

10-2014

## Information Outlook, September/October 2014

Special Libraries Association

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# information outlook

THE MAGAZINE OF THE SPECIAL LIBRARIES ASSOCIATION

A man with short dark hair and glasses, wearing a white dress shirt and a red and white striped tie, is looking directly at the camera. He is holding a tablet computer in his hands. The background is a bright, modern office hallway with large windows and a potted plant.

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# information outlook

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SARAH SHUJAH

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# Global Members, Common Challenges

SLA members around the world share challenges related to value, so SLA's leaders are making value their priority for 2015-2016.

BY KATE ARNOLD, SLA PRESIDENT



Don't you wish you had a few extra hours each day? If you did, what would you do with them?

Over the past several months, I could really have done with a 30-hour day to improve my work-life balance. I am secretly pleased to tell you that for one day this year, I did manage that—not by magic, but by virtue of traveling from New Zealand to the United States and crossing the International Date Line. I actually had the good fortune to arrive in the U.S. on the same day and time as I left New Zealand!

I want to use this column to carry on my “Beyond Borders” theme and talk a bit about what I learned during my recent travels to Australia and New Zealand. I also want to tell you about the Board of Directors' efforts to develop strategic priorities for SLA for 2015 onwards. These two topic areas are more closely aligned than you might think.

Traveling to Australia and New Zealand meant I enjoyed my second spring of the year (2014 is becoming the repetition year, with two springs and two October 4ths). My visit had been planned for me by the SLA Australia and New Zealand Chapter and included conference speaking sessions, local events, and visits to special libraries. I had three aims for my visit:

- to raise awareness of SLA as an international association (there is still a view in Australia and New Zealand that SLA is just a U.S. organization; in fact, several people remarked how surprised they were that I spoke with a British accent);

- to celebrate the chapter's 10th anniversary and increase its membership; and
- to learn more about the challenges facing information professionals in the two countries and publicize the SLA/*Financial Times* survey report, *The Evolving Value of Information Management*, which addresses some of those challenges.

The visit was a great success. I spoke about the value of information professionals and how our roles are evolving, making sure to publicize the survey report in particular and the benefits of SLA, at two conferences (one sponsored by the Australian Law Librarians Association, the other by the Australian Library and Information Association) and four local events. On each occasion, there was a lively question-and-answer session afterwards during which people raised concerns about the need to show the value of the profession, regardless of the sector.

The local chapter also arranged for me to visit 15 local libraries in Canberra, Auckland and Wellington and to speak at a couple of library schools. Among other things, these visits gave me great insights into the challenges and opportunities facing information professionals in Australia and New Zealand. Many of these issues parallel those faced by info pros in North America and Europe, namely budget cuts, showing value, and doing more with less. In particular, SLA members in Australia and New Zealand are keen to share best practices by engaging in professional develop-

ment activities such as Webinars. They asked me to make a special plea to all SLA unit Webinar organizers to consider timing more of their sessions to sync with Australia's and New Zealand's time zones.

So, how do these lessons from my travels fit in with SLA's strategic priorities for the years ahead? At the end of 2014, SLA's current strategic plan will expire. During our 2014 Annual Conference in Vancouver, I tasked the Board of Directors and SLA staff with identifying the key priorities for the association for 2015-2016. Our aim was to build on previous strategic priorities, so we had to review, analyze, and synthesize a wide selection of reports and research.

The three key themes we identified, which are of equal importance and are interrelated, are as follows: the value of the information professional, the value of SLA, and the value of the membership experience. The board and staff are now working to flesh out these priorities and identify programs associated with them for inclusion in our planning for 2015.

The Membership Preferences Task Force has analyzed the findings from the membership survey and has made draft recommendations for actions under each of these priorities. I'd like to thank the members of this task force for stepping up to do a large piece of analytical work in a very short time frame. **SLA**

## BOARD ELECTION · NOMINATIONS · CONTRIBUTED PAPERS

### Rink Heads Slate of New Board Members

Tom Rink, an instructor for library services at Northeastern State University in Broken Arrow, Oklahoma, will lead the Special Libraries Association (SLA) as president in 2016.

Tom is one of five information professionals who will begin serving three-year terms on the 15-member SLA Board of Directors in January 2015. He will serve one year as president-elect, followed by a year as president and a year as past president. Joining him on the board in 2015 are the following SLA members:

- Kim Silk, chapter cabinet chair-elect;
- Ruth Kneale, division cabinet chair-elect;
- Kevin Adams, director; and
- Catherine Lavalley-Welch, director.

The new board members were chosen by the association's members in an election that opened on September 3 and closed on September 24. Balloting was conducted online; approximately 23 percent of SLA members cast votes.

An SLA member since 1997, Tom previously served on the Board of Directors as division cabinet chair, in 2008-2010. He chaired the board's Division Structure Task Force in 2009-2010 and currently serves on the Finance Committee. He has served as treasurer (1997-2003) and president (2006) of the Oklahoma Chapter, as treasurer of both the Solo Librarians (1999-2003) and Advertising and Marketing (2010-2012) Divisions, and as a member of the Annual Conference Program Planning Committee for the Solo Librarians (2006-2008) and Leadership & Management (2013-2014) Divisions.

Prior to joining academia, Tom was a police officer in Tulsa, earning his library degree at night while working full-time during the day. In 1994, he was offered the opportunity to establish a library from scratch for the police department, which launched his career as an information professional. He retired from

his 25-year law enforcement career in April 2007.

In addition to electing new board members, SLA members also overwhelmingly approved two changes to the association's bylaws. Under the changes, the joint cabinet is recognized as an official body of the association, and caucuses can be formed based on geography.

### Nominations Sought for Leadership Positions

Are you a forward-thinking information professional with good communication skills and an interest in advancing your profession and association? Do you know someone who fits this description? If so, consider nominating yourself or a colleague to serve in one of the following SLA leadership positions: president-elect, chapter cabinet chair-elect, division cabinet chair-elect, or treasurer.

The SLA Nominating Committee is seeking eight candidates—two for each of the four positions—to stand for election in September 2015 and commence serving in January 2016. Nominations must be received by November 15. To nominate an SLA member for the board, forward the following information to any member of the Nominating Committee:

- the nominee's name, address and phone number;
- the board position for which you are recommending the nominee; and
- a few paragraphs about why this person would be an outstanding candidate and board member.

The Nominating Committee comprises the following members: Gloria Zamora (Chair), Sue Henczel, Sharon Lenius, Leslie Reynolds, Anne Barker, and Linda Broussard (SLA staff). Details about the responsibilities for each position can be found on SLA's Website at <https://www.sla.org/wp-content/uploads/2013/05/BoardPositionDescriptions.pdf>.

### Share Your Research at SLA 2015

Each year, SLA members share their research and scholarship on topics of interest by presenting contributed papers at the SLA Annual Conference. The contributed paper sessions are among the most popular events at the conference, and with good reason—they provide in-depth knowledge about issues that are of current interest to information professionals around the globe. Topics addressed at SLA 2013 and SLA 2014 include hackfests, embedded librarianship, environmental scanning, data governance, network visualization, citation metrics, knowledge audits, and mobile technology.

SLA is now accepting proposals for papers to be presented at the 2015 Annual Conference, to be held June 14-16 in Boston. Paper topics should be related to library science, information management, or other issues pertaining to client service, technology, or administration in special libraries. Paper topics should be relevant to the conference theme, "Be Revolutionary!"

To present a paper, submit a proposal in abstract form by December 1. Abstracts should be single-spaced Word documents (or plain text) between 250 and 300 words in length, or roughly one page in 12-point type.

A panel of SLA members will conduct a blind review of the proposals, and the strongest proposals will be selected for development into papers. Proposals will be evaluated on the strength of the ideas, quality of the writing, potential member interest, and relevancy to the conference theme. Applicants will be notified of the review panel's decisions by December 19.

To learn more, visit <http://www.sla.org/share-research-sla-2015/>. **SLA**

# COPYRIGHT · DIGITAL TECHNOLOGY · OPEN ACCESS · WEARABLES

## Court Reverses Ruling on Copyright Infringement

Georgia State University's use of online materials in classrooms is coming under fresh scrutiny after a three-judge panel agreed unanimously that a previous court ruling that found the university mostly innocent of copyright infringement was flawed.

The decision by the U.S. Court of Appeals for the 11th Circuit means the case will return to Atlanta, where a District Court judge ruled in May 2012 that Georgia State had violated copyright in only a handful of the dozens of instances alleged by the three publishing companies (Cambridge University Press, Oxford University Press, and Sage Publications) that brought the case.

The three publishers claimed that Georgia State had infringed their copyrights by allowing professors to make digital copies of excerpts of their books and share them with students without paying licensing fees. Specifically, they alleged that 74 individual instances of infringement took place during three academic terms in 2009. The District Court judge issued an order finding that the publishers failed to establish a *prima facie* case of infringement in 26 instances, that the fair use defense applied in 43 instances, and that the university had infringed copyrights only in the remaining 5 instances.

The publishers appealed that ruling, arguing that the judge had erred in her application of the fair use doctrine by giving equal weight to each of the doctrine's four factors—the nature of the use, the nature of the work being used, how much of it is used, and whether that use might affect the market for the work. The Appeals Court agreed, saying the judge's analysis amounted to “a mechanical, ‘add up the factors’ approach” that reduced the fair use doctrine to nothing more than a mathematical formula.

The Appeals Court's ruling can be viewed at <http://media.ca11.uscourts.gov/opinions/pub/files/201214676.pdf>.

## Teens Worry They Lack Skills to Benefit from Digital Opportunities

People of all ages believe that digital technologies will create more rewarding opportunities in the workplace, but those who will be in the best position to benefit from such opportunities—students between the ages of 12 and 17—are most likely to fear being left behind by the digital revolution.

A survey of more than 5,000 U.K. residents by Accenture, a management consulting firm, found that 51 percent believe digital technology will enable them to be more productive, 48 percent think it will help them be more creative, and 54 percent say it will enhance their flexibility by allowing them to work irrespective of location. Young people are especially bullish on digital—75 percent of survey respondents aged 12-17 believe that digital technologies will give them more job opportunities than they would otherwise have had, and half say digital will help them get their “dream job.”

The survey also found, however, that many students worry they may not possess the skills needed to make the most of these opportunities. Two-thirds of survey respondents aged 12-17 feel that their current educational curriculum is not developing or enhancing their digital skills adequately.

“It's good news that young people feel optimistic about the opportunities digital offers, but the fact that they don't feel they are being fully equipped is worrying,” says Nick Millman, managing director of Accenture Digital. “After all, they are the next generation of our workforce, and the future of British business is in their hands. We know that jobs will look different in the future as a result of digital, and yet it seems that even the positive changes already made in classrooms and the curriculum, such as the introduction of coding, still may not be enough. We need to give young people the confidence to contribute to organizations that want to become fundamentally digital.”

To read more about the study, visit <https://newsroom.accenture.com/news/young-people-inspired-to-look-for-digital-jobs-but-worry-they-will-need-new-skills-to-be-successful.htm>.

## NISO Devotes Entire Journal to Open Access Infrastructure

Three years after it began publishing its journal, *Information Standards Quarterly*, as an open access publication, the National Information Standards Organization (NISO) is devoting a special themed issue to the topic of open access infrastructure.

The issue contains insights from a wide spectrum of stakeholders—publishers, funders, universities, intermediaries, standards bodies, and open access experts—on subjects such as institutional policies, compliance tracking and reporting, publishing tools, new economic models and licensing, and sustainability.

“2013 seems to have been a watershed for open access,” says guest content editor Liam Earney, head of library support services at JISC. “Driven by a number of policy announcements from funding bodies and governments worldwide, the question is no longer whether open access will or should happen, but rather how will it be implemented in a sustainable way.”

The special themed issue, as with all issues of *Information Standards Quarterly*, is available in open access in electronic format on the NISO Website. Both the entire issue and the individual articles may be freely downloaded. For more information and to access the free electronic version, visit [www.niso.org/publications/isq](http://www.niso.org/publications/isq).

## Wearable Devices to Become More Popular

The use of wearable technologies is expected to rise quickly in the coming years, but concerns about price, privacy, security, and the lack of “actionable” and consistent information from

*Continued on page 31*



# Beyond the Desktop: Delivering Content to New Devices

BY STUART HALES

In the beginning, there was information, and it focused mainly on *what*—what had happened, and what was about to happen. Then came the computer, which enabled people to choose *how* to consume information—in print or on a screen. Next came smartphones and tablets, which made it possible for people to access information no matter *where* they are. These were followed by social media, which changed the focus of information from *what* to *who* by allowing users to create their own personal pages and walls.

All of these attributes of content were on display in July, when SLA co-hosted a Twitter chat with uklibchat on the topic of mobile technology in libraries. The conversation was guided by these questions:

1. Describe your vision of the library or information center in 2020. What's changed and what hasn't? How essential is mobile tech?
2. Does your library or information center have a "mobile-ready" approach to delivering online resources?
3. What can you envision your users wanting to do with their mobile devices? What would you like to offer via mobile?
4. Which vendor partners do you know that are currently supporting your drive to become mobile ready?

The discussion was lively, with participants from around the globe commenting on topics ranging from information access and user privacy to adopting and teaching technology skills and

using libraries as collaborative spaces. The following tweets provide a sense of the tone and content of the conversation:

"I'd like to see libs keeping one step ahead of tech so users don't have to wait for us to respond to change."  
@ces43

"That will require many more early adopters to enter the realm."  
@coplibrarian

.....  
"So many technical advances, I think we might see some unexpected things. Drones delivering library books?"  
@AgentK23

"Certainly some privacy concerns."  
@inaljchat

.....  
"The slippery slope of mobile libraries is widening the digital divide, either socio-economically or by age."  
@SLA2014Tips

"Yep, and libraries should be closing gap not widening, future libraries need to find way to do this."  
@amycrossmenzies

.....  
"We partnered w/ @OverDriveLibs to

**STUART HALES** is senior writer/editor at SLA and editor of *Information Outlook*.



provide #ebooks for patrons. Drew many new users who never use our physical space.”

@StanfordF

“I find myself using platforms instead of visiting. Any concern this will lead to fewer library spaces?”

@KintheLibrary

“Might lead to different library spaces. We push more e-content, use space for collaboration.”

