I’ve been avoiding writing this article. In early February I got a note from Sherri, our news editor, that she was expecting a letter from the vice president—me. I glanced at it and then let it get slowly pushed down in my email until another note arrived from Sherri at the end of February with a reminder. NEWSLETTER! She didn’t phrase it that way, but that’s how it felt when I opened it. Procrastination isn’t just for students!

Yesterday I attended a lunchtime talk given by the senior associate director of our teaching and learning center, which focused on—you guessed it—procrastination. The discussion focused on the idea that people can be highly motivated and also be procrastinators because their desire to do is often in conflict with their desire to do well. The fear of failure can stop us and paralyze us. Not knowing how to begin can keep us from taking the first step. I remembered this when I realized that I was against a deadline and had to ask myself what was keeping me from writing this article. Part of it was simply that I had no clue what a letter from the vice president was supposed to sound like. So like any good librarian, I looked in the archives and bam!—each March issue had one. Now I had an idea of how to get started. That was all it took.

When we think about instruction, teaching students, I try to approach it from a beginner mindset. How would they know how to check out a book if no one told them? Why should they know that ReCAP is our offsite storage facility? Why should they be able to understand LC call numbers as if they were born programmed with that information? Empathy is the antidote when we start to think about “kids these days” and their levels of procrastination. What stories can you tell students about your own beginner mindset? How will you, as an educator, illuminate a path that encourages a first step? This is why I’m proud to call myself an educator first, and a librarian second. Thank you for being people who deepen our conversations about the role we play as educators and for bringing your perspectives to the table.

Jen
From the Editor

As I write this letter, the U.S. and world are in the midst of trying to get a handle on the COVID-19 pandemic. At this moment, my university has moved to online classes for the rest of the semester. Our libraries were open yesterday but have now been shuttered to the public for the foreseeable future. I have been told to work from home. More changes can come at any moment. I’m sure many of you may be struggling with similar circumstances and may additionally be trying to care for children home from school or loved ones who need extra care. I considered whether we should put off releasing this issue, but I decided that some might find it useful to have some things continue as usual (or as normal as possible).

If you don’t have time to read the whole newsletter now, I do hope you set it aside or flag it to come back to it later. This issue includes some great articles that I do not want you to miss. David Puller has contributed an important piece on organizing a hijab fashion show at his community college, and John Hayward & Kate Rogers describe their experience coordinating Read Aloud Programs at their high schools. Tech Talk this month is also not to be missed, as it talks about digital redlining and algorithmic bias.

I’m not sure at this point if I can confidently say “see you in Chicago” for ALA Annual, but I know we will weather this hardship the best we can while still providing the support our (now often online) classes need. I hope when I write again in May/June we’re in a brighter spot!

Sherri

PS – I wrote the above letter on March 18, 2020. Now, a week later, we’ve just received news that ALA Annual in Chicago is cancelled this year. I hope you and yours are healthy and faring well through this difficult time. Look for LIRT communications in the months ahead to find out opportunities for learning through LIRT and making connections online and, eventually, back in person!
Emily R. Reed, MLIS
Reference and Instruction Librarian
School of Public Affairs Liaison
International Student Support Services Liaison
Penn State University Libraries

What brought you to LIRT?
My undergraduate degree is in education, so librarianship has been a natural extension of my interests and strengths. I have worked in both public and school libraries before becoming an academic librarian, so the diversity of library types of the LIRT membership is incredibly valuable. Because we work in different environments, we all have something unique to contribute and can learn from each other! I have been teaching library instruction sessions since my first professional position five years ago, so LIRT is definitely a natural fit for my interests and professional responsibilities.

What was your path to librarianship?
My bachelor’s degree is in music education – I have always loved school environments where teaching and learning is electric. When I graduated with my degree, I didn’t feel that becoming a music teacher was right for me anymore. The pressure of having to conduct multiple concert performances a year was too much! I took a part time job in my local public library, and absolutely fell in love with the atmosphere of putting information into the hands of the community as a civic responsibility and opportunity. I then became a full-time library aide at an elementary school, and again, fell in love with the library industry. Seeing the joy of children’s faces when they got to browse the new books is something I’ll never forget. I often wonder how those kiddoes are doing today. Some of them would be in college by now, so there’s a chance I may get to re-meet some of them! I still have a soft place in my heart for children’s literature. By now, I knew that librarianship was the right path for me. Once I graduated with my MLIS, I applied for my first professional librarian position at a local private college and have been loving academic librarianship ever since.

Tell us about your current position. What do you like most about it?
My current position is two-pronged. I’m the liaison to my university’s School of Public Affairs, so I do instruction, reference and collection development. The other part of my job is as coordinator of library services for our international student population. I know it sounds tacky, but I really do love every part of my job. I certainly enjoy the teaching aspects; seeing the “ah ha” moment for students – well, there’s nothing quite like it. I also really enjoy being able to select titles that will enhance my school’s programming. I’ve also been focusing a lot of my energy recently on getting to know our international students so that we can strategize how best to academically and socially engage with this population.

In what ways does it challenge you?
I find it challenging to explain my job to people outside of libraries. To outsiders, there are assumptions about who librarians are and what exactly they do. When I try to explain my job to someone for the first time, I can often see a look of bewilderment on their face because what I tell them about my job is not what they expect me to say.
Member A-LIRT, continued

Emily R. Reed, MLIS

Throughout all of your educational experiences, what teacher inspired you the most and why?

My high school band director was my most inspirational teacher; the way music was taught was just so different from any other pedagogical styles found in a traditional classroom. His dedication and commitment to student success, musically and non-musically, has always stuck with me.

When you travel, what do you never leave home without?

