Coalition for Networked Information
Spring 2019 Membership Meeting

April 8-9, 2019
St. Louis, MO

#cni19s

CNI Code of Conduct

CNI is committed to maintaining a welcoming and inclusive environment for inquiry, constructive disagreement, and intellectual freedom and honesty. We do not tolerate personal attacks, harassment of any kind, violence, or disruptive behavior. Please be respectful of our community’s diversity and generous of others’ views. If you have concerns, please talk to a member of the CNI staff. In case of emergency, dial 911.

Keep up with CNI

cni.org
## SUNDAY, APRIL 7

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Executive Roundtable I <em>(Colonnade)</em> prior registration only</td>
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## MONDAY, APRIL 8

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8:30 a.m.</td>
<td>Executive Roundtable II <em>(Colonnade)</em> prior registration only</td>
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<tr>
<td>11:00 a.m.</td>
<td>Registration Opens</td>
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<td><em>(Ballroom Pre-function)</em></td>
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<tr>
<td>11:30 a.m.</td>
<td>Orientation for First-Time Attendees</td>
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<td><em>(Plaza)</em></td>
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<tr>
<td>12:15 p.m.</td>
<td>Break</td>
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<tr>
<td>1:15 p.m.</td>
<td>OPENING PLENARY SESSION <em>(Salon II)</em></td>
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<td></td>
<td><em>Generous Thinking: Sustainability, Solidarity, and the Common Good</em></td>
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<td>Kathleen Fitzpatrick, Michigan State University</td>
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<td>2:15 p.m.</td>
<td>Break</td>
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<td><em>(Ballroom Pre-function)</em></td>
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<tr>
<td>2:30 p.m.</td>
<td>PROJECT BRIEFINGS</td>
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<tr>
<td></td>
<td>1.1 Locking the Higher Ed Infrastructure</td>
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<td>1.2 Research Lifecycles: What to Do with Data?</td>
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<td>1.3 Research Agenda for Hist. &amp; Multilingual OCR</td>
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<td>1.4 Professionalizing Research IT Roles</td>
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<td>1.5 Publishers Create Value by Profiling Users</td>
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<td>1.6 The DiSH (Digital Skills Hub)</td>
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<td>1.7 Thinking about &quot;Better&quot; for Digital Preservation</td>
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<td>1.8 An Innovative Program Visualization Displays</td>
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<td><em>(Salon II)</em></td>
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<td><em>(Ambassador)</em></td>
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<td><em>(Plaza)</em></td>
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<td><em>(Pavilion)</em></td>
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### MONDAY, APRIL 8

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<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>3:15 p.m.</td>
<td><strong>Break</strong> (<em>Ballroom Pre-function</em>)</td>
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<tr>
<td>3:45 p.m.</td>
<td><strong>PROJECT BRIEFINGS</strong></td>
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<tr>
<td></td>
<td>2.1 Foundation for Sustain., Open Infrastructure</td>
<td><em>Ambassador</em></td>
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<td>2.2 Inst. Perspective to Rescue Scholarly Orphans</td>
<td><em>Ambassador</em></td>
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<td>2.3 Digital Preservation Projects</td>
<td><em>Promenade</em></td>
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<td>2.4 Scholarly Output Projects</td>
<td><em>Promenade</em></td>
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<td>2.5 Support Collections as Data</td>
<td><em>Consulate</em></td>
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<td>2.6 Design Thinking for Library Services</td>
<td><em>Colonade</em></td>
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<td>2.7 UC and Elsevier: Publisher Negotiations</td>
<td><em>Plaza</em></td>
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<td>2.8 We Need More Science in Our Open Science</td>
<td><em>Pavilion</em></td>
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| 4:45 p.m. | **Break** (*Ballroom Pre-function*)          |                |
| 5:00 p.m. | **PROJECT BRIEFINGS**                        |                |
|         | 3.1 OCFL: Community Approach to Dig. Preservation | *Salon II*    |
|         | 3.2 FedPreserve                               | *Ambassador*   |
|         | 3.3 Role of IR in University Reporting Workflows | *Director's* |
|         | 3.4 Working Toward Section 508 Zen            | *Promenade*    |
|         | 3.5 Data Protection Strategies at Yale Library| *Consulate*    |
|         | 3.6 Web Archives Analysis at Scale            | *Colonade*     |
|         | 3.7 Libraries and VR at UNM                   | *Plaza*        |
|         | 3.8 Students' Growing Concern with Surveillance| *Pavilion*    |

| 5:30 p.m. | **Break** (*Ballroom Pre-function*)          |                |
| 5:45 p.m. | **PROJECT BRIEFINGS**                        |                |
|         | 4.1 Nat'l Roadmap for Web Privacy/Analytics   | *Salon II*     |
|         | 4.2 Alternative RDM Service Models            | *Ambassador*   |
|         | 4.3 Scaling Software Emulation Services: EaaSI | *Director's*  |
|         | 4.4 Bridge2Hyku: Open Source Digital Solution | *Promenade*    |
|         | 4.5 Trusted Framework for OA Monograph Data   | *Consulate*    |
|         | 4.6 Cuban Digitization Database               | *Colonade*     |
|         | 4.7 Merging LYRASIS & DuraSpace               | *Plaza*        |
|         | 4.8 Library Education & Data Science for NDP  | *Pavilion*     |

| 6:15 p.m. | **Reception** (*Salon I*)                    |                |
# CNI Spring 2019 Membership Meeting

**SCHEDULE-AT-A-GLANCE**

## TUESDAY, APRIL 9

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<tr>
<td>7:30 a.m.</td>
<td><strong>Breakfast (Salon I)</strong></td>
<td><em>Salon I</em></td>
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<tr>
<td>9:00 a.m.</td>
<td><strong>PROJECT BRIEFINGS</strong></td>
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<tr>
<td></td>
<td>5.1 Holistic Approaches to RDM: Scholars as Collectors</td>
<td><em>Salon II</em></td>
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<td>5.2 Service Level Agreements &amp; Virtual Teams</td>
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<td>5.3 When Research Data Requires Controls: CUI/HIPAA</td>
<td><em>Director's</em></td>
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<td>5.4 Developing 3D Scanning as a Library Service at OU</td>
<td><em>Promenade</em></td>
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<td>5.5 VIVO Implementations at Duke &amp; Texas A&amp;M</td>
<td><em>Consulate</em></td>
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<td>5.6 Preservation/Description/Discovery/Access at UI</td>
<td><em>Colonnade</em></td>
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<td>5.7 Purposeful Space Design for Libraries</td>
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<td>5.8 Technology Roadmap: Strategic Planning</td>
<td><em>Pavilion</em></td>
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<tr>
<td>9:45 a.m.</td>
<td><strong>Break (Ballroom Pre-function)</strong></td>
<td><em>Promenade</em></td>
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<td>10:15 a.m.</td>
<td><strong>PROJECT BRIEFINGS</strong></td>
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<td></td>
<td>6.1 Building Community of Practice for Making</td>
<td><em>Salon II</em></td>
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<td>6.2 Project ReShare: Sharing Infrastructure</td>
<td><em>Ambassador</em></td>
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<td>6.3 Variations in Public Scholarship Works</td>
<td><em>Director's</em></td>
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<td>6.4 Open Data Publishing: Dryad &amp; CDL</td>
<td><em>Promenade</em></td>
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<td>6.5 Advancements in the ORCID US Community</td>
<td><em>Consulate</em></td>
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<td>6.6 Research Information Management Global Survey</td>
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<td>6.7 Data Science Support for Social Science Research</td>
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<td>6.8 3D Scanning/Augmented Reality &amp; Dig. Collections</td>
<td><em>Pavilion</em></td>
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<tr>
<td>11:00 a.m.</td>
<td><strong>Break (Ballroom Pre-function)</strong></td>
<td><em>Plaza</em></td>
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<td>11:15 a.m.</td>
<td><strong>PROJECT BRIEFINGS</strong></td>
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<td>7.1 Islandora 8</td>
<td><em>Salon II</em></td>
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<td>7.2 Engagement/Performance Operations Center</td>
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<td>7.3 Collaborating with Data: Researcher Partnership</td>
<td><em>Director's</em></td>
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<td>7.4 Research Organization Registry - ROR</td>
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<td>7.5 Evolving Statewide Digital Libraries</td>
<td><em>Consulate</em></td>
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<td>7.6 Discoverability of High-Density Storage Collections</td>
<td><em>Colonnade</em></td>
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<td>7.7 Open Source Digital Collections Mgt with Scrum</td>
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<td>7.8 Digitization Selection Criteria as Anti-Racist</td>
<td><em>Pavilion</em></td>
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TUESDAY, APRIL 9

