that with a renovation scheduled to begin in December, the Library needed a channel for communicating construction-related changes to students and thought using Instagram specifically might be a good way to do this. We chose to focus on Instagram because it has grown in popularity in recent years and because its audience skews toward young adults (Perrin & Anderson, 2019). In addition, several other libraries, including college and university libraries, have used Instagram to communicate and engage with their patrons (Mariam, 2015). The unit felt that a construction focus might be an especially good option for Instagram, as the platform is often used by home improvement aficionados, with tags such as #Renovation and #Renovations each having over a million posts. The goals for Instagram were thus to inform users about the renovation, attract users by engaging them in an accessible and appealing format, and experiment and develop something that had not been tried before.

To start this process, we sought out Instagram inspiration. We researched other libraries and found that other sites typically posted about events, services, collections, and library history. Many also participated in library-specific challenges like "Bookface" and "Shelfie." We also found that some sites surveyed or asked questions of students and encouraged student participation, while others were more of an information source. We considered both these approaches while devising a social media strategy.

Before beginning our foray into Instagram, we sought guidance from our chief librarian, the IT director of web services, the campus social media coordinator, and the director of facilities in order to better understand the college's preferred directions, the platform's limitations, and the lessons our colleagues had already gleaned from experience. We were given suggestions such as posting weekly, experimenting with stories, and regramming the college's main social media account to maintain and increase momentum. In addition, we were informed that we would not be allowed to go inside the actual construction sites or to take pictures of active construction. Therefore, we chose to focus on areas before their renovation, newly redesigned areas, temporary areas, signage, and all other areas of the Library affected by the renovation. Once the goals and parameters were set, we began taking pictures and downloaded the Instagram app to begin weekly posts in December of 2018.

DISCUSSION/LESSONS LEARNED

During our adoption of Instagram, we learned a lot about what it takes to make social media successful, and we encountered several unexpected challenges.

First, setup was complicated in that analytics needed to be separately activated via a function called "Business Insights." Luckily, this was relatively straightforward, and we enabled it quickly.

Next, we wanted to be able to "regram," or copy/syndicate content from other pages. However, unlike Facebook and Twitter, regramming is not built into the Instagram app. A page owner who wishes to regram content must therefore ask the content owner (the person who originally published the content) for permission, then copy their content. Since Instagram restricts the ability of end users to save images posted on the site, any regrammed post must either screenshot any included photos or ask the owner to send a copy of the photos. The extra steps required for this limited cross-promotional opportunities.

In addition, given that this was an experiment for the Library, we decided to commit only about an hour a week to this process, the rationale being that it would be helpful to schedule tweets in time crunches, and to ensure that we always had content ready to keep the feed "fresh." Some social media platforms like Facebook have tools for scheduling posts in advance. At the time of this publication, Instagram is beta-testing

this functionality on its most popular accounts, and the Leonard Lief Library did not have access. Therefore, we decided to try tools such as Hootsuite, which the Lief Library had previously used for Facebook and Twitter.

Unfortunately, due to Instagram's restrictions for posting content via third party application programming interfaces (APIs), Hootsuite posts can only include one picture and users are limited to 10 scheduled posts. Hootsuite also does not include the ability to add or edit alt-text in Instagram posts. There are also other social media management tools such as Buffer and Conversocial that allow for scheduling of content, but each of these is quite expensive, and we were unable to try them due to the limited availability of library funds.

As for adding alt-text in the Instagram app, the process for doing this is not obvious and requires changing an obscure setting (Herman, 2019). Our early confusion about the process meant that our initial photos did not include alt-text.

Interestingly, Instagram uses artificial intelligence to identify contents of pictures and generate alt-text, but the new and untested nature of AI means that errors sometimes occur, so we have tried to manually add alt-text whenever possible.

Pervading the entire experience of using Instagram is its mobile focus. Not only did Instagram wait several years after its creation before developing a desktop website, many features—such as creating and editing posts and viewing analytics—remain unavailable except on mobile devices. Additionally, as advertising-supported business models of social media sites have matured, their developers have become extremely adept at integrating advertising into their sites. Instagram's advertising focus thus

makes for some inconvenient features for institutions like a library.

First, Instagram disables functional hyperlinks within post unless the poster has paid for advertising. Presumably, this is done because clicking a link is considered an "engagement" action and Instagram wants to demonstrate its value as click- throughs from Instagram drive traffic and/or purchases.

As noted previously, when we first started using Instagram, we had envisioned showing hard hats and active construction so students could get a better understanding of how the Library was changing and what new facilities would be available. Unfortunately, college administrators explained that we could not take photos of active construction sites or construction workers for safety and legal reasons. As a result, our strategy quickly evolved to incorporate additional content beyond photos of temporary areas, recently finished construction, and areas about to be renovated. We began to feature events and curated news on Instagram, which students have favorably mentioned during bibliographic instruction sessions.

Next, unlike Facebook and Twitter, Instagram does not allow us to automatically syndicate the posts to our home page via a "widget." While there exists a process for doing this via Instagram's API, this service was being transitioned from one platform to another at the time of our experiment, and the process was more complicated to implement than the web services librarian could tackle at the time. At first this limitation seemed to be an inconvenience, as any posts had to be manually added. However, this restriction quickly proved to have an upside: since posts were not syndicated, we were able to choose which post was displayed at which time. Since had long used Twitter for our news, we continued to use Twitter to display the latest news while we used Instagram to show a highlighted change or activity. Instagram allowed us to keep these highlighted stories visible for as long as needed, while still allowing us to post news, services, and changes on Twitter.

We did find it important to post consistently. By posting at least once a week, updates were consistent, and our colleagues informally reported that it kept the home page "fresh."

In terms of using Instagram to reach our users, the growth of our followers on the platform slowed in the second semester, and we are currently at 170. Since we do not pay for advertising, we do not have the ability to add hyperlinks and we cannot track

» **Pervading the entire experience of using Instagram is its mobile focus. Not only did Instagram wait several years after its creation before developing a desktop website, many features—such as creating and editing posts and viewing analytics—remain unavailable except on mobile devices.**

engagements with our Instagram page. We have also seen relatively few comments on posts, which indicates that our patrons are not using Instagram as a medium for library interactions such as reference questions. In addition, a significant portion of our followers are other libraries rather than students, faculty, or staff of our institution, and who presumably follow us for either entertainment or inspiration.

We have also tried experimenting with new tools such as stories. Feedback to our initial experiments with stories was positive, but we have only had limited circumstances where we perceived this to be of interest to our students. This feature will be revisited later, such as when the renovation is completed, and we can conduct a story-based tour of the new space.

CURRENT STATUS

The Lief Library's renovation is expected to be completed in January 2020. After the renovation, we plan to continue to use Instagram to promote news and events. However, given Instagram's strong advertising focus, we must evaluate the Library's future direction with Instagram and all social media platforms. We must recognize that different platforms have different strengths and weaknesses, and certain platforms may prove to be better fits for a library. Social media platforms have been shown to quickly evolve and lose popularity over time, so we will have to monitor whether Instagram continues to be a good way to reach our patron community.

CONCLUSION

The Library's experiment with Instagram has proven successful in documenting the Library renovation and informing the campus about changes, and it is providing a foundation for continued library experiments with social media platforms and tools. We plan to conduct a more detailed study of Instagram and develop a comprehensive strategy for the future. ■

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Information Security in Libraries

» Examining the Effects of Knowledge Transfer

BY TONIA SAN NICOLAS-ROCCA AND RICHARD J. BURKHARD

ABSTRACT

Libraries in the United States handle sensitive patron information, including personally identifiable information and circulation records. With libraries providing services to millions of patrons across the U.S., it is important that they understand the importance of patron privacy and how to protect it. This study investigates how knowledge transferred within an online cybersecurity education affects library employee information security practices. The results of this study suggest that knowledge transfer does have a positive effect on library employee information security and risk management practices.