@tranlib

Although the chat touched on mobile technologies that libraries and their customers might adopt in the years ahead, the focus was less on the *what*, *where*, *how* and *who* of delivering information and more on the *why*. This tweet, sent early in the chat, sums up the *why* pretty well: “Incorporating mobile tech into libraries is crucial to our ability to serve the users. We have to keep up with tech.”

That sentiment serves as the starting point for the articles in this issue of *Information Outlook*, all of which were written by information professionals who participated in the chat. Claire Sewell, a librarian at Cambridge University, tweeted during the chat that she hoped more librarians would become early adopters of new information technologies so they could share their expertise with their customers. To her surprise, she learned that some of her peers don’t necessarily agree.

“The reaction to my comment was mixed,” she writes, “which made me stop and think about something I take for granted—that librarians are open to adopting and sharing technological tools. In this article, I will explain why I think information professionals should learn about technology and attempt to address some of the concerns about becoming involved in a new role.”

Amy Cross-Menzies, also an academic librarian in the U.K., tweeted that she foresees the library or information center of 2020 “incorporating tech in a way that is intuitive to users and inclusive to all.” In her article, she describes the challenges posed by the “digital divide” and “digital by default” phenomena



and urges information professionals to do all in their power to ameliorate their impact.

“I would like to see future libraries incorporate the best aspects of mobile technology, the ones that enable all users to have access to information in a way that is easy and comfortable for them,” she writes. “For every digital innovation and use of mobile technology, I want to see an equally innovative alternative offered to those who don’t have such technologies available to them. I want to see the library offering patrons the choice to use these technologies, but not forcing it on them.”

Kendra Levine, who works in the Transportation Library at the University of California Berkeley, also participated in the chat, but only briefly—she tweeted just three times before exiting the conversation. But her three tweets packed a punch, especially the second, in which she lamented that the comments about future libraries and information centers were “largely focused on updating/maintaining trad[itional] lib[rary] service[s]” rather than on envi-

sioning new ones.

“How libraries can integrate mobile technology and platforms into our current services is an important conversation,” she writes in her article. “But I am concerned that our smaller, more immediate problems are getting in the way of our bigger, future problems, as seems to happen frequently.”

These “bigger, future problems” will be solved, she asserts, only when information professionals abandon any pretense that they know what’s best for their customers.

“One of the reasons I bounced out of the Twitter chat was that it was taking the very common approach of ‘we know what users want’ without presenting any evidence to support that point,” she writes. “We need to be open to a wide variety of approaches and solutions, both high tech and extremely low-fi. Our users want it all—discovery layers powered by linked data and free candy.”

To read more about what Claire, Amy and Kendra have to say, turn the page. **SLA**

# The Merits of Being Mobile

SHOULD INFORMATION PROFESSIONALS BECOME EARLY ADOPTERS OF NEW TECHNOLOGIES, OR IS THIS TOO FAR REMOVED FROM OUR REMIT?

BY CLAIRE SEWELL, MSC, MCLIP

**H**ow do you feel about new technology? Do you race to the nearest Apple store the moment a new version of the iPad is released, or do you just not understand the fuss?

I admit to being an enthusiastic adopter of new technology, both for personal and work use, so I am always interested in learning more about this topic. In July, I participated in a Twitter chat hosted by SLA and uklibchat on the subject of mobile technology in libraries. During the chat, participants were asked to share their vision of the library in 2020, and I tweeted that I would like to see more librarians become early adopters of new technologies so they can teach their customers to use new tools.

The reaction to my comment was mixed, which made me stop and think

about something I take for granted—that librarians are open to adopting and sharing technological tools. In this article, I will explain why I think information professionals should learn about technology and attempt to address some of the concerns about becoming involved in a new role.

## Positives for Library Customers

First and foremost, learning about technology can benefit your patrons. Surveys show that most people have access to at least one type of mobile device, and they use these devices for the majority of their information-seeking needs (Pew Internet 2014). It would be remiss of us to ignore the fact that so many of our patrons are actively using this technology. By gaining an understanding of mobile technology,

you will be able to help your customers use it—for example, you will be able to demonstrate how to use a specific database on a tablet rather than on a desktop computer, which may gather dust in a corner.

Acquiring a basic understanding of technology can also help you answer customer inquiries. If a patron or client is having a problem with a mobile device and you can solve it with a quick tip, you will give her a positive impression of the library. Small, personalized services like this make all the difference to your customers when they decide which information provider to use.

With the growing popularity of mobile devices, customers' expectations have increased. People who have these devices expect to be able to use them anywhere at any time, including using them to access library services.



**CLAIRE SEWELL** is a senior library assistant at Cambridge University Library. She acquired an interest in emerging technologies after involvement in the CPD23 program and her postgraduate research on social media. Contact her at [Claire@librarianintraining.com](mailto:Claire@librarianintraining.com) or through Twitter @ces43.

Familiarizing ourselves with new technologies can help us develop services our patrons want and need, whether by creating new services or adapting existing ones to a new platform. (When monitoring technology trends, remember that it is easier to spend a little time on a regular basis looking into new developments than rushing to catch up with patrons who are already using new tools or Websites.)

Mobile devices and services also provide an important means of reaching out to both current and potential library customers. By taking your services mobile, you are making them accessible to your customers wherever they are. You are taking the services to your users, rather than relying on them to come to you.

An example of this can be seen in libraries that provide services through social media, thereby making the library available in online spaces that many patrons frequent. Although this may seem like a recipe for encouraging people to avoid the library, it can actually enhance the library's usefulness in the eyes of patrons.

Using mobile devices also has the potential to turn any interaction with a customer into an opportunity to showcase your services. These devices enable you to offer help on the spot, often at the time of greatest need. You may even find that you capture the attention of non-library patrons, who are less likely to come across your services in the traditional way. Interactions such as these will create positive word-of-mouth marketing, which can really enhance the library's or information center's brand.

### Positives for Info Pros

As well as enhancing your customers' experience, new technologies can help you work smarter and, consequently, provide better service. Tools such as Google Docs make collaborative work much easier, while cloud-based tools such as Dropbox enable you to access documents from anywhere. With mobile technology, you are no longer tied to

## The best advice I have ever been given about how to keep up with the new technologies your customers are using is to simply ask them.

your desk, which makes services such as roving support easier to provide. These tools also support more flexible working arrangements, which are becoming increasingly important.

Of course, we cannot do all the technology work ourselves. If you decide to implement a mobile-ready service, you will likely need to work with specialists in your Information Technology Department. Having some knowledge of mobile technology will aid this collaboration and help ensure that you are both on the same page in your discussions. With the IT specialist's in-depth knowledge of technology and your insights into customers' needs, the two of you can draw on each other's strengths to create something that will benefit all involved.

Many information professionals, however, are understandably reluctant to take on yet more responsibility. Lacking time and incentives, they effectively doom new initiatives from the start. But while information professionals should be aware of new technologies, there is absolutely no reason for them to become technology experts.

### Enhancing Your Awareness

Your goal should be to collaborate with technology experts to acquire just enough specialized knowledge to be able to assist your customers and incorporate their needs into your service portfolio. There are several ways you can integrate this knowledge into your existing awareness routine. In fact, the best advice I have ever been given about how to keep up with the new technologies your customers are using

is to simply ask them. For example, if you work in a school library, why not invite some teenagers in once every few months to show you what tools they're using? Not only will you get to know your customers better, you will learn something new at the same time.

It is important to remember that using new technology doesn't have to be about discovering the "next big thing," but about being open to change. During the Twitter chat, some participants expressed concern that new technologies could take a great deal of time to integrate into their libraries or information centers. While it is true that successful services need to be properly planned, much of the hard work has already been done. Take advantage of case studies in journals or online communities, or speak to colleagues in similar institutions who have implemented new technologies. Don't spend too much time testing; instead, review progress regularly and make sure that anything you introduce is meeting the needs of your customers.

One cautionary note is the potential for conflict with colleagues (especially those in the IT Department) as lines between roles become blurred. This is a valid concern, especially when tough economic times already have people on edge. One way to deal with this is to be clear up front that this is about collaborating, and that all parties have something to bring to the table—and all can learn from each other in the process. To some extent, the success of this venture will depend on your organizational culture, but you may well find that other departments have been

waiting for each other to make the first move.

Finally, a very justified concern about keeping up with new technology is the possibility of burnout. Not only are you assuming the burden of learning new things, but having access to your work wherever you are is not always a positive thing. Some people will always feel the need to edit just one more document or answer just one more e-mail, and this can lead to a feeling of never being switched off. Set reasonable limits for yourself and remember that technology is intended to make our lives easier, not more complicated.

### Know When to Adopt Technology

Keeping up with technological advances can also help you decide when to implement new technologies. There are significant barriers to being an early adopter for many organizations, even those whose budgets and staff numbers are not constrained.

It makes little sense to adopt technologies merely because they have become available. By monitoring the development of new technologies, information professionals can equip themselves with the knowledge to make an informed decision about implementation. In looking at new tools, they should always keep the benefit of the customer at the forefront of the process.

Those moving forward with early adoption need to be aware that there will be changes in the technology as it moves through its life cycle. Understanding the technological life cycle can give information professionals a better grasp of when a tool's infrastructure is just stable enough to implement while not so settled as to prevent getting an early handle on new developments.

Budgets are always going to be an issue, regardless of the size of the organization. In keeping with the theme of collaboration, information professionals could think about combining their efforts with colleagues at other institutions to explore their options. Perhaps those institutions could help share the cost in terms of both money and staff.

As always, information professionals should think carefully about technology and only implement new tools when there is an actual customer need.

Developing a working knowledge of technology is something that 21st-century information professionals need to be doing. It's not about changing your career path, but adapting to the changing needs of your responsibility to deliver the best service possible. We are still providing access to information—which is the heart of our profession—but this information now comes in different formats and is delivered to customers through different media. This is something that information professionals have been doing for a while, and I hope we will continue doing it long into the future. **SLA**

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# Democratizing the Digital World

LIBRARIES AND INFORMATION CENTERS MUST IMPLEMENT MOBILE TECHNOLOGY IN WAYS THAT DO NOT EXACERBATE THE DIGITAL DIVIDE OR THE 'DIGITAL BY DEFAULT' TREND.

BY AMY CROSS-MENZIES, MA

**E**arlier this year, I participated in a Twitter chat on the theme of mobile technology in libraries. This article draws on some thoughts that came out of the first part of that discussion, which was guided by the following questions: “Describe your vision of the library or information center in 2020. For example, what’s changed and what hasn’t? How essential is mobile tech? What uses do you see for near-field communication (NFC)/RFID, and is this tech integrated everywhere?”

Specifically, I want to explore the following lines of thought: (mobile) technology as a means to an end rather than an end in itself, and technology being incorporated into library services in a way that is inclusive to all.

## Substance over Style

At their core, libraries are about sharing or lending information and knowledge to their customers. This has been the case since the first libraries collected clay tablets, papyrus scrolls, or parchment skins, and it continues to the present day, with libraries lending printed books, e-books, DVDs, audio books, music CDs, and so on.

The focus of libraries, then, is not on the *format* of the physical objects being shared but on their *content*. That is the focus of most users as well—for example, when I borrow a printed book, I am not interested primarily in the paper and the binding (attractive though they may be!), but in the information contained within. In the same way, mobile devices, while they are attractive and fashionable, are only useful in terms of

the information they contain or are able to access.

Although mobile devices have exploded in popularity in the past few years, in terms of library use they remain tools to access information rather than the focus of the library itself. Mobile devices are useful to library customers only insofar as they provide access to information, be it a work of fiction, an encyclopedia, or a genealogy database. I would argue that most people using a library or information center are not really interested in the information medium (such as a printed book, tablet, desktop computer, or audiotape), although they may have a preference based on things like physical comfort or visual acuity. What they are primarily interested in is *the information itself*.

Mobile technologies are, therefore,



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## For every digital innovation and use of mobile technology, I want to see an equally innovative alternative offered to those who don't have such technologies available to them.

simply means to an end, not the end itself. They're a big deal at the moment due to their relative newness and rapid advancements in their capabilities, but mobile technologies are not a threat to libraries—they're tools for them (just as e-books are not nemeses of printed books, they're just another form of the same thing).

Still, there can be no denying that mobile technology has an immense capacity to bring information to people in ways that previously were not possible. Smartphones and tablets are now common sights, and many people consider them essential to their daily lives.

### Equal Access to Information

As library and information professionals, one of our guiding ethical principles is to provide equal access to information, and technology offers the potential to make this easier. For example, e-readers allow the text size to be customized to suit the individual reader, thereby eliminating the need to stock additional copies of a book in various print sizes. Electronic resources can be accessed from anywhere (with the right equipment), so those who find it difficult to visit a physical library or information center can still use its materials.

Despite the huge growth in digital technology, there are those who are unable to take advantage of the benefits it can bring, and information professionals must bear this in mind when using digital and mobile technologies. The "digital divide" created by these technologies can be quite pronounced, even in developed countries. For example, in the United Kingdom,

approximately 13 percent of the adult population (or 6.4 million people) have never accessed the Internet (Office for National Statistics 2014).

The impact of this digital divide is magnified by the trend toward "digital by default" processes—online job applications, government services, bill payments, and shopping opportunities, to name just a few—resulting in a significant disadvantage for those without access. As one of my neighbors recently said to me, "I can't get the best gas and electricity deals because I'm not online," thus aptly capturing the problem that digital by default creates—it squeezes those on the wrong side of the divide into an ever more disadvantaged position.

Although most public libraries in the United Kingdom offer Internet access (usually for no cost), there are often limits on its use (about an hour a day, depending on availability) and a lack of privacy (you might not want your fellow library patrons to see that overdue bill you're paying online). Along with these disadvantages, budget cuts in the U.K. public sector mean there are fewer staff on hand to help unskilled computer users and less training for personnel who work with technology (who are usually volunteers with limited time).

Notwithstanding these problems, libraries can and should be more active and imaginative in trying to ameliorate the effects of the digital divide. The most common barriers to going online or using digital technologies are cost, lack of knowledge or motivation, and lack of a device or infrastructure. Libraries can play an important role in

overcoming these barriers by becoming more innovative in the use of mobile technologies, thinking laterally in relation to technology, and retaining as a primary focus the ethical obligation of library and information professionals to make information available to all.