**11:45 a.m.**

**Lunch (Salon I)**

**1:00 p.m.**

**PROJECT BRIEFINGS**

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<th>Session</th>
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<td>8.1</td>
<td>The Power of Community: Fedora</td>
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<td>8.2</td>
<td>Standards for 3D Data Preservation</td>
<td>Director’s</td>
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<td>8.3</td>
<td>Managing Digital Institutional Content</td>
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<td>8.4</td>
<td>Trends &amp; Priorities in Canadian Research Libraries</td>
<td>Consulate</td>
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<td>8.5</td>
<td>Services &amp; Resources to Support Students</td>
<td>Colonnade</td>
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<td>8.6</td>
<td>Is Openness Really Worth It? ROI of Open</td>
<td>Plaza</td>
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<td>8.7</td>
<td>Campus Research Computing Consortium (Carcc)</td>
<td>Pavilion</td>
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**2:00 p.m.**

**Break (Ballroom Pre-function)**

**2:15 p.m.**

**CLOSING PLENARY SESSION (Salon II)**

*Web Archives at the Nexus of Good Fakes and Flawed Originals*

Michael L. Nelson, Old Dominion University

**3:30 p.m.**

Meeting Adjourns
Generous Thinking: 
Sustainability, Solidarity and the Common Good

Kathleen Fitzpatrick
Michigan State University

Recent developments in the scholarly communication landscape — particularly the acquisition of several platforms that have supported the open-access dissemination of academic work by major corporate interests — have led a number of institutions to think seriously about what has been called “academy-owned infrastructure.” This infrastructure, however, is often far more complex and expensive to develop, much less sustain, than any single institution can manage. And this fact runs us headlong into a key aspect of the crisis facing higher education today: that scholars as individuals, and our universities as institutions, are far more likely to understand ourselves as being in competition with one another than as working in collaboration. As I argue in Generous Thinking: A Radical Approach to Saving the University (Johns Hopkins, 2019), changing this mindset and the institutional structures that derive from it may be the single most important step we must take if we are to save our institutions from the forces that are undermining its operation. This talk will approach the future of academy-owned infrastructure, then, through ways of thinking about sustainability beyond the technical, and beyond the financial, focus on the social connections and commitments that underwrite the work necessary to keep collective, not-for-profit forms of scholarly infrastructure running.

About the Speaker

Kathleen Fitzpatrick is Director of Digital Humanities and Professor of English at Michigan State University. Prior to assuming this role in 2017, she served as Associate Executive Director and Director of Scholarly Communication of the Modern Language Association and also held an appointment as Visiting Research Professor of English at NYU. She is author of Generous Thinking: The University and the Public Good (Johns Hopkins University Press, 2019), as well as Planned Obsolescence: Publishing, Technology, and the Future of the Academy (NYU Press, 2011) and The Anxiety of Obsolescence: The American Novel in the Age of Television (Vanderbilt University Press, 2006). She is project director of Humanities Commons, an open-access, open-source network serving more than 16,000 scholars and practitioners across the humanities.
Web Archives at the Nexus of Good Fakes and Flawed Originals: “You’re in a Desert Walking Along in the Sand When All of a Sudden You Look Down, and You See a Tortoise...”

Michael L. Nelson
Old Dominion University

The authenticity, integrity, and provenance of resources we encounter on the web are increasingly in question. While many people are inured to the possibility of altered images, the easy accessibility of powerful software tools that synthesize audio and video will unleash a torrent of convincing “deepfakes” into our social discourse. Archives will no longer be monopolized by a countable number of institutions such as governments and publishers, but will become a competitive space filled with social engineers, propagandists, conspiracy theorists, and aspiring Hollywood directors. While the historical record has never been singular nor unmalleable, current technologies empower an unprecedented number of skillful would-be editors of history.

Web archives have a role to play in verifying the integrity and priority of resources. Unfortunately, web archives have a 1990s, ad-hoc approach to trust, interoperability, and audit. We implicitly trust the Internet Archive in the same way we used to trust email, Google, Apple, and Facebook. As the political, cultural, and economic stakes of disinformation rise, we can expect two primary changes. First, existing trusted web archives will be attacked. Second, the number of web archives will proliferate, and not all will be trustworthy.

We now have a dynamic marketplace of web archives, many of which are short-lived, and at least some of which could be operated by replicants (distinguishable from humans only by their empathetic responses to questions about tortoises).

In summary, is that really an archived tweet from 2016 with a video of your favorite politician in an unflattering situation? Or is it a backdated deepfake, injected into a trusted archive, and then replicated across several less established archives, all of which are secretly operated by the same entity?

About the Speaker

Michael L. Nelson is a professor of computer science at Old Dominion University, where he leads the Web Science and Digital Libraries Research Group, with a focus on web archiving. Prior to joining ODU, he worked at NASA Langley Research Center from 1991-2002, where he developed the NASA Technical Report Server (NTRS). He has (co-)authored over 240 technical publications and is a co-editor of OAI-PMH, OAI-ORE, Memento, ResourceSync, and Signposting.
TAB
Monday
2:30-3:15
1.1 Locking the Higher Ed Infrastructure Market Open for Competition

Heather Joseph  
Executive Director  
SPARC  

Claudio Aspesi  
Senior Market Analyst  
Consultant to SPARC

The academic publishing industry is undergoing a major transition, moving from content-provision to a data analytics business. Publishers are selling new products across higher education institutions - including research assessment systems, productivity tools, and online learning management systems. This infrastructure and the data it generates are critical to conducting the end-to-end business of the university. Through ownership of this infrastructure, in the near future, these vendors have the potential to directly influence the evaluation of the teaching and research performance of faculty, determination of funding and staffing allocations among departments, labs, and individual projects, the establishment of priorities for funding bodies and assessment of the performance of students. In the absence of specific actions from institutions to proactively manage these flows of data (and recommendations), the vendors may well end up driving these decisions, and they will also be able to present independent public analyses that may impact institutional rankings and reputations. At SPARC, we have conducted an in-depth analysis of the changes taking place in this infrastructure space and developed a preliminary set of recommendations to help higher education institutions minimize some of the unintended consequences of these changes. In this session we will present a summary of our findings and recommendations in order to galvanize coordinated action, gather feedback, and contribute to the debate that should take place across campuses on these critical issues.

www.sparcopen.org
1.2 Research Lifecycles are Snazzy, but What in the Abyss Do I Do with My Data?