Ear plugs and an eye mask—good sleep is so important!

If you could change one thing about libraries today, what would it be?

I wish all library employees could have the opportunity to work at different types of libraries. Having a background in public and school libraries prepared me for academic librarianship in ways I couldn’t have expected. While there certainly are differences, we should not forget our similarities, and a lot of our work and values can transfer between library types. The modes and audience may be different, but the mission is still the same: provide resources and opportunities for education and empowerment.

Tell us one thing about yourself that most of us probably don’t know.

I am a HUGE fan of the show, Survivor. (Yes, it’s still on the air! Tune in Wednesdays at 8:00 on CBS.) The way information is shared and transferred from player to player, the different social, strategic, and physical skills it takes to acquire new information, is really fascinating to me.

Volunteer for a LIRT Committee

At the ALA Midwinter Meeting in Philadelphia, all of the LIRT committees had a chance to meet in person. There was lively conversation and a strong desire to help, to get involved, and to do good. While not everyone involved in LIRT is able to attend Midwinter or ALA Annual, you shouldn’t let that stop you from taking on active roles.

We are looking for volunteers to join committees and help us move LIRT forward. Joining a committee doesn’t have to be a huge time commitment and it can help you:

- Build skills that you want to develop but aren’t necessarily part of your core job
- Give you leadership experience to talk about if you are looking to move into a supervisory position
- Develop a community of like-minded individuals who you can connect with now and in the future

Learn more about the committees and their work, and if you have questions, please feel free to reach out directly to the chair(s) of each committee. From there, fill out the volunteer form and we’ll be in touch with your committee assignment.
Recap of LIRT activities at ALA Midwinter 2020 in Philadelphia

The Adult Learners Committee convened the LIRT Discussion Forum on Sunday, January 26, 2020 at the Pennsylvania Convention Center. Ilana Stonebraker, Head of the Business/SPEA Library at Indiana University, led the forum on promoting civic engagement among adult learners. Her presentation described a collaboration between Purdue Libraries and locally elected officials to employ information literacy methods to effect change on the local level. The forum included an activity that had participants reflect on possibilities for change in their communities as well as tactics for applying these methods in their own library setting. A lively discussion on civil engagement at the local level followed the presentation and activity.
Bites with LIRT in Philadelphia was a big success. Thirteen people enjoyed lunch at Con Murphy’s Irish Pub—mostly LIRT members, but also a few guests who were interested in learning more about our round table. This was our best turnout in a while, so we’re excited to keep the momentum going at the next ALA conference!

Have you created an instruction program or developed a unique classroom strategy? Please share your experiences with LIRT!

Send your articles to Sherri Brown (slb4kt@virginia.edu)
Transitions can be full of excitement, but also anxiety. Faced with these transitions, a person may sometimes struggle to find their balance within a new environment. How are librarians collaborating across institutions (public, school, and academic libraries) to help alleviate this anxiety by teaching information literacy concepts that reach beyond the classroom and into the real world? While most conversations tend to focus on the transition between high school and academia, there are many other types of transitions that a learner can experience. This panel will discuss how public, academic, and school libraries work together to support the development of information literacy skills during different stages of life, and how to connect with other librarians interested in this topic.

Presenters: Jennifer Bromann-Bender, Melanie Wachsmann, Zoe Magierek

This event, originally scheduled for ALA Annual 2020, will be rescheduled. Please look for an email from LIRT regarding this event in the future.

LIRT’s mission is to empower all types of librarians to become better teachers. That’s why we are proud to announce that LIRT has sponsored a participant in the Class of 2020 Emerging Leaders Program. ALA’s Emerging Leaders Program is a leadership development initiative designed for early-career library workers. This year we are proud to be sponsoring Heather VanDyne in this program. Heather serves as Library Support Specialist at Allen Community College (Kansas). Among all the applicants, Heather rose to the top because of her passion for instruction. We wish you a great year in this program, Heather, and hope you will stay involved with LIRT throughout your career!
LIRT Committee Updates

Adult Learners Committee
The Adult Learners Committee spent some time after ALA Annual 2019 debriefing on the preconference they hosted in Washington, D.C. and reviewing feedback received after the event. In addition, the committee planned and hosted the 2020 Midwinter Discussion Forum in January 2020. The forum focused on promoting civic engagement among adult learners.

Awards Committee
The Awards Committee has been working on promoting the LIRT annual awards and selecting winners from the nominees. More information on the 2020 winners will be provided in the June LIRT News. The committee decided to revise the language in the call for proposals and supporting materials to remove binary language and replace with more inclusive pronouns. All future communications from the committee should reflect these revisions.

Communications Committee
The Communications Committee spent the fall working on a draft LIRT communications plan that was presented to the LIRT Executive committee at Midwinter in Philadelphia.

Liaison Committee
In addition to sharing what other instruction-related meetings happen at ALA Annual and ALA Midwinter, the Liaison Committee strives to maintain a list of instruction-related events/conferences/symposia that may also be interesting to attend. This list will be provided in an upcoming newsletter and posted on the LIRT website in the future.

Organization & Planning Committee
The Organization & Planning Committee has been busy planning for the 2020 LIRT retreat to be held this summer. At Midwinter, the LIRT Executive committee voted to hire SuccessLabs, a consulting firm from Baton Rouge, to facilitate the LIRT retreat at ALA Annual and the Glessner House Museum was selected at the venue. Following the cancellation of an in-person Annual event, the Planning and Organization committee continue to plan retreat details for an online event.

Top 20 Committee
The Top 20 Committee has been busy working on selecting last year’s top instruction articles. In addition, they have been writing up abstracts about the selections for the June newsletter and have been working on documenting procedures for ease in transitioning committee membership.