Innovative examples of making information more available, gleaned from the library and information profession as well as the wider world, include both high- and low-tech responses, including the following:

Librarian Luis Soriano takes his Biblioburro **library by donkey** to remote areas of Colombia to provide children with the opportunity to read and learn.

The first **all-digital public library** in the United States, BiblioTech, started lending e-readers to its members from the moment it opened in 2013 as well as providing 24/7 access to the digital content that can be used on them.

Question Box provides communities that lack Internet access or associated technologies with a **simple, easy-to-use helpline** that connects local people to someone with Internet access who can look up the information they require.

LibraryBox, the **open-source portable file distribution tool** based on PirateBox, offers libraries a secure, low-cost solution to providing access to digital content to library members' own devices without the need for an Internet connection.

LibriVox harnesses the time and personal equipment of volunteer readers, who use their computers and some free software to **make their own audiobooks** by recording public domain books, which are then freely downloadable from its Website.

### Enhancing Digital Literacy

But the digital divide is not just about gaining access to technology and the Internet, it's also about knowing how to use these tools and feeling confident in doing so. More fundamentally, it's about seeing the benefit of accessing digital content at all.

JISC, an organization that champions the use of digital technologies in U.K.

education and research, is conducting a project titled “Digital Student” that is examining students’ expectations and experiences related to studying in a digital environment. Project leaders have noted that although most students entering university are familiar with everyday consumer technologies, they do not necessarily understand, and are not necessarily confident in using, the various technologies utilized in their studies. Further, many students are “unclear about how the technologies they use at university can help them to succeed” (Beetham 2014).

To my mind, the process of, say, searching and accessing a university’s vast online collection of peer-reviewed e-journals is usually fairly alien to most new students, and a lack of digital literacy in areas like this can lead to uninhibited “Google-ing” and the use of less reliable or authoritative sources. Acquiring this knowledge and learning these skills would benefit students on several levels—the JISC project also revealed that students place considerable emphasis on identifying real-life bases for the use of technology and are concerned that an all-online environment will take away experiences and benefits that are essential to their study.

Given the right resources, libraries are well placed to teach digital literacy. It is common for universities to provide “information skills” or similarly termed training to new students to familiarize them with library resources and enable them to use these resources effectively. Public libraries in the U.K. often have schemes to help people use computers and access the Internet, and these could be further widened and utilized. An article I read on LibraryCity.org discussed the potential for “cell phone book clubs” to encourage a younger generation of readers while also teaching the digital literacy skills necessary to enable people to get the most from e-books. “Librarians love phrases such as ‘information literacy,’” the article states. “But how about another one—*e-book literacy?*” (Rothman 2014).

I would like to see future libraries incorporate the best aspects of mobile technology, the ones that enable all users to have access to information in a way that is easy and comfortable for them. For every digital innovation and use of mobile technology, I want to see an equally innovative alternative offered to those who don’t have such technologies available to them. I want to see the library offering patrons the choice to use these technologies, but not forcing it on them.

In that Twitter chat in July, the notion of mobile technologies being essential to the future library and information center raised the same concerns that the trend toward “digital by default” does—that those on the wrong side of the digital divide will find themselves further discriminated against, and the division will lead to a further polarizing between those who have and those who have not. With our professional and ethical obligations to provide access to information and ideas equally to all, we must seek to use new technologies in a way that includes and encompasses as many people as possible rather than exacerbating any inequalities and divisions that already exist. **SLA**

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# Envisioning a Library for Users

USERS ARE AT THE HEART OF LIBRARIES, AND PUSHING AGAINST BOUNDARIES OF ACCESS AND SPACE THAT LIMIT USERS IS WHAT LIBRARIANS AND INFORMATION PROFESSIONALS MUST CONTINUE TO DO.

BY KENDRA LEVINE, MLIS, MSIS

In a recent Twitter chat hosted jointly by SLA and uklibchat, participants discussed mobile technology and the future of libraries. The first topic of conversation was information centers in the year 2020. Much of the resulting conversation focused on having sufficient power outlets, lending mobile devices, and offering streaming services and books.

I tried to participate, but didn't have much to add to the conversation other than this tweet:

*Interesting that the responses in #slatalk #uklibchat are largely focused on updating/maintaining trad lib service. somethings can't change?*

And with that, I excused myself from the conversation, because it wasn't the one I wanted to have. How libraries can integrate mobile technology and

platforms into our current services is an important conversation. But I am concerned that our smaller, more immediate problems are getting in the way of our bigger, future problems, as seems to happen frequently.

Granted, it's difficult to look beyond the problems that are directly in front of us. But if we keep putting out minor fires every day and incrementally fixing broken systems, we are merely refining the current structure, not changing it.

An engineer once told me a story about a group who were iteratively improving how they handled the transportation planning and building process, making it more efficient. After a while, when they felt they had finished their improvements, they realized they were just more efficient at being inefficient.

I worry we're going down the same

path. Too often, when librarians start planning big future changes for libraries, we focus on improving what we have in front of us. We loan books; how can we do it electronically? We provide space for people to work; how can we make sure they have enough outlets for the future? Both of these issues are important to our users now, but we should address them now. I sincerely hope that by 2020, we have figured out that these issues are things simply to be handled and not worth discussing on a broader scale.

## Speculating about the Future

So, what's mobile technology for libraries going to look like in 2020? I'm not going to waste my time (or yours) prognosticating. I'm not going to sound the alarm bells that libraries will be dead by 2020, that print media will be pulped,

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and that people will be consumed by mobile and wearable technologies, because nobody knows how people will actually adopt such technologies.

Did photocopiers alter the way people use the library? That was a big concern in the 1960s. Did online databases make librarians obsolete? Quite the opposite. So, how will mobile technology affect libraries (and librarians) as a species? We'll continue to evolve, though I also think there will be adaptive forking.

Which brings me back to the topic of the Twitter chat.

It's hard enough to prognosticate about the future of your own library, and the conversation becomes more complex when you add your direct colleagues. Having this conversation with librarians from several different sectors, backgrounds, and countries quickly becomes noise, because there are so many different topics that need to be discussed, and the cracks are apparent. Even when we try to focus on a specific topic, such as mobile technology in libraries in the year 2020, there isn't agreement on what the issues are, because we all have our own problems and concerns. We need to observe and engage with our users, because ultimately we're doing it all for them.

In futuristic exercises, the user is often a footnote or regarded as a passive participant who must be placated. Taking this approach results in a missed opportunity to engage with our stakeholders and have the necessary conversations about what they want and need and what we can provide. These conversations should always be happening—there should be a constant dialogue—but sometimes it's helpful to have a talking point and an agenda to frame and focus the discussion.

One of the reasons I bounced out of the Twitter chat was that it was taking the very common approach of “we know what users want” without presenting any evidence to support that point. It's trite to say this, but anecdotal data is not data. We also have to break out of the hype cycle and our natural inclination to try and keep up with our peers. The

## It's our duty to our library users to advocate for open, platform-agnostic systems, because that's what librarians have been doing since the 17th century and what we must continue to do through the 27th.

cliche “Innovate or Die” needs to be put to bed, but that's a whole other issue. We need to be open to a wide variety of approaches and solutions, both high tech and extremely low-fi. Our users want it all—discovery layers powered by linked data and free candy.

Speculation about the future of libraries has been part of our profession from the beginning. Preservation has always been at the heart of what we do, as outlined in Gabriel Naude's “Advice on the management of a library” from 1627. Naude outlined cornerstones of the profession: collection development, classification, and, most importantly, the general aim of a library.

“Of a library, we may say, as Seneca says of Nature, that she ‘desires not merely to be looked at, but also to be admired; that she would lose all the fruits of her labor, were she to exhibit her handiwork, so vast, so noble, so subtly complex, so bright and so beautiful in ways so manifold, to solitude alone.’”

To put it more succinctly, libraries need to be used.

It's a basic concept, but as John Cotton Dana wrote in 1902, “These sentiments were uttered 275 years ago. They have not obtained very wide acceptance yet; because the preservative function of a library, for several hundred years so justly prominent, has persisted like an old, fixed habit, and made difficult the development of other functions which changed conditions demand.” More than a century later, this message is still relevant.

In his essay “Library Problems,” Dana wrote, “A library is a place in

which many people are to read every day. Give them all the light you can.” Just as the printing press revolutionized literacy in its era, and the Internet revolutionized information in ours, mobile (and wearable) technology will continue to expand the limits of information and literacy. Libraries need to keep evolving to meet users' needs; we must continue to give them “light.”

In the near term, this will mean outlets and configurable furniture to make dynamic spaces (something Dana also foresaw in “Library Problems”), but what will those spaces look like in the not-too-distant future? That's the conversation I wanted to have—the conversation I think we need to have—but it wasn't the one that happened during the chat.

### ‘A Growing Organism’

I propose the following ways to look at this, which really aren't radical or new. The first is to conceive of the library as a space for *people*, not books or things. These concepts are neatly captured in Ranganathan's Five Laws of Library Science, wherein he documents the balanced perspective of both the users and the collection in Law Two, “Every reader his [or her] book,” and Law Three, “Every book its reader.” There is no explicit definition of “book” (not only have books changed a lot in recent years, but we had already interpreted *book* to mean *content*, like journals, videos, and so on), and librarians should embrace that. Consider these laws a reminder that our collections, whatever they may be, exist for our users.

Whatever our futures hold, the mission and the space must be user-driven.

For purposes of this discussion, though, I think Ranganathan's Law Five is the most important: "The library is a growing organism." Like living organisms, libraries need to grow and evolve as the climate changes. Every library has its own user community, with its own wants and needs.

Melvil Dewey outlined his prognosis for libraries going forward—in "Field and Future of Traveling Libraries," he projected traveling libraries as the next evolutionary stage to bring collections to users, enabled by the technological and communication advances of the early 20th century. In the 21st century, the evolution of libraries will probably lead to a forking of the species, as evident from the fractured conversations during the Twitter chat, but the core philosophies and missions will not change. This idea has taken hold with the Learning Commons concept that is gaining ground at many institutions.

The second approach is to make libraries spaceless, always there and ready to infiltrate your life. The spread and speed of mobile technology means this change is taking place right now, but we need to be proactive to make sure it happens in the best interest of the user. This is where we, as information professionals, need to channel our inner Naudes and Danas and keep fighting for access to information and resources for our users. This means pushing back against digital rights management and other hurdles that try to mimic the limitations of a physical collection for electronic media.

It's our duty to our library users to advocate for open, platform-agnostic systems, because that's what librarians have been doing since the 17th century and what we must continue to do through the 27th. The methods and platforms will change, but our mission will not. So please, when you think about what your library will look like in 2020, be audacious, be bold, and assume that abundant power outlets are a given. **SLA**

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# 10 Questions: Sarah Shujah

A FORMER 'LIBRARY NERD' TELLS HOW SHE DISCOVERED HACKFESTS AND MAKERSPACES AND HOW SHE'S TEACHING A NEW GENERATION OF STUDENTS TO SEE THE LIBRARY AS A CREATIVE COMMUNITY HUB.

BY STUART HALES

**T**he word *hack* has been put to many uses during its lifetime, almost all of them negative. Think of hack writers, hack comedians, and golfers and baseball players hacking at balls. Synonyms for *hack* include *vulgar*, *low-quality*, *trite*, and *mediocre*.

And all of this was before computers—and computer hacking—became commonplace.

Oddly enough, computer hackers can make several positive contributions to libraries. According to Sarah Shujah, a science librarian at York University in Toronto, bringing computer programmers together to build apps, widgets, Websites, and other software products can help position the library as a center for creative community learning.

"[A] hackfest helps to maintain the library as a place of learn-

ing," she wrote in "Organizing and Embedding a Library Hackfest into a First-Year Course," which was judged the best contributed paper presented at the SLA 2014 Annual Conference in Vancouver (see page 32). "Furthermore, a library hackfest becomes a part of the research landscape. It establishes the library as a collaborative environment as people work in groups alongside students, faculty, and librarians from various disciplines to conquer problems, whether as small as day to day functioning or major problems facing humanity."

*Information Outlook* spoke to Sarah after the conference about her paper, her interest in hackfests and other creative projects, and how her school experiences stamping due dates into the backs of books prepared her for a career as a librarian.

**Your paper, "Organizing and Embedding a Library Hackfest into a First-Year Course," was judged the best contributed paper at SLA 2014. What prompted you to write a 17-page paper and travel from Toronto to Vancouver to present it?**

What prompted me to write the paper was that, after organizing the first hackfest, people started e-mailing and calling to ask me what I did and how I did it, and some of them wanted to know if they could come and shadow me at a hackfest. So I figured there was definitely a lot of interest in the topic, and instead of talking to one person at a time, I might as well write a paper. So I wrote one for *Partnership: Canadian Journal of Information Practice and Research*.

After the second hackfest, I decided to write another paper, not necessarily about how to organize a hackfest but about how to integrate one into a first-year computer science course. I thought that, if people are already interested in hackfests, they're going to be interested in this aspect as well. I thought the article would be intriguing not only to computer science and engineering librarians, but also to other librarians as a novel way to integrate



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information literacy and the library into the curriculum.

Recently, I had a master's of information graduate from Western University e-mail me to ask me about information literacy and computer science after reading my first paper. I thought it was interesting that he asked, because my follow-up paper is being published in this issue of *Information Outlook*. He wanted more information about how to connect with students better, and I thought his question fit into this paper. So there's definitely interest, and that's what prompted me.

**How did you get interested in hackfests? Have you ever participated in one?**

I hadn't participated in a hackfest before organizing the ones in the library, and I didn't have a computer science background or even know much about coding. What I did have was an interest in staying up to date on science issues and innovation topics—I read *Wired* and some popular science magazines.

In an issue of *Wired*—it was March 2012—there was an article about hackfests and hack-a-thons called “The 48-Hour Startup.” What I thought was really interesting in the article was that hackfests brought in people who are creative but also people who are into coding and who saw these as social or entrepreneurial events. So that's what a 48-hour startup is.

