President's Column
By Robert Tolliver

I hope everyone is off to a good start to their summer (or whatever season it is or appears to be where you are).

It’s time to start planning for this year’s annual meeting. Chris Badurek and Cynthia Prosser have been working hard on our meeting sessions and our topical oral and poster sessions. If you are planning on attending, please consider submitting an abstract or consider attending our Geoscience Librarianship 101 Workshop.

I’m excited that GSIS is introducing a new travel grant for the annual meeting this year. This will support first-time attendees to the meeting, so if you haven’t had a chance to attend a GSIS/GSA annual meeting yet, consider applying for this grant. If you’re a new geosciences librarian or have been one for awhile, but not able to afford to attend the meeting, this award should provide enough funding to make it to the meeting in Indianapolis this fall. There is additional information in this issue of the newsletter. Thanks to Shaun Hardy for the initial proposal and to Amanda Bielskas and Samantha Teplitzky for serving on the Travel Grant Selection Committee.

There are a couple of things that I have been thinking about lately that are relevant to GSIS and our roles as geoscience librarians: What can we do to support geoscience literacy and the continually changing roles of geoscience librarians.

What can we do in our current environments to promote and support access to accurate earth science information? Most of our GSIS membership work in academic and government institutions and serve the education and research needs of those institutions. Beyond our roles as science librarians, how are we supporting students outside STEM classes, non-STEM programs, and outside our institutions? If you have been developing any geoscience literacy programs or information beyond liaison responsibilities, the GSIS Newsletter would be a great place to share this information.

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The GSIS Newsletter is published quarterly, in March, June, September, and December by the Geoscience Information Society. It is now published Open Access and is supported by GSIS memberships (individual or institutional). All correspondence regarding dues, membership status, and address changes should be directed to the GSIS Secretary. GSIS members are encouraged to contribute content for publication. Material for the June issue should be received no later than September 17, 2018. Please send submissions by e-mail to the Newsletter Co-Editors Amanda Bielskas asb2154@columbia.edu or Michael Noga mnoga@mit.edu.
With the changing roles of geoscience librarians, especially around data management and other scholarly communications issues, are there things that GSIS should be putting more effort into to support our members in these developing areas. We have sessions on data management and geospatial information in our Geoscience Librarianship 101 workshop and this is a good place to learn from some of our members with experience in these areas. Are there other ways in which GSIS could support its members in addressing these and other issues facing geoscience librarians today?

If you have any thoughts on either of these issues, I would be happy to hear what you have share, so please contact me if you do.

It looks like a nice day out where I am and it’s the end of the work day, so I think I’ll go for a bike ride. Hope you have a good day and I hope to see you in Indianapolis in November.

Bob Tolliver
GSIS President

GSIS Travel Grant Program
By Shaun Hardy

The Geoscience Information Society (GSIS) is pleased to announce the inauguration of the **GSIS Travel Grant program**. This year’s grant will provide $1,500 to assist a first-time attendee to participate in the GSIS Annual Meeting in Indianapolis, November 4-7, 2018. The program is aimed at empowering colleagues to grow professionally by become more engaged in the Society’s educational and networking opportunities.

Applicants must be GSIS personal or student members who have not attended a previous Annual Meeting. (Information on joining GSIS is available here.) Retired members are not eligible to apply. In addition to the cash award, the grant program will provide the recipient with mentoring by an experienced GSIS member during the conference and for one year following to enhance their professional development and engagement.

To apply for the Travel Grant, please submit your CV and a statement of 500 words or less explaining what you hope to get out of attending the GSIS meeting and how it relates to your professional responsibilities and/or career goals. Submit your application no later than August 3, 2018 to the Selection Committee (email: scholarships@geoinfo.org) and note “GSIS Travel Grant” in the subject line.

Notification of award status will be made by August 17. The award check will be presented at the GSIS Awards Luncheon at the Annual Meeting. The recipient is required to attend the GSIS Business Meeting, roundtables, and technical session(s) in Indianapolis, but does not need to present a paper or poster; however, the recipient is expected to write a brief report on their conference experience for the GSIS Newsletter.