Transitions to College Committee
The Transitions to College Committee has been working on updating the bibliography and reading list on transitions. They have also been adding to the Connecting Librarians for K-20 Transitions Map (http://www.ala.org/rt/lirt/connecting-librarians-k-20-transitions). This group is working toward connecting with other groups that support student transitions.
By David Puller, Lone Star College - North Harris

The idea of conducting a hijab fashion show came up in conversation with Salmah Siddiqi, a Muslim student, as well as an aspiring fashion model and designer at my community college. We decided to organize a fashion show for hijabi women, of which there are many on our college campus. In doing so, we would showcase the diversity of our student population and fulfill the ACRL Framework of Information Literacy’s call to “question traditional notions of granting authority and recognize the value of diverse ideas and worldviews,” which is central to our library’s mission.

The event took place at 1:00 p.m. on Tuesday, October 15, 2019. This was one of the peak times during campus life, when the largest number of students are on commuter campus to attend classes and participate in events. We began with an introduction to the hijab by Ms. Siddiqi. Then we had a catwalk parade of the models in casual wear, a catwalk parade of the models in formal wear, a panel discussion by three of the models, then a question and answer period that invited audience participation.

This event was open to the entire community to not only celebrate hijabi fashion, but also educate the community about the hijab and its nuances. We advertised and promoted it across campus with digital signage, fliers, and email blasts about two weeks in advance. About 80 people, most of whom were students, including a few hijabi women, attended.

Conducting this show had many of the conventional challenges of event planning, as well as some that I had not experienced before. Issues specific to fashion shows as library events included providing appropriate but also copyright-compliant music, a physical space suitable for a catwalk parade, recruiting and organizing models, and providing models with the space needed for dressing privately.

One of the challenges of this event was that, as a man and a non-Muslim, it was essential that I not be central to the show. I ensured that all the logistical, marketing, and organizational needs were provided. But Ms. Siddiqi, the student leader, had to be in charge. I expressed the needs and capabilities of the host institution, but I deferred to Ms. Siddiqi as the ultimate leader. It was her vision that I was to help execute.
Thankfully, my student colleague did a masterful job of recruiting student models, coordinating their fashions, and managing the show floor. She was the one indispensable person in this project.

That is why, as I provide guidance to my fellow librarians considering conducting hijab fashion shows, I must affirm that native leadership is essential for this outreach and informative program. This event had to be run by hijabi women as their own project.

And so, I was especially glad when, at the end of the show, hijabi students approached Ms. Siddiqi and expressed their overflowing thanks and praise for this event. They said they felt validated and welcome on campus as a result, which was my goal.

How to conduct a fashion show was not covered in any part of my library school training. But what I love about our profession is that we can work with our patrons to redefine the library to suit changing times, populations, and visions.

Student panelists discuss hijabi fashion at Lone Star College - North Harris in October, 2019
Starting a Read-Aloud Program in Your School Library

John Hayward & Kate Rogers

Part of the magic of coming to the school library is finding an interesting book; the next magic experience is what happens when the reader opens the book. As librarians, our mission and our joy is to facilitate this connection between text and reader no matter the patron’s age or ability. How we encourage more visitors—from staff to AP students to reluctant readers to multi-needs classes—becomes the challenge we embrace. Allowing the thought “This is everyone’s library” to drive the programming and purchasing decisions you make will keep your learning space inclusive and inviting.

Libraries are not silent spaces anymore. Today’s learners desire connection, collaboration and communication about the resources all around them. Modern floor plan decisions allow for newer furniture designed to facilitate this kind of engaged reading and conversation. Hopefully, a little noise means productive learning is taking place.

One program Kate and I were inspired to develop at our respective schools to make our spaces lively is a weekly read aloud session bringing volunteer readers and multi-needs students together. Our hope in sharing this with you is that your school community will customize a way to do the same.

John:
At Naperville Central High School, the dream to create a read-aloud program began in the spring of 2017. I envisioned the scenario of student volunteers coming to the library once each week to read to our multi-needs students. We dangerously overlook and undervalue the work teachers and support staff conduct in the classroom with this population. Why not invite them to the Learning Commons once each week during their Language Arts class and connect them to other students and our book collection? I shared the idea with our multi-needs teachers in preparation for starting the program in the fall.

I now facilitate four separate one-hour classes in the library each week. Class size varies from twelve students to four (teachers and aides come as well) and we gather in a quiet corner with comfortable seating options for all. If a student volunteer has signed themselves up for the day and period to be our reader, they get the center seat; I am happily the default reader otherwise. My goal for this experience is twofold: select engaging material from our library’s collection to encourage future checkouts and make connections with these volunteers and eager listeners.

For the logistics of drafting student volunteer readers, I visited study hall sections and blended learning courses. I explained the program, its benefits for all involved and directed participants to schedule themselves in a shared Google spreadsheet calendar. With everyone in the document as editors, planners can see who is scheduled and what topics we will address each week. Because students have the freedom to schedule themselves, I know I am offering a true and invested volunteer. The only challenge in an academically competitive culture is students either not having a

continued on next page
free blended day available or opting to remain in study hall. Those who have served as readers love the experience and repeat as sign-ups, thereby strengthening relationships with their listeners.

The reading topics we select each week are easy to find. As a complement to whatever curriculum their teachers are discussing in class, I will ask what they are learning and find related topics. During their health unit, for example, we read about the importance of hand washing. When they read *Black Beauty* in their English class, we read and learned about horses. Find out individual student interests and match what you can. I remember the awe on one boy’s face when we read about garbage and recycling after I discovered he absolutely loved garbage trucks.