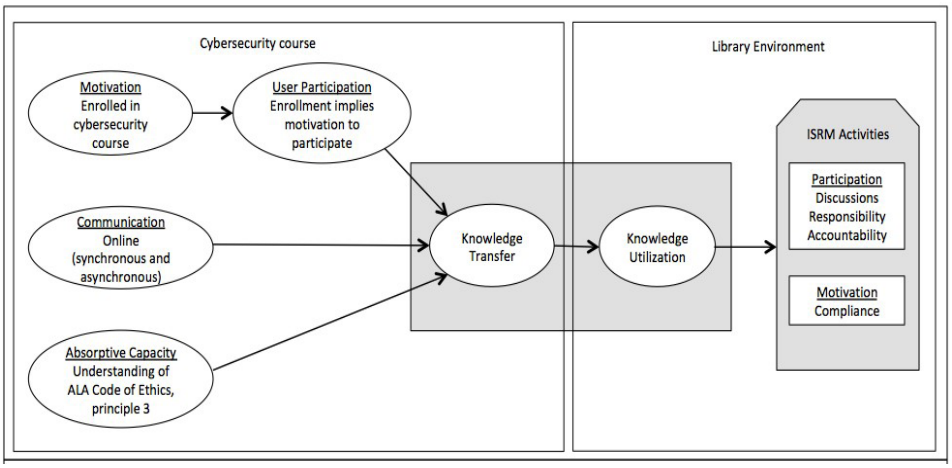

Figure 1. Factors of Knowledge Transfer Leads to Knowledge Utilization.

INTRODUCTION

Libraries across the U.S. provide a wide range of services and resources to society. Libraries of all types are viewed as important parts of their communities, offering a place for research, to learn about technology, to access accurate and unbiased information, and a place that inspires and sparks creativity. As a result, there were over 171 million registered public library users in the U.S. in 2016.[1]

A library is a collection of information resources and services made available to the community in which it serves. The American Library Association (ALA) affirms the ethical imperative to provide unrestricted access to information and to guard against impediments to open inquiry.[2] Further, in all areas of librarianship, best practice leaves the library user in control of as many choices as possible.[3] In a library, the right to privacy is the right to open inquiry without having the subject of one's interest examined or scrutinized by others.[4]

Many library resources require the use of a library card. To obtain a library card in the U.S. one must provide official photo identification showing personally identifiable information (PII), such as name, address, telephone number, and email address. PII connects library users or patrons with, for example, items checked out, and websites visited. As such, PII has the potential to build up an image of a library patron that could potentially be used to assess the patron's character. In response, the ALA developed a policy concerning the confidentiality of PII about library users.[5] Confidentiality extends to "information sought or received and resources consulted, borrowed, acquired or transmitted," and includes, but is not limited to, database search records, reference interviews, circulation records, interlibrary loan records, and other personally identifiable uses of library materials, facilities, or services.[6] In more recent years, the ALA has further specified that the right of patrons to privacy applies to any information that can link "choices of taste, interest, or research with an individual."[7] When library users recognize or fear that their privacy or confidentiality is compromised, true freedom of inquiry no longer exists. Therefore, it is imperative that libraries use extra care when handling patron personally identifiable information.

While librarians and other library employees may understand the importance of data protection, they generally don't have the resources available to assess information security risk, employ risk mitigation strategies, or offer security education, training, or awareness (SETA) programs. This is of particular concern as libraries increasingly have access to databases of both proprietary and personal information.[8] SETA programs are risk mitigation strategies employed by organizations worldwide to increase and maintain end-user compliance of information security and privacy policies. In libraries, information systems are widely used to provide services to patrons, however, there is little known about information security practices in libraries.[9] Given the sensitivity of the data libraries handle, and the lack of information security resources available to them, it is important for those currently or planning to work in the library environment to develop the knowledge necessary to identify risks and develop and employ risk mitigation strategies to protect information and information resources they are entrusted with. Therefore, the research question in this present study is: *How can cybersecurity education strengthen information security practices in libraries?*

Currently, there is a dearth of research on information security practices in libraries.[10] This is an important research gap to acknowledge given that patron privacy is fundamental to the practice of librarianship in the U.S, and the advancement in technology coupled with federal regulations adds to the challenges of keeping patron privacy safe.[11] Thus this study contributes to cur-

rent literature by evaluating the effects of knowledge transfer as a means to strengthen information security within libraries. Furthermore, this study will offer a preliminary investigation as to whether knowledge utilization leads to motivation and the participation of information security risk management activities within libraries.

The remainder of this paper proceeds as follows: First, a review of knowledge transfer is covered. A description of the cybersecurity course, including students and course material, is provided. Data collection and analysis are then presented. This is followed by a discussion of the findings, limitations, and future research.

LITERATURE RIVEW

Knowledge Transfer in SETA

Knowledge transfer through SETA programs plays a key role in the development and implementation of cybersecurity practices.[12] Knowledge is transferred when learning takes place and when the recipient of that knowledge understands the intricacies and implications associated with that knowledge so that he or she can apply it.[13] For example, in a security education program, an educator may transfer knowledge about information security risks to users who learn and apply the knowledge to increase patron privacy. The knowledge is applied when evidenced by users who are able to identify risks to patron data and implement risk mitigations strategies that serve to protect patron information and information system assets.

Knowledge transfer can be influenced by four factors: absorptive capacity, communication, motivation, and user participation.[14] This study evaluates the extent to which knowledge transferred from a cybersecurity course strengthens information security practices within libraries. This study adapts the theoretical model as proposed by Spears & San Nicolas-Rocca (2015) (**see figure 1**) to examine the effects of cybersecurity education on information security practices in libraries.[15]

ABSORPTIVE CAPACITY

Absorptive capacity is the ability of a recipient to recognize the importance and value of eternally sourced knowledge, assimilate and apply it and has been found to be positively related to knowledge transfer.[16] Activating a student's prior knowledge could enhance their ability to process new information.[17] That is, knowledge transfer is more likely to take place between the

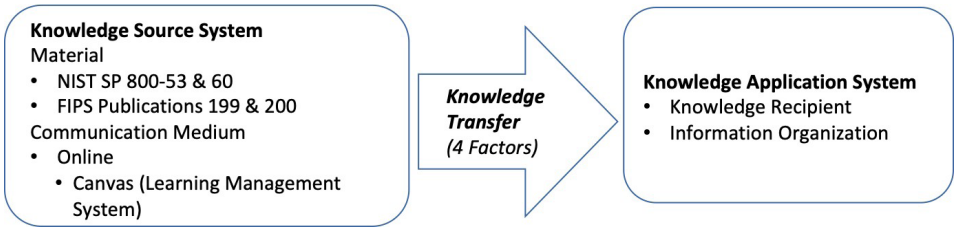

Figure 2. Knowledge Transfer Elements: Cybersecurity Knowledge Transfer for Information Organizations.

instructor and students enrolled in a cybersecurity course if the student has existing knowledge or has had experience in some related area.

For the present study, students have stated that prior to enrolling in the cybersecurity course, they had little to no knowledge of cybersecurity. One student mentioned, "While I am the director of a small academic library, I have no understanding of cybersecurity. I am taking this course to learn about cybersecurity so that I can better secure the library I work in and to share the information with those who work in the library." Another student mentioned, "My goal is to work in a public library after graduation. I am taking this course because I keep hearing about cybersecurity breaches in the news, and I want to learn more about cybersecurity because I think it will help me in my future job." While all of the students enrolled in the course had no cybersecurity experience, all of them had some understanding of principle 3 in the ALA Code of Ethics, which states, "We protect each library user's right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or transmitted."[18] Understanding of principle 3 in the Code of Ethics demonstrates existing knowledge in some related area with regards to cybersecurity, albeit limited knowledge. Given this understanding, students should have the ability to process new information from the cybersecurity course.

