Inside this issue:

- Letter from the Chair.............................. 2
- Letter from the Vice-Chair......................... 3
- STS Conference Program......................... 4
- STS Research Forum............................... 5
- STS Committee & Discussion Group News.... 8
- ACRL News........................................... 10
- About the Signal.................................... 12

Join ACRL on Social Media!
Just click on one of the links below to connect:

Join ACRL on Social Media!
Just click on one of the links below to connect:

Join ACRL on Social Media!
Just click on one of the links below to connect:

STS Events at ALA Annual

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS Council I</td>
<td>6/21</td>
<td>7:00 – 9:00 PM</td>
<td>HIL - Gunston</td>
</tr>
<tr>
<td>All Committees Meeting</td>
<td>6/22</td>
<td>8:30 – 10:00 AM</td>
<td>HIL - Monroe</td>
</tr>
<tr>
<td>Federal Science Agencies Update</td>
<td>6/22</td>
<td>1:00 – 2:00 PM</td>
<td>HIL - Shaw</td>
</tr>
<tr>
<td>Conf. Program Planning Cmte</td>
<td>6/22</td>
<td>2:30 – 3:30 PM</td>
<td>HIL - DuPont</td>
</tr>
<tr>
<td>Executive Committee Mtg.</td>
<td>6/22</td>
<td>4:00 – 5:00 PM</td>
<td>HIL - Jay</td>
</tr>
<tr>
<td>STS Breakfast &amp; Poster Session</td>
<td>6/23</td>
<td>8:30 – 10:00 AM</td>
<td>HIL - Crystal Ballroom</td>
</tr>
<tr>
<td>Student Journals</td>
<td>6/23</td>
<td>10:30 – 11:30 AM</td>
<td>HIL - Kalorama</td>
</tr>
<tr>
<td>STS Research Forum</td>
<td>6/23</td>
<td>1:00 – 2:00 PM</td>
<td>HIL - Shaw</td>
</tr>
<tr>
<td>Subject Librarians &amp; Acad. Authors</td>
<td>6/23</td>
<td>4:00 - 5:00 PM</td>
<td>HIL - Cabinet</td>
</tr>
<tr>
<td>STS Dinner</td>
<td>6/23</td>
<td>6:00 – 9:00 PM</td>
<td>TBD</td>
</tr>
<tr>
<td>STS Program:</td>
<td>6/24</td>
<td>9:00 – 10:00 AM</td>
<td>WCC - 207A</td>
</tr>
</tbody>
</table>

"STEM Librarians: Evolving and Redefining Roles in Support of a Changing Academia"
* STS event information is subject to change. Please check the conference schedule at for the most up to date information.
Hello fellow STS Members!

I hope your Spring semesters are winding down, and you are looking forward to the ALA Annual Conference in Washington D.C. in June as much as I am. We have planned a vibrant schedule of events with engaging speakers on essential topics like Open Access, student scholarship, and new roles for librarians. I encourage you to read the rest of Signal to get a full picture of these events, but I will highlight some of them after a brief review of ALA Midwinter Meeting and the ACRL National Conference.

We held a number of discussion groups in Seattle, WA this past January including a discussion of predatory publishing, dumping the “big deal”, and screening the movie Paywall. We also held our Midwinter Membership Dinner sponsored by IOP Publishing at Pike Place Brewing. I want to thank them again for their support of the section. This year ACRL held its biennial conference in Cleveland, OH. While STS is not allowed to sponsor or present programs, many of our members were presenting and attending. We held our first Reception during ACRL at Nuevo Modern Mexican & Tequila Bar sponsored by ACS and SPIE.

The ALA Annual Conference will be June 20-25, 2019 in Washington D.C. The ACRL headquarters hotel is the Washington Hilton (1919 Connecticut Ave NW) where many of our events are located. Those of you familiar with D.C. realize that it is more than a 30 minute walk from the Convention Center and Exhibit Hall. I would encourage you all when making your plans with the ALA Scheduler to allow for travel time between events. Making good use of the ALA shuttle buses will run regularly during conference times and will even have air conditioning to give you a break from the heat.

Saturday morning is our All Committees meeting that will include a light breakfast. Even if you aren’t currently serving on a committee, please consider coming to discover if they are looking for additional member volunteers. Then in the afternoon we will have a Federal Science Agencies update, close to the home of many government agencies this year.