Another convenient and interesting source of reading topics each week is a “this day in history” calendar. We have read about celebrity birthdays - what a great way to include a rich, diverse spectrum of human achievement - and the impact of certain historical events. Share the stories of people whose lives inspired the books on your shelves!

We also, on occasion, read fiction and poetry, especially when aligned with a specific heritage-themed month. Over the course of a school year, there are plenty of topics to highlight a cross section of your library’s literary collection. At the end of each session, invite students and their teachers to check out books to bring home and continue the conversation.

Last year, in the first week of December, we read a biography on Walt Disney during his birthday week. Kids dressed in whatever Disney gear they had or brought character or movie props for our display. After the reading, we moved to a larger library table and colored Disney character coloring pages. Then, the next week we read about all the holidays celebrated during the month worldwide and finished with a card-making craft. Inclusive, interesting and engaging!

Students at Naperville Central High School participate in a Read-Aloud session in early March 2020.
When relevant, it is fun to include a hands-on activity. During the November week in which we celebrated four artists’ birthdays (Rodin, Monet, Copland, and O’Keefe all have November birthdays), we sculpted, painted and listened to music together after the reading. The tactile connection to the reading anchored the meaning of the words and made a lasting impression with students with artifacts they could take home. Yes, even multi-needs students love to go home with an answer to the question “What did you do in school today?” How fun it is to facilitate the school library and all of its resources as part of that conversation!

Kate:
John shared information about his read-aloud program at a local conference I attended in March 2018. After the conference, John shared his promotional materials with me. I then began a conversation about developing a program at Downers Grove South High School (DGS) with a teacher in our multi-needs program with whom I work regularly. The teacher, Allison Caffrey, requested that our iteration include more opportunities to socialize. It was immediately vital to Ms. Caffrey that the Read-Aloud Program (as we plainly named it) benefit as many DGS students as possible. By aiming to develop the Read-Aloud Program in a reading buddies format, more student-volunteers could participate, and her students would have more opportunities to socialize.

Ms. Caffrey and I ran a pilot for about a month during the spring of 2018. She requested we run the period during three half-class periods two days a week, according to the number of student-volunteers we could gather. I talked to a few friendly general-education classroom teachers I thought would likely support the program, and they spread the word to their students. Students often spend their study-hall period in the DGS Library, and I promoted the program to students there as well. I borrowed reading materials from the Downers Grove Public Library (DGPL) based on teacher recommendations and prepared bookmarks with space for a student’s name so students in multi-needs classes could read the same book across class periods and with different volunteers. I taped a paper feedback form to the back of every book and magazine and asked student-volunteers to fill them out with their reading buddies; I wanted to know which reading materials they enjoyed and which they did not.

At the start of the 2018-19 school year, Ms. Caffrey recommended we reach out to teachers in our Special Services Department for more student-volunteers. Likewise, when we reached out to other teachers in various academic departments, we would request the names of students who would benefit from practice reading aloud and grow from the social experience. While we would not exclude student-volunteers who were proficient or strong readers, had well-developed social skills, or were fully integrated members of the DGS community, we wanted to make sure to include students who might otherwise be overlooked.

Per Ms. Caffrey’s recommendation, I reached out to two more teachers of multi-needs classrooms. I adapted the program slightly to meet the needs of each group. Ms. Caffrey’s students, for instance, read picture books, short chapter books, and graphic novels. They enjoyed reading in their own classroom. We placed a small paper sorter in the room where students kept their book selections. They participated in the Read-Aloud Program for two half-periods two days a week.

Julia Cahill’s multi-needs class had stronger readers who did not like the idea of student-volunteers visiting them in their classroom. They did not want to communicate that they needed “outsiders” to help them. They participated in the Read-Aloud Program two half-periods a week in our school library. I kept their book selections in cardboard magazine file “book bins” on a cart with options to replenish.
The students in Shannon Lahey’s class were non-verbal. She and her students checked out books from DGPL every few weeks. Student-volunteers kept track of the books her students read in a paper Reading Log binder in Ms. Lahey’s classroom.

During the fall semester, I was able to attend most or all Read-Aloud sessions. I allowed students to volunteer for as many class periods as they liked, and some signed up for six sessions a week.

Student-volunteer participation, however, fell off in the spring. The library schedule fills quickly in the spring, and I was not able to commit the same amount of time to attending Read-Aloud sessions. Likewise, I believe student-volunteers experienced burnout. They signed up for too many sessions, and the Read-Aloud Program inadvertently became a source of stress. As a result, the teachers and teacher aides of the multi-needs classes expressed a weakened commitment to the program; if I was not able to attend, they would often cancel the session.

I talked with an associate principal who was formerly a special education teacher, and she shared ideas for empowering student-volunteers to run the program on days I could not attend. I did not block out time to actualize that plan, but I discussed it with the multi-needs teachers, teacher aides, and student-volunteers, and they shared their support and interest in those changes.

For the 2019-20 school year, I contacted teachers whose Strategies for Academic Success (SAS) and Read 180 classes overlapped with class periods the multi-needs classes were available for Read-Aloud sessions. I was able to pair one SAS class with each of the multi-needs classes. Two multi-needs classes wanted two sessions per week, and I offered the opportunity to volunteer to students who volunteered in the past, to students who expressed interest but whose schedules did not align with the program in the past, and to students recommended by teachers. I asked teachers to recommend students who needed a judgment-free space to practice reading aloud and an opportunity to join a supportive school-related community. While anyone can choose to volunteer - students do not need to be nominated - I have had more success gathering dedicated students through this method. I also encourage student-volunteers to bring one or more friends into the group.