Now that I've organized two hackfests, my interests have changed in terms of what they mean to libraries. More and more I'm thinking about critical information literacy and the origins of hacker culture. Stephen Levy talks about this in his book *Hackers*, where he says the culture was coding for coding's sake and there wasn't a competitive environment—it was more of a collaborative environment. I think that really aligns with the library discourse, and I talk about this in the SLA paper—the idea of critical thinking and information literacy and how hackfests fit into the library pedagogy. That's where my interests are starting to go.

Since organizing the two hackfests, I've started to code and am interested in learning more about it. I've taken an introductory course on HTML and CSS with Ladies Learning Code, and I've participated in two hackfests. In the first one, I went to Code Academy and just kind of hacked there and learned what coding is about. I had studied a little about coding in my master's courses, but mostly from the theoretical side of it instead of the actual coding. So I did have some background knowledge, but mostly my interest comes from my curiosity about science and innovation and creativity and collaboration and connecting all of that back to the library discourse.

**Academic libraries have been adding coffee bars, lounge areas, and other amenities in recent years to entice students to spend more time in the library. Do you see hackfests as contributing to this goal, or are they motivated by larger purposes?**

I definitely see hackfests as part of the trend toward library as place, and also as part of connecting students with ideas of open access or open source through the library as a space. They're also a great way to connect with faculty. But I really see organizing hackfests in libraries as giving students a sense of what libraries are about.

A lot of the feedback I got from students was along the lines of, “I didn't realize libraries do this kind of thing. I thought it was a place to study or check out books.” So it was a great event in terms of transforming the library from a place of study and services into a place of learning. It also brought research back into the library as well, in a creative way.

**What long-term impact do you think (or hope) library hackfests will have?**

I really see hackfests growing into possible makerspaces in libraries. That's definitely a trend that's starting to occur in public libraries, but you see it more often in academic librar-



Sarah with the Mars Rover, which was displayed at York University Libraries' Science Literacy Week in September 2014.

ies. At York, that's one of my goals—to eventually have a dedicated space for hackfests, but also the technology to go along with makerspaces.

I think having hackfests will help keep libraries relevant in academic settings. More and more universities are going through a prioritization of their departments, so hackfests help keep the library relevant, especially as we connect them back to research and also to experiential education, which at York is a mandate. And because the hackfest is integrated into a first-year course, it's part of the first-year experience, which can help with student retention and give students a sense of connection to the university.

Other long-term goals are transforming library spaces from areas with book stacks to more collaborative rooms and spaces that allow for different kinds of thinking, not just studying. I think that will be a change in libraries that hopefully hackfests can bring forward.

**Speaking of libraries, what made you decide to become a librarian?**

I don't think I realized I wanted to be a librarian until later on in my life, but when I look back on my life, there are so many stories I have about libraries. When I was in elementary school, I was always at my school library or at the public library, or I was helping librarians by stamping the cards with the due dates or using the card catalog system to help find books. But I also did a lot of research in the library in elementary school—I used to do lab work there with small groups of people, and we used to do observational research. We did that in the library, which I thought was really interesting.

When I was in middle school, I was called a nerd for going to the library. I think that's when I started to realize that people didn't understand some of the benefits that libraries can offer. Even more, as an academic and activist, the issues of social equity and accessibility have been a dominant interest throughout my university career.

Once I became a page at the Toronto Public Library, I realized that becoming a librarian was a life goal that I was always moving toward. Working in a library made me understand that all of my life experiences were geared toward becoming a librarian.

#### When and why did you join SLA?

I was introduced to SLA by my colleagues. They recommended that I look into attending the SLA Annual Conference in Vancouver because SLA has an Engineering Division, and since I'm a new engineering and computer

science librarian, I thought it would be a great way to network with other librarians in similar environments. I also wanted to tap into their knowledge and experience.

One of my goals when I went to Vancouver was to find out more about standards and different vendors. I had a mentor, Susan, who's from CSA [the Canadian Standards Association], and she helped introduce me to various vendors I would be purchasing standards from. This was especially important to me because the Engineering Faculty at York University had expanded its program to include more traditional engineering studies such as electrical engineering, mechanical engineering, and civil engineering, which require a lot more standards. So that was another reason I joined SLA—to learn more about my field.

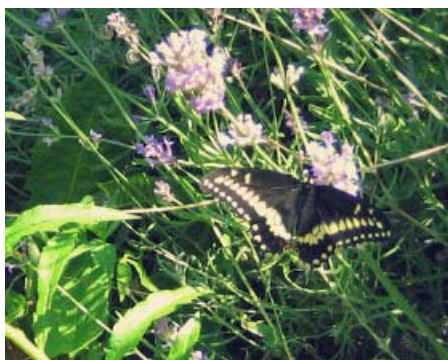
#### You began your career as a public librarian. What prompted you to switch to an academic library?

I loved working at the Toronto Public Library. I think it's such a great place, and I still go there on a weekly basis. But I've always been very interested in research and exploring new ways to be a librarian in the field. When I saw the position open at York University, I thought it would be a great way for me to move back into academia without actually going back to school. Now, I can do research and learn more about certain things like information literacy and collection development in engineering.

Being a part-time public librarian, I really didn't have an opportunity to do much research. When you're an academic librarian, 30 percent of your position is dedicated to research. I think that was one of my goals when I saw the position listed—I thought it would be a great way for me to pursue some of my interests in research and then implement some of that research into my practice, or vice versa. So I think that's why I switched from a public library to the academic world—to continue with research without having to go back to school.

**Your undergraduate degree is in forest conservation and resource management, and you collect rocks and butterflies as a hobby. At York University in Toronto, you're the librarian for computer science, engineering, and information technology. Why did you take on those topics as a librarian, and how big of an adjustment was it for you?**

When I saw that there was a science librarian position open, I thought it would be a great way for me to utilize my science education, even though engineering is a different kind of science than what I studied. The reason I say I can use my science background is that, in the engineering field, you have to think critically in terms of how the environment or certain aspects of engineering or design will affect society. In my studies in resource management, I conducted a lot of research about the environmental and social impacts of mining. So I really thought



As befits someone who majored in forest conservation and resource management, Sarah enjoys hiking in parks and forests. From left: the Oak Savannah in High Park; an Eastern Black Swallowtail butterfly in Toronto; and a mushroom in Fundy National Park, New Brunswick.

I could use my science background to engage with students to help them think critically about their design and research and about some of the ways they might investigate certain aspects of their field.

But it's true that engineering and computer science was definitely a new field for me to learn about, because I don't have a background there. Still, I think some aspects of engineering do relate to my background in terms



**Sarah helps a new graduate student navigate the York University Libraries Website.**

of design and also technology. Once I read more about the courses and met the professors and learned more about their goals and objectives, I realized there was a very strong connection.

It all kinda' happened organically, but I'm interested in science in general, and it's nice to be able to use my science background in a university library setting. I have a comfort level with the subject material now, but I'm also interested in learning more about it. I started taking coding courses to learn about different programming languages and software development. I suppose you can look at it from an entrepreneurial viewpoint or from a critical thinking literacy side. Either way, I find this stuff really fascinating.

Because I'm embedded in the courses, I've gotten much more comfortable with the subject matter. I really enjoy the faculty that I work with and the classes I visit. I think design is so important, as is understanding how design factors will impact society. I'm glad that I'm part of

that conversation.

**This has been a busy year for you—you presented at Computers in Libraries and then at SLA 2014. What plans do you have for next year?**

I definitely have another busy year ahead of me! In February, I'm co-leading two workshops at the Ontario Library Association Super Conference, which is one of the bigger conferences for Canadian libraries, although people from other countries may attend as well. The first workshop is actually hackfest-related—it's called "Hacking the Hackfest: Capturing Creativity through Collaboration." In this workshop, attendees will learn about different hackfests taking place at academic libraries and public libraries. In the latter part of the workshop, participants will actually hack on hackfests and start collaborating on ideas about how to organize a hackfest for their own institutions and groups. That should be really interesting.

My other interest is information literacy—I'm the co-chair of the Teaching and Learning Committee in my current position at York University Libraries—so I'll be doing a second workshop at OLA that will focus on the new ACRL [Association of College and Research Libraries] Information Literacy Framework for Higher Education. It's going to be a discussion-based workshop.

As for the future, I recently put in a research proposal with York's Web librarian about using 3D printers in teaching and learning environments for librarians. Bill wants to investigate how librarians can use 3D printers in their research; I want to look more at how librarians can use 3D printers in their teaching and learning. Usually you see research on 3D printers in terms of how to implement them as a service in your library—that's one of the things I'm doing right now, introducing 3D printers into our library and working out some of the space requirements for them—and I figure that since I'm already doing

that, I might as well research how librarians can use 3D printers. So I'm hoping to explore that.

Libraries have always been known for having technologies available for services, such as photocopying and printing. I think 3D printers and 3D scanners are just the next service that libraries are going to provide for students. It'll be interesting to see how librarians will use them in their teaching and learning, because more and more courses are implementing 3D printers into their assignments. I can really see librarians playing a role here.

**Complete this sentence: Today, library hackfests; tomorrow, \_\_\_\_\_.**

Tomorrow, I definitely see dedicated spaces in academic libraries for makerspaces. That's a vision I see more and more. And I think makerspaces are not just for people in the sciences or who are interested in software development—they're for people who might be interested in design or business or even perhaps anthropology. I think having those spaces for teaching and learning and research is so important. With them, the library becomes more than a place for learning—it becomes a creative community hub. **SLA**



# Volunteering 101: What's In It for You?

**Volunteering teaches new skills and hones existing ones, introduces you to new ideas and people, and provides opportunities to gain experience that can benefit your career.**

BY TOM RINK, MLIS, AMY SAROLA, MLS, AND REBECCA VARGHA, MSL

*At the SLA 2013 Annual Conference in San Diego, newly named SLA Fellows and Rising Stars teamed up to deliver presentations on selected industry topics and trends. Tom Rink and Rebecca Vargha, 2013 Fellows, and Amy Sarola, a 2013 Rising Star, presented "Volunteering 101: What's In It for You?" In this column, Tom, Rebecca and Amy share their latest thoughts on that topic.*

**Your schedule is busy and your time is valuable, so how do you make time to volunteer for SLA? Why do you volunteer?**

**Tom:** Yes, my time is very valuable, but so is my commitment to SLA. Before agreeing to serve in any capacity, I attempt to determine the expected level of time commitment. It's all about time management and work-life balance.

Why volunteer? The survival of any member-driven organization relies heavily on the contributions of member volunteers, and I see volunteering as one of my responsibilities as a professional.

**Amy:** When considering volunteer

opportunities, I think that it is very important to set realistic goals. I think we can all empathize with being victimized by our own grand plans, and I have found that having an honest conversation with myself about what I can realistically take on leads to the best possible outcome for everyone and a satisfying sense of accomplishment at the end of the day. It's OK to start small and build over time, too!

**Rebecca:** Every SLA member who makes a choice to volunteer is influencing the future of our association. My motivation to volunteer began early in my career. That pathway was largely influenced by both an excellent boss and local SLA members who supported all the work that I did on behalf of our organization. They understood the importance of professional development at all stages of your career. Time is a commodity, and you choose how to use it.

**Every membership survey shows that networking is one of the top benefits of being an SLA member. In your experience, what are the benefits of networking globally?**

**Tom:** By networking globally, you gain access to an unequalled diversity of ideas, cultures, and experiences. You discover and share new perspectives and fresh ideas. In turn, your actions foster a greater understanding of, tolerance for, and sensitivity to the differences between cultures. In a world where information is king and is shared nearly instantaneously, having a global network is an excellent advantage when you need the right information at the right time.

**Amy:** SLA provides abundant opportunities to build out your professional network before you need to tap into it. You can meet a lot of different people through the organization—future friends, colleagues, mentors, mentees, like-minded individuals, and those who will challenge your ideas and help you become a more well-rounded, thoughtful individual.

**Rebecca:** There are many benefits of connecting with other professionals, especially on a global scale. We learn and grow from interactions with each other within SLA. Our organization is unique among professional associations in North America in having both members and chapters located around the world. We all face common challenges, and having an inclusive network is a distinct advantage for our members in solving issues.

**How has volunteering in SLA changed and benefited your career?**



**TOM RINK** is an instructor for library services at the Broken Arrow campus of Northeastern State University in Oklahoma. He can be reached at rink@nsuok.edu. **AMY SAROLA** is a senior research analyst specializing in biopharmaceutical industry research at Oliver Wyman in New York. She can be reached at amy.sarola@oliverwyman.com. **REBECCA VARGHA** is head of the library at the School of Information and Library Science at the University of North Carolina, where she also works as an adjunct faculty member. She can be reached at vargha@email.unc.edu.



**Tom:** SLA has provided me with opportunities to acquire and hone skill sets that have been relevant and coveted in every job I have held. By being an active participant, by putting yourself “out there,” your work and effort get noticed. With notice comes recognition, awards, and an enhanced reputation. Reputations make or break careers—mine has been made!

**Amy:** SLA motivates me to keep trying, keep pushing. It allows me to interact with skilled information professionals who, being more established in their careers, give me something to aspire to. SLA helps me see possibilities.

**Rebecca:** Being a long-term member of SLA provides so many benefits, especially in terms of my career. I am energized by the opportunities to continue learning new skills that are available online through Webinars and at our annual conference. The opportunities to develop leadership skills are also numerous and directly benefit my employer. From conference planning to serving on a committee, the range of potential roles is diverse.

**Has mentoring been a factor in your SLA experience? If so, how? Do you mentor students and people who are new to SLA?**

**Tom:** Mentoring has played a huge role in my professional and personal growth. Having had the ability to reach out over the years to more experienced colleagues has been a godsend. I mentor colleagues frequently and reach out to the local library school. I also look forward to the Fellows/First Timers event at the annual conference to provide a structured yet informal mentoring opportunity to conference newcomers.

**Amy:** I have been very fortunate in my professional life to have had some really great mentors, and I am not sure that I would be quite where I am today professionally without their caring and constructive advice. As a result, I feel

**‘A new graduate degree is good for about two years; after that, you need to keep re-tooling consistently to keep pace with the rapid rate of change.’**

—Rebecca Vargha

a strong duty to try to pay these kindnesses backward, forward, and sideways. Taking time out for other people is important. We’re in such a dynamic market—you never know how your experience may benefit someone.