Communication

The success of any SETA program depends on the ability of the instructor to effectively communicate the applicability and practical purpose of the material to be mastered, as distinguished from abstract or conceptual learning.[19] According to current research, knowledge transfer can only occur if communication is effective in terms of type, amount, competence, and usefulness.[20] For the present study, students were enrolled in an online graduate level cybersecurity course at a university we call Mountain View University (MVU). We changed the name to protect the privacy of the research participants. While research suggests that the best form of communication for knowledge transfer is face-to-face communication, the cybersecurity course at MVU is only offered online.[21] Therefore, communication relating to the course was conducted via course management software, email, video conferencing, discussion board, and prerecorded videos.

Motivation

Motivation can be a significant influence on knowledge transfer.[22] That is, an individual's motivation to participate in SETA programs has been found to influence the extent to which knowledge is transferred.[23] Specifically, without motivation, a trainee may fail to use information shared with them about methods used to protect and safeguard patron privacy. In this present study, research participants voluntarily enrolled in the cybersecurity course. The cybersecurity course is not a core course or a class required for graduation. Therefore, enrolling in the course implies motivation to learn about cybersecurity by participating in course activities and completing assigned work.

User Participation

User participation in information security activities may influence effective knowledge transfer initiatives.[24] According to previous research, when users participate in cybersecurity activities, security safeguards were more aligned with organizational objectives and were more effectively designed and performed within the organization.[25] For the present study, given that students enrolled in the cybersecurity course, it is expected that they will participate in information security risk management activities, such as the completion of personal and organizational risk management projects.

CYBERSECURITY COURSE INFORMATION

This study will examine whether cybersecurity education strengthens information security practices within libraries. Based on

Table 1. Effectiveness of communication in cybersecurity course.

Questions	Response				
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Medium: The material used in the cybersecurity course I took at MVU communicated security lessons effectively.	12 (50%)	12 (50%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Relevance: Communication during the cybersecurity course I took at MVU was effective in focusing on things I needed to know about cybersecurity for my job.	10 (45.45%)	12 (54.55%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Comprehension: In the cybersecurity course I took at MVU, the instructor's oral and/or written communication with me was understandable.	12 (54.55%)	10 (45.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Amount: In the cybersecurity course I took at MVU, the amount of time communicating about cybersecurity was sufficient.	12 (54.55%)	10 (45.45%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

the model in **figure 1**, students enrolled in the cybersecurity course (motivation), and therefore, were expected to participate in all course activities and complete assigned work (user participation), such as ISRM assignments. ISRM assignments are described in the Course Material section below. As per **figure 2**, the cybersecurity course was offered online, and used multiple forms of communication, including email, video conferencing, discussion board, and prerecorded videos (communication). Students were able to access these resources through Canvas, a learning management system. Students came into the class with some understanding of principle 3 in the ALA Code of Ethics. Therefore, given that this knowledge is in a "related area," students may be able to process new information relating to cybersecurity (absorptive capacity). As per the above information and as depicted in figure 1, motivation, user participation, communication, and absorptive capacity will lead to knowledge transfer. Therefore, this study will focus on how knowledge transfer, as a means to strengthen information security, leads to knowledge utilization by cybersecurity students within information organizations.

Specifically, this study will explore the possibility of knowledge utilization leading to motivation, and participation in ISRM initiatives in libraries.

COURSE MATERIAL

The course was offered to graduate students at Mountain View University. Course material was created based on the National Institute of Technology Special Publication (NIST SP) 800-53 and 60, as well as Federal Information Processing Standards (FIPS) Publications 199 and 200. The focus of the course was information security risk management (ISRM). Course requirements included lab exercises, discussion posts relating to current cybersecurity findings and news reports, and ISRM assignments. ISRM assignments included a personal risk management assignment, which then led to the completion of an organizational risk management project (ORMP). Students completed the ORMP for various libraries, healthcare institutions, pharmaceutical companies, government organizations, and small businesses. With instructor approval, students were allowed to select the organization they wanted to work with. The objective of the course was for students to obtain an understanding of ISRM and be able to apply what they have learned to the workplace.

COURSE COMMUNICATION

SETA programs depend strongly on the ability of the knowledge source to effectively communicate the importance and applicability of the knowledge shared. Current research suggests that the type of communication medium, relevance and usefulness of the information, and competency of the instructor can affect knowledge transfer. Given that face-to-face communication is considered the best method for successful knowledge transfer, it is important to understand if online communication methods were effective in the cybersecurity course described herein as the main focus of this study is to determine if knowledge transfer leads to knowledge utilization. According to **table 1**, respondents "Strongly Agree" or "Agree" that the materials used, relevance of communication, comprehension of instructor communication, and the amount of time communicating about cybersecurity in the course was effective (data collection described in section, Data Collection and Analysis.

DATA COLLECTION AND ANALYSIS

The purpose of this study is to determine if knowledge transfer through cybersecurity education, as a means to strengthen information security, leads to knowledge utilization within libraries.

Specifically, this study will examine if research participants will engage in ISRM activities after completion of the cybersecurity education course.

The model in **figure 1** is examined via survey instrument by the authors. The survey instrument was available to former students who completed an online, semester long, cybersecurity course from fall 2013 through fall 2017. One hundred and twenty-six former students completed one of eight cybersecurity courses, and all were asked to participate in this study. Thirty-nine students accessed the survey, but only thirty-eight agreed to participate. Of those who agreed to participate in the survey, only twenty-two work in a library in the U.S. or a U.S. territory. Of the other sixteen participants, twelve do not currently work within a library environment, and four do not have

Table 2. Types of libraries research participants work in.

Type of Library Environment	Response (22)
Academic Library	3 (13.64%)
Public Library	11 (50%)
School Library (K-12)	2 (9.09%)
Special Library	6 (27.27%)

a job. Therefore, responses from twenty-two research participants who work in a library in the U.S. or U.S. territory will be reported in this study. **Table 2** provides a list of the types of libraries the twenty-two research participants work in.

Having knowledge and an understanding of information security policies, work processes, and information and information system use within a library environment, a knowledge recipient may understand the value of the knowledge shared with them through effective SETA programs and utilize the new knowledge to protect information and information resources. According to **table 3**, most survey participants stated that they have average to excellent knowledge of their library's computing-related policies, work processes that handle sensitive patron information, how access to patron information is granted, and how internal staff tend to use computing devices to access organizational information. A few respondents stated that their knowledge is below average.

Knowledge Transfer

For this study, knowledge transfer is measured as the extent to which the cybersecurity student acquired knowledge or understands the key educational objective. According to **table 4** below, all survey participants stated that during the cybersecurity course, they acquired knowledge on information security risks, and solutions to manage information security risks within organizations. Furthermore, 91 percent of the twenty-two survey participants stated that they gained an understanding of the feasibility to implement solutions and potential impact of not implementing solutions to manage information security risk within the organizations in which they work. This is consistent with previous research that has measured knowledge transfer.[26]

Table 3. Knowledge of organization's computing-related policies.

Questions:	Response				
	Excellent	Above Average	Average	Below Average	Poor
How would you rate your knowledge of your organization's computing-related policies for internal staff computer usage?	4 (18.18%)	10 (45.45%)	8 (36.36%)	0 (0.00%)	0 (0.00%)
How would you rate your knowledge of your library's work processes that handle sensitive patron information?	4 (18.18%)	11 (50%)	6 (27.27%)	1 (4.55%)	0 (0.00%)
Within the organization you work for, how would you rate your knowledge of how access to patron information is granted?	3 (13.64%)	12 (54.55%)	5 (22.73%)	2 (9.10%)	0 (0.00%)
How would you rate your knowledge on how internal staff tend to use computing devices to access organizational information?	2 (9.10%)	11 (50%)	8 (36.36%)	1 (4.55%)	0 (0.00%)

Table 4. Indicators of Knowledge Transfer.