I recommend discussing with your participating teachers whether you will allow student-volunteers to log service hours for participation. We ran into a bit of a hiccup when a student-volunteer asked Ms. Caffrey to sign for volunteer hours. Ms. Caffrey is rightfully protective of her students and does not want to invite student-volunteers who participate solely to fulfill a requirement for a course or some other program.

Ms. Lahey says that student-volunteers stop by to visit with her students in their classroom, the hallways, and the cafeteria. “A few even learned sign language to introduce themselves!” she shares. Lori Vanek, a teacher whose SAS class volunteered for the program, explains the program’s impact on her students: “These are students who have struggled with reading and literacy issues for most of their academic life, and school is often a negative experience for them – a place they often dread. They were at first apprehensive about working with non-verbal and severely impaired students, but that melted away after the first meet-and-greet and scheduled read. I saw their confidence grow as readers, and that in turn boosted their self-esteem.”

The adults and student-volunteers who had participated in the past expressed gratitude and enthusiasm for the increased organization. Upon students’ requests, I will alter the reading schedule so students are paired for two weeks in a row rather than rotating weekly. Otherwise, the program is running smoothly!
John:
One hope I have to expand the program since my student volunteers are limited to the times they are available out of a blended class or study hall (I will not pull students from their core classes) is to recruit community volunteers. I also serve as our building liaison to our district’s retiree network and have pitched the idea there. Local residents love to be readers in the elementary schools. Why not offer the high school as a site as well? I want the current high school generation to benefit from the wisdom in our community’s senior population. The Read Aloud program would be a perfect opportunity for those conversations to occur.

For now, we enjoy welcoming students arriving steps ahead of their aides as they enthusiastically make their way to the library for reading time. I smile to see student volunteers nervous at their first time working among differently abled kids settle into comfortable connections while they read and discuss together. Teachers appreciate a weekly moment to get out of their rooms and into a new space that engages and inspires their various learners. Our school library, long ago a silent space for studying, now welcomes students of all needs and abilities to interact with each other and read from our diverse and growing collection.

What would an engaging read aloud program look like in your library? In what ways could you connect student volunteers with eager listeners? Kate and I look forward to continuing the conversation with you!

John Hayward is a Teacher-Librarian at Naperville Central High School in Naperville, IL. You may contact him at jhayward@naperville203.org.

Kate Rogers is a Librarian at Downers Grove South High School in Downers Grove, IL. She may be contacted at krogers@csd99.org. She has also made her Read Aloud resource folder available at https://drive.google.com/drive/folders/1-NFbEaF6tZNra-MS-dnBmFGi9EVxIPi4?usp=sharing
Dear Tech Talk— A colleague recently mentioned to me that she attended a presentation that referenced digital redlining. She talked briefly about it but only enough to pique my curiosity. What should I know about digital redlining? Desiring Reality on Digital Redlining

Dear DRDR— Not a new concept, but one that is gaining attention, digital redlining springs from the “practice of redlining in housing discrimination, a historical legal practice in the United States and Canada dating back to the 1930’s where red lines were drawn on maps to indicate poor and primarily black neighborhoods that were deemed unsuitable for loans or further development; this created great economic disparities between neighborhoods” (“Digital redlining,” n.d., para. 1). Maps of these marginalized neighborhoods (see example) were maintained and referenced in making financial decisions.

As early as 2000, a brief article appeared in the *ABA Journal* that described the experience of James Warren, from Washington, D.C., who wanted to use the (now defunct) Kozmo.com delivery service. He and two other parties filed a lawsuit alleging racial redlining of predominantly African American neighborhoods. According to the lawsuit, Kozmo served ZIP codes in Northwest Washington, with a 25% African American population but not ZIP codes in neighborhoods with an 86% African American population (Marquess, 2000). Unlike the intentional redlining of the 1930s, the definition of Kozmo’s delivery area may not have been determined because of race. In fact, Kozmo stated that its actions were based on “justified business reasons unrelated to race, place of residence, place of business or any other protected classification” (Marquess, 2000). Nevertheless, the unintended consequence was one of redlining—digital redlining because it was an online business applying the seemingly discriminatory delivery parameters.

Twenty years later, Christopher Gilliard (2019) in his testimony before a House committee defined digital redlining as:

> the creation and maintenance of technology practices that further entrench discriminatory practices against already marginalized groups – one example (among many) being when journalists at ProPublica uncovered the fact that Facebook Ad targeting could be used to prevent Black people from seeing ads for housing, despite the Fair Housing Act prohibiting such conduct. (p. 4)

Although often singled out, digital redlining is actually a specific example of a more significant issue—the growing use of and dependence on algorithms that provide more effective services, personalized interactions, search results, etc.

The *Oxford English Dictionary* defines an algorithm as “a procedure or set of rules used in calculation and problem-solving; a precisely defined set of mathematical or logical operations for the performance of a particular task” (“Algorithm, n.,” n.d.). However, the metaphor of a recipe provided by the *Simple English Wikipedia* is, perhaps, more meaningful: a recipe provides a list of ingredients with specific measurements (input); provides step-by-step instructions on what to do with the ingredients; and results in a completed dish (output) (“Algorithm,” n.d.). Anyone with baking experience knows that if the list of ingredients has an error or if s/he makes an error in putting the ingredients together, the completed dish, most likely, won’t be as expected. Occasionally, the result is a pleasant surprise, and the baker chooses to continue to use the recipe with its “error”; however, more usually, the result will be awful, and into the trash it goes. At that point the baker reads the recipe again to see if s/he can identify what went wrong.