**Rebecca:** With my current job in a library and information science graduate program, there is always an opportunity to mentor and “walk the talk” on a daily basis. The students in our program may not be aware of SLA, and as their faculty advisor for the SLA Student Group, I make sure they learn about our organization quickly. My motto is that I never met a student I did not want to mentor!

**What are the benefits of volunteering? Does it set you apart in the job market or for a promotion?**

**Tom:** Volunteering helps you meet and connect to other people. It can provide you with practical experience as you learn or develop additional job skills, and it can be fun and offer you a sense of fulfillment. Any time you are investing in yourself to develop or add new skills to your existing toolkit, you are paving the way to a successful career.

**Amy:** You can really distinguish yourself from the crowd by running an event or program or taking on a leadership position in your local chapter or division. Volunteering also demonstrates to your employer, in a very tangible way, that you are a valuable employee who is committed to ongoing professional development—which is useful when it’s

time for performance reviews.

**Rebecca:** There are specific benefits in volunteering, on both personal and professional levels. Being a volunteer gives you insights into the work and challenges of all information professionals while making a difference within SLA. In terms of careers, there is less job security now, and new technical skills gained through volunteer work can help in finding the next job. A current employer may change the organizational structure and need employees with totally different skill sets. Flexibility is a key attribute when your career path is no longer linear.

**What leadership skills have you developed, and how did you develop them?**

**Tom:** I’ll go with managing conflict, taking responsibility, and decision making à la the school of hard knocks. I recall one conflict that arose from my lack of communication. I listened to all sides, accepted responsibility (and apologized) for the miscommunication, and made a decision based on all of the available information.

**Amy:** Soft skills, most definitely. I am naturally much better at leading processes than people, and leading a team of volunteers on an SLA chapter committee was a constant gentle reminder to me to always consider the human dimension in work situations.

**Rebecca:** SLA involvement is an excellent way to develop your capacity for leading effective teams in virtual and physical environments. In one specific

*Continued on page 29*



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Dr. Mathukumalli Vidyasagar  
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# Curation: Buzzword or What?

Information professionals need to make clear how they add value and communicate that to their end users.

BY STEPHEN ABRAM, MLS

I think the most popular buzzword in library land these days is *curation*. It's used to describe everything from old-fashioned collection development to human filtering activities on social media like Reddit, Twitter, Facebook, and your blog. The word *curator* gets used too liberally to describe the stuff people do on the Web and, in my humble opinion, dilutes and pollutes the professional things that librarians do.

We're so much more than assemblers of information, but let's begin a discussion in this column about the differences between curation and the activities performed by librarians. Put another way, is what someone does on Facebook remotely like the work product of information professionals in special libraries?

*"Beware curation that doesn't add focus, value and insight. That's just noise."*

—Robin Good

Librarians are human filters, but we're so much more than that. We make critical choices about content and process using our professional training, experience, and thinking, although we often neglect to make these choices visible.

The filters we use and the choices we make illuminate the difference between collecting comprehensively and curating. Our filters may screen for quality, fit for purpose, currentness, up-to-date-ness, or, even more importantly, that more difficult distinction—the single correct answer or the "best" answer.

It's one thing to create a bibliography or catalog of content. That's a foundation of the "stuff" that may be needed, but it is, by definition, too much, too general, and too "meta." Where's the visible, real, added value in the context of the enterprise and end user?

Dashboards, Webliographies, special collections, and more are good starts at delivering updateable, comprehensive, high-quality context in a digital world. But, do we—often enough—make the value add by the librarian visible enough? I think not. We must invest more time in doing what curators really do.

## Adding Visible Value

The term *curation* was hijacked from the museum and gallery world. To curate something in that world is to be intimately connected to quality, provenance, and authority. When a collec-

tion is curated for a display, exhibition or show, it starts with a point of view and often with a storyline and an intention to inform the viewer and educate. It is often constructed in a format that "scaffolds" the experience in stages as you engage in the experience.

As we move inexorably toward building more and more digital experiences, how do we make our value add highly visible? Let's explore some definitions and end with some advice.

In Wiktionary, *curation* is defined as follows: "(1) the act of curating, of organizing and maintaining a collection of artworks or artifacts; (2) the act of curing or healing; (3) (databases) the manual updating of information in a database."

*Digital curation* is defined as "the selection, preservation, maintenance, collection and archiving of digital assets. Digital curation establishes, maintains and adds value to repositories of digital data for present and future use. This is often accomplished by archivists, librarians, scientists, historians, and scholars. Successful digital curation will mitigate digital obsolescence, keeping the information accessible to users indefinitely."

The definition of digital curation notes that "The term *curation* in the past commonly referred to museum and library professionals. It has since been applied to interaction with social media, including compiling digital images, Web links and movie files."

A *curator* (from the Latin *curare*, meaning "take care") is "a manager

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or overseer. Traditionally, a curator or keeper of a cultural heritage institution (e.g., a gallery, museum, library, or archive) is a content specialist responsible for an institution's collections and involved with the interpretation of heritage material. The object of a traditional curator's concern necessarily involves tangible objects of some sort, whether it be artwork, collectibles, historic items or scientific collections."

- **Access and use:** Determine the level of accessibility for the range of digital material created. Some material may be accessible only by password; other material may be freely accessible to the public.
- **Appraise and select:** Consult the mission statement of the institution or private collection and determine what digital data is relevant. There may also be legal guidelines in place

## Databases, OPACs and Google are mere collections and access points until our intelligence makes them dance.

*EContent* magazine defines *content curation* as "the act of discovering, gathering, and presenting digital content that surrounds specific subject matter. Though it is still considered a 'buzz word' by many in the content world, content curation is now becoming a marketing staple for many companies with a successful online presence."

The *Digital Curation Centre* is, by its own definition, a "world leading centre of expertise in digital information curation" that assists higher education research institutions. The DCC, based in the U.K., provides expert advice and practical help to anyone in the U.K. higher education and research communities who wants to store, manage, protect and share digital research data.

According to Wikipedia, the DCC takes the following general approach to digital curation:

- **Conceptualize:** Consider what digital material you will be creating and develop storage options. Take into account Websites, publications, and e-mail, among other types of digital output.
- **Create:** Produce digital material and attach all relevant metadata; typically the more metadata, the more accessible the information.

that will guide the decision process for a particular collection.

- **Dispose:** Discard any digital material that is not deemed necessary to the institution.
- **Ingest:** Send digital material to the predetermined storage solution. This may be an archive, repository or other facility.
- **Preservation action:** Employ measures to maintain the integrity of the digital material.
- **Reappraise:** Re-evaluate material to ensure that it is still relevant and is true to its original form.
- **Store:** Secure data within the predetermined storage facility.
- **Access and reuse:** Routinely check that material is still accessible for the intended audience and that the material has not been compromised through multiple uses.
- **Transform:** If desirable or necessary, the material may be transferred into a different digital format.

So, there you have the nuts and bolts. While organization and preservation are professional skills, their impact cannot easily be measured or communicated

from an end-user or enterprise context. They suffer from the anonymity of the team doing the work. They cloud the choices that are made regarding what enters and doesn't enter the collection. They hide the user experience "path" and what the user's goals may be in using the collections. And, most importantly, they neglect to make clear the point of view inherent in the collection or curation.

### 'View' and 'Opinion'

What is a point of view? When you are considering one aspect of a situation, you can say that you are considering it from a particular point of view. A person's point of view is his or her general attitude or feeling about something.

A point of view can be defined as (1) a specified or stated manner of consideration or appraisal; (2) an opinion, attitude, or judgment; (3) the beliefs or views of a large number or majority of people about a particular thing (as in "the changing climate of opinion"); or (4) an estimation of the quality or worth of someone or something.

Don't refer to what someone thinks or believes about a particular subject as a point of view. Refer to it as a standpoint, view or opinion. You can use expressions such as "in my opinion" or "in his view" to show that something is an opinion and not necessarily a fact.

Because librarians are professionals, our opinions on the worth or applicability of certain information have value as professional judgments. Professional judgments are different from, but related to, such concepts as public opinion, group opinion, scientific opinion, legal opinion, judicial opinion, medical opinion, or editorial opinion. Not all professional judgments are created equal—there are professionals whose opinions are valued over others in their field.

### Key Implications for Info Pros

In this column, I've explored what curation is in the context of our work as special librarians and information professionals. I've also argued that too often we hide much of what we do that comprises the true professional value add

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of our work. To mitigate that, I think the following activities should be included in our communications with our users, both collectively and individually.

First, don't neglect the importance of the cover memo. Even if this is just a handwritten note or introduction to a report or package, be sure to clearly describe the professional decisions you made and the quality of the resources you used.

Second, sign your work. Don't just sign the reference and research results delivered to individuals and teams—make sure you acknowledge your authorship on digital products such as LibGuides, portals, dashboards, e-newsletters, and so on.

Third, use professional language that delineates your contribution from the authorship of the content you provide. Start by outlining the comprehensiveness and limits of your research, then make sure you share your opinions on the quality of the content you're delivering, anything that may be missing, opportunities for further investigation, and any biases you may detect. Begin your sentences with phrases such as "In my professional opinion" or "The profession of librarianship regards this source as ..." or "This content was selected by the information professionals in our organization as authoritative and complete." Promote your personal name(s) as well as your library or team brand.

Fourth, be part of the storyline. Don't just focus on your answers to the question of the moment—be clear about how what you do and what you create make a difference to the real business of your organization. Know the story you're telling and commit to being known as a contributor, not just for delivering information quickly and well.

We do awesome work. Let's make that clear and visible. Databases, OPACs and Google are mere collections and access points until our intelligence makes them dance. Let's sign our work. **SLA**

# The U.S. Copyright Office: How It Can Assist You

With an updated Website and revisions to a compendium of copyright registration practices, the Copyright Office is becoming easier for information professionals to use.

BY LESLEY ELLEN HARRIS

The U.S. Copyright Office has undertaken two initiatives that may be of great assistance to everyone in the copyright world, particularly librarians and information professionals. One is an updated Website; the second is the publication of the draft of the *Compendium of U.S. Copyright Office Practices, Third Edition*.

## The New Website

The U.S. Copyright Office's Website has a new, less cluttered look. It is much easier to navigate than its predecessor, contains new content, and is more accessible to non-lawyers. On the home page, four menu options that represent the four reasons you are most likely to visit the site stand out: register a copyright, record a document, search records, and learn about statutory licensing.

If you visit the site to register a work, you'll find a tutorial on completing an electronic copyright registration. This tutorial takes you from creating a login for the site to paying for the registration and, where appropriate, uploading an electronic copy of your document. While lengthy (45 PDF pages), the tutorial mainly comprises screenshots of each section of the registration process,

with arrows pointing to blank spaces and describing the information that must be added.

For those visiting the site to search records to locate a copyright holder and perhaps obtain permission to use a work, a helpful tutorial is available from the home page. At the time this article was written, the tutorial had not yet been updated to reflect the new screens on the site, but the underlying process described in the tutorial remains the same and is helpful in understanding the search process.

In addition to the four primary menu options mentioned previously, the site offers plenty of other interesting and useful information about services provided by the U.S. Copyright Office. It's worth taking a look at this information and browsing the new site.

For example, further down on the home page, you'll find links to both active and past policy studies. As of this writing, there are two policy studies being conducted by the U.S. Copyright Office—one pertains to music licensing, the other to "making available" rights for copyright holders. The Copyright Office offers a time-limited opportunity for public comment on policy matters in that area of the Website. The site

also links to proposed amendments to the Copyright Office's regulations. These amendments range from clarifications of definitions to more substantive changes.

A new addition to the site is a section for interesting and unusual copyright facts. More than just curious tidbits, the information in this area of the site is an enjoyable resource for understanding the evolution of copyright. It also is a great place to find odd, obscure or just fun material to include in presentations or displays to encourage interest in copyright. Some of the facts are as follows:

- French sculptor Frederic Auguste Bartholdi registered his sculpture of the Statue of Liberty in 1876 by submitting a photo and model of the statue.
- Letters exchanged between poet Walt Whitman and Ainsworth Rand Spofford, who was the Librarian of Congress in 1870, present evidence of Whitman's concern for the protection of intellectual property rights.
- Before the first federal copyright law was enacted in 1790, 12 of the 13 original states (all but Delaware) passed their own copyright laws. The first book protected by copyright law, *A Journal of Captain Cook's Last Voyage to the Pacific Ocean* by John Ledyard, was covered by copyright law enacted in Connecticut in 1783 at the urging of Ledyard and other authors.

The new site also includes a section of frequently asked questions, offered in both English and Spanish. This is the only section of the site with a bilingual option.

## Copyright Office Practices

On August 19, Register of Copyrights Maria A. Pallante released a draft of the *Compendium of U.S. Copyright Office*

**LESLEY ELLEN HARRIS** has spent her entire career in copyright law, as a lawyer-consultant, author, and educator. She developed the SLA Certificate in Copyright Management Program in 2007 and teaches the nine courses in the program. She has written four books and regularly blogs at [www.copyrightlaws.com](http://www.copyrightlaws.com) in plain English.



*Practices, Third Edition*, a 1,200-page document that in many parts reads as a treatise on U.S. copyright law. The *Compendium* sets out administrative practices relating to registration and recordation policy. It will remain in draft form for 120 days pending final review and implementation.

Prior editions of the *Compendium* were, for the most part, directed toward internal audiences. This edition, the first major revision in more than 20 years, is a comprehensive overhaul that makes the practices and standards of the Copyright Office accessible and transparent to the public.

The *Compendium* addresses basic copyright principles such as standards of “copyright-ability,” joint authorship, work for hire, and routine questions like fees, records retrieval and other procedural issues. The *Compendium* will be of help to anyone seeking in-depth information on which applications for copyright registration will be accepted by the U.S. Copyright Office, who may file a copyright registration application, examination practices, and Copyright Office services.

This draft is expected to become final in December 2014. Once final, the *Compendium* will be available on the Copyright Office’s Website and will be searchable electronically, with links that will vastly enhance its usability and clarity. It will be a “live” document and electronically updated as required.

The Copyright Office’s Website address is <http://www.copyright.gov>. The *Compendium* is located at <http://copyright.gov/comp3/>. **SLA**

## Fellows and Rising Stars

*Continued from page 23*

meeting that I will never forget, there were several team members who were very articulate about a specific agenda item. As their leader, I asked everyone in the room to systematically share their thoughts and reflections one by one. It leveled the playing field and gave everyone a voice at the right time.