Question: During the cybersecurity course I took at MVU, I _.	Response
acquired knowledge on information security risks within the organization.	22 (100%)
acquired knowledge on solutions to manage information security risks identified within my organization.	22 (100%)
gained an understanding of the feasibility to implement solutions to manage information security risks identified within my organization.	20 (90.90%)
gained an understanding of the potential impact of not implementing solutions to manage information security risks identified within my organization.	20 (90.90%)

Knowledge Utilization

The desired outcome of knowledge transfer is knowledge utilization.[27] This study is interested in the extent to which cybersecurity students have been engaged in information security risk management initiatives in their workplace since the completion of the cybersecurity course.

According to **table 5**, twelve of the twenty-two survey participants have utilized the knowledge transferred to them from the cybersecurity course within the libraries in which they work. Of the twelve survey participants, ten performed security procedures within the organization on an ad hoc, informal basis. Seven worked on defining new or revised security policies. Four implemented new or revised security procedures for organizational staff to follow, and two evaluated at least one security safeguard to determine whether it is being followed by organizational staff.

Participation

Knowledge transfer through cybersecurity education may influence a cybersecurity student to utilize the knowledge they have gained by participating in ISRM activities. According to **table 6**, sixteen of the twenty-two survey participants have participated in ISRM activities in the library in which they work since the completion of the cybersecurity course. Fifteen communicated with internal senior management on training materials. Seven performed a policy review and communicated with internal senior management on training materials. Five worked on a security questionnaire, one had an interview with an external collaborator, and another research partici-

Table 5. Indicators of knowledge utilization in the library.

Question: Since the completion of the cybersecurity course I took at MVU, I have (please check all that apply).	Response
performed security procedures within the organization on an ad hoc, informal basis.	10 (83.33%)
worked on defining new or revised security policies.	7 (58.33%)
implemented new or revised security procedures for organizational staff to follow.	4 (33.33%)
evaluated at least one security safeguard to determine whether it is being followed by organizational staff.	2 (16.66%)
NOT performed any security procedures within the organization.	10 (45.45%)

Table 6. Participation in ISRM activities.

Question: Since the completion of the cybersecurity course you took at MVU, have you performed any of the following activities within the workplace: (please check all that apply)	Response
Security questionnaire	5 (31.25%)
Interview with external collaborator (i.e. trainers)	1 (6.25%)
Policy review	7 (43.75%)
Business or IT process workflow analysis	1 (6.25%)
Communication with internal peers or staff on training materials	15 (93.75%)
Communicate with internal senior management on training materials	7 (43.75%)
I have NOT performed any security activities in my workplace	6 (14.29%)

Table 7. Participation in discussions on ISRM activities.

Question: Since the completion of the cybersecurity course you took at MVU, have you participated in discussions on the following areas of security? (Check all that apply)	Response
Password policy	10 (62.5%)
User provisioning (i.e., establishing or revoking user logons and system authorization)	7 (43.75%)
Mobile device	4 (25%)
Encryption	6 (37.5%)
Vendor security	4 (25%)
Physical security	15 (93.75%)
Disaster recovery, business continuity, or security incident response	6 (37.50%)
I have NOT participated in any discussions relating to security in my workplace	6 (27.27%)

pant analyzed their library's business or IT process workflow.

Participation may also include discussions on ISRM activities. According to **table 7**, sixteen of the twenty-two survey participants have participated in discussion on ISRM activities within the libraries they are currently working at. Fifteen survey participants participated in discussions on physical security, and ten had discussions on password policy. Seven survey participants had discussions on user provisioning, and six had discussions on encryption. Four survey participants had discussions on mobile devices, and another four had discussions on vendor security

Participation in cybersecurity education may lead to formal responsibility or accountability of ISRM activities. According to table 8, nine of the twenty-two survey respondents stated that since the completion of the cybersecurity course, they are formally responsible or accountable for ISRM in the libraries in which they work. Three research participants are responsible for identifying organizational members to participate in cybersecurity training. Five survey participants stated that they are responsible for communicating results on cybersecurity training to upper management, peers, and staff. Three research participants are responsible for organizational compliance with government regulations. Two are responsible for communicating organizational risk to the board of directors, and one research participant is responsible for organizational compliance of funder requirements.

Motivation

An objective of SETA programs is to motivate knowledge recipients to comply with information security policies that serve to protect information and information resources. As such, cybersecurity education may motivate students to comply with organizational information security policies that serve to protect information and information resources. According to table 9, since the completion of the cybersecurity course, eighteen of the twenty-two survey participants stated that they believe it is important to protect patron sensitive data. Two respondents stated that they wholeheartedly feel responsible to protect their patrons from harm, and another two stated that they would be embarrassed if their organization experienced a data breach.

DISCUSSION

The purpose of this study was to evaluate the effects of knowledge transfer as a means to strengthen information security within libraries. Given the results from the survey instrument, the findings suggest that knowledge transfer through cybersecurity education can lead to knowledge utilization. Specifically, knowledge transfer through cybersecurity education may influence a library employee to utilize the knowledge they have gained by participating in discussions about, and the accountability and responsibility of ISRM activities. In addition, participating in SETA programs.

SETA programs are implemented within organizations as a means to increase compliance of information security policies. The findings suggest that library employees who completed a cybersecurity education course believe that it is important to, or feel that they have a responsibility to, protect patron private information. A couple of research participants stated that they would feel embarrassed if their organization experienced a data breach.

A student enrolled in a cybersecurity education course may develop an understanding of and value the information

Table 8. Participation via accountability of ISRM activities.

Question: Since the completion of the cybersecurity course you took at MVU, are you formally responsible or accountable in the following ways? (Check all that apply)	Response
Identifying organizational members to participate in cybersecurity training	3 (33.33%)
Communicating results to upper management	5 (55.56%)
Communicating results to peers or staff	5 (55.56%)
Responsible for organizational compliance of funder requirements	1 (1.11%)
Responsible for organizational compliance with government regulations	3 (33.33%)
Responsible for internal audit	0 (0%)
Responsible for communicating organizational risk to the board of directors	2 (22.22%)
I am NOT formally responsible for security in my workplace	13 (59.10%)

Table 9. Motivation to protect patron privacy.

Since the completion of the cybersecurity course I took at MVU, _____.	Response
I wholeheartedly feel responsible to protect our patrons from harm.	2 (9.10%)
I believe it is important to protect our patrons' sensitive data.	18 (81.82%)
I would be embarrassed if my organization experienced a data breach.	2 (9.10%)
my job could be in jeopardy if my organization were to experience a data breach.	0 (0.00%)
I do NOT care about cybersecurity in my organization.	0 (0.00%)

that is passed on from the knowledge source about ISRM activities. With ongoing development and implementation of SETA programs, activating a student's prior knowledge of ISRM activities could enhance their ability to process new information and apply to their job.

LIMITATIONS AND FUTURE RESEARCH

This research was conducted based on an online cybersecurity course offered at a university located in the western U.S. Therefore, future research is needed to study how cybersecurity courses in other parts of the U.S and internationally affects knowledge transfer as a means to strengthen ISRM initiatives in libraries, and other information organizations. It would also be valuable to conduct a modified version of this research within a classroom-based, face-to-face cybersecurity course. Furthermore, SETA programs implemented in libraries in the United States and internationally would add to this research area. There were 126 potential research participants identified, and although all were asked to participate, only thirty-eight completed the online survey. Of the thirty-eight completed surveys, responses from twenty-two participants were reported in this article. Participation from additional research participants may have generated different results.