Sunday is our largest event, the general membership meeting that features our STS Poster Session. We will present our section awards, learn about the research of our poster presenters, and network with each other over a more substantial breakfast. Later that morning our Hot Topics Discussion group will host a discussion on student journals. In the afternoon I hope you will be able to attend our unique Research Forum, where both short and long papers are presented in early stages for feedback. Our final program of the day will be a scholarly communication discussion co-sponsored by the Education and Behavioral Sciences Section (EBSS) on Open Access. Sunday night is our Annual Membership Dinner sponsored by the American Chemical Society (ACS). Look for information on the STS-L list on the location and registration for this event.

Monday will feature a forum on STEM Librarians: evolving and redefining roles in support of a changing academia with three exciting projects from fellow science and technology librarians. Some light refreshments will be available for breakfast before the program.

I want to acknowledge our sponsors who help us to provide catering for our events, supplies for programs, and expenses for speakers. These funds comprise the bulk of our annual budget and go far to improve our conference experience and help with affordability for our members. Thank you to ACS, Clarivate, CRC Press / Taylor and Francis, Elsevier, GOBI, IEEE, IOPP, Knovel, Morgan and Claypool, Science/AAAS, and SPIE.

I look forward to seeing some of you in Washington DC, and thank you all for the time and effort you have given to support your fellow librarians this year. I have enjoyed being your Chair for 2018-2019 and learning about the amazing work you all do.

John Meier
STS Vice Chair/Chair-Elect
Penn State University Libraries
814-867-1448
meier@psu.edu
Greetings fellow STS members,

Spring has finally begun to arrive and it’s time to start thinking about Summer fun and the upcoming ALA Annual in Washington DC. Our own STS Washington Conference Planning Committee has been very hard at work and I know I join you all in looking forward to our main STS forum, which will focus on how the roles of STEM liaison librarians are expanding and evolving in response to changes in technology, scholarly communication, and academia in general. We have an exciting array of speakers on board to share their experiences. In addition to this exciting forum, STS members can look forward to our membership breakfast, STS poster sessions, our research forum and other programs as detailed in the schedule elsewhere in this issue of Signal. Thanks to a lot of hard work by our membership across a lot committees this should be another great conference!

In addition to the programs at Annual, we can look forward this year to more news on organizational renewal at ALA and updates on where ALA is taking the Midwinter conference. We know we’ll be having Midwinter next year in Philadelphia, after that, the shape that Midwinter will take in the future is in discussion at the ALA level. John, Rachel and I will be sure to keep an eye on these developments as plans start to come together for a renewal of “Midwinter” in 2021.

Back on the STS front, the committee appointment cycle is drawing to a close with the committee appointments for 2019-21 having been made. The new members will be joining continuing committee members in July, with the appointments taking effect after Washington ALA. It was a real privilege to to learn so much about my fellow STSers as I made the appointments. I’d like to thank all of our volunteers. We had several committees with many more volunteers than could be accommodated, so I’d particularly like to thank those who may not have gotten their first choice in committees, your flexibility is very much appreciated. If you want to learn more about the committees I encourage you to attend the all-committee meeting on Saturday morning at Annual. Most committees will be meeting so it’s a great opportunity to stop by the committee table, introduce yourself, and learn more!

I look forward to seeing and talking to many of you at Annual. As I look forward to taking on the Chair later this year I want to emphasize that I am always interested in hearing what you want from your STS, so please don’t hesitate to chat or send a note. Enjoy the rest of the Spring and onto Washington!

Tim Klassen
STS Vice Chair/Chair-Elect
University of Alberta Libraries
780-492-7918
twklassen@ualberta.ca
STEM Librarians: Evolving and Redefining Roles in Support of a Changing Academia

The STS Conference Program Planning Committee would like to invite you to a panel discussion on the changing and evolving roles of STEM librarians in response to advancements in technology, scholarly communication, and academia in general. Discussions will be centered around the topics of systematic reviews, virtual reality, data science and visualization. Panelists will further explore managing new and changing responsibilities, new innovations and collaborations and how incorporation of new responsibilities impacts existing services and resources.