### Does volunteering within SLA affect your skill sets and knowledge base?

**Tom:** Absolutely! Anytime you put yourself in a position to learn something new, you are investing in yourself and your professional development. SLA gives you access to a host of resources—other leaders, mentors, Webinars, certificate programs, etc.—all of which are designed to help you develop the knowledge and skills you need to succeed as a volunteer or leader. It’s up to you to take advantage.

**Amy:** Of course! SLA provides some fantastic opportunities for expanding one’s skill set. Volunteering is a great way to try something new in a supportive environment that you can then apply professionally. It’s also really useful for young professionals and job seekers who want to increase or diversify their ability to be able to say, “Yes, I’ve done that!”

**Rebecca:** Yes, continuous learning is essential for professional success. From my viewpoint, a new graduate degree is good for about two years; after that, you need to keep re-tooling consistently to keep pace with the rapid rate of change. SLA has several venues for professional development that you can access without leaving your office!

### What motivates you to make a difference in SLA and the profession? What do you want to contribute as a volunteer?

**Tom:** What motivates me? Loyalty to the organization and my commitment to a “service above self” attitude. My contribution is all about giving back to an

association that has already given me a great deal. It is about the sustainability of SLA and ensuring that our organization will be around to provide benefits and opportunities for growth to others down the road.

**Amy:** I believe that our profession has so much to offer in this age of information overload, and SLA is a wonderful platform to showcase ourselves. It also allows us to keep ourselves relevant by sustaining fresh ideas, to which we can all contribute by volunteering.

**Rebecca:** My motivation is to share SLA experiences and benefits with graduate students and new members. Through teaching classes and serving as a mentor and a role model, I can show aspiring and newly minted info pros what our association can provide at every step of their careers. To make a difference in the professional lives of others by “paying it forward” is the goal.

### How can you achieve the most benefit from volunteer experiences with SLA? What is the right balance of activities?

**Tom:** Take a risk and try something new. SLA offers a safe environment for learning and asking for help. The association is full of experienced leaders willing to assist. Take advantage of all the member benefits available. Have fun in the process. Know when your plate is full, and develop the ability to say “no.”

**Amy:** Pick opportunities that will challenge you, but that you’ll also enjoy. Better to execute something smaller well than to spread yourself too thin. Soak up as much experience as you can from those around you, and have fun!

**Rebecca:** Be willing to follow through with the tasks that you take on. If work and life are really hectic, speak up and let the team know that you can use some help. Enjoy the friendships, cooperation and professional connections that develop over time through volunteering for SLA. **SLA**



# Conducting Performance Reviews and Setting Goals

**Providing formalized feedback to employees benefits both parties and illustrates how their work contributes to the success of the larger organization.**

BY DEBBIE SCHACHTER, MLS, MBA

I recently heard someone say, upon hearing of another person's recent work experience, "You had a performance evaluation? I would love to have a performance evaluation."

Oddly enough, this was said not with sarcasm but with the despair of someone who is in a position or work environment where she receives no feedback and does not participate in goal setting or planning. There are many organizations in which supervisors do not evaluate their employees' performance or provide formalized feedback, and while workers may say they don't like undergoing annual reviews, the process can be made more productive and rewarding for both parties.

The purpose of a performance evaluation is not to find fault or point out problems, but to engage an employee in identifying areas of development and interest and help with goal setting. It is also an important way to formally recognize the contributions that an employee makes in the workplace. Without such an evaluation, employees may feel that their contributions are not valued, which may lead to a demoralized workplace and/or high turnover.

If an employee does have performance gaps, a performance evaluation may form part of the annual process of

recognizing efforts the employee and supervisor have made during the year to correct the problems. In many cases, a supervisor will need to provide coaching on a regular basis, particularly when a staff member is having difficulty with a new procedure or set of tasks or needs to develop skills in a new area. With each review, the goals that are set for achieving outcomes need to be paired with any requirements for support, such as training or development.

## The Review Process

The annual review process should essentially be the same for all levels of employees, whether it involves the library assistant or the library director. In many organizations, information for a review is gathered from a number of sources, particularly in cases where the supervisor doesn't have a lot of day-to-day interaction with the employee.

There are advantages and disadvantages to seeking others' input. Regardless of whose opinions you solicit, you may find dramatic differences in perceptions of work performance that may actually be based on personality conflicts or differences in work styles. It's important to try to gather information from others when you do not spend a lot of time with an employee, but if

that's the case, perhaps you need to be a bit more diligent about checking in regularly throughout the year.

The review process should always involve the employee in developing the review. There are many ways to do this: you can each write a draft that you exchange with each other, you can conduct the review and then share it with the employee for input or edits, or you can write it together at the first meeting. I use the second procedure—I draft a report and forward it to the employee to make changes or corrections prior to us coming together for a meeting to discuss. Usually my draft is fairly broad, and I look for the conversation with the employee to flesh out the details.

When reviewing someone who is unfamiliar with the process, it may be beneficial to draft the document together to alleviate any stress the employee may have about the review. There should be no surprises in the review itself. If you've been consulting with the employee regularly, you should both be able to agree about any concerns that were raised during the course of the year and any efforts that have been made to reduce the gap in performance expectations. If you haven't talked to your employees about any problems with their performance, you absolutely need to do so prior to conducting the annual review.

Following the development of the initial draft, the employee and I meet to discuss the review. We talk about each section and make changes and additions, ensuring that the employee can clarify information and provide additional details (such as specific examples). We then discuss goals and any skills development for the coming year. These may go hand in hand, such as a goal to improve written communication and a plan for the employee to attend workshops on developing communication skills.

Both parties need to agree on the



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goals and the development required and ensure that the goals are measurable and specific. Wherever possible, the goals should be linked to the strategic or annual plan for the information center so the employee can see how he or she is contributing to the larger development of the department.

If you haven't conducted any performance evaluations for a long time, it's a good idea to begin communicating to your employees that you are about to embark on this process and the reasons for doing so. Make sure everyone understands it is intended to be a positive process and that it will provide you with information that will help your employees and the entire organization. By using the review process to show your employees that you see their work and recognize their contributions, you will also help them see how their work contributes to the overall goals of the department and organization. Using the annual review to mark progress and note room for further improvements also shows that you care about your employees and want them and your department to succeed. **SLA**

## Info News

*Continued from page 5*

such devices may slow the adoption rate and dim the luster of such products.

A survey by PricewaterhouseCoopers found that 20 percent of U.S. adults already own a fitness band, smart watch, or other wearable device, but one-third of them use their devices infrequently or not at all. Although 53 percent of millennials and 54 percent of early adopters say they are excited about the future of wearable tech, slightly more than four in five respondents say they are worried that wearable technology will invade their privacy, and even more (86 percent) are concerned that wearables will make them more vulnerable to security breaches.

Among the potential benefits of wearable devices, survey respondents listed these most frequently:

- **Improved safety:** Roughly 90 percent of respondents said enabling parents to keep children safe using wearable technology is important.
- **Healthier living:** More than 80 percent of consumers listed eating healthier, exercising smarter, and accessing more convenient medical care as important benefits of wearable technology.
- **Simplicity and ease of use:** Eighty-three of respondents cited simplification and improved ease of technology as a key benefit of wearable technology.

The survey report urged organizations to develop strategies to use wearable technologies to their advantage. These strategies should take the following concepts into account:

**Envision how wearables can create new business opportunities.** The rise of wearable devices will create new means for marketing, including smarter, more robust customer data collection and stronger insights into user interaction.

**Keep human-centered design at the forefront of strategy.** To effectively embrace wearable technology, businesses must put the user at the center of the activity, reshaping an entire enterprise and its capabilities system around the customer or user experience.

**Instill trust.** As trust is a key concern with consumers in the wearables space, enterprises will need to be consistently transparent with what they do with data and how they use it. Trust is the foundation that needs to be established early on.

**Recognize that the wearable category will continue to evolve.** As with any digital strategy, adopting wearable technology requires taking the long view.

For more information, visit [www.pwc.com/us/en/industry/entertainment-media/publications/consumer-intelligence-series/index.jhtml](http://www.pwc.com/us/en/industry/entertainment-media/publications/consumer-intelligence-series/index.jhtml). **SLA**

# Organizing and Embedding a Library Hackfest Into a 1<sup>st</sup> Year Course

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## Introduction

What do libraries represent and do hackers belong in libraries? The Steacie Science and Engineering Library, York University hosted its second annual *Steacie Library Dungeon Hackfest*, February 19-20, 2014 (<http://www.library.yorku.ca/steaciehackfest>) to continue to discover the role that libraries have in hosting hackfests. Hackfests are marathon events that bring computer programmers together with other researchers to build apps, widgets, websites, or other software projects. Also known as hackathons, codefests, or codeathons, hackfests are increasing in popularity across major computer science and engineering schools in which the departments hosts the event. Recently, the trend of hackers *in* the library is becoming more prevalent, as observed at *Computers in Libraries* annual conference (<http://www.infoday.com/cil2014/>). This year, the Steacie Library with the Computer Science department decided to embed the Steacie Hackfest into a first year computer science course in which students received a grade for participating.

Can embedding a library hackfest into a first year computer science course be an effective method to provide information literacy instruction and advocate open access? The paper believes that a library hosted hackfest can encourage critical information literacy through: narrative learning using library collections (Bruner 2002), creating a hackfest agenda that fosters critical making, supporting open source platforms for posting achievements and code (Muir 2005), and providing “break-out” critical learning sessions. The *Steacie Library Dungeon Hackfest* provided the science librarian the opportunity for information literacy by assisting students with coding tools, forming a research idea, developing a business pitch, and publishing source code in an open access platform.

First, the paper will discuss “why host hackfests in libraries?” Second, it will describe the outcome of embedding the Hackfest into a first year computer science course. Last are the steps necessary to organize a hackfest in an academic library, along with tips on hosting a hackfest that embodies critical making. Library hackfests, as a type of makerspace, are stimulating, interactive, and a space for building lifelong skills. The paper hopes to inspire other librarians to organize similar events that support student research and collaboration.

## Why Hackfests in Library?

The Hackfest helps to maintain the library as a place of learning. Furthermore, a library hackfest becomes a part of the research landscape. The library provides a constructive space for innovation. It establishes the library as a collaborative environment as people work in groups alongside students, faculty, and librarians from various disciplines to conquer problems whether as small as day to day functioning or major problems facing humanity. It is common for universities with computer programming departments to host hackfests (Yerion and Rinehart 1995; Giannikas 2011; Goldberg 2013), such as MHacks ([www.mhacks.org](http://www.mhacks.org)) at the University of Michigan that attracts participants from across the United States. Hackfests are ordinary activities in Silicon Valley where innovation and entrepreneurship is significant (Leckart 2012). Both Google and Facebook host internal hackathons to help spur new ideas and solve malfunctions. Furthermore, we have seen the rise of Start-up Weekends and recently, Toronto, Ontario hosted a successful Start-up Weekend Library edition in the Mozilla offices. If hackfests are already occurring at these various locations, why should library host hackfests?

It is less important for libraries to be part of the trend, and instead to seek to understand how library hackfests can be different and should be. When we examine the history of libraries, libraries were built on the foundation of democratizing knowledge, giving everyday people, regardless of race and social class, the ability to expand and build on their personal experience through knowledge. Libraries allow people to learn about the issues that are important to them, make informed decisions about politicians, the environment, technology, and any issue that impacts society. Benjamin Franklin (1995) summarizes that “libraries have improved the general conversation of the Americans, made the common tradesmen and farmers as intelligent as most gentlemen from other countries, and perhaps have contributed in some degree to the stand so generally made throughout the colonies on defense of their privileges” (Franklin 1995, 70). It is important to maintain the foundational principles of libraries as the driving force to building hackathons in libraries that consider critical thinking, critical making, and critical information literacy.

### Critical Making and Critical Information Literacy

The paper believes that hosting hackathons in libraries is not just about digital literacies but critical making and critical information literacy. The essence of a library hackfest should foster critical thinking through critical making. Critical thinking evokes the library paradigm. Interesting enough, critical making brings together the theoretical aspects of critical thinking and the practical skills of physically “making things” (Ratto 2011). Moreover, critical making is similar to critical design, critical technical practice and reflective practice (Agre 1997; Dunne 2005). At the same time, it is different, in the sense that it focuses on the shared process of making. Finishing a final prototype is not important. Instead what is imperative is the exercise of participatory collaboration, critically analyzing materials, designs, constraints, and outcomes and relating it back to theoretical issues.

Critical making and 'making things' is an explicit practice of furthering critical knowledge through the practice of making things and material production. Why is critical

knowledge relevant? Critical knowledge helps people make informed decisions and tackle issues facing humanity through an analytical lens similar to the goals of libraries providing equal and free access to various sources of knowledge. Libraries are spaces available to patrons to help engage citizens with tackling problems and building knowledge on various social issues. Even more, critical knowledge is at the forefront of libraries, and is an important facet of research. It is here, in the library, that critical making and critical knowledge is significant to the social study of computing technologies. Producing a book display that utilizes the library collection helps to make the connection between the social study of computing technologies and making things. The process of making things in a library hackfest can engage participants with critical knowledge through books. Using a book display is part of narrative based learning (Bruner 2002) that can be used in the interaction of producing technologies.

Ratto (2011) argues that there are two ways of looking at technology: deterministic and material understanding of our relationship to technology. Often we interact with the Internet or technologies without thinking about discourse. However, by engaging with technology in these critical making spaces, such as hackathons and makerspaces, we can critically reflect on our lived experience in 'making things' to help us shape our understanding of technologies to one that is social and critical in our daily lives.

In addition, there are three aspects to the experience of 'making things' (Papert 1998). The first is the emotional aspect of learning, the personal feelings involved with the experience of understanding the problem or technology and its relation to everyday experiences. Second, is described as prototyping so that one can project an idea. The third is "messaging about" with computers helps to illuminate the common rigid feeling we have with computers to one that is exploratory and develops a new connection with technology (Hawkins 1965). Messing around, and tinkering are sentiments seen in Steven Levy's (2010) history of hackers that evolved with his *Homebrew Computer Club*. The hackers were excited with the prospect of "messaging around", "making things" and tinkering to discover new ways of building code and technology that were based on the Free and Open Source Software (FOSS) discourse (Levy 2010; Söderberg 2008). Overall, this is complimentary to the idea of lifelong learning, building knowledge, and critical reflection in libraries that is necessary to critically engage with technology.