While a major limitation of this study is its small pilot study and exploratory focus, a next phase of research should further investigate what type of SETA programs would be most effective in different library environments. While cybersecurity education may not be feasible for all library employees to obtain, examining and implementing the most effective SETA program for each library environment could strengthen cybersecurity practices in libraries across the U.S. A future study instrument should take into account the factors that influence knowledge transfer (absorptive capacity, communication, motivation, and user participation) as a means to strengthen ISRM practices. A common an important outcome for SETA programs is user compliance to information security policies. As such, a future study should test library employee knowledge of, and compliance to, information security policies.

CONCLUSION

U.S. libraries handle sensitive patron information, including personally identifiable information and circulation records. With libraries providing services to millions of patrons across the United States, it is important that they understand the importance of patron privacy and how to protect it. This study investigated how knowledge transferred within an online cybersecurity education course as a means to strengthen information security risk management affects library employee information security practices. The results of this study suggest that knowledge transfer does have a positive effect on library employee information security and risk management practices. ■

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From Meow to ROAR

» Expanding Open Access Repository Services at the University of Houston Libraries

BY ANNIE WU, TAYLOR DAVIS-VAN ATTA, SANTI THOMPSON, BETHANY SCOTT, ANNE WASHINGTON, & XIPING LIU

INTRODUCTION

Open Access (OA) has increasingly been embraced by the academic research library community over the past fifteen years as an alternative avenue for scholarly communication and research discovery. University of Houston Libraries, in collaboration with colleges and the Graduate School, initiated our institutional repository (IR) for theses and dissertations in 2009. In the years following the initiation of the institutional repository, all UH colleges and schools committed to submit their theses and dissertations electronically to the IR, which remained the extent of the Libraries' participation in open access scholarly communication. Subsequently, UH Libraries' five-year strategic plan (2017–2021) established a strategic goal of "expanding and promoting repository services enabling researchers to acquire and use collections for research endeavors as well as to store, preserve, and publish research output." This strategic drive toward greater open access has pushed UH Libraries to expand the scope of the university's open access services in order to provide safe, long-term storage and access for data and scholarship produced by the UH community, and to offer training and instruction around these new infrastructures and underlying competencies.

In order to operationalize this new strategic goal, UH Libraries established a strategic planning implementation team called the Cougar Scholar Open Access Team. The team worked with colleagues in the Libraries to rebrand, build, and launch a portal, the Cougar Research Open Access Repositories (Cougar ROAR), that provides convenient public access to the UH IR and the UH Dataverse, as well as supporting documentation such as submission policies, metadata guidelines, and training materials. Also, the repositories have been configured to accept submissions of articles, posters, educational materials, research data and projects, test instruments, and a wide variety of other scholarly products.

The rebranding of our institutional research and data repository services creates a sense of institutional pride and belonging. The revamping of the repositories created a one-stop resource for both research products and data output, which allows for improved access to our university scholarly output. Through marketing of this new portal and collaboration with campus units, UH Libraries assumes an active role in increasing the reach and impact of the research and scholarship produced at the University of Houston, and thus helps advance the Libraries' Strategic Plan.

LITERATURE REVIEW

The formation and steady rise of a global open access movement has been documented extensively in scholarly literature. The earliest and perhaps most widely adopted definition was developed by the Budapest Open Access Initiative (BOAI) (Chan et al., 2002). In BOAI terms, open access refers to scholarly materials that are free to access online, immediately (i.e., without an embargo period), and without restrictions on their reuse, provided proper citation. With BOAI guidelines established, academic institutions and nonprofit organizations have widely implemented local online institutional repositories for the delivery of scholarly materials generated by their communities and beyond, providing a back-bone for "green" open access, in which a scholar makes his or her own

Table 1. Timeline for Next Steps by Stakeholder Group

	DRS	Libraries Administration	Libraries Departments	Campus Units
Short Term (up to 6 months to complete)	Implement a CV service, starting with a pilot program targeted to a specific audience	Approve the hiring of student workers to build a CV service, starting with a pilot program	Identifying future roles/responsibilities for outreach (BS, DRS, LS) Develop a dedicated web presence for UH Libraries digital collections (DRS, LTS, MDS) Create marketing materials (BS, Communications, DRS, LS)	Develop policy that authorizes Libraries to ingest faculty content (Faculty Senate OA Policy Task Force)
Short Term–Ongoing (6 months to start and then ongoing)			Continue to work with TDL to improve repository functionalities (DRS, MDS, TDL) Continue to work with campus partners to ingest quality research content Continue to monitor, assess, and improve mediated process (DRS, MDS) Develop a plan for enhancing local storage capability (DRS, LTS)	
Medium Term (6–18 months to complete)		Enter into additional OA memberships that give faculty incentives/ discounts for publishing Budget for additional funding for metrics/ statistics modules	Insert author rights language into UH Libraries e-resources license agreements with vendors (DRS, RMP) Assess impact and reach of scholarly works (CRWG)	Launch campus- wide open access marketing and promotion campaign (BS, DRS, Communications, LS, other campus units)
Long Term (future possibilities)		Invest in additional TDL storage	Incorporate ROAR into digital preservation policy if needed (DPWG) Develop program for ingesting university publications (SC, DRS)	

scholarly products openly available in the institution's IR while remaining within the bounds of copyright. As Tananbaum (2013) outlines, the early 2000s marked a quick rise in community-driven, "do-it-yourself IR solutions," with the DSpace, bepress, and ePrints platforms offering academic libraries open-source infrastructures for local repositories (p. 2). Harnad (2015) provides best practices for complementary institutional policies around open access that encourage researchers' compliance and, as a result, lead to increased use of local and discipline-based repositories.

In recent years, several large-scale studies (Piwowar et al., 2018; Wagner, 2010) have attempted to systematically track the worldwide growth of open access repositories and content. A study undertaken by Pinfield et al. (2014) points to uneven global trends in local repository implementation and usage, resulting in—and exacerbating—disparities in the representation of scholarship from developing geopolitical areas and "peripheral" countries and languages (pp. 2408–2412). Issues of equity and accessibility remain at the forefront of challenges faced by open access advocates at the international level (pp. 2415-2418). Despite widespread adoption of repositories, IR managers and advocates at the local level are met with cultural and generational resistance in their efforts to expand the range and quantity of content in their repositories. Dubinsky (2014) provides a thorough history and survey summary of the barriers to faculty participation in self-archiving practices as well as other methods of harvesting scholarly works, concluding that the adoption of IRs and creation of dedicated staffing positions for their promotion "[do] not yet pose a challenge to traditional models of scholarly publication" (pp. 1, 17–18).

The Open Science Initiative Working Group (2015) further emphasizes the increasing pressures felt by academic libraries, scholarly institutions, and research communities around the world to adapt large-scale OA implementation, noting that local pressure points vary and that a wide range of marketing and collaboration strategies are currently being explored in order to ease specific pressure points and build capacity for the cultural change required for OA to succeed at scale (pp. 30–32, 35–43). Several use cases have been published (Brand, 2012; Jantz & Wilson, 2008) that point to strategies proven to help drive faculty deposit and IR success at the local level. Ferreira, Rodrigues, Baptista, and Saraiva (2008), for instance, provide an extensive use case that emphasizes the need for a comprehensive promotional plan that aims to communicate not directly at the target audience but "flood[s] the surrounding channels that nourish their informational needs"; a range of "value-added services," such as help pages, documentation, and user guides that demystify key aspects of IR participation; (3) functional "add-ons" that deepen user engagement, including statistics modules, "request a copy" buttons, interactive functionalities (built-in commenting and recommending tools), and predefined taxonomies for easy description of a submitted work; and (4) self-archiving mandate policies combined with financial incentives for compliance (pp. 4–7). Giesecke (2011) also pointed to particular functional needs that drive success, including an interactive statistics module, but, taking heed of the prevalent low researcher participation data, she arrived at "a great marketing slogan. Step one: send us your vita. Step two: there is no step two" (p. 537). Giesecke found success in a mediated deposit approach, allowing auto-generated download reports to encourage word-of-mouth participation in the library-mediated CV service.