Travel Grant Selection Committee:
Amanda Bielskas
Shaun Hardy
Samantha Teplitzky
Vice Presidents Column: Sharing Information on Designing Learning Spaces
By Chris Badurek

Where do you turn for information when brainstorming design ideas for new learning spaces such as innovative teaching rooms and makerspaces for your library? This and many related questions were addressed recently at the State University of New York’s system-wide Conference on Instruction and Technology held in May 2018. One of the keynote presentations on FLEXspace (2018), the Flexible Learning Environments Exchange, demonstrated the functionality of a virtual community for use by librarians, information technology staff, instructional designers, and administrators charged with developing new learning spaces.

Having worked on teams developing a data visualization learning space in a science and engineering oriented library and now working on a makerspace housed in an arts and sciences library space, I have had many questions on how to best integrate elements comprising these spaces. It is time consuming to sift through the various options for computing technology, large screen displays, flexible furniture, and how to effectively wire the multitude of devices to be used in the space. The most common strategy is to research other library spaces through their websites or demonstrations from conferences such as the Society for College and University Planning (SCUP). FLEXspace was created to provide immediate access to sample learning spaces and to facilitate exchange of information on use. Partnerships with Educause, MERLOT, State University of New York, California State University System, SCUP, and vendors such as Herman Miller lends greater support to the content provided.

Once acquiring an account open to the academic community, FLEXspace provides a community of representatives from over 1400 institutions. It provides detailed information on design of spaces, how they are used, and an idea board functionality similar to Pinterest. Searching the system one can find photographs, design information, materials used, layout specifications, details on furnishings, and a contact person to follow up with. Results of searches can be sorted by most views to find the most popular designs. The FLEXspace group is also currently working on a rating system for each of the spaces to aid in searching. As libraries continue to transform traditional study spaces to interactive dynamic learning spaces, there is an opportunity to provide input to multi-unit work teams or committees into how to best enable users to learn information resources in a more interactive setting as well as work with geoscience data directly through analytical tools and visualization software. New learning spaces, including makerspaces and mobile computing learning environments, will continue to transform libraries and this virtual community greatly aids in sharing best practices for STEM libraries.


Tackling Technical Report Collections
By Linda Musser

Many libraries have relegated technical report collections to the bottom of their priorities for gaining bibliographic control. The topics are seemingly obscure, and traditional metadata appears scarce. Projects such as TRAIL (the Technical Reports Archive and Image Library) and organizational digital archives such as the USGS Pubs Warehouse and NTRS (the NASA Technical Reports Server) appeal as alternatives to the cataloging and even retention of local
collections. Yet experience shows that many digital archives are incomplete or have instances of unreadable or un-scanned works. The principles of LOCKSS – lot of copes keep stuff safe – remain valid even when digital archives exist.

In 2011, Penn State received a gift of approximately 17,000 pieces of microfiche related to weather and climate produced by the U.S. Department of Defense. For those familiar with NTIS and DTIC numbering, the items in the collection all had AD technical report numbers, representing works produced for/by the DOD. After checking for any duplicates with the existing (uncataloged) technical report collection in our Engineering Library, we proceeded to develop a plan for cataloging these items so that they would be visible to our users. After all, what’s the point of keeping something if no one knows you have it?

It was a given that the Cataloging Department did not have sufficient personnel to devote to individually cataloging each title, particularly since most would require original cataloging (little OCLC copy exists for many of these reports). They proposed that we create a single serial or set record for these 10,000+ items, which would at least hint at their existence, but determining holdings would remain a challenge. We developed an alternate proposal whereby we would provide minimal metadata for each technical report consisting of the technical report number and the title; the publisher field for each was the Defense Technical Information Center, Ft. Belvoir, Va. Using that data, minimal MARC records were automatically created for loading into our catalog. Given the quantity of records to be loaded, the file was split into several pieces and loaded separately over several days. Ultimately, over 10,000 new records were added to the catalog, providing keyword access to the title and AD technical report number. Once bibliographic records existed, the microfiche were transferred to storage where they can be retrieved when needed.

There were many lessons learned from this project but the most important one is that even large collections can be successfully tackled by simply being willing to start. It took several years from receipt of the gift to even decide how to handle the business of gaining bibliographic control. Once a plan was in place, it took another year, working part-time, to complete the spreadsheet and get the records loaded. Now that we know how to manage such a project, we have partnered with our Engineering Library colleagues on tackling their multitudinous technical report collections (see Davis 2018 for one example). While creating individual records for every fiche in our collection is not always the best solution, in this instance it worked well for us. At this point in time, I am proud to say that every item acquired for the Earth and Mineral Sciences Library is cataloged. While the access may be minimal in some cases, we no longer have any hidden collections.