Following, in a library, there are three stages to critical making (Ratto 2011): First, is the interaction with collection and relevant literature to gather theory and concepts useful to design; second, is with other participants, together design and build projects; and last, reflect through conversation, the process of collaborative design and critically engage with theory. Similarly, in the Steacie Library Hackfest, the three steps of critical making were included through: 1. Collection display (Figure 1), specifically of books on the topic of open access, handbooks, and leisure fiction on the surveillance culture; 2. In groups, participants formed concepts and worked on apps; and 3. In the final presentation component, students reflected on the process of 'making things', discussed app ideas, reflected on the societal impact, and last, mentors provided feedback and conversational points to help groups further reflect on projects and apps. Also, the Hackfest theme about living in a mobile world links to the experience of making things. Observations made during the Hackfest indicated that participants connected to the personal experiences and feelings expressed through their relation to technology, in particular mobile phones. Through 'messaging around', participants built app ideas based on their experience. The breakout sessions,

peer to peer learning, and mentorship provided throughout the Hackfest helped to foster the aspect and stages of critical making and critical information literacy in the sciences. To summarize, there is a connection to critical thinking and innovation that is produced through critical making events.

## The Hackfest and 1<sup>st</sup> Year Computer Science Course

After the first Hackfest, during reflection, it was realized that the hackfest provides a unique opportunity to embed open access and engaged learning services of academic libraries with course curriculum. An email was sent to the Lassonde School of Engineering in April 2013, inviting instructors to include the Hackfest in their upcoming course curriculum, as an experiential education potential for students. In particular, the emailed targeted instructors who would be teaching mobile application courses and first year computer science courses. A first year computer science course instructor responded and was interested in using the Hackfest as an engaged learning assignment for first year students.

The first year computer science course, *CSE1001 Research Directions in Computer Science*, is currently structured so that each week, students have a guest lecturer. Each lecture has an associated evaluation that may use a quiz or assignment, and is based on the material taught in the lecture. The class is graded as a Pass or Fail and no letter grade is provided. Students are to complete at least eight assignments and/or quizzes, along with a final paper, in order to receive a Pass grade. The library is already part of the lecture series. The library provides two lectures: the first is an information literacy instruction lecture; the second is an open access and scholarly communication in the sciences lecture. Now, the library Hackfest is included as an optional assignment for a mark that contributes to the final grade in the course.

The requirements for *CSE1001* students along with other logistics had to be organized in collaboration with the faculty instructor. The course enrollment was 276 students however, the Hackfest planned to accommodate 25 students from the course, so to ensure space for a general call for participants. Registration occurred in December 2013; the registration form asked “Are you in CSE1001?” Following was the description, “Ensure you get your class participation credit by attending both days and being part of final presentations. Only the first 25 CSE1001 students registered will be eligible for class participation credit.” Sixty students from the course registered for the Hackfest. It was necessary for students to participate in both Hackfest days and in the final presentations in order to receive a Pass grade. The Pass criteria were made clear in the registration form and in following emails that confirmed attendance to the Hackfest.

It is evident that students are interested in partaking in a hackfest. Students seek opportunities for engaged learning versus traditional lecture hall style teaching. Student interest in the Hackfest reiterates that engaged learners are better learners (McCormick, Kinzie, Gonyea, 2013). The model of the Hackfest is based in the education pedagogy of collaborative learning and engaged learners. Furthermore, the hackfest is an excellent first-year experience initiative to ground first year students in success and establishment within the institution (Johnston 2010).

When the hackfest idea was discussed with colleagues at the Critical Making Lab, iSchool, University of Toronto, it focused on building an entrepreneurial app. Originally, the break-out sessions planned were: 1. Does your app exist? 2. Business model generation. The first session was to include librarian mentors who would help groups' research if a similar app already existed. In this sense, the session was a skill-building session about search and retrieval versus a critical thinking session. How to build the Hackfest as a critical making event rather than a skill-building event was deliberated among these colleagues.

The decision was to change the first breakout session to: What impacts does your app have on society? Here, librarians would visit teams, talk about the ideas and concepts groups were developing, and help students to think about their app ideas critically. For example, a campus map group, *I'm @ York* (Table 1), wanted to utilize the Wi-Fi networks to help identify available study spaces. Student locations would be identified through a student's phone that would be connected to the Wi-Fi network. Similarly, another group that was working on a social media app, *My Ties* (Table 1), wanted users to provide their location information so that other friends could locate where they were and thus, join them in the activities they were engaged in such as playing hockey, headed to the movie, or in the library studying. Librarians asked these groups to think about issues of privacy and surveillance. Hacking is the catalyst to progressive thinking and reflection of issues of surveillance, intellectual property, and other technological impacts on society (Söderberg 2008).

We live in a society where the Internet has allowed us to be more social and open, but at the same time there are privacy concerns as a result. We observe the same issues with Facebook, in which we ponder, who owns an individual's information and how does that impacts a person's privacy and security? The first breakout session fostered participants to delve deeper into just building the app, but how they were building it, and to think about how society might be impacted or engaged with the app idea. The above app examples, started thinking about issues of privacy, and addressed them in the final presentations. The latter group created a solution to the privacy concerns by allowing people who would use the app to opt in to location information.

Also, the Steacie Hackfest is known as noncompetitive. Though sometimes having a competition can drive up numbers, having a noncompetitive hackfest fosters collaboration, establishes a safe, welcoming and comfortable environment for all participants without the pressure of having to finish a product or be compared to other groups. In this sense, groups are encouraged to discuss ideas with other groups with similar ideas. For example, at the Hackfest, there were three groups working on a campus map idea. In the beginning of the event, when people were pitching ideas, this was obvious that many people had similar ideas. As a result, one student encouraged the other campus map group to join ideas and/or to help each other. Though three campus map groups formed, throughout the event you saw a member of one group deliberating with the other campus map group when stuck on a problem. The campus map groups collaborated on solutions and helped to make each other's ideas successful. In a competitive environment, this would not have occurred.

Since the Hackfest's aim was to build upon the foundational ideologies of libraries of democracy, collaboration and critical thinking, the Hackfest became a 'hub' environment, a social learning space for participants to engage with each other and ask each other questions. The

noncompetitive environment fostered participants to be knowledge and technology producers, thus, democratizing technology. Producing democratic citizens is at the core of libraries but also, the hacker culture (Latour and Weibel 2005; Söderberg 2008). In this sense, library hackfests can be unique from other hackfests, by encouraging knowledge sharing and critical discussion within groups and among groups.

The Hackfest had 11 mentors through the 2-day event. They consisted of librarians, faculty, entrepreneurs, *UIT* or university Computing Services, *Innovation York* (<http://www.innovationyork.ca>), and *MaRS Innovation* (<http://marsinnovation.com>). Faculty mentors comprised of the Engineering faculty and one from the Digital Media department. Unfortunately, the Hackfest was not successful in reserving a Business faculty member. At the same time, the Hackfest had couple of entrepreneur mentors, an alumni York University student who is a founder of *Phashtag* ([phashtag.com](http://phashtag.com)), and a venture capitalist from *VentureLab* (<http://venturelab.ca/>). Students received both technical skills and critical skills from librarians. Several mentors continue to help groups to finish projects after the Hackfest. These mentors include the Steacie library, *Innovation York*, and *UIT*. To reiterate, the focus of the event was not necessarily to finish a project and instead about the process of ‘making things’.

Last, the Hackfest utilized the Steacie Library collection. A book display (Figure 1) was created before and during the event. It contained books about the open access movement, technical handbooks, and leisure reading books. Titles included *Decoding Liberation* (Chopra and Dexter 2008), *Android Application Development* (Rogers 2009), and *Little Brother* by Cory Doctorow (2008). Something as simplistic as a book display can assist with narrative based learning (Bruner 2002) and it encouraged the students participating in the Hackfest to tap into the knowledge available through library. To summarize, the Hackfest project is relevant to embedded information services, as the Hackfest embedded open access, collaborative and engaged learning, and critical thinking pedagogy within a course curriculum through the facilitation of the academic library.



**Figure 1:** Steacie Library Hackfest book display 2014.



## Student Survey

Registration for the Hackfest opened in December 2013 to *CSE1001* students. Overall, 100 people registered for the Hackfest, of these, 60 were in *CSE1001*. Of the 60, 29 students were accepted into the Hackfest and 17 actually showed up. Only 1 female student from *CSE1001* attended however, she did not appear the second day. Of the 17 students, 12 students received a Pass grade, while 5 students received a Fail. Also, 12 students from the class responded to the feedback survey. Eight groups formed, and six included *CSE1001* students (Table 1).

**Table 1:** List of Hackfest groups that included *CSE1001* students

Group	Description
York Push	A notification app for when your professor updates the course website.
My Ties	A social media app that allows you to find friends and make memories by locating where and what your friends are up to. Source Code: <a href="https://github.com/stevemccann/YorkHackfest">https://github.com/stevemccann/YorkHackfest</a>
YU GPS	A campus navigator that uses GPS and maps the inside buildings and the outside areas of the York University Keele campus.
Leaving York	Bus schedules and GPS for various public transportation systems leaving York University.
Timeify	“This is My Time” meme app. Makes York University’s “This is My Time” advertisement inclusive to any student. Source code: <a href="https://github.com/ulesta/timeify">https://github.com/ulesta/timeify</a>
I’m@York	Campus map that includes available study spaces and parking.

The feedback received from the students was generally positive, helpful, and informative. Below are the highlights of *CSE1001* student’s comments (Table 2-4; Figure 2). It is evident from comments and observations made during the Hackfest that engaged learning is important to students, as it provides networking and collaboration opportunities, the ability to apply skills learned in class outside the classroom, and the challenge to build a project in a limited time frame while receiving mentorship from faculty. Students suggested that the Hackfest be an overnight and competitive environment in the future. Also, they suggested that more participants should be allowed to attend the Hackfest. In terms of critical thinking, students were asked “what type of critical thinking did you consider in regards to your app or project?” Here students mostly described building the app, developing code, and coding in a limited time frame as critical thinking.

**Table 2:** Additional comments and feedback provided by *CSE1001* students.

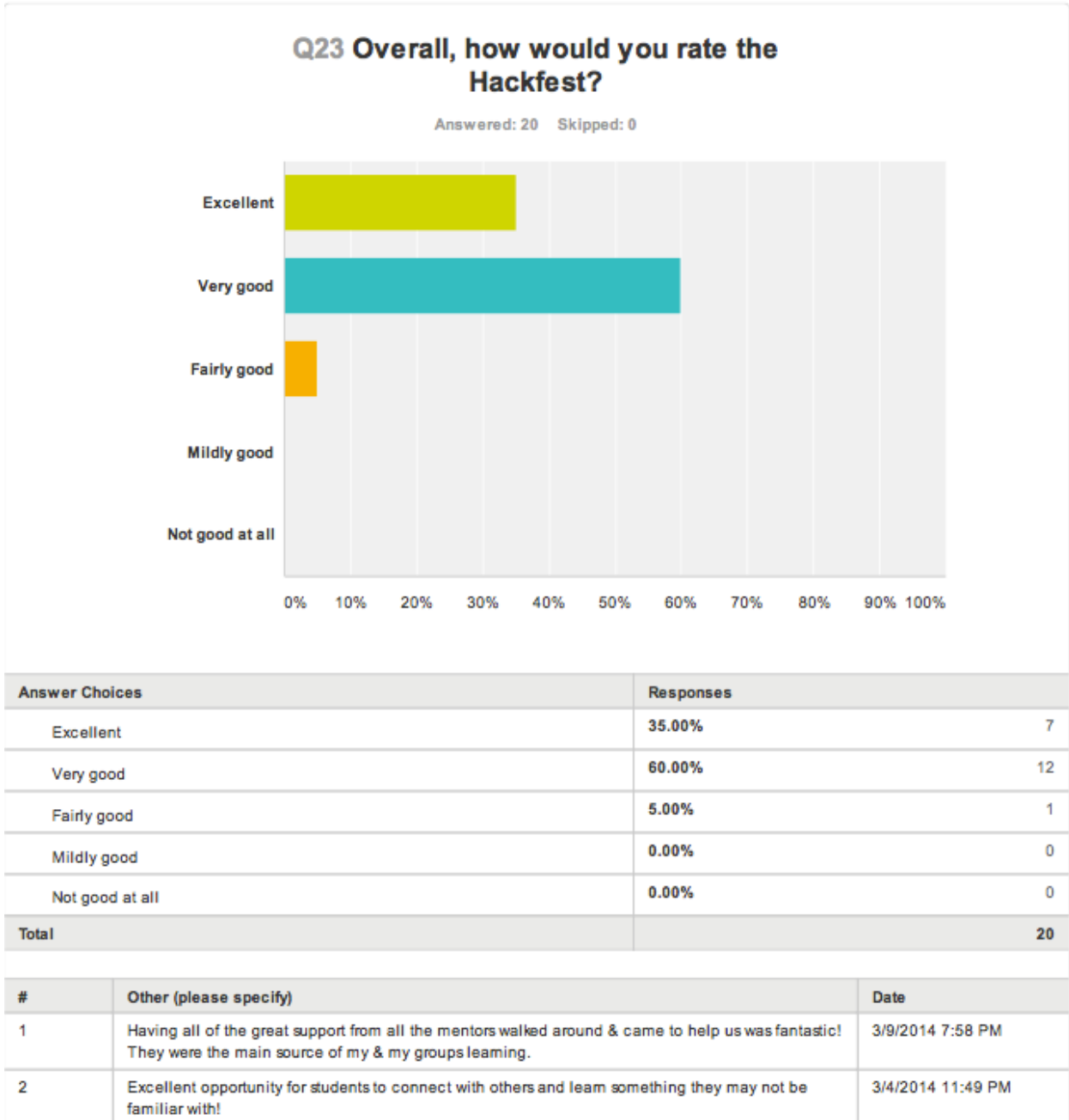
<b>Q3: If you are a CSE1001 student, do you have any other comments?</b>
Great event to let first years gain development experience!
Try and group lower year students with upper students so they can maybe learn something from the upper year students
Hackfest needs to be a competition
One thing that could make it better is to have someone at least teach the basics of mobile programming, at least to bridge the gap between what a CSE 1001 student would know to that point and how it would apply to android programming, for example, since it is based on java.
It is a good motivation to encourage programming students to join a hackathon, since most don't even know what one is; I certainly didn't.
The opportunity should have been open to a higher percentage of the class.