The panel members are:

- Aimee deChambeau, Ph.D., Dean, University Libraries, The University of Akron (moderator)
- Christine Fournier, Life Sciences Librarian, Cornell University. (panelist)
  
  Presentation: Supporting Systematic Reviews in the Life Sciences
- Elise Gowen, Earth and Mineral Sciences Librarian, Penn State (panelist)
  
  Presentation: Virtually Easy: Implementing Immersive Experiences in the STEM Library
- Monica Ihli, Liaison to Oak Ridge National Laboratory and Interdisciplinary PhD Programs at the University of Tennessee. (panelist)
  
  Presentation: Data Science in the Libraries

Submitted by Ana Torres and Patti McCall
Event: STEM Librarians: evolving and redefining roles in support of a changing academia
Co-sponsored: in name by the ACRL Health Sciences Interest Group (HSIG)
Date: Monday, June 25
Time: 9am-10am
Location: Washington Convention Center, 207A
Presentations:

Drawers, Shelves, and Boxes Full of Data: Status of Analog Life Sciences Data and solutions for the Future.

Research data is a growing focus in academic libraries; however, little attention is given to older data in print. Before research data was produced and preserved in electronic format, lab notebooks, field books, and data sheets were common data formats.

For the last three years, we have been investigating if scientific data exists in our University Archives or is hidden in laboratories and centers across campus. The project has focused on agricultural and life sciences’ data. We hoped to identify datasets that can contribute to current conversations around climate change including crop viability and yields, limnology data, and species distribution and abundance.

Using an inventory form that we developed, we identified collections in the University Archives that potentially held reusable analog data. We also surveyed faculty in various life sciences fields asking if they possessed analog data, how they are currently storing the materials, what topics and dates the data covers, and their plans for preservation. We additionally wanted to know what their opinions and experiences were around reusing and sharing the analog data.

Our work has discovered numerous reusable datasets in Archives and vast amounts of analog data in researchers’ labs and offices across campus. We found that faculty are still using their analog data and yet, are uncertain about their long-term plans for it, including preservation.

This work could be adapted to other institutions, including beyond academia, and we hope to collaborate with others to raise awareness among scientists and find large-scale solutions around discoverability and reuse.

~ Shannon Farrell, Kristen Mastel, Julie Kelly, University of Minnesota

A Citation Analysis of Journals Publishing Research on Women in STEM in Higher Education.

In recent years, the focus on science, technology, engineering, and math (STEM) education in the United States has had a tremendous impact on the amount of professional literature generated on this topic. Specifically, the recruitment and retention of women in STEM programs by universities has produced hundreds of studies ranging from stereotypes and biases in the classroom to the workplace climate.
Presentations Cont’d:

A citation analysis and data visualization analysis were conducted to determine the major publishers and journals associated with this research area. The research questions posed in this study are as follows:

1. Who are the major journals publishing literature regarding women in STEM in higher education?
2. Who are the major publishers associated with these journals?

We reviewed a sample of 645 articles published between 2008 and 2018. References tended to be concentrated on a small core set of journals and then scattered over other publications. However, many of these studies expand the theoretical knowledge base of disciplines such as psychology, gender and sexuality studies, education, and sociology. Due to the interdisciplinary nature of the research, the studies were often published in social science or humanities journals, making collection development in this area difficult for librarians as relevant resources might be outside the scope of traditional STEM journals and database packages. This paper provides an overview of specific resources where researchers are currently discussing the status of women in STEM in higher education within the literature. The ramifications for STEM librarians and collection development will also be discussed.

~ Heidi Blackburn and Jason Heppler, University of Nebraska at Omaha

Posters:

~ Robert Tomaszewski, California State University, Fullerton

Comparing Research Outputs Between the United States and China Using Bibliometrics.
~ Matthew R. Marsteller and Xiaoju (Julie) Chen, Carnegie Mellon University

Geography Matters: Impact of Librarian’s Physical Location on Engagement within a Geography/Geology Department.
~ Allison Brungard, Slippery Rock University of Pennsylvania
Posters Continued:

Measuring and Responding to the Evolution of Science Researcher Needs at the Smithsonian
~ Kristen Bullard, Stephen Cox, Barbara Ferry, Polly Lasker, and Sue Zwicker, Smithsonian Institution

Popcorn and a Movie: Popular Science Collections as an Opening Act.
~ Kalli Damschen and Hannah Gascho Rempel, Oregon State University

Publishing Habits of Math Faculty: A Bibliometric Analysis.
~ Natasha Johnson, Purdue University

Science & the Media: Exploring the Complexities of Science Communication with Non-Science Majors.
~ Chapel Cowden, University of Tennessee at Chattanooga

Science Identity and Librarianship: How do Students Develop and Where does the Library Fit?
~ Livia Olsen, Kendra Spahr, and Carol Sevin, Kansas State University