The literature addressing the motivations for, process of, and benefits and challenges of rebranding an institutional repository is scant. Many studies have been

» A range of studies have offered novel ways in which academic libraries have partnered with faculty, student communities, and campus units in efforts to boost IR usage, build new OA services, and create opportunities for introducing core competencies around scholarly communication to a younger generation of researchers.

published over the past fifteen years that detail a variety of IR marketing strategies, some of which discuss cosmetic or functional improvements to particular elements of an IR's interface. For instance, Palmer, Teffeau, and Newton (2008) recommend "usability testing of the repository's Web interface" and applying those results toward the development of "high-functioning 'front ends'" of IRs (p. 152). These interfaces would integrate tools that identify eligible content and run immediate copyright clearance for works, thereby lowering common barriers for self-archiving and streamlining the researcher's experience depositing to the IR (p. 157). Likewise, Betz and Hall (2015) ran extensive UX testing on their institutional repository in order to refine and focus on "ease of use" during the self-archiving process, identifying many roadblocks in the process (pp. 51–53). Ultimately, they were able to lower many of these barriers to submission through improvements to their IR interface, though they were often limited by the capabilities of the repository software, and concluded that a user-friendly UX will only go so far in encouraging community participation; rather, "sustainability relies on marketing, direct outreach and significant staff involvement in identifying content for inclusion, investigating rights, and depositing on authors' behalf" (p. 56). Other studies have applied a market-oriented approach to changing researcher behavior and increasing rates of IR deposit. Ramírez and Miller (2011), for example, recommend IR advocacy through a range of "people based activities," including customized OA plans for researchers that directly appeal to personal needs (p. 13). Gierveld (2006) draws from best practices in the field of communications to envision the IR as a "product" that has the accompanying "communication strategy necessary for the product to change [client] behaviour." Yang and Li (2015) make a glancing reference to rebranding of their university's IR, but do not explore the ramifications of this change on their OA program (p. 3). The literature lacks research on how an IR's aesthetic design and branding impact the ultimate success of an academic institution's OA program.

A range of studies have offered novel ways in which academic libraries have partnered with faculty, student communities, and campus units in efforts to boost IR usage, build new OA services, and create opportunities for introducing core competencies around scholarly communication to a younger generation of researchers. As faculty attitudes toward open access and IRs have been slow to shift toward acceptance, many librarians have developed strategies focusing on student engagement (Hahn & Wyatt, 2014; Watson, 2007; Yang & Li, 2015). An early study by Nolan and Costanza (2006) details success stories by several liberal arts college libraries that expanded on thesis deposit to include additional student works, leading to librarians gaining opportunities to directly interact with students in the classroom on "issues surrounding copyright, fair use, licensing, and alternative publishing models" (p. 92). A more recent study by Rozum and Thoms (2016) explores both student and faculty benefits of capturing undergraduate student scholarship in an IR, in particular posters and data sets that are often discarded after they have been presented or used to reach initial findings, but that offer enduring value to external communities when made available OA (pp. 316–17).

The case study at UH described in this article adds to the existing literature around IR adoption at large public research institutions and contributes potential models of success in areas such as repository marketing/rebranding and forging new partnerships with administrative and academic units.

DESCRIPTION OF PROGRAM

The Cougar Scholar OA Team started the project with group planning. The team brain-stormed detailed project activities and divided them into three phases. Phase One included internal preparation activities, such as conducting an environmental scan; developing the Cougar ROAR web portal; performing UH open access repositories' functional enhancement; and building out Cougar ROAR policies, metadata guidelines, training, and marketing materials. Phase Two involved piloting with campus units. The team identified individuals for content deposit and solicited campus units and administrative offices for collaboration. Phase Three included data analysis, project reporting, and communication. Subteams were formed to carry out specific tasks for each phase.

Internal Preparation

In order to inform the work of the team, it was critical that the Cougar Scholar OA Team collect data on open access benefits and challenges, our faculty and researchers' expectations, and other institutions' lessons learned and success stories. An initial environmental scan was conducted through a literature review, faculty focus group sessions, and bench-marking with peer institutions. The project team also reviewed literature to collect use cases, benefits, challenges, perceptions, and success stories of open access initiatives. The output of this activity is available as a Data Summary Sheet in **Appendix A**.

The focus group subteam held two information gathering sessions with UH faculty in April 2017. The goals of the sessions were to document current faculty perceptions of open access repositories, understand their digital sharing and access needs, and identify potential participants for the Cougar Scholar OA Team pilot project. The focus group team collaborated with the Libraries' Liaison Services department to recruit a total of seven participants from a variety of academic fields. During the sessions, the focus group team provided participants with a high-level overview of the UH IR and the UH Dataverse, described the functionality and interfaces of the repositories, and explained the benefits of making one's research available open access. The team also asked participants to share their thoughts

on the potential barriers and advantages to using the repositories. Faculty who participated in the sessions described UH open access repositories as a portal that would help promote UH research and publications while elevating UH as a brand as well as the university's overall prestige and scholarly reputation, even though they shared challenges such as lack of time, copyright clearance, and perceived competition from other publishing platforms such as Research-Gate and Academia.edu.

The website subteam collaborated with Library Technology Services to develop a one-stop portal to connect users with the UH IR and the UH Dataverse. The Cougar Scholar OA Team named the portal Cougar ROAR.[1] The primary purpose of this portal website is to assist users with submitting and discovering works in the UH IR or data in the UH Dataverse. Large search boxes for each repository appear prominently on the portal page. Furthermore, in order to promote user submissions to the repositories, direct links to the repositories' respective submission forms are available below each search box along with links to step-by-step "How to Submit" guides for the repositories. Also included on the portal page are links to the respective homepage for each repository, and a link to a revised "Open Access at UH" web page, containing important information and resources about the Libraries' current open access services. Additionally, the portal provides a concise introduction to Cougar ROAR and contact information for members of the UH scholarly community who require further assistance.

UH Libraries' instances of the open access repositories DSpace and Dataverse are hosted by the Texas Digital Library (TDL). The technology improvement subteam collaborated with TDL to streamline the DSpace user submission form for the UH IR. The team incorporated feedback from focus groups to identify the most pertinent fields for inclusion on the form, and made determinations regarding which fields should be mediated by library staff. These changes were implemented in configuration files on the UH IR server, and the new submission process was tested and refined by several stakeholders. Permissions settings were adjusted to allow UH faculty, students, and staff to easily submit their works to a single, appropriate collection in the UH IR without confusion. The team also created a "Start a submission" button that now appears prominently on the UH IR homepage, directing users straight into the submission process. Finally, the team researched possible usage analytics options for integration into the UH IR and consulted with colleagues at several other TDL and DSpace institutions to gain a sense of the range of possibilities in this area moving forward.