**Table 3:** Table 3 describes what *CSE1001* students liked about the Hackfest. Orange comments represent students who liked the idea of collaborating with others on a project. Green comments are those that liked the Food. Blue comments are students who liked the opportunity to apply code outside of class work. Purple comments represent those that mentioned they liked having mentors available to assist with project development.

<b>Q7: What did you like about the Hackfest?</b>
Meet with other York students and try to build something
Opportunity to meet other people to work on new projects.
The food! The experience! The networking opportunities!
Opportunity to try something new and code outside of class
I like the idea of working as a group to create app by ourselves.
Food, people's ideas
Interaction with others who know more about programming, which made it a very good environment to learn from.
Meeting some people & making connections. Learning about UIT & robotics society hackathons. Exploring the tunnels under the Petrie building.
Great communication and study chance, nice food and drink, presentations full of passion and hope.
How people got together and the collaborative feeling. I also liked the opportunity provided to meet more experienced people such as the mentors.
Food
I liked the amount of resources available to us and the faculty that were willing to help us. It's always a good feeling to know that you can try something you have never done before and apply it within two days. Overall a very great experience

**Table 4:** Description of how the Hackfest has contributed to students in *CSE1001* skills for school and/or work

<b>Q9: Name one way in which the Hackfest has contributed to your skills for school/work?</b>
Multidisciplinary team trying to build a mobile app - it was a good learning experience.
Helped to gain insight on app development.
I feel that the Hackfest definitely improved my leadership skills.
My team has decided to continue our idea into an app that we plan to release to York in the future.
It teaches me that we can do anything if we work as a group. It also let me to explore the creative ideas.
Programing, group work and presentation, which made me confident about presenting my ideas to group of people.
I learned about the Model View Controller design pattern, which is primarily used in web based applications. This topic was presented in class two weeks later, which made it easier to grasp.
I leaned about proof of concept, pseudo code, & all of the open data at York. Also, some the knowledge taught to us in CSE1020 by Prof. Jenkin's, that was not a part of the course, I was actually able to utilize during this hackfest, and that something I never would have applied on my own.
Team
Not much because it was just two days but I learned a lot.
Made new connections.
Helped me learn more about android development on eclipse and XML.



**Figure 2:** The overall rating of the Hackfest of all participants.

### Lessons Learned

One lesson learned is that not to restrict attendance numbers. As mentioned above 60 students from *CSE1001* registered and only 17 actually attended, partially since only 29 were approved to attend. This number needs to be higher as others were interested. Additionally, it is necessary to be clear about instructions and criteria of a Pass grade. Throughout the Hackfest this was made clear during the call out for participants and in email. However, further clarity

may be needed thus, it is suggested to visit the class beforehand to announce the Hackfest and to answer questions of grading criteria.

Another factor that continues to be an issue is the lack of female presence. Increasing female attendance is a priority for planning next year's Hackfest. For example, ensuring female mentorship is available and possibly featuring a breakout session specifically for female participants are potential ideas. Last, asking for feedback from female participants will be significant to what worked and what did not.

It is clear from observation and the survey that mentorship, space, and good food are highly valued. Having a variety of mentors available, including faculty and industry members will continue to be an asset in future Hackfests. Mentorship from UIT, also known as Computing Services, like the first annual Hackfest, was significant. UIT provided incentive for student to build university specific applications and provides continued mentorship still... Also, they assisted larger groups to divide up work. At the same time, some students comments suggested that they did not know what to do at times as not all had programming abilities. Thus, a team building exercise or task delegating exercise is an idea for a potential breakout session for the future Hackfest.

Last, the question on critical thinking did not provide insight in some of the comments that were observed during the Hackfest. During the Hackfest, critical issues of privacy and surveillance were discussed. Yet, this was not mentioned in the survey answers. It seems that what researchers understand as critical thinking and critical making is not necessarily the same as student's perception of critical thinking. Therefore, the survey question on critical thinking needs to include keywords to prompt student reflection. Also, the answers suggest that breakout sessions require reconstructing, and summarizing discussions may be needed. Note, for next year, it will be important to ask if students utilized library collections during the Hackfest.

## Organize Your Own Hackfest

The next section provides ten steps to hosting a hackfest and suggestions for establishing a critical making hackfest, to inspire other academic libraries. The first set of steps is granular and includes logistical elements. The second portion provides constructive methods to help a library, or any makerspace, to actively engage participants with the discourse of science, technology and society.

### STEPS

#### Step 1: What is the theme of the Hackfest?

Last year, at the Steacie Library, the theme was *Open York Data*. Open York data incorporates York University records that are freely accessible, such as course codes, lab stats of computers available in various libraries, subject headings, and research interests of faculty. This year's theme was *Culture and Technology in a Mobile World*. The theme was about creating an app that can be about anything, health, accessibility, gaming, organizing, chatting or creating an

app for York. A theme can be as broad as Toronto where the Hackfest would use Toronto open data. Or as narrow as: water monitor, refining water use to improve the quality of aquatic ecosystems. The previous theme can be found at Random Hacks of Kindness ([www.rhok.org](http://www.rhok.org)), a global organization that hopes to make the world better by developing practical open source technology solutions. The water monitoring case examines the environmental impacts of people's water use. Note, that a narrow theme may mean attracting less hackfest participants.

### **Step 2: Decide whether the hackfest will be a competition.**

If a competitive hackfest is organized, logistics to consider include prizes, possibly of monetary value, judges, and criteria for judging and evaluating. A competition is seen as an incentive for students to participate, drives them to finish and create a useful product or tool. By not having a competitive hackfest, as the Steacie Hackfest, thinking of other incentives to increase participant interest is important to consider. Incentives include hackfest swag, continued mentorship, food and beverages, and exposure to community innovation and entrepreneurial organizations. Recall, libraries at the core are spaces of collaboration, engaged learning, and critical thinking, so a noncompetitive hackfest helps to foster these ideologies. The Steacie Hackfest wanted to provide a safe, welcoming, inclusive, and comfortable environment for participants to express needs, questions, and share ideas.

### **Step 3: Consider logistics such as where, when, number of days, lead-up or follow-up events.**

The 'where' aspect asks, where in the library will you host the hackfest? Is a private enclosed space available such as, a reading room, a computer lab, a floor level, and/or study rooms? 'When' considers the time of year and coordination with other library events. Consider the hackfest as an *Open Access Week* ([www.openaccessweek.org](http://www.openaccessweek.org)) event (Higginbotham 2013; SPARC 2013), or plan it around the holidays, or beginning of the year. Also, decide on the number of days the hackfest requires. Will the hackfest be a 1 day or 2 day event? Or, do you have the space and logistical abilities to do a 24-hour marathon, or 9:00 am – 5:00 pm? Last deliberate if a lead-up event or follow-up event will be organized. Here, partnering with a student association will be an asset.

### **Step 4: Examine the budget.**

For the budget consider costs of posters, food including breakfast and lunch, caffeine, swag/prizes, mentor or judges thank you gifts, and lead up event needs. Ensure the university libraries office approves the budget a few months prior to the event, at minimum.

### **Step 5: Establish sponsors or partnerships to help with funding and supporting the event.**

There are different types of sponsors each with their own pros and cons:

- a) Corporate sponsors such as, Google or Microsoft are big companies that can really help with publicity and funding of the event. However, be conscious of the event becoming a hackfest for the company and overshadowing the event as a library hackfest.
- b) Local organizations such as, *MaRS Innovation* or *Hacker You* ([hackeryou.com](http://hackeryou.com)). Find organizations that support innovation, makerspaces and open source software development.

- c) University sponsors such as, the Libraries and appropriate university research institutions. With the Steacie Hackfest, sponsorship was obtained from *Innovation York* that supports services for industry and academic partners.

**Step 6: Produce a hackfest website.**

Important aspects to include on the website are: description, theme, and agenda. Also, the website should contain a registration form. The Steacie Hackfest used Google Forms to create a registration form. Other hackfests use Eventbrite (University of Toronto 2013), have a twitter account, and list their sponsors (University of Michigan 2014)

**Step 7: Publicity and communications.**

Here, speak to the libraries communication officer and major sponsors communication officers. Think about messaging and promotion. Also, consider avenues of communication on-campus, and off-campus. For example, campus newspaper, campus radio, university's e-newsletter, LCD screens that are on campus, library website, email listservs, department or faculty meetings, posters, flyers, and word of mouth are ways to build the event attendance.

**Step 8: Develop an agenda for the day(s) of the event.**

The agenda outlines the hackfest proceedings and should be available on the website prior to the day of the event. Also, think about the location for breakfast and lunch, final presentations, and when and where groups will be formed. Consider hosting workshops or breakout sessions that are to be included in the agenda.

**Step 9: Create a feedback form.**

This is to evaluate the hackfest, reflect on possible improvements, and spark new ideas.

**Step 10: Reflect.**

During and after the hackfest, organizers should reflect and take notes of significant moments. View feedback, consider comments and observational notes from the day of, and note any new ideas for next year's theme and logistical improvements.

With these ten steps, also ensure that there is a hackfest organizing team to assist with website development, communications, design/logo, organizing mentors and volunteers, among other logistical tasks mentioned above.

## CRITICAL MAKING SUGGESTIONS

This section provides four tips (Ratto 2013; Resch and Shujah 2014) to help a library build a critical making hackathon.

Tip 1 is to establish a dedicated space for the event or workshop. It does not necessarily have to be a makerspace. It can be low budget, such as a reading room, a floor of a library, or a computer lab. For example, the *Critical Making Lab* ([criticalmaking.com](http://criticalmaking.com)), iSchool, University of Toronto has a dedicated space for "making things", and a dedicated floor for critical thinking research, the *Sephamore* ([semaphore.utoronto.ca](http://semaphore.utoronto.ca)), on the 5<sup>th</sup> floor of the main library, Robarts

Library, University of Toronto. There is a “makerspace”, but also collaborative furniture. Instructors and researchers have offices located here that encourage the library community to visit and ask questions. In the Steacie Library, we do not have a dedicated space for making things, but our offices are embedded within the libraries, so there is an unspoken open door policy that really facilitates conversations with students and researchers. After the Hackfest, students often visit the Steacie Hackfest main organizer to discuss ongoing projects.

The second suggestion is that the critical hackathon build relationships between participants and faculty/staff. Thus, inviting course instructors and researchers from different faculties to be present as mentors either during the hackfest and/or at the final presentations is essential. Commonly, the Steacie Hackfest invites Engineering and Computer Science, Science, and Digital Media faculty. However, the goal is to involve other disciplines depending on the theme of the hackathon. Furthermore, mentors are available during the event, but it is suggested to have ongoing mentorship available, if possible. What has been observed in the two Steacie Hackfests is that some groups seek to continue with their projects and ask for further assistance following the event.

Third, build a hackathon that uses the history of libraries and the library’s connection to broad social and cultural issues or needs. As mentioned earlier, Benjamin Franklin’s (1995) quote supports that libraries improve society by fostering engaged citizens and knowledge sharing. In this sense, the theme plays a significant part to fostering critical thinking. Moreover, host the hackfest as an open source event, ask participants to post on GitHub ([github.com](http://github.com)), or use open source technology, such as Arduino. Even more, encourage participants to work together to solve problems and analyze ideas critically by connecting them to a greater social and cultural context. Thus, encourage collaboration between groups, and a sense of social learning.

Last, create an agenda and theme that fosters critical literacies and not just digital literacies. Therefore, encourage participants to engage with the library collection and resources, and have a book display that inspires participants. Also, consider a theme that will foster critical thinking. For example, the theme may address disability and accessibility, and consider the connection of equitable access to a broader social context. As mentioned earlier, the website, Random Hacks of Kindness, is a great resource to find themes that develop practical, open source technology solutions, and respond to some of the most complex challenges facing humanity such as water pollution and poverty. The organization examines how technology can be used socially to improve conditions for everyone so that we can all exercise our rights as democratic citizens.

## Conclusion

The paper concludes that embedding a library hackfest into curriculum is effective and goes beyond traditional methods of teaching and learning of information literacy, and open access to students and faculty. Libraries are built on the idea that citizens regardless of background have equal opportunity to learn so to have the ability to make informed decisions whether it is about government, electing officials and other changes, such as technological, that impacts society. Recall Franklin’s (1995) ideological perception of libraries, as it facilitates the



choices we make in libraries, and has influenced the choice to host hackathons in libraries, at least in the case of the Steacie Hackfest.

Moving forward, critical information literacy and critical making is the lens in which the Hackfest was organized. Furthermore, through the case study of embedding the Hackfest into a first year computer science course, it is discovered that first year experience and retention (Johnston 2010), and engaged and experiential education are also important facets for libraries hosting hackathons (McCormick, Kinzie, and Gonyea 2013). More research into engaged learning and first year experience pedagogy in higher education will be an asset to future planning of hackfests.

In the same way that the Linux model (Raymond 2000) allows anyone with the Internet and programming knowledge to participate in the development process, the Hackfest democratizes software and technology resources (Latour and Weibel 2005) that is essential to the collaborative noncompetitive spirit of the *Steacie Library Dungeon Hackfest*. The Hackfest builds upon the foundational bearings of libraries in general, democracy of knowledge, and technology. Furthermore, "free access to software tools is a prerequisite for the existence of a hacker community" (Söderberg 2008, 18). Thus, groups were encouraged to post and share code to GitHub (Table 1). However, understanding the value of open source as a discourse and strategy to knowledge learning is something that continually needs discussion with students and in future hackfests. To conclude, embedding a library hackfest in a first year computer science course is a productive way to establish critical thinking on issues of open access. Lastly, the learning process of a library hackfest is not necessarily about the end product as "the process of making is as important as the results" (Ratto 2011, 254).

## Endnotes

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