Cynthia Hudson Vitale  
Head, Research Informatics & Publishing  
Pennsylvania State University

Karen Estlund  
Associate Dean for Technology and Digital Strategies  
Pennsylvania State University

Greg Madden  
Senior Advisor for Research Computing and Cyberinfrastructure  
Pennsylvania State University

Developing faculty-centered services for public access to research data requires university-wide infrastructure and support. Research administration, university libraries, and campus IT must work across organizational boundaries in order to provide seamless services that address funder requirements. At Pennsylvania State University (Penn State), we've developed a cross-institutional model to address issues surrounding research data. This panel will provide an overview of the collaboration points that have been established among various stakeholders including the Office of the Vice President of Research, the University Libraries, the Office of Information Security, and others to develop sound university-wide governance policies and address recent recommendations developed by the Association of American Universities and the Association of Public and Land-grant Universities for public access to funded research data. We will also facilitate a dialogue with attendees in which other approaches and information sharing to address these issues will be explored. Of particular significance in Penn State's efforts to support research data management has been an exploration of the research data lifecycle from different points of view including those of the research administrator, researcher, contract negotiator, librarian, and information technology specialist, among others. This analysis has led to identifying barriers and opportunities within the university's support and allowed for continual refinement of faculty-centered services.
1.3 A Research Agenda for Historical and Multilingual OCR

Ryan Cordell
Associate Professor of English
Northeastern University

This talk will outline the primary findings and recommendations of a report written for The Andrew W. Mellon Foundation that seeks to describe the current state of optical character recognition (OCR) for large-scale humanities collections and suggest the most fruitful avenues for future research in this domain. The report surveys the current state of OCR for historical documents and recommends concrete steps that researchers, implementers, and funders can take to make progress improving the quality and use of OCR collections over the next five to ten years. We find, for instance, that advances in artificial intelligence for image recognition, natural language processing, and machine learning will drive significant progress in this area. More importantly, however, we describe how sharing goals, techniques, and data among researchers in computer science, in book and manuscript studies, and in library and information sciences will open up exciting new problems and allow a broad community, including cohorts who rarely collaborate, to allocate resources and measure progress in improving OCR for historical typography and multilingual documents. This presentation will briefly outline the report's findings about the current state of the art for humanistic OCR, but will devote the majority of his talk to detailing the report's nine primary recommendations for future, collaborative OCR research.

https://ocr.northeastern.edu
1.4 Professionalizing Research IT Roles to Improve Recruitment and Retention

Patrick Schmitz
Associate Director, Research IT
University of California, Berkeley

The role of Research IT (computing, data, and related infrastructure and services) has grown rapidly, and it has increasing and crosscutting importance to the university research and educational mission. However, despite its growing importance, Research IT is still an emerging professional domain. Research IT professionals (e.g., research software engineers, research IT facilitators and consultants, research computing and data specialists) often lack a clear job family system. There are few appropriate job descriptions and classifications and very few clear paths for professional advancement. This causes both recruitment and retention issues for university staff who deploy and support IT services and solutions advancing campus research and instruction. A 2018 workshop hosted by the Campus Research Computing Consortium (CaRCC) developed a baseline framework for a job family classification and advancement system for Research IT that can be adapted and deployed in a range of different research settings (R1, R2, and R3 universities, smaller colleges and universities, and research labs). The framework is being shared and discussed across a range of research IT organizations and communities, and has received positive response and adoption. CaRCC working groups continue to develop and expand the ideas (e.g., working with HR organizations to develop formal job classification families, and describing a range of career paths for these roles) and strive to present and disseminate the findings to the larger community. This session will present the framework and how it evolved, examples of how it is being used, and the ongoing work to refine and expand the associated resources.

https://carcc.org/
Patron privacy has a deep, historical presence in libraries, a presence increasing in complexity as the information economy broadens its reach across online platforms. A study of the user tracking mechanisms in place on publisher platforms shows that many publishers are engaged in efforts to profile and identify library users, even without the identifying information that could be provided by libraries through federated authentication. Whether by design or accident, many publishers are sharing library usage data and potentially personally identifying information with advertisers, data brokers, and other commercial entities. The use of institutional identity management systems is increasing across a variety of library systems, and work is currently underway in defining a common configuration implementing this technology for use on commercial publisher platforms (see RA21). Components enabling this authentication & authorization (SSO/SAML/Trust Federations) will be discussed, as well as concerns surrounding patron privacy and its potential for financial exploitation. Following the talk will be an open discussion on strategies to abate these (perceived) unnecessary flows of information.
1.6 The DiSH (Digital Skills Hub):
A Place to Learn What You Need to Know Before Using the Latest Technologies

Carl Grant  
Dean (Interim)  
University of Oklahoma Libraries

Tara Carlisle  
Head, Digital Scholarship Lab  
University of Oklahoma Libraries

DiSH (Digital Skills Hub) is a replicable initiative for universities, particularly university libraries, to teach students, staff and faculty, how to be far more "informed" users of technology in their scholarly and personal lives. Users of new and existing technologies need to learn the value that new technologies such as virtual reality, 3D printing, digital media, blockchain, algorithms and artificial intelligence bring to their lives and work, but they also need to learn about the issues that exist under those shiny value statements, which include issues of personal privacy, biases and health concerns. The library's status as a "trusted" institution and the central hub on many campuses makes it uniquely positioned to connect the community-at-large with these types of sessions. At the University of Oklahoma (OU) we found that while the libraries taught digital literacy courses, there were many of these other types of sessions taught across the campus in the colleges, but only for the students of that college. As a result, the OU Libraries led an initiative to create an umbrella organization called the Digital Skills Hub, in collaboration with other units and colleges, in order make all of these sessions available to all students, staff and faculty. This session will cover how that was done, what initiatives were put into place to draw attendees, and the results seen so far.

https://digitalskillshub.oucreate.com
1.7 Flexibility and Pragmatism:
Thinking Differently about "Better" for Digital Preservation Services

Jefferson Bailey
Director, Web Archiving
Internet Archive

Chip German
Program Director, Academic Preservation Trust
University of Virginia

Nicholas Taylor
Program Manager, LOCKSS and Web Archiving
Stanford University

Conversations benchmarking the quality of digital preservation often center on concerns like the number of copies of content or the frequency of fixity checking. While replication and data integrity validation are essential elements of digital preservation best practice, the widening gap between resources and candidate content for preservation challenges us to rethink how we can do digital preservation better, beyond obvious (and obviously finitely-scalable) steps like more copies and checksumming. What new digital preservation architectures or service features can help better assure the integrity of stored content, differently? How can we foster a more complementary digital preservation services ecosystem? How can we capitalize on the affordances (and accommodate the constraints) of new technologies, for digital preservation? How do our own collective, existing best practices affect our ability to expand digital preservation horizontally and vertically? What are various scenarios elucidating the explicit and implicit costs and economics of digital preservation? Presenters will address these questions in relation to each other and the latest developments in several digital preservation initiatives: exercising content retrieval from APTrust; keeping content safe with fewer copies (and more fixity) with LOCKSS; and extensible, scalable approaches to preservation infrastructure at the Internet Archive.