Musings
By Michael M Noga

Libraries have cancelled bibliographic databases for a long time. I was involved in cancelling BIOSIS, Oceanic Abstracts, METADEX, GEBASE, Physics Briefs, and others. I have seen the long trajectory from bibliographic indexes and abstracts to dial-up access and database searching on DIALOG, SDC Orbit, BRS and STN. Then there was the first phase of end-user searching in the 1980s; then the age of databases on CD-ROM; and now we have online access via subscription.

I never saw another student using Biological Abstracts when I was an undergrad biology major, and none of my colleagues seemed interested in Geo Abstracts when I was a geography grad student. A fellow student did go to a presentation on the ISI citation indexes with me, but I can’t remember if we ever pored through the small type. It would have been a good time to do so, because my eyesight was better then.

In the last few years, libraries have looked at the usage figures for their big bib databases and wondered whether the cost is worth it, especially with free access to Google Scholar. I like that we can provide the subject databases to users, but frankly the use should be much higher if these subjects are critical to our institutions. My current thinking is that the databases have a lot of features that many students and researchers don’t use. Google Scholar and perhaps the Web of Science and Scopus suffice. If this is really the case, then perhaps we need to think of these databases as librarian and information specialist tools first. They are as critical to our work as lab equipment is to our constituency. The end-user use of the more specialized databases is good, but they are vital to the work of subject librarians, liaisons, and reference folk. If we cancel them, of course, many users won’t notice or will adapt, but can you really do your work without them? For example, we have Worldcat now, which serves users well, especially in getting books from other libraries. However, I miss Firstsearch, which told me a lot more history about serials. It worked when I answered difficult reference questions and did collection development and analysis.

Okay, you say, what do you do when the budget is tight? Just remember that every resource that we use should benefit users, if only indirectly. I can’t help you with the budget shortfall, but I can suggest you consider whether you need the database when you look at the numbers. It reminds me of the long tail of journals in each subject. What do those journals in the lower half of the use distribution contribute to scholarship and research? It’s just worth stopping for a minute to consider the question. The final decision may be the same, but maybe not…

PS I loved the database Coffeeline, which was accessible on our DIALOG account when I worked at UCLA. Searches were paid “by the drink” at that time. Luckily, I once had a reference question that needed that database, so I did get to search it.
Big Earth Data
Website: http://www.tandfonline.com/TBED

*Big Earth Data* was launched by Taylor & Francis in December 2017. It aims to provide a forum for data-driven research in Earth observation, geography, geology, geophysics, geochemistry, and atmospheric and marine science. The journal publishes research and data papers with descriptions of large data sets, including discussion of data production, validation, and potential reuse. *Big Earth Data* does not archive data sets, but under its Open Data policy it requires authors to deposit them in recognized open repositories and provides a list of suggested ones. Articles are published under Creative Commons licensing. Article processing charges range from $600 for data articles and technical notes to $1,000 for research articles and literature reviews.

Advances in Geo-Energy Research
Website: http://www.astp-agr.com

*Advances in Geo-Energy Research* publishes “theoretical, numerical and experimental approaches to the fundamental scientific advances related to natural geo-energy (oil, gas, coal, geothermal, gas hydrate, etc).” It is published by the Ausasia Science and Technology Press, Australia, on behalf of the Hubei Province (China) Society of Rock Mechanics and Engineering. Its contributors and editors are primarily, though not exclusively, from Chinese institutions. Papers on porous flow and reservoir mechanics predominate, though topics as far-ranging as machine-learning have appeared. Six issues have been published since the journal’s inception in June 2017. The journal uses CC BY-NC-ND licensing. There is no article processing charge.

Regional geoscience journals: The following journals focusing on regional geoscience research – some formerly published as subscription titles – were recently added to the Directory of Open Access journals:


Hydrogeology (Dept. of Earth Sciences, University of Tabriz, Iran) – http://hydro.tabrizu.ac.ir


Library/Museum Partnership, Colorado School of Mines  
By Lisa Dunn

The Mines Library is partnering with the campus Geology Museum in a pilot project to promote themed mineral specimen collections. This is the Museum’s first foray into creating digital collections to connect users to the physical items, and our first major library/museum partnership.