Algorithms are woven into library services, including:

- Library software that makes recommendations to users for books, based on books they have checked out that match those that others have checked out;
- Internet content filters that may be used in some public and school libraries;
- Search algorithms for discovery systems (EBSCO Discovery Service, Primo, Summon, WorldCat Discovery); and
Tech Talk continued

- Ex Libris bX Recommender (https://www.exlibrisgroup.com/products/bx-recommender/): leverages the Ex Libris aggregated usage data from millions of scholars around the world to enrich and expand the user discovery experience with relevant recommendations for articles and books.

Moving beyond libraries’ evolving connections to algorithms, Rainie and Anderson (2017) state:

The use of algorithms is spreading as massive amounts of data are being created, captured and analyzed by businesses and governments. Some are calling this the Age of Algorithms and predicting that the future of algorithms is tied to machine learning and deep learning that will get better and better at an even-faster pace. (p. 3)

Further, Caplan, et. al. (2018) describe how algorithms affect big decisions made about people’s lives, including when they are used to:

- Sort résumés for job applications;
- Allocate social services;
- Decide who sees advertisements for open positions, housing, and products;
- Decide who should be promoted or fired;
- Estimate a person’s risk of committing crimes or the length of a prison term;
- Assess and allocate insurance and benefits;
- Obtain and determine credit; and
- Rank and curate news and information in search engines. (p. 5)

The good news is that the technological advances that enable expanded use of algorithms against gargantuan datasets result in improved services and other benefits; the bad news is that these same advances have strong potential for introducing hidden algorithmic biases, which is the larger arena that also contains digital redlining. With algorithmic biases, we often don’t know what we don’t know. Below are examples of uncovered algorithmic biases – some more significant than others – but all with negative consequences:

- High speed internet unavailable in areas of Dallas or Cleveland that house minorities or those with a perceived lower socio-economic status (Callahan, 2019)
- Job, housing, credit, and financial services ads that exclude protected classes (Outten & Golden, 2019; U. S. Department of Housing and Urban Development, 2019)
- Employment searches presenting higher-income jobs to men at a significantly higher rate than to women (Garcia, 2016)
- Pokémon Go more robust in white, upper-class communities (Akhtar, 2016)
- Delivery of goods or speed of deliveries exclude geographic areas that house minorities or those with a perceived lower socio-economic status (Marquess, 2000 and “Digital redlining”, n.d.)
- Image search results for CEO producing an unrepresentative number of female images (Garcia, 2016)
• People of color receiving a different level of health care for complex health issues than Caucasians with comparable issues (Obermeyer, et. al., 2019)
• Predictions for recidivism biased against Blacks (Angwin, et. al., 2016)
• Smart phone personal assistants (Alexa, Siri, etc.) not recognizing/responding appropriately to health crises affecting primarily women (Garcia, 2016)

Algorithmic biases have serious consequences and stem from four main sources: data, algorithms, transparency, and humans.

Data
Entities everywhere (governments, financial services, healthcare services, shopping and social platforms, workplaces, etc.) collect and use data in order to improve, make more efficient, or personalize service models and business practices. In fact, Jackson (2018) states, “the ‘richly detailed datasets’ that exist today provide several benefits, such as more accurate prediction, early warning signs of emerging trends, and customized and personalized product and service offerings”; and then she immediately follows with, “While the outcomes of the models produce clear benefits, these same models can inflict harm on unwitting people” (p. 61). The data, itself, can contain unknown problems. Although deliberately collected, perhaps the data is old, has become outdated, or contains biases from the past. Even current data may contain unintended proxies, such as ZIP codes = neighborhoods = ethnicity of neighborhoods. In addition to data that is deliberately collected, bots scrape the internet, developing latent trait inferences – assumptions about users based on their digital footprints (Allen, 2019, p. 242). And then, a whole new business model is developing—data brokers (“actors” who have no real relationship with individuals).

Thousands of data brokers keep tabs on everything from social-media profiles and online searches to public records and retail loyalty cards; they likely know things including (but not limited to) your age, race, gender, and income; who your friends are; whether you’re ill, looking for a job, getting married, having a baby, or trying to buy a home. (Taylor & Sadowski, 2015, p. 26)

Using the recipe metaphor, all this data—whether accurate or not—represents the ingredients that result in the completed dish—the outcome after algorithms are applied. As the adage goes, Garbage In, Garbage Out (GIGO).

Algorithms
The most significant issue with algorithms is their opacity—algorithms are frequently referenced as black boxes. Often algorithms (source-code algorithms) are proprietary, and those that developed them don’t want to disclose information about them because they are considered a “trade secret” to remain unknown to the competitor, or because they don’t want unethical “players” to “game the system.” Algorithms are increasingly complex, so even if one did have access to the algorithm, it is challenging to parse apart what they do with the data. This issue is a growing concern because of the rapid growth of artificial intelligence (machine-learning algorithms).
Tech Talk continued

The rise of so-called deep learning algorithms [artificial intelligence] has serious implications. Deep learning allows computers to adapt and alter their own underlying code after digesting huge amounts of data. In essence, the algorithms program themselves. . . It is exponentially more difficult to determine what is causing biased outputs in algorithms that self-program. Is it the underlying data? Or is it the code that forms the algorithm? (Garcia, 2016, p. 116)

In the case of machine-learning algorithms, what if the data from which they learn is erroneous or biased; what do the algorithms “learn” from that data? Algorithms are difficult to write; consequently, coders will sometimes re-use existing algorithms, without fully considering the appropriateness of that recycled algorithm for the data with which it needs to work. Likewise, the selected data may not be best suited for a newly created algorithm. In the same way that selecting an inappropriate statistical measurement to analyze survey results yields invalid information, an algorithm married to data for which it’s not appropriate will yield results that at best aren’t helpful and at worst are biased. Finally, to quote Caplan, et. al. (2018), “algorithms do not make mistakes, humans do” (p. 22); but more on humans, later.