Teaching Systematic Reviews in Food Science.
~ Heather MacDonald, Carleton University

Using an ALA Carnegie-Whitney Grant to Support Women in STEM: A Bibliography Project.
~ Heidi Blackburn, University of Nebraska at Omaha

Using Existing Library Expertise to Build Research Consultation Services.
~ Sara Russell Gonzalez, Tara Cataldo, and Sam Putnam, University of Florida

What STEM and International Undergraduate Students Value In Higher Education and Library Services.
~ Kelli Trei, Jamie Carlstone, and Jen-chien Yu, University of Illinois at Urbana-Champaign
Membership & Recruitment Committee

The work of the STS Membership & Recruitment Committee (M&R) aims at retaining existing members and attracting new members. Whether new members or “old,” it is a win/win situation. Members have opportunities to make connections and to offer service to the profession. STS benefits from the volunteers and support.

M&R members hope to encourage a sense of STS community (an important part of retention) with events like the STS Membership Breakfast at ALA Annual and through news notes about colleagues. We hope that you will be an active part of the community with your participation. Please:

♦ Encourage colleagues to join STS as one of their ACRL sections (no additional charge with ACRL membership).

♦ Invite potential members to attend the STS Membership Breakfast at Annual.

♦ Complete the appropriate form to introduce yourself to the STS community:

STS Current or Seasoned Member Spotlight

STS New Member Spotlight

Membership & Recruitment Continued

Also, just a couple of updates:

- Kimberly Bailey recently represented STS at the ACRL Engagement Fair at the ACRL Conference in Cleveland.

- Coming up: STS will also have a representative at ALA 101 at ALA Annual.

These events are designed to help new members find “good fit” homes in ALA.

Submitted by Larayne Dallas (ldallas@austin.utexas.edu) and Patricia Hartman (pjh0011@auburn.edu), co-chairs of the STS Membership & Recruitment Committee

STS Nominating Committee

The ALA/ACRL Election results have been announced and the new officers for STS will be

Vice-Chair/Chair-Elect (2019-2022):

Rachel Borchardt (American University)

Secretary (2019-2021):

Jeanne Hoover (East Carolina University)

Member-at-large (2019-2021):

Sarah Jeong (Wake Forest University)

Congratulations to the new officers and thank you for your commitment to STS.
STS Committee and Discussion Group News

STS Professional Development Committee

What’s the Buzz about Science Bootcamps?

“For those unfamiliar with the concept, these camps bring together science librarians and scientific researchers, providing a venue for librarians to learn more about different scientific disciplines and current research in the same. The goal is for librarians to gain a base level of knowledge that allows them to prompt discussions with researchers on their own campuses. Ideally, these discussions then lead to improvements and growth in library services offered to the research community.”

These affordable, immersive, participatory, spirited events build camaraderie, develop a deeper understanding of the research process and current research topics, and offer lively interaction among scientists and science librarians.

The STS Professional Development Committee hopes to capture information about Science Boot Camps in one page on the committee’s LibGuide that lists upcoming Science Boot Camps [2019 True North, Southeast, New England, and Great Lakes, so far]. We anticipate adding content about how to organize Boot Camps, guidelines, best practices, sample websites and marketing plans.

Please visit the libguide. Register for a Science Boot Camp! And contact us to contribute content, ideas and suggestions that will improve this fledgling site: https://acrl.libguides.com/sts_professional_development_cmt/science_bootcamps

Science Resources: Discovery & Access Committee

The Science Resources: Discovery and Access committee continues to highlight science and engineering resources for your use! Some of our recent Inside Science Resources (https://insidescienceresources.wordpress.com) blog posts include:

- ClinicalTrials.gov
- DOE ScienceCinema
- Unity—a Game Engine for Virtual Reality
- Identifying Mystery Pills with Pillbox

Continue the conversation about recent or past Inside Science Resources (https://insidescienceresources.wordpress.com) blog posts on our social media pages:

Facebook (https://www.facebook.com/insidescienceresources/)

Twitter (https://twitter.com/InsideSciRes)

If you have a resource you would like to see reviewed, please leave a comment at https://insidescienceresources.wordpress.com, Facebook, or Twitter. If you’re interested in learning more about the committee or the blog, feel free to join us at ALA Annual during the STS All Committees Meeting!