http://aptrust.org/
https://archive.org/
https://www.lockss.org/
The Sheridan Libraries at Johns Hopkins have launched an innovative program using its large-scale visualization display and associated touch screen table to support student wellness endeavors and to promote proactive coping strategies. National surveys have highlighted an alarming trend of undergraduate students struggling with overwhelming stress and mental health issues. Sadly, a recent local report revealed that this trend of over-stressed and anxious students is even more acute at Johns Hopkins, including alarmingly high rates of self-harm, which has led the president and provost to identify student wellness and mental health as an institutional priority. During the 2015 CNI Fall Membership Meeting, a group of libraries described a series of case studies using large-scale visualization displays for analysis, presentation, events, and teaching. Given the unique context, manner of interaction with students, and modality of the setup, the Sheridan Libraries have decided to adopt a different approach for its large-scale visualization display and touch screen table. This presentation will describe the trajectory for this large-scale visualization display from both technology, and research perspectives. Additionally, the presentation will describe the current implementation (with sponsorship from the Vice Provost for Student Affairs Office) focused on games and experiences that reduce stress and anxiety and as a gateway to student wellness and mental health resources throughout the University.
TAB
Monday
3:45-4:45
2.1 Towards Coherence through Collective Action: Laying the Foundation for Sustainable, Open Infrastructure

Maurice York  
Associate University Librarian for Library Information Technology  
University of Michigan

Evviva Weinraub  
Associate University Librarian for Collections & Technologies  
Northwestern University

Heather Joseph  
Executive Director  
SPARC

Katherine Skinner  
Executive Director  
Educopia Institute

Within the ecosystem of open source software projects that support the preservation and access of digital collections, it is a well-known and often-observed condition that we have created a number of separate projects, each with different types of funding, different modes of governance and organizational structure, separate administration, and separate strategies. Unsurprisingly, as a result, the current "system" has a variety of redundancies and inefficiencies. For example: each project needs to re-create its own business structures and the staff to administer them; the prevalence of a membership funding model that causes competition for institutional dollars between projects; poor integration of the separate software components; reduced ability for executives at member institutions and funding agencies to assess the direction of the various software projects against their own programmatic and strategic goals. The current state of the ecosystem also means there is poor transparency into the financial operations of many projects and investments by institutions and funding agencies are often insufficient, and, at times, not always well directed.

This session will present the work of two groups that are moving the long-hoped-for future forward to reality. The first, the Open Platform group, includes university libraries that are major funders and supporters of open source software projects. The second, the Invest in Open Infrastructure Working Group (IOIWG), is an international effort that grew out of the Joint Roadmap for Open Science Tools (JROST). We will leave ample time for discussion and debate.

http://go.middlebury.edu/investinopen/
2.2 An Institutional Perspective to Rescue Scholarly Orphans

Martin Klein
Scientist
Los Alamos National Laboratory

Herbert Van de Sompel
Chief Innovation Officer
Data Archiving and Networked Services

Increasingly, scholars across disciplines and throughout the research life cycle are using a wide variety of online portals such as GitHub, FigShare, Publons, and SlideShare to conduct aspects of their research and to communicate research outcomes. However, these portals, whether dedicated to scholarly use or general purpose, exist outside of the traditional scholarly publishing system and no infrastructure exists to systematically and comprehensively archive the deposited artifacts. We have shown in previous work that without adequate infrastructure, scholarly artifacts will vanish from the web in much the same way and with similar frequency regular web resources do.

In the "Scholarly Orphans" project, we assume that research institutions are interested in collecting scholarly artifacts created by their researchers. As such, we devised an institutional pipeline to track, capture, and archive these artifacts. The tracking part is crucial as institutions are usually not even aware of the existence of artifacts created by their researchers in online portals. Regarding capture, our newly developed Memento Tracer framework [1] plays a crucial role in creating high-fidelity Mementos of artifacts. With Memento Tracer, a human curator interacts with a web-based artifact to establish its essential components, and to record these interactions as Traces. A Trace can be used to guide the automatic capture of artifacts of the same class. And Traces can be shared with a community of practice. These characteristics give Memento Tracer the potential to bring about significant progress for high-quality web archiving at scale.

In this talk, we will demonstrate the pipeline [2] and share insights gained by developing and operating it. We will also share initial statistics regarding artifacts deposited in web portals by a group of volunteer researchers, and captured by our pipeline. We hope to spark a discussion with the CNI audience about the desirability, feasibility, and architecture of institutional processes aimed at capturing scholarly orphans.

2.3 Digital Preservation Projects

Tracy Seneca  
Head, Digital Programs and Services  
University of Illinois at Chicago

Jordan Bass  
Coordinator, Research Services and Digital Strategies  
University of Manitoba

Natalie Vielfaure  
Digital Curation Archivist  
University of Manitoba

Seon Young (Sara) Min  
Digital Curation Assistant  
University of Manitoba

"Life at Level Zero: Digital Preservation without a Repository" (Seneca)
The University of Illinois at Chicago (UIC) is currently establishing its first digital asset management system, using the LibSafe platform. We are late to the game. Until now, UIC has been storing its 53 terabytes of digital assets on simple file servers, relying on directory structures and filenames to find and manage over 2 million files. While we have faced some of the risks accounted for in the National Digital Stewardship Alliance "Preservation Levels" rubric, such as format obsolescence and file degradation, most of our challenges occur below Level One of that rubric, and our greatest challenges are not even named there. How many times have we used the same filename for different objects? What are we paying to store that is out of scope for digital preservation? What, fundamentally, do we even have? Our experience as a participant in the Digital Preservation Network suggests that UIC has not been alone in that challenge. UIC very much needed the services DPN had to offer, but participation for us was a catch-22; without a repository to manage our content, it was a struggle to isolate the files we needed to preserve. This session will cover UIC's strategies for managing a noteworthy amount of content without a repository, our decision to temporarily (we thought) step out of DPN, and the lesson that, above all else, digital preservation is management.

"Digital Dawning: A New Digital Preservation Program at the University of Manitoba Libraries" (Bass et al.)
The University of Manitoba Libraries has made great strides in digital preservation over the past five years despite limited funding and staff resources. From the introduction of a digital asset management system, the use of open source preservation software applications to employing standardized metadata schema and large-scale format migrations, the Libraries continues to develop its capacity as a trustworthy steward of digital objects. Recently and in response to the rapidly changing landscape of digital preservation, the Libraries' Research Services and Digital Strategies unit was created to confront the challenges of preserving
digital assets through a more coordinated and targeted approach. In its nascent stages, our
digital preservation program thus far has involved determining the extent of our
requirements through environmental assessments of our digital holdings, reviewing the
Libraries' digitization services, and discussions with key stakeholders. Evaluation and testing
of preservation software and hardware, pursuing low-cost and open-source options, and
work in digital forensics has further supported the integration of Archivematica and a
Forensic Recovery of Evidence Device into our processes. The Libraries also assisted in the
initiation and development of a distributed digital preservation network in Western Canada.
This project brief will expand on this process, and contextualize what brought us to this
point, where we now stand, and where we aim to go from here.

https://libguides.lib.umanitoba.ca/digitalstrategies
2.4 Scholarly Output Projects

Martin R. Kalfatovic  
Associate Director, Libraries  
Smithsonian Institution

Paul Albert  
Associate Professor  
Weill Cornell Medicine

Terrie Wheeler  
Director, Samuel J. Wood Library  
Weill Cornell Medicine

"Managing Scholarly Research Output: The Smithsonian Institution Experience" (Kalfatovic)  
Smithsonian Research Online (SRO) is a key tool in the management of the Smithsonian's scholarly research output. Comprised of a digital repository, a citation management program, a profiles tool (Smithsonian Profiles), and a scholarly communications team, the SRO program also oversees the Smithsonian's implementation of the White House's "Increasing Access to the Results of Federally Funded Scientific Research" mandate. SRO and the recently launched Smithsonian Profiles form an integrated program for the tracking, evaluation, and promotion of the work of Smithsonian scholars across a range of disciplines. A collaboration between the Smithsonian Libraries, the Office of the Chief Information Officer, Smithsonian Institution Scholarly Press, and the Smithsonian Office of Fellowships and Interns, and under the guidance of Deputy Under Secretary for Collections and Interdisciplinary Support, the SRO program provides valuable metrics for both individual researchers, as well as for museums and research centers. This session will outline the overall SRO program and touch upon evaluation and management of scholarship in a non-university environment. The Smithsonian Libraries SRO team of Alvin Hutchinson, Richard Naples, Suzanne Pilsk participated in this presentation.