Returning to the recipe metaphor, if the steps in a recipe call for blending melted butter with sugar, but really it should have been softened butter creamed with sugar, then the completed dish using erroneous information from the “recipe” will not turn out as expected.

Transparency

Problems with transparency are a natural consequence of the issues associated with data and algorithms. Often, it’s virtually impossible to discern what data is used or the source of the data used by algorithms. Additionally, the algorithm itself is invisible, a secret, too complex to discern, and (in the case of machine-learning algorithms) continues to change based on information it “learns” from the data. There are examples of neutral implementations of algorithms, with transparent explanations of the input data and the mathematical calculations—Library Journal’s Index of Public Library Service, for one (Ayre & Craner, 2018, p. 342). Zhou (2018) also identified a software program developed by the Allegheny County Department of Human Services, in Pittsburgh, that put the issue of transparency front and center in order to determine which children were most susceptible to abuse and neglect. Because “the risk algorithm is owned by Allegheny County itself. . . all records about its internal workings are public and available for researcher scrutiny.” Additionally, Zhou (2018) referenced the new GDPR, stating that a main benefit “would be to force tech companies to consider transparency from the beginning when designing their products. The new rules could pressure firms to develop models that can be more easily outlined for a consumer.”

Continuing the recipe metaphor, the baker can at least look at the ingredients (data) and the steps for mixing the ingredients (algorithm) to determine if there is a problem. A seasoned baker might question melting butter instead of creaming softened butter; a less seasoned baker might follow the recipe but then decide to do further investigation if dissatisfied with the completed dish.

Humans

To be human is to be biased; all humans have biases—some deeply embedded, perhaps even invisible to them. As Ayre & Craner (2018) states,

The algorithms, the choice of data to use, how it is processed, the rules that are applied — these are all created by people [emphasis mine], with their respective history
and biases and values. As humans, we all have implicit biases. And as we build these new systems – facial recognition, AU, analytical algorithms – we’re creating them in our own image, with these biases baked in. It’s critical that we examine our data, the logic, and the humans creating them rather than trusting that the computer must be right. (p. 344)

However, human bias is further compounded by the ethnicity and gender of most of the humans who create the algorithms (and perhaps select the data) – **white men**. The chart below clearly demonstrates that those who pursue careers in computer and information science are mostly male (75%) and mostly white (60%), with the next largest ethnicity represented by Asians at 25%.

![Computer & Information Science Occupations Chart]


Further, each year Google reports on the ethnic and gender make-up of their workforce. From their most current *Google Diversity Annual Report 2019* (reflecting 2018 data), “Women make up 31.6% and men make up 68.4% of our global workforce. In the U.S., 54.4% of our workforce is White, 39.8% is Asian, 3.3% is Black, 5.7% is Latinx, and 0.8% is Native American” (https://diversity.google/annual-report/, p. 13). This report does show some improvement over what Garcia (2016) found in 2014, that “the company was 61 percent white, 30 percent Asian, 3 percent Hispanic, and 2 percent African American” (p. 114). However, these numbers represent the entire Google workforce, not just those involved in programming, algorithms, and comparable information science activities.
In this era that emphasizes the value of diversity, equity, and inclusion, one readily recognizes the significant void presented by human algorithm developers who may be—albeit subconsciously—incorporating bias into the algorithms they create.

One last visit to the recipe metaphor. Perhaps the baker is biased for dark chocolate chips in all cookie/bar recipes, whether part of the ingredients or not. Maybe this works well for most recipes, except that every time the baker incorporates them into a brownie recipe, the brownies are a soft, gooey mess. Tasty to the baker, perhaps, but not to the liking of those who prefer a firmer, slightly moist brownie. The bias isn’t a problem for the baker, but it is for others.

Solutions

Algorithmic bias (and its child, digital redlining) can best be resolved through algorithmic accountability. Accountability is tied to the establishment of standards and guidelines, responsibility, legislation, government entities, and a myriad of changes that lead to greater — if not full — transparency into algorithms and the data they use. Gary Smith (2018) asks,

What can we do to police these systems? Demand — by law, if necessary — more transparency. Citizens should be able to check the accuracy of the data used by algorithms and should have access to enough information to test whether an algorithm has an illegal disparate impact.

Allen (2019) advocates for legislation comparable to Article 22 in the GDPR, which “addresses decisions based solely on automated decisions systems. [It] explicitly limits the reliance of auto-generated decisions involving an individual’s legal rights. Additionally, Article 22 allows individuals a right to intervene and dispute algorithmically generated decisions they feel adversely impact them” (pp. 263-264). He further suggests that “This policy should not limit oversight to algorithmically generated decisions pertaining to legal rights but should also expand oversight to those decisions that concern fundamental moral rights such as those that impact housing” (p. 264).

Regarding U.S. legislation, there is some movement. In January 2018, New York City enacted a “bill [https://tinyurl.com/t5fm45e] to determine a process for auditing the selection, use, and implementation of algorithms used by the city that directly affect people’s lives. This bill highlights a need for assessment of disproportionate impacts across protected categories as well as a procedure for redress if harms are found” (Caplan, et. al., 2018, p. 13). However, this legislation only affects New York City, which—although promising—has limited impact.