Emily Gorman & Laura Palumbo, Co-Chairs

Your STS Professional Development Cmt Science Bootcamp SubCommittee members:

- Mary Linn Bergstrom
  Liaison Librarian — Biomedical Informatics, Neurosciences, Research Data Curation, Scholarly Communications
  UC San Diego Library

- Penelope Wood
  Research & Instruction Librarian for Engineering
  Research & Instruction Librarian for Gender, Women & Sexuality Studies, UWBothell & Cascadia College Campus Library
  University of Washington Libraries

INSIDE SCIENCE RESOURCES
SLA SCIL/STS DISCOVERY AND ACCESS TIPS
ACRL NEWS

ACRL Books
ACRL publishes a range of books to assist academic librarians in developing their professional careers, managing their institutions, and increasing their awareness of developments in librarianship, providing timely, thought-provoking, and practical content and research to academic and research librarians worldwide. Some recent titles:

- **Scholarship in the Sandbox: Academic Libraries as Laboratories, Forums, and Archives for Student Work**
- **Critical Approaches to Credit-Bearing Information Literacy Courses**
- **Motivating Students on a Time Budget: Pedagogical Frames and Lesson Plans for In-Person and Online Information Literacy Instruction**
- **The Globalized Library: American Academic Libraries and International Students, Collections, and Practices**

Interested in writing for ACRL? Contact Erin Nevius, ACRL’s Content Strategist, at enevius@ala.org for more information, or visit www.ala.org/acrl/publications/publishing to learn more about our book publishing program and submit a proposal.

Move your library forward with an ACRL RoadShow!

Bring an local, in-person professional development to your campus, chapter, or consortium worldwide. Led by expert presenters, ACRL’s one-day RoadShow workshops engage participants and help academic and research libraries tackle the greatest issues facing the profession today. Current workshop topics include:

- Assessment in Action
- Engaging with the ACRL Framework
- Intersections of Scholarly Communication and Information Literacy
- Research Data Management
- Scholarly Communication

Using the Standards for Libraries in Higher Education

For more information about each of these workshops, including program descriptions, sample schedules, and a list of presenters, visit www.ala.org/acrl/roadshows.
ACRL Preconference at 2019 ALA Annual Conference: RoadShow on the Hill

Join ACRL in Washington, DC, for the full-day preconference Building your Research Data Management Toolkit: Integrating RDM into your Liaison Work, an ACRL RoadShow offered in conjunction with the 2019 ALA Annual Conference on Friday, June 21, 2019.

Research data management has emerged as a need among academic researchers and liaisons are building skills in response. This one-day preconference will assist liaisons to identify their existing skills and mindsets that transfer to research data management services and then create a learning plan for the RDM specific knowledge needed to serve their subject disciplines. Tools, hints, and tricks will be shared that facilitate partnerships on campus with disciplinary faculty and with other RDM service providers.

Complete details, including a full program description, learning outcomes, and registration materials, are available online.

Project Outcome for Academic Libraries

ACRL recently launched Project Outcome for Academic Libraries, a free toolkit is designed to help academic libraries understand and share the impact of essential library programs and services. It provides simple surveys and tools for measuring and analyzing outcomes.

The toolkit includes:
- Quick and simple surveys
- Easy-to-use survey management portal
- Ready-made and customizable data reports
- Interactive data dashboards
- Resources and training
- Peer discussion boards

Learn more and sign up at https://acrl.projectoutcome.org/!
About the Signal

STS SIGNAL is a biannual publication of the Science and Technology Section of the Association of College & Research Libraries, a division of the American Library Association, 50 E. Huron St., Chicago, IL 60611; 800-545-2433 ext. 2523. It is designed as a communication vehicle to the members of the Section and other interested parties. Electronic transmission of materials is preferred, and instructions for transmission are available on request. Inquiries should be made to Co-Editor (Fall): Yen Tran, Dr. Martin Luther King, Jr. Library, San Jose State University, One Washington Square, San Jose, CA 95192, Phone: (408) 808-2000 or to Co-Editor (Spring): Melissa Johnson, Augusta University, 2500 Walton Way, Reese Library, Augusta, GA 30904, Phone: (706) 667-4907.

© Copyright American Library Association 2019.

STS Signal is published twice annually in May and November. Editorial deadlines for each issue are March 1st and September 1st of each year.

Signal is made available to all section members at no charge on the STS Web site.

ISSN: 0888-6563

Issues in Science and Technology Librarianship is also available to all section members on the ISTL Web Site.