"VIVO Dashboard: An Interactive Application for Reporting on and Assessing Scholarly Output and Productivity" (Albert, Wheeler)  
Administrators at academic institutions rely on scholarly impact metrics to allocate scarce resources including funding, promotions, and lab space. Early iterations of scholarly impact metrics including h-index and journal impact factor generally reflect raw counts of citations received by individual articles or authors. In the last several decades, researchers have identified flaws in these approaches and proposed more methodologically defensible alternatives such as PP(top 10%), P(top 10%), and Relative Citation Ratio. These approaches
are an improvement, but they are not quite optimized to meet the needs of decision-makers at academic institutions. Here, we describe VIVO Dashboard, an open source interactive web application for assessing scholarly productivity. VIVO Dashboard is a Drupal-based application for analyzing publication metadata. VIVO Dashboard allows end users (primarily administrators) to easily generate reports in one of the three ways: bar graphs, interactive HTML lists, and spreadsheets. End users can facet publication records in a variety of ways including year, publication type, journal ranking, journal name, author name, author type, organizational affiliation, and first-last-author affiliation. Additionally, VIVO Dashboard offers a Citation Impact Map. The Citation Impact Map uses an intuitive non-parametric method for computing field-normalized citation impact for individual academic articles and reviews. Articles are benchmarked against peers sharing the same journal category, publication type, and year. Users can view impact at the level of article, person, and organizational unit. Since its release at Weill Cornell Medicine, a growing number of stakeholders have used VIVO Dashboard to meet their needs of publication reporting and scholarly impact assessment. Deans have used VIVO Dashboard to make tenure decisions. Department chairs have used our application for deciding whether a faculty should help receive a promotion. External Affairs and department administrators have used the application to learn about recent high-profile publications in, respectively, the College and individual departments. VIVO Dashboard is freely available and open source under the Apache 2.0 license.

https://research.si.edu/
https://github.com/wcmc-its/vivodashboard/
In late 2018, Collections as Data: Part to Whole was awarded $750,000 by The Andrew W. Mellon Foundation to foster the development of broadly viable models that support the implementation and use of collections as data. Collections as Data aims to support computationally driven research and teaching. This project is the successor to the Institute of Museum and Library Services-funded Always Already Computational: Collections as Data (2016-2018). Always Already Computational focused on identifying and supporting collections as data implementation. Part to Whole expands to consider the organizational implications of this work. As computational engagement with collections becomes increasingly ubiquitous, what holistic approaches to staff roles and services might we need to meet demand? Over three years of project activity, Part to Whole will address this question by funding and supporting two national cohorts. Cohort 1 is now active and is comprised of six project teams jointly led by librarians and a disciplinary scholar. Project teams will develop models that support collections as data implementation and the reconceptualization of services and roles that support scholarly use of those data. This project briefing is led by investigators from the Part to Whole project team as well as investigators from two Part to Whole funded projects - On the Books: Jim Crow and Algorithms of Resistance (UNC Chapel Hill) and Uncovering Health History: Transcribing and Publishing Early Twentieth-Century Tuberculosis Patient Records as Data (University of Denver). We aim to brief the CNI audience on Part to Whole goals, seek feedback, introduce two Part to Whole-funded projects, and share the cohort 2 funding opportunity.

Other contributors include: Laurie Allen, University of Pennsylvania; Nathan Kelber, University of North Carolina Chapel Hill; Jack Maness, University of Denver

https://collectionsasdata.github.io/part2whole/
2.6 Design Thinking for Library Services: Library as Research Lab

Justin Schell  
Director, Shapiro Design Lab, Library  
University of Michigan

Meghan Sitar  
Director, Connected Scholarship,  
Library  
University of Michigan

Laurie Alexander  
Associate University Librarian -  
Teaching & Learning  
University of Michigan

At a large research university library, we have established new approaches to service design built on intentional, inclusive, and transparent collaboration and experimentation in the form of pilots and prototypes. At the same time, we received a three-year Institute of Museum and Library Services grant with our university's School of Information designed to provide authentic learning and research experiences to current School of Information students, working in partnership with teams of librarians in three distinct labs. One lab supported by this grant includes an intergenerational team of graduate students, an early career librarian, and two senior librarians building structures and research methods to apply design thinking to library services. Our presentation will exhibit early outcomes of this grant and its intersection with broader service design efforts in the university. The two projects supported by first and second year of the lab will be detailed, describing user research and service design around the graduate student scholar and the development of a toolkit to support user experience research across the library. We will explore the benefits of both our approaches to service design and the embedding of a research lab focused on design thinking in the structure of the organization as a way to ask questions and design future user-focused spaces and services with the library.
2.7 UC and Elsevier: A Blueprint for Publisher Negotiations

Jeff MacKie-Mason  
University Librarian  
University of California, Berkeley

Günter Waibel  
Associate Vice Provost &  
Executive Director  
California Digital Library

Mathew Willmott  
Open Access Collection Strategist  
California Digital Library

The University of California (UC) has been without an Elsevier contract since December 31, 2018, and terminated negotiations on February 28, 2019. In eight months of negotiations, UC pursued universal open access to UC research while containing the costs of the contract. Negotiations made substantial progress towards UC's open access goals, but broke down due to remaining disagreements over both open access and cost. In this session, members of the negotiation team will debrief the CNI community on UC's negotiation and communication strategy, the data analyses that informed our stance, and the off-setting model we proposed to Elsevier. In conversation, we'd like to learn what information or tools might empower your library to take an equally principled stance.

UC March 28 Press release:  
https://www.universityofcalifornia.edu/press-room/uc-terminates-subscriptions-worlds-largest-scientific-publisher-push-open-access-publicly

UC Academic Senate statement:  

Interview with Jeff MacKie-Mason:  
2.8 We Need More Science in Our Open Science: A Grand Challenges Based Research Agenda

Chris Bourg  
Director of Libraries  
Massachusetts Institute of Technology

Sue Kriegsman  
Deputy Director, Center for Research on Equitable and Open Scholarship (CREOS)  
Massachusetts Institute of Technology

Micah Altman  
Director of Research  
Massachusetts Institute of Technology

"A Grand Challenges-Based Research Agenda for Scholarly Communication and Information Science" is a call to action to do research promoting the creation of durable, open, equitable, and meaningful global access to knowledge creation and consumption in its many forms. There are collaborative opportunities to improve the scholarly ecosystem by creating a coherent and reliable evidence base for open scholarship through well-designed strategic research. Enticed by the grand challenges, in the fall of 2018, Arizona State University, the University of California Los Angeles, MIT, The Ohio State University, and the University of Pittsburgh jointly supported a visiting scholar at the MIT Libraries. Professor Philip Cohen (Sociology, University of Maryland College Park) worked with researchers at MIT and stakeholders in the community to develop a framework for performing better empirical evaluations of new open science interventions including open peer review. In this session, we will use the grand challenge recommendations to spark a discussion about ways libraries can jointly support additional targeted work to promote, inspire, and support evidence-based research.