The documentation subteam consulted the documentation created by several peer and aspirational institutions and created documentation about the UH IR and the UH Dataverse. For each repository, the team identified three main areas where information needed to be provided in order to maximize the value of the repositories to users: policies, repository use, and data description guidance. The team developed "About" documentation, including a high-level overview of each repository and the types of content accepted.[2] The team also created a "Quick Start Guide," which provides simple, step-by-step instructions for users depositing their work to either repository.[3]

The policies subteam drafted policies for the UH IR and the UH Dataverse and submitted these documents for formal approval by the Libraries' Digital Collections Management Committee (DCMC). The subteam, drawing upon policies from peer and aspirational institutions, as well as on existing policies and documentation from TDL, crafted policy documentation for each repository that addresses scope of eligible content, submission size limits and criteria, metadata supported, current level of digital preservation support, licensing options and restrictions, information security, withdrawal and takedown of content, and matters of copyright. After formal approval from the DCMC and Libraries Administration, these policies were made publicly available on the Cougar ROAR portal website.[4]

The metadata subteam analyzed the metadata fields for both the UH IR and the UH Dataverse, made recommendations to the larger Cougar Scholar OA Team group, and created documentation for field use in both repositories.[5] Based on feedback from an earlier UH IR pilot project (Washington, Townes, Weidner, Thompson, & Wu, 2017) and insights from the Libraries' Digital Scholarship Coordinator, the number of metadata fields in the UH IR visible to submitters was reduced from 13 to 9, with required fields reduced from 8 to 6. These changes considerably simplified the submission process for the user. Within the current version of DSpace, the submission process has been streamlined as much as possible. Certain metadata fields, such as "Publisher" and "Citation," are available only to librarian reviewers in the Metadata Unit so that accurate values may be added to these fields if the information is available. The subteam also clarified and simplified the UH Dataverse metadata guidelines.[6] To maintain interoperability with TDL's Texas Data Repository, the team did not modify the metadata profile for the UH Dataverse, but focused on creating documentation that clarifies potentially confusing elements.

The training subteam was tasked with creating instructional materials that could be used by librarians to train individuals or groups of users on the submission process for the UH IR and the UH Dataverse. The team drew from instructional guides provided by TDL, existing presentations that team members had developed in the past, and openly available slide decks shared by repository services librarians at other institutions, compiling and curating two main sets of presentation slides: one for instruction around the UH IR, the other for instruction on the UH Dataverse. A third presentation was developed that provides an overview and brief history of the open access movement, describes the benefits of

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making one's work openly available, and addresses frequently cited concerns by researchers engaging in open scholarship. Each of these presentations was designed to be easily adapted to suit the needs of different audiences; they can also be used in combination with one another. In addition, an informational handout was created, adapted as needed, and distributed at live sessions with faculty during the pilot phase of the project. The instructional presentations have been made publicly available for users' reference on the Cougar ROAR portal website.[7]

One of the project's major contributions was the rebranding of existing repository interfaces, program documentation, and marketing materials. The promotion/marketing subteam worked with UH Libraries' Office of Communications and Library Technology Services to create the brand name "Research Open Access Repositories" or ROAR, and a logo that would help distinguish ROAR-related platforms and documentation from other UH Libraries and university initiatives. Incorporating university colors and the UH Cougar mascot, the branding tapped into a sense of campus pride and also leveraged UH-sanctioned color schemes to make the website attractive, familiar to its primary audience group (UH students, faculty, and staff), and trusted as a UH-affiliated webpage. The rebranding effort also became a core component of the Cougar Scholar OA Team's marketing effort. The project team found that the rebranding effort helped to create positive energy around ROAR services and its web interface, which inspired multiple stakeholders in the Libraries to embrace Cougar ROAR and actively and openly advertise it on campus.

The promotion/marketing subteam was also responsible for the development of marketing materials that would describe the benefits of depositing materials into the two open repositories. The subteam helped create marketing materials such as an informational postcard. The postcard, utilizing the Cougar ROAR logo and UH brand colors, announced the launch of the Cougar ROAR portal. It also highlighted the results of large-scale citation studies showing the increased impact of research that was made available through open repositories. The postcard was distributed to faculty mailboxes and other gathering spaces across campus.

Campus Pilot and Outreach

During October and November 2017, the Cougar ROAR pilot subteam designed a pilot program that tested and refined documentation and workflows for both repositories. The team recruited participants by collaborating with Liaison and Branch Services, which helped identify individuals and departments who were likely to be interested, as well as by following up with focus group participants who had previously expressed interest in the Cougar ROAR initiative. The depositing of materials into the repositories during this pilot phase occurred in three primary ways: (1) pilot participants were asked to self-deposit their scholarly works to the repositories; (2) pilot participants were given the option of submitting their CV to the team and having the Libraries' staff process their publications for copyright compliance, then deposit eligible content into the repositories on the researcher's behalf (mediated deposit); and (3) the team expanded partnerships with the Graduate School and Honors College in order to batch ingest works of student scholarship.

Individual researchers and academic departments self-selected for the pilot phase. The range of participants allowed the team to learn about and adjust for disciplinary needs and practices around open sharing, as well as identify open access advocates across campus who might be called upon to assist in promotional efforts within their department, center, or lab. After recruitment, four faculty members responded to the team's email prompts to self-deposit their research products. Participants were asked to log into the UH IR, supply the required metadata for scholarly items, and upload the digital file(s). The team provided a feedback survey for participants to complete upon uploading content. The survey solicited opinions on the ingest process and potential future services and Cougar ROAR features. Only one faculty member participated in the self-deposit pilot and provided feedback via the survey.

The team collected CVs from five faculty members who expressed interest in the mediated deposit pilot program. An additional three faculty members also participated through word of mouth from the initial five, bringing the total faculty member participants to eight. The Digital Scholarship Coordinator and Metadata Coordinator worked with Metadata Unit staff members to develop workflows for the mediated deposit of scholarly works listed on faculty CVs, with the expectation that this could become a marketed library service in the near future.[8] The mediated deposit pilot allowed staff to develop, test, and document workflows for processing not only publication data from CVs but also more automated workflows using UH faculty research data exported from major databases, such as Scopus and Web of Science; formatted into repository-compliant articles and metadata; and batch ingested into the UH IR.[9] These efforts allowed the team to deposit nearly 600 additional UH scholarly products processed during the two-month pilot phase of the project.

The UH Honors College and Graduate School hosted events for students to showcase their research. The Cougar Scholar OA Team reached out to the Honors College and developed workflows that allowed for the deposit of nearly 100 student research projects into the UH IR, including papers and posters accepted for the annual Undergraduate Research Day and the papers produced by the Summer Undergraduate Research Fellows. The team partnered with Graduate School administration to establish a workflow for the annual processing and deposit of roughly 200 accepted graduate research and scholarship projects into the UH IR. These administrative pilot participants were selected largely based on strong existing relationships between UH Libraries staff and those charged with organizing the student scholarship showcase events. The organizers expanded

existing workflows to collect metadata for each work for eventual deposit in the UH IR. Both the Graduate School and Honors College understood and were able to communicate to their faculty and students the benefits of making student works openly accessible, which allowed the team to develop simple permissions language that was communicated to the authors. Of the over 400 authors involved in this portion of the pilot, only a handful opted out of the deposit service.

The team initiated conversations with several other academic units on campus to establish similar routine partnerships moving forward. With help from Liaison Services librarians, the team provided information/training sessions in departmental meetings of the following departments/groups: Engineering, Psychology, the Graduate College of Social Work, the Evolution and Ecology group in Biology, and the College of Education. The Cougar Scholar OA Team believed it was vitally important to communicate the Cougar ROAR initiative to the UH campus community in order to grow campus awareness and support. The team invited the Dean of Libraries to introduce this new endeavor to the Provost's Office, the Division of Research, the Dean's Council, and the Faculty Senate Library Advisory Group. The team also asked the Libraries' Associate Dean for Academic and Research Services to discuss the Cougar ROAR initiative with the Associate Deans of Research group.

NEXT STEPS

The team gained valuable insight while developing the Cougar ROAR portal and launching the campus-wide pilot program. Our observations and findings revealed that, if the ROAR portal is going to serve as the backbone of a set of new open access services and initiatives over the coming years, it will be critical to continue developing a multifaceted approach to promoting the portal and attracting a rich variety of content. Based on the findings, the Cougar Scholar OA Team generated four recommendations that the Libraries is currently fulfilling.