Our project goals, in addition to improving access to our collections and increasing awareness of the Museum, Library and our institutional repository, included developing a project with a sustainable workflow (without additional staffing) and playing to the collection strengths of both Museum and Library to incorporate resources from both. For our initial project, we decided to focus on a single well-known historical mining district—Creede, Colorado.

The project working group collaborated on how specimens should be represented, the accompanying metadata, and supporting information in the form of narratives, maps, publications, etc. The Museum provided digital images and basic metadata for a suite of minerals from the Creede mining district. The Library created a Geology Museum “community” (https://dspace.library.colostate.edu/handle/11124/171841) for its content in our repository making it openly accessible to a global audience, and standardized and input the metadata. To enrich the digital display, the Library created a LibGuide (http://libguides.mines.edu/GeologyMuseum/digitalcollectionshome) with text supplied by the Museum, a slideshow of selected specimens, and a short list of further reading on the Creede district to encourage viewers to explore its history and geology.

We used social media and the Friends of the Geology Museum to spread the word about the digital exhibit, and the response was rapid and gratifying. Our next shared exhibit, “Minerals of Gilman, Colorado,” came up in June.

Our Museum/Library minerals project is on a small scale, using our existing resources and technology. In and of itself this project is not groundbreaking. However, we discovered that we do have the resources to reach out to our communities in a new way (for us), with exciting results. This has encouraged us to think of the Library’s role in new ways as well.

A Selection of images from the Creede district collection:

Web GIS is an area of GIS technology rapidly reaching a transformative period. It is increasingly in demand as users seek to increase efficiency through mobile data collection and community connection through interactive map-based websites and applications for mobile devices. This increased attention on developing interactive mapping capabilities is coupled with rapid development of the technology itself, particularly by leading vendors such as ESRI.

With these developments, writing a textbook to provide conceptual background and practical learning experiences with evolving vendor technology is a difficult challenge. However, Pinde Fu does an admirable job providing both in his Getting to Know Web GIS text. As an instructor teaching web GIS at Harvard University and University at Redlands, he has provided a text with an intended audience of advanced-level undergraduate, beginning graduate students, and information professionals looking for guided tutorials on making the most of web GIS.

The book is organized into ten chapters with each chapter followed by additional Resources, sources for further information related to the chapter content including ArcGIS Online Help, Training Sites, blogs, news publications, and videos. The content of each chapter is focused on aspects of ESRI’s web GIS products, including ArcGIS Online, “web apps” such as Story Maps, data collection forms, Web App Builder, ArcGIS for Server, Collector, Operations Dashboard, 3D Web Scenes, and working with mapping APIs. Each chapter begins with a very limited introduction to web mapping concepts followed by a step by step tutorial. Data for tutorials and supporting slide decks are available for download from the ESRI Press website.

Overall, the books succeeds in providing effective tutorial training with no required prior knowledge. However, the tutorials are often quite lengthy and of limited reuse after users learn the basics of working with ESRI’s web mapping products. Since there are many updates and changes to the technology by ESRI, a number of amendments to the tutorials have been added via the supporting slide deck. Such changes are to be expected and not a significant impediment to completing any of the tutorials. The section on learning JavaScript through the ArcGIS API for JavaScript tool is also exceptionally helpful for novice programmers.

This book fills a significant need for web GIS tutorials and is significant upgrade from the more conceptually-oriented Web GIS: Principles and Applications (2011) text, also by Pinde Fu and Jiulin Sun. Due to its relevance to professional practice, approachable tutorials, and ease of accessibility, this text is strongly recommended for library and information professionals seeking to use web GIS for information visualization and for supporting students new to GIS technology.
Second Call for GSIS Papers at the GSA 2018 Meeting
By Chris Badurek

The Geological Society of America is now accepting abstracts for the 2018 Meeting and GSIS has two sessions, posters or oral presentations, in Indianapolis over November 4-7, 2018. The deadline for submitting abstracts for either session is rapidly coming up, August 14, 2018. Submissions on all topics of interest to GSIS members are most welcome. If you have questions on your abstract submission, please contact GSIS Session organizer Cynthia Prosser, cprosser@uga.edu.

In addition to the GSIS sessions, the conference program will feature the Geoscience Librarianship 101 Workshop on Saturday, November 3, 2018 (more details to follow), a Vendor Update Information Session, Awards Luncheon, Professional Issues Roundtable, and Joint Reception with the Geoinformatics Division of the GSA.

We will also be having a Common Read again at this year's Annual Meeting. A call for suggestions for titles will come on GEONET in July from Cynthia Prosser, cprosser@uga.edu. - Looking forward to your suggestions!