A Grand Challenges-Based Research Agenda for Scholarly Communication and Information Science:  
https://grandchallenges.pubpub.org/pub/final

Example of a collaboratively funded research project:  
https://docs.google.com/document/d/1KbrpXywSZoVp3UzHKMySoxyVkJuGrUR7NVH9iUHWA/edit?usp=s haring
TAB
Monday
5:00-5:30
3.1 OCFL: A Community Developed Approach to Digital Preservation

Andrew Woods
Technical Director
DuraSpace

Rosalyn Metz
Director, Library Technology and Digital Strategies
Emory University

Simeon Warner
Director of Linked Data and Repository Architecture
Cornell University

The Oxford Common File Layout (OCFL) specification began as a discussion at a Fedora/Samvera Camp held at Oxford University in September of 2017. Since then, it has grown into a focused community effort to define an open and application-independent approach to the long-term preservation of digital objects. Developed for structured, transparent, and predictable storage, it is designed to promote sustainable long-term access and management of content within digital repositories. This presentation will focus on the motivations and vision for the OCFL, explain key choices for the specification, and describe the status of implementation efforts.

https://ocfl.io/
3.2 FedPreserve:
Preserving the Historical Record of the Federal Reserve System

Aaron Collie
FRASER & FedPreserve Program Manager
Federal Reserve Bank of St. Louis

In 2018, the Conference of First Vice Presidents of the Federal Reserve System approved FedPreserve, a commercial off-the-shelf on-premises digital preservation platform and awarded the Federal Reserve Bank of St. Louis the national digital preservation support office. FedPreserve's mission is to offer a centralized digital preservation program to all 12 Banks in the Federal Reserve System. Unlike many pilot projects, the FedPreserve mission and business case was extensively validated over the course of a three-year, two-phase, multiple work-stream project and culminated in a year-long full-scale proof-of-concept. This proposal will extract key success factors from a formally managed national digital preservation program that can be put to use in large or small digital preservation projects.
3.3 Pivotal Role of the Institutional Repository Service in University Reporting Workflows

Mohamed Baessa  
Manager, Preservation & Digital Services  
King Abdullah University of Science and Technology (KAUST)

J. K. Vijayakumar  
Director, University Library  
King Abdullah University of Science and Technology (KAUST)

While the adoption of institutional repositories is now widespread on a global scale, there are dramatic differences in their implementation across institutions, reflecting the efforts by librarians and repository managers to balance competing visions for repositories with the concrete needs of their local context. Even with the growing support of institutional open access (OA) policies in the last two decades, which often indicate that published articles should be submitted to the institutional repository, however, many studies illustrate a very low deposit rate of published articles to the institutional repositories.

This presentation describes the mission of our library to make the repository a comprehensive resource for information on institutional scholarly output and how integration with university reporting workflows has evolved as a natural outgrowth of the pursuit of this mission, and led to one of the successful examples of OA policy implementation at research institutions, with a high compliance rate of more than 75% full text deposited in the year of 2018.

https://repository.kaust.edu.sa/
3.4 Working Toward Section 508 Zen

Sheila Yeh  
Associate Dean for Collections, Discovery, and Information Services  
Kansas State University

Jason Bengtson  
Head of IT Services, Libraries  
Kansas State University

On January 18, 2018, the revised standards covered by section 508 of the Rehabilitation Act of 1973—electronic and information technology developed, procured, maintained, or used by federal agencies—took effect. The revisions are intended to ensure that information and communication technology (ICT) is accessible to and usable by individuals with disabilities. Colleges and universities, although not federal agencies, need to adhere to the requirements due to the federal funding they receive. To ensure the compliance of instructional material alone has been a daunting task for higher education institutions, not to mention tackling the footprint of the many other resources they support. The library within an institution of higher learning faces the same challenges, especially considering the global use of its online resources in various formats and languages. In this session, the presenters will demonstrate how their libraries strive for Section 508 compliance. Their approaches consider both technical and socio-technical aspects of an ICT adoption, which are fundamental to any successful IT initiative implementation in this digital age. These systematic efforts are models for other regulatory challenges in the near and far future.
3.5 Data Protection Strategies at Yale University Library

Bob Rice
Technical Lead - Library IT DevOps and Infrastructure
Yale University

This presentation will describe the strategies being used by Yale University Library Information Technology (IT) to protect repository and application data. The strategies in place are based on services offered by our central IT organization, Yale University IT, as well as locally supported preservation and storage systems. These strategies provide multiple copies of data in multiple formats at multiple locations.
Web archives, repositories of born-digital information dating back to the Internet Archive and national libraries in the mid-1990s, are fantastic resources of information covering topics of interest to humanities and social sciences scholars. Imagine a political historian studying elections, a historian studying youth culture in the late 1990s, or a scholar of the military or policy exploring how wars were reflected online. Yet while we have been collecting this information for over two decades, access has lagged: most scholars are limited to working with web archives one page at a time through portals such as the Wayback Machine. With the rise of the digital humanities, the computational social sciences, and web science more generally, scholars increasingly have the ability and desire to work with data at scale. In this presentation, we introduce the Archives Unleashed Cloud, currently supported through a grant from The Andrew W. Mellon Foundation. This service facilitates the (a) transfer of web archival data to the Cloud; (b) its analysis and transformation into standard scholarly derivatives; and (c) the building of a community around it via in-person events and learning guides. Our presentation begins by introducing the Cloud and discussing its motivation, discussing its technical underpinnings, and then exploring our current sustainability plan to keep the Archives Unleashed Cloud running after our foundation funding ends in 2020.

https://archivesunleashed.org/
https://cloud.archivesunleashed.org
Virtual reality (VR) technology and tools continue to develop apace, and while high-end VR labs and research initiatives have become fairly ubiquitous on campus, there are still many areas where the application of VR to teaching, research, and library service can be explored by librarians, faculty, and students—particularly, but not exclusively, to those in the arts and humanities fields. Recent developments in VR hardware, software tools, and 360-degree photography have put VR within the grasp of library special collections units, outreach and of course digital initiatives departments, both in terms of budget requirements and technical expertise. This makes the academic library environment particularly suitable to provide VR exploration, consulting and training resources to the university community. This presentation will survey current VR projects at the University of New Mexico, including the use of wireless VR headset use in the classroom, hosted online VR environments, virtual campus tours, and cultural heritage documentation using 360-degree photography.

https://goto.unm.edu/discvr+
3.8 Students' Growing Concern with Surveillance Capitalism

Jim Hahn
Orientation Services and Environments Librarian, Associate Professor
University of Illinois at Urbana-Champaign

With research funding from the University of Illinois Campus Research Board, a personalized account-based recommender was developed in the University Library's mobile app interface. The recommender system (RS) was derived from data mining topic clusters of items that are checked out together. Using the library mobile RS as a prompt to understand student preferences for personalized account-based RS, structured interviews were undertaken and analyzed thematically to determine RS features and functionality desired. In the interviews, students described their perceptions of RS, together with features and functionality desired. Students indicated that they desired data stewardship and sharing levels, which provided valuable input into matters of system transparency pertaining to recommendations derived algorithmically. An unexpected finding from students was growing unease with aspects of surveillance capitalism [1]. One student referred to YouTube as an example of a service that did not work the way she wanted it to and noted that "...frequently YouTube doesn't work so good because it gives you a recommendation based on one thing you did. It should be based more on a frequently searched thing. Recommendations are sending you things you already are interested in, which might not show you newer things and that is not really a good way to learn." Students also indicated that they did not like the fact that commerce seems to drive recommenders, for example, "...on the Internet, you might be interested in finding information about something but not want to buy." Another student took a measured approach to this problem, noting "...when they [recommenders] are trying to sell something it feels predatory, but otherwise, it is good." This presentation will explore in greater detail the need to safeguard student privacy despite the finding that students believed that there is a place for RS in academic library settings. Academic library recommenders can distinguish themselves from commercial recommenders in several ways, including increased transparency beyond what is available in commercial systems, and by attending to the level of student privacy desired as a system design issue.