Laws at the federal level would have greater impact, and in spring 2019, some laws were introduced to Congress:

- The Algorithmic Accountability Act of 2019 (H.R.2231 and S.1108): “would require companies to perform impact assessments of their algorithms as they relate to bias, fairness, and discrimination” (Gardner, 2019, p. 322)
- The Deceptive Experiences to Online Users Reduction Act (S.1084): “would prohibit large online platforms from designing interfaces that reduce autonomy in decision making” (Gardner, 2019, p. 322)
However, as of this writing, there has been no further action beyond committee referral. (See https://www.congress.gov/bill/116th-congress/house-bill/2231/all-info; https://www.congress.gov/bill/116th-congress/senate-bill/1108/all-info; and https://www.congress.gov/bill/116th-congress/senate-bill/1084/all-info).

Another solution is the formation of regulatory agencies. Mullainathan (2019) states, “We will need a well-funded regulatory agency with highly trained auditors to process this data. Once proper regulation is in place, better algorithms can help to ensure equitable treatment in our society, though they won’t resolve the deep, structural bias that continues to plague the United States.” Likewise,

[Andrew Tutt [former Visiting Fellow at the Yale Law School Information Society Project] has suggested the creation of a federal regulator that would oversee certain algorithms in an effort to help prevent unfairness or discrimination, in much the way the National Highway Traffic Safety Administration (NHTSA) or the Food and Drug Administration regulate automobiles and pharmaceuticals, respectively, for safety. (Kirkpatrick, 2018, p. 17)

Even with laws and regulations in place, standards and guidelines need to be developed in order to effectively apply the laws and regulations. “While independent auditing could be used to detect bias in algorithmic systems, so far independent auditing is underutilized because of a lack of industry standards or guidelines for assessing social impact” (Caplan, et. al., 2018, p. 18). Zhou (2018) suggests an example of “standards [that] could call for systems to be trained on equal amounts of data for users of different racial backgrounds and genders” or “a set of principles that outline priorities for fairness, as a barometer for policymaker use ... [which] could push regulators to check on the results their algorithms produce, and force them to evaluate how variables like gender and race, or proxies for them, are weighted in these outputs.”

Clearly it will take time for standards, guidelines, legislation, regulations, etc. to fall into place. In the meantime, beyond being more fully cognizant of the issues associated with the exponential growth of algorithmic decision making, librarians can assist by helping their constituents become more algorithmic literate. Although the ACRL Framework does not specifically mention algorithmic bias, it clearly references the evaluation of information which in this technological environment should include algorithmic bias. However, from Gardner’s (2019) perspective this instruction is not happening:

As librarians and educators we pride ourselves on teaching others to critically evaluate information, and algorithmic bias is a concept absent from our teaching resources and practices. [emphasis mine] Librarians should work to teach others about algorithmic bias and its harms. (pp. 326-327)

Her article outlines a successful approach used at her institution, provides specific pedagogical examples, and encourages others to do the same, sharing their instructional materials in the Algorithmic Assignments section of Project CORA (Community of Online Research Assignments | https://www.projectcora.org/search-results?search_api_multi_fulltext=algorithm).
Additionally, to maintain continued awareness about algorithmic bias, librarians can explore and monitor:

- AlgorithmWatch (https://algorithmwatch.org/en/): A non-profit research and advocacy organization committed to evaluating and shedding light on algorithmic decision-making processes that are used either to predict or prescribe human action or to make decisions automatically.


- Greenlining Institute (https://greenlining.org/): A policy, research, organizing, and leadership institute that advances economic opportunity and empowerment for people of color through advocacy, community and coalition building, research, and leadership development.

- National Digital Inclusion Alliance (https://www.digitalinclusion.org/): An advocate for home broadband access, public broadband access, personal devices and local technology training and support programs that works collaboratively to craft, identify and disseminate financial and operational resources for digital inclusion programs while serving as a bridge to policymakers and the general public.

Additional Resources


Tech Talk continued


Get Involved with LIRT

LIRT Standing Committees

Use the online form to volunteer

**Adult Learners**
This committee is charged with assisting library professionals to more effectively serve adult learners.

**Awards**
This committee is charged with selecting the recipients for the LIRT Innovation in Instruction Award and the LIRT Librarian Recognition Award.

**Communications**
This committee is responsible for soliciting and distributing content, in both written and visual formats, for all avenues of communication with LIRT membership. This includes, but is not limited to, preparing and distributing the round table’s newsletter, curating all social media accounts, and providing oversight of LIRT’s online presence. The committee may create and update content, as well as solicit content and advise other committees regarding the creation and maintenance of content.

**Conference Program**
This committee shall be responsible for annual program preparation and presentation.

**Liaison**
This committee shall initiate and maintain communication with groups within the American Library Association dealing with issues relevant to library instruction and shall disseminate information about these groups’ activities.

**Membership**
This committee shall be responsible for publicizing the Round Table’s purposes, activities and image; and for promoting membership in the Round Table.

**Organization and Planning**
This committee shall be responsible for long-range planning and making recommendations to guide the future direction of LIRT.

**Teaching, Learning, & Technology**
This committee will be responsible for identifying and promoting the use of technology in library instruction. Special attention will be given to technologies that enhance learning and can be easily adapted to a variety of different learning environments. Activities will include assisting with programs, writing reviews and articles for the newsletter, and promoting research that relates to our charge.

**Top 20**
This committee shall be responsible for monitoring the library instruction literature and identifying high quality library-instruction related articles from all types of libraries. Annually, this committee shall prepare and publish in the *LIRT News* a list of the Top 20 articles on library instruction.

**Transitions to College**
This committee builds and supports partnerships between school, public, and academic librarians to assist students in their transition to the academic library environment.

For more information about our committees, visit: [http://www.ala.org/lirt/committees](http://www.ala.org/lirt/committees)