More information or to submit an abstract: http://community.geosociety.org/gsa2018/sciencecareers/sessions/abstracts

T22. Changing Information Needs in the Geosciences
Sponsored by: Geoscience Information Society; GSA Geoinformatics Division
This session addresses the constantly changing information needs of researchers in the geosciences. As resources become increasingly more available electronically and computing capabilities increase in both volume and speed, researchers have come to expect ever more options. The ability to access a wide range of information remotely is impacting how information needs are met. Information needs can encompass issues in access and preservation of geoscience publications, developments in literature databases, data in repositories related to publishing, and discovery and access of geoscience research data resources spanning mapped to remotely sensed imagery. This session aims to provide a forum for discussion of geoscience information resources of all types and the impacts on researchers, government agencies, and academic libraries. We welcome oral papers on geoscience publications, publishing trends, innovations in literature databases, innovative ways of providing information, access to and use of various sources of geoscience information and data, data repositories or clearinghouse projects, and special academic or museum collections. We seek abstracts from researchers, federal data managers, information professionals, journal editors, and librarians in order to see a diverse range of topics and resources.

T25. Geoscience Information Needs in Education and Research (Posters)
Sponsored by: Geoscience Information Society; GSA Geoinformatics Division
This poster session examines the information needs involved in successful teaching or research activities. Posters highlighting innovative methods of supplying geoscience information and data sources to users are welcome.
The 22nd Atmospheric Science Librarians International (ASLI) Conference will be held January 9th to 10th, 2019, in Phoenix, Arizona, as part of the 99th American Meteorological Society (AMS) Meeting, being held January 6th through 10th, 2019. ASLI will also be holding a field trip on the 11th. More details on that will be coming soon. The theme for the 2019 AMS Annual Meeting is “Understanding and Building Resilience to Extreme Events by Being Interdisciplinary, International, and Inclusive (III).”

In this time of extreme technological upheaval and political polarization, librarians must be part of the broader conversation within the atmospheric sciences about resilience and nimble adaptation to emerging needs. This conference will explore the challenges and opportunities for libraries in a changing environment with new needs for data organization and management, our collections, our services, and our communities. The conference will also explore how interdisciplinary, international, and inclusive perspectives can expand the traditional role of libraries.

Interdisciplinarity has been described as “a web of partnerships to support boundary-crossing research and to translate advances into new products.” Libraries are naturally interdisciplinary spaces. What role can librarians play in bringing the knowledge of social scientists and other stakeholders to the table and improving understanding across disciplinary languages? How can we include international perspectives and encourage more inclusivity in the libraries?

We welcome papers on any aspect of these topics or any other topics that would be of interest to atmospheric science librarianship.

ASLI will again partner with the Conference on Environmental Information Processing Technologies to co-sponsor a Joint Session on Data Stewardship. Papers that describe innovative technological advances, curation and preservation of data, and solutions that help us understand and serve data needs in the field are most welcome.

A very useful and popular part of our program has been the “Technology Tools and Tips” session. You are encouraged to present on any tool or innovation you are using, described in around 3-5 minutes. Talks on technology failures and lessons learned from experience are especially welcome, as are proposals from students using innovative strategies around information.

ASLI is strengthened by employing outreach strategies to recruit new members, keeping current members engaged, and responding to members’ needs through surveys and discussions. Its Annual Meeting provides a major focal point and forum for developments, discussions, and presentations. Join ASLI in this endeavor, and with this ASLI’s invitation for papers addressing any of the above topics.

Please contact the ASLI program chairperson, Elise Gowen (edg16@psu.edu) if you would like to propose a session topic for this conference.

Please submit your paper proposals electronically to the ASLI Chair-Elect by September 1, 2018: Elise Gowen (edg16@psu.edu)

If you have any questions, please call Elise at: 814-863-7324.

Submissions should include full contact information, a title, and a brief abstract of less than 250 words. In most cases presentations are 10 minutes with 5 minutes for questions. Authors of accepted presentations will be notified via e-mail by late-September 2018. All extended abstracts are to be submitted electronically and will be available online via
the Web. Instructions for formatting extended abstracts will be posted on the AMS Web site. All abstracts, extended abstracts and presentations will be available on the AMS Web site at no cost. For additional information please contact the ASLI program chairperson: Elise Gowen.

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