[1] https://doi.org/10.1057/jit.2015.5
https://minrvaproject.org/modules_recommendations.php
https://sif.library.illinois.edu/prototyping/RecPrivacyPolicy.html
TAB
Monday
5:45-6:15
4.1 Of Data, Ethics, and Leadership: 
Building a National Roadmap for Web Privacy and Web Analytics

Scott W. H. Young
User Experience & Assessment Librarian
Montana State University

Jason Clark
Head, Special Collections and Archival Informatics
Montana State University

This session will report on the activities and findings from the National Forum on Web Privacy and Web Analytics, an Institute of Museum and Library Services-funded project that brought together 40 librarians, technologists, and privacy researchers from across the US and Canada to critically address library values and practices related to web analytics. Libraries have historically offered safe spaces of intellectual freedom, but the widespread implementation of third-party analytics may conflict with our commitments to privacy. With these challenges in mind, our Forum essentially asked, "How can libraries implement privacy-focused, values-driven analytics practices?" This presentation will provide an overview of our National Forum and its results, including discussion of key challenges, staff skills, and partners for enhancing privacy on the web. We will also focus on generating dialogue and energizing leadership within the CNI community, especially regarding analytics needs and tools, implementation approaches, and practical strategies for achieving privacy.

https://www.lib.montana.edu/privacy-forum/
4.2 Alternative RDM Service Models for Smaller Research Libraries

Andrew White
Director, Library Information Services
Rensselaer Polytechnic Institute

A number of large research libraries have established institutional repositories in an effort to support research data management (RDM). While this model has had a modicum of success at some universities, we do not believe that such a model is feasible at smaller research institutions. In general, the scholarly communications ecosystem has evolved to be highly decentralized and federated. Various repositories, like PubMed or arXiv, have grown with their own set of data and publication storing options. Concurrently, many scholarly publishers now offer services to deposit and reference research data sets in conjunction with article publication. Thus smaller research institutions could support RDM through a different service model, instead of expecting libraries to host and serve as a data repository. This presentation will consider this new model and review the lessons learned about RDM from a collaborative effort between the Rensselaer Polytechnic Institute and the Elsevier's Research Data Management Solutions Team using Elsevier's Data Monitor software.
The Scaling Emulation and Software Preservation Infrastructure (EaaSI) program is expanding the capabilities of the Emulation-as-a-Service model to enable broader access and use of preserved software and digital objects. Led by the Digital Preservation services team at Yale University Library, the EaaSI program of work is focused on the development of technology and services that support distributed management, documentation, sharing, and use of emulated software across a broad range of disciplines. In the spring of 2019, the project will launch a beta instance of the EaaSI Network service, which will enable partner institutions to share emulated environments between members of the network. This presentation will provide an overview of the project goals and outcomes; technological, legal, and inter-institutional challenges encountered; and lessons learned that have informed our current and future work.

http://www.softwarepreservationnetwork.org/eaasi/
4.4 Bridge2Hyku: Building the Bridge towards an Open Source Digital Solution

Annie Wu  
Head of Metadata and Digitization Services  
University of Houston

Santi Thompson  
Head of Digital Research Services  
University of Houston

The University of Houston Libraries, in partnership and consultation with numerous institutions, was awarded an Institute of Museum and Library Services (IMLS) National Leadership/Project Grant to support the creation of the Bridge2Hyku (B2H) Toolkit. Content migration from proprietary systems to open source repositories remains a barrier for many institutions due to lack of tools, tutorials, and documentation. The B2H Toolkit, which includes migration strategies and use cases as well as tools for transitioning from CONTENTdm to Hyku, acts as a comprehensive resource to facilitate repository migration. Having reached key milestones, the presenters will showcase the toolkit and describe how it can help institutions complete digital collections migration efficiently. The presenters will also share collaborative strategies with partner institutions in this grant project, and they will discuss sustainability and promotion of the B2H toolkit.

Additional authors: Andy Weidner, Todd Crocken, Sean Watkins, Anne Washington, Leroy Vallejo

https://bridge2hyku.github.io/
4.5 Building a Trusted Framework for Coordinating OA Monograph Usage Data

Kevin S. Hawkins
Assistant Dean for Scholarly Communication, Libraries
University of North Texas

The Andrew W. Mellon Foundation recently funded a study of the landscape of usage data for open-access scholarly monographs and an investigation of the viability of creating a data trust for the sharing of usage data among stakeholders in the publishing ecosystem. In spring 2019, the Book Industry Study Group will publish a final white paper that takes into account feedback from the community during a consultation period. This presentation will provide a summary of the main findings and proposals of the forthcoming white paper.

https://bisg.org/page/WhitePapers
4.6 Cuban Digitization Database: Tools for Managing a Collaborative Cross-Institutional Digitization Effort

Todd Digby
Chair, Library Technology Services
University of Florida

The University of Florida George A. Smathers Libraries is engaged in a multi-year project with international partners to identify and digitize published materials pertaining to Cuba and to make those materials available in the Digital Library of the Caribbean (dLOC) as part of the Cuban Heritage Digital Collection led by the University of Florida (UF). Through this partnership a coordinated digitization effort will focus on digitizing maps, legal materials, and monographs, as well as journals and newspapers, in consultation and cooperation with the Biblioteca Nacional de Cuba José Martí (BNJM). The complexities of managing this collaborative digitization effort across partner institutions, has resulted in the need to develop a specialized bibliographic database focused on the management of this process and workflow. This database focuses on gathering bibliographic holdings, which partners can then identify items and claim their intention digitize these items, which lessen the likelihood of duplicative digitization efforts taking place. This project briefing will include a progress update on the Cuban bibliographic database development, a demonstration of the features and partner interface, and an opportunity to engage in discussion about collaborative cross-institutional digitalization projects.

http://ufdc.ufl.edu/cuba
4.7 Amplifying our Impact: Merging LYRASIS and DuraSpace

Erin Tripp  
Executive Director  
DuraSpace

Robert Miller  
Chief Executive Officer (CEO)  
LYRASIS

DuraSpace and LYRASIS are working together to improve the sustainability of their programs and increase impact in every sector of the academic, scientific, cultural, technology, and research communities, internationally. This presentation will discuss the merger between DuraSpace and LYRASIS, its impact on the scholarly ecosystem and its rapidly evolving needs.