First, based on the recommendations put forth by the Cougar Scholar OA Team, UH Libraries formed and launched the Open Access Working Group. The goal of the group is to ensure the sustainability of current and future open access initiatives at UH, including the implementation of the recommendations from the UH Libraries' "Report on Open Access Publishing for the Research and Scholarship Committee of the Faculty Senate with Recommendations."[10] As such, the Open Access Working Group will coordinate and oversee the work of Cougar ROAR, including the navigation of technical and promotional elements required to expand the functionality and visibility of the portal. The Libraries' Digital Scholarship Coordinator will act as lead, and the team will incorporate individuals with direct job responsibilities or existing expertise. Membership includes the Metadata Coordinator (to assist with metadata needs and workflows) and the Open Educational Resources Coordinator (to integrate OER content into the IR and participate in discussions around hosting research materials locally). In addition to regularly serving members, the working group can also draw upon other expertise within the Libraries as needed, including those knowledgeable with expanding contractual language that favors the deposit of content into Cougar ROAR, integrating publishing portals for digital scholarship projects, and connecting more comprehensively with key University stakeholders, such as the Graduate School.

Second, in order to accelerate content growth, UH Libraries is implementing a submission strategy combining self-submission with a scaled-up mediated submission program. Both existing literature and the team's pilot program emphasized the low rate of faculty self-submission. Rinehart and Cunningham (2017) deployed a survey for institutional repository administrators listed in OpenDOAR in the United States. The results of this survey showed that "nearly two-thirds, or 22 of the responses indicated that less than 25% of the material in the IR was self-submitted. Another 6 reported no material that was self-submitted. Only four have self-submissions as more than 50% of their materials. Therefore, most IRs use mediated submission processes for much of their material" (p. 42). Developing a hybrid submission strategy would provide the Libraries with both maximum flexibility and the opportunity to proactively solicit content.

The third recommendation from the Cougar Scholar OA Team was to launch a Libraries-operated CV service. The workflow allows a faculty member to submit their CV or list of publications to the Libraries; then, Libraries staff members review the list of publications, determine copyright/permissions for works, contact publishers for permission on the faculty member's behalf if needed, and post permitted materials to Cougar ROAR. In order to establish and sustain the recommended CV service, the UH Libraries hired and trained student workers to assume responsibility for the processing of materials into the UH IR. To date, 43 faculty members from 17 academic departments have participated in this service, resulting in the preparation of 2,365 scholarly works for the UH IR, 56% of which have so far been deposited over the course of the first nine months of operations. This service team has found that 89% of journal articles processed allow for some version to be posted in the UH IR. The faculty response rate for requests for specific versions of articles has been encouraging, allowing the team to reach that 56% mark, which is rising as more preprints and postprints arrive from researchers. The team has since developed workflows allowing for copyright clearance of book chapters and conference proceedings, as well as broadening the scope of its mediated ingest

» Based on the pilot project findings and the resulting recommendations, the Cougar Scholar OA Team outlined key next steps for short-term and long-term sustainability of the UH Libraries' open access services.

service to include other types of scholarship, such as recordings of presentations and keynote addresses.

The fourth recommendation focused on expanding the Cougar ROAR promotion and out- reach endeavors. A long-term strategy for Cougar ROAR promotion efforts (among different Libraries departments and campus units) includes (1) raising awareness of its benefits and related services and (2) advancing any future UH Libraries' campus-wide open access programs. The successful outreach and partnership with campus units established during the pilot suggests that careful and intentional planning yields interest from researchers to participate. Building off of successful pilot efforts with the Graduate School and Honors College, the Cougar ROAR Working Group has identified 30 regularly scheduled scholarly events that it believes to be prime candidates for representation in the UH IR. These events include lecture series, student poster sessions, annual forums, symposia, seminars, and colloquia. The team is working with the organizers of these events to introduce and customize workflows that will allow recordings, slideshows, and other materials generated for or through these events to be deposited. The group has also initiated a pilot offering that will see the ingest of Senior Honors Theses into UH IR.

Sustainability Plan

Based on the pilot project findings and the resulting recommendations, the Cougar Scholar OA Team outlined key next steps for short-term and long-term sustainability of the UH Libraries' open access services. The team organized these activities by those stakeholders who play a role or have a specific responsibility in open access workflows and outreach. Key stakeholder groups for the work taking place within the Libraries include: the Libraries' Digital Research Services (DRS) department, Libraries Administration, and other Libraries departments and partners, such as Branch Library Services (BS), Liaison Services (LS), Library Technology Services (LTS), Metadata and Digitization Services (MDS), and Research Materials Procurement (RMP). The Cougar Scholar OA Team also divided the activities by "Short Term" tasks (up to 6 months to complete), "Short Term-Ongoing" tasks (up to 6 months to start and then continuing on at regular intervals), "Medium Term" tasks (6–18 months to complete once started), and "Long Term" tasks (a formal timeline yet to be established due to outside factors and priorities that evolve over time). A complete breakdown of this work is included in **Table 1**.

CONCLUSION

Through careful planning, the rebranding of interfaces and marketing materials, and executing a campus pilot project, the Cougar Scholar Open Access Team has established the key building blocks for a successful OA repository infrastructure, including core repository policies, thorough workflows, and engaging outreach materials. Equally important, the team has also cultivated new relationships with interested faculty and departments—an activity that will help promote and expand Cougar ROAR's purpose and usefulness. Building on this momentum, the future work of the Open Access Working Group will continue to expand OA repository functionality and the suite of services around Cougar ROAR. All of this work is crucial as UH strives to increase its research productivity. In the summer of 2018, UH's president announced a new campus research initiative designed to boost campus research productivity over the next five years. The success of this program, in part, will rely on the university's ability to broaden access to and assessment of its research output. UH Libraries, with a more defined set of OA repository services and an exciting new marketing campaign around Cougar ROAR, is better positioned to support this ambitious research initiative through more comprehensive OA services. Through close collaboration with campus partners, the work of the Cougar Scholar OA Team has propelled UH Libraries into this leadership position. UH Libraries' open access services will play a valuable role in expanding UH's research enterprise. ■

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9. For CV Service workflow documentation, see http://bit.ly/UHoustonCVWorkflows
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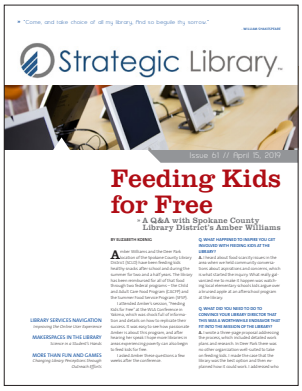
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WILLIAM SHAKESPEARE

Strategic Library

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Feeding Kids for Free

– A Q&A with Spokane County Library District's Amber Williams

BY ELIZABETH HOENIG

Amber Williams and the Deer Park Operation of the Spokane County Library District's Bookmobile provide healthy snacks after school and during the summer for two and a half years. The library has been reimbursed for all of that food through two federal programs – the Child and Adult Care Food Program (CACFP) and the Summer Food Service Program (SFSP).

Williams presented "Feeding Kids for Free" at the ALA Conference in Tokyo, which was chock full of information and details on how to replicate their success. It was easy to see how passionate she is about the program, and I left the hearing her speak. I took more liberties in areas experiencing poverty can also begin to feed kids for free.

I asked Amber these questions a few weeks after the conference.

Q. WHAT HAPPENED TO INSPIRE YOU LAST INVOLVED WITH FEEDING KIDS AT THE LIBRARY?

A. I heard about food security issues in the Deer Park community and I started hearing from about aspirations and concerns, which is what started the inquiry. What really galvanized me to make it happen was watching local elementary schools kids argue over a circated apple at an afterschool program at the library.

Q. WHAT DID YOU NEED TO DO TO CONVINCE YOUR LIBRARY DIRECTOR THAT THIS WAS A WORTHWHILE ENDEAVOR THAT FIT INTO THE MISSION OF THE LIBRARY?

A. I presented a proposal to the director with the process, which included detailed work plans and research. In Deer Park there was no other organization well-suited to take on feeding kids. I made the case that the library was the best option and then explained how it would work. I addressed who

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