https://duraspace.org/  
https://www.lyrasis.org/Pages/Main.aspx
Library and information scientists, archivists, and stewards of data and information have important and growing responsibilities to actively and meaningfully participate in our data-driven world, and apply data science techniques to improve information services and operations. We are addressing this need through the LIS Education and Data Science for the National Digital Platform (LEADS-4-NDP) program. LEADS-4-DNP, supported by the Institute of Library and Museum Services (IMLS), is preparing next-generation library and information science (LIS) faculty and front-line professionals so they may meaningfully integrate data science into the workplace and LIS education. This presentation will report 2018 LEADS-4-NDP outputs and lessons learned, as LEADS Fellows participated in a Drexel led data science boot camp and engaged in immersive, virtual data science experiences with national partners (Biodiversity Heritage Library; California Digital Library; Digital Curation Innovation Center, University of Maryland; Digital Public Library of America; Open Penn; Digital Scholarship Center, Temple University Libraries; Free Library of Philadelphia; OCLC; and the Pennsylvania Historical Society). The presentation will also report on plans for year two (2019) and engage session attendees in a discussion on key issues driving the LEADS program and opportunity for data science to improve information services and operations.

https://cci.drexel.edu/mrc/research/leads/
http://cci.drexel.edu/mrc/research/leads/leads-4-ndp-fellows/
http://cci.drexel.edu/mrc/research/leads/leads-4-ndp-mentors/
http://cci.drexel.edu/mrc/research/leads/leads-pis-advisory-board-members-and-outreach-collaborators/
TAB
Tuesday
9:00-9:45
In conjunction with their research and teaching activities, scholars create and assemble complex personal collections of information. These collections vary widely depending on the discipline and take many forms, including digitized archival materials, numeric data sets from experiments, audio recordings of interviews, field notes from research sites, and visual materials. Supporting these activities may fall under the purview of data management plans and data sharing requirements, as mandated by funders. However, the findings of the Ithaka S+R research into the research practices of scholars during the last 15 years indicate that research institutions often fail to provide holistic support for scholars as they collect data and other forms of information over the course of their careers, from various funding sources and institutional locales. Many academic institutions wish to take a more proactive strategic approach to supporting and leveraging research data and other collections of scholars. In this session, we will share research on the integrated nature of scholarly collecting activities and the strategic rationale for why universities should realign their research support services around scholarly work habits and flows. These findings will enable a participatory discussion on the benefits, trade-offs, and other key questions that must be taken into account when considering different models for supporting scholarly collecting. We will also consider what's at stake for academic institutions if they do not take a more proactive strategic approach to supporting and leveraging scholars' collections. In doing so, the session will highlight why "research support" should be reframed in a more holistic way in order to ensure that academic institutions are strategically positioned in a research support landscape increasingly centered on scholarly workflows.

https://sr.ithaka.org/publications/scholars-are-collectors/
5.2 Sustainability for Project-Based Collaborative Work: Leveraging Service Level Agreements and Virtual Teams

Franny Gaede
Head, Digital Scholarship Services
University of Oregon

Ray Henry
Supervisor, Library Applications Programming
University of Oregon

Kate Thornhill
Digital Projects and Engagement Librarian
University of Oregon

In 2018, the University of Oregon (UO) Libraries embarked on a refresh of its collaborative digital scholarship infrastructure in preparation for taking on projects in association with the UO GLAM (galleries, libraries, archives, and museums) Alliance's Mellon Fellowship Grants and the Digital Scholarship Center's Faculty Grants. This required transforming the existing organizational framework with a service level agreement for new partnerships and instituting a virtual teams model to facilitate inter-departmental work. The service level agreement was intended to help manage operational labor and create a sustainable model for project-based work with minimal technical debt. This presentation will discuss how the agreement has impacted the work of research content creation, preservation, and technical infrastructure management. We will also explore the causes and effects of the agreement's implementation in the virtual teams model, using the framework of the Mellon Fellowship Grants and Digital Scholarship Center Faculty Grants.

UO GLAM Alliance: https://library.uoregon.edu/about/uoglam
"The March" Mellon Fellowship Grant Project Report: https://sway.office.com/zDVSAEFYsByWACY
Digital Scholarship Center Faculty Grants: https://dsc.uoregon.edu/funding/faculty-grants
5.3 When Research Data Requires Controls: Institutional Support for CUI and HIPAA

Jeremy Frumkin  
Executive Director, Research Technologies  
University of Arizona

The rapid growth and adoption of data science approaches to research brings new challenges and opportunities for managing research data. Interestingly, while there is a great deal of attention being paid to open access to research outputs, and federal funding agencies (as well as other funders) are increasingly adopting open access requirements for scholarly and data outputs, at the same time, many federal funding agencies are also beginning to require new controls for research data, and universities are taking more seriously the need to manage their institutional risk by providing institutional support for long-standing data control standards (such as HIPAA - Health Insurance Portability and Accountability Act of 1996), as well as developing support for newer control standards (such as CUI - controlled, unclassified information). This case study will describe how the University of Arizona has approached supporting research data that requires controls, including successes and lessons learned, and will conclude with thoughts towards future opportunities and challenges both for research computing units and academic libraries.

https://it.arizona.edu/cui
Academic libraries are evolving into places not just where knowledge is retrieved, but where it is also actively created in an interdisciplinary atmosphere. At the University of Oklahoma, the emerging technologies team has worked closely with researchers in a variety of departments to implement 3D scanning in both research and teaching environments. These departments include Anthropology, Geology, Architecture, English, and Fine Arts as well as the History of Science Collections and, most recently, the Law School. Projects have ranged from reconstruction of a crime scene in virtual reality to scanning of artifacts prior to destructive analysis. These projects have allowed us to build a comprehensive in-house workflow from 3D scanning up through model integration into course websites and virtual environments. The success of these projects and the increasing demand for 3D scanning across multiple university departments has led us to develop 3D scanning as a service within the Bizzell Memorial Library. The program is unique in that it goes beyond the library's traditional role of providing support, and instead includes the library as an active partner in research production. Our goal is to provide researchers within the university greater access to methods and equipment while easing the demands of new technologies. At the same time, the library can play a centralizing role in the documentation of this emerging technology, and, as such, provides the best chance for developing comprehensive, cross-disciplinary, collection, metadata, and storage standards. This presentation will look at our efforts so far in providing an outline of the program, an overview of the tools and documentation needed to implement such a program, and the administrative hurdles and challenges of resource allocation (i.e. staff time, equipment) such a service requires.
5.5 Research Intelligence, Repurposed Data, and Reputation: The Evolution of VIVO Implementations at Duke and Texas A&M Universities

Bruce E. Herbert  
Director, Office of Scholarly Communications  
Texas A&M University

Julia K. Trimmer  
Director, Faculty Data Systems & Analysis  
Duke University

VIVO is member-supported, open source software and ontology for the representation of scholarship. VIVO supports research discovery, expert finding, network analysis and assessment of research impact. In this project report, we will describe new initiatives and product development in the VIVO community. We'll explore the VIVO implementations at Duke and Texas A&M that have led to strong faculty engagement with both systems. Specifically, we will contrast and compare the evolution of our implementations that have addressed distinct needs at the two universities to support interdisciplinary collaboration, research intelligence, and scholarly reputation.

https://scholars.tamu.edu  
https://scholars.duke.edu
For the past several years, the Library at the University of Illinois at Urbana Champaign has been developing a mature repository service with a different approach from others on offer. Typical repository implementation efforts require technical staff to weave disparate systems (preservation services, digital libraries, institutional repositories, and archival descriptive systems) together using APIs and middleware, if at all. Curators and users, meanwhile, must use many systems to accomplish similar goals. In contrast, the underlying architecture for Illinois’ preservation repository and access system is a genuinely integrated system, with the capacity to curate and provide access to multiple types of materials. Key features include: 1) bit-level preservation and format monitoring services; 2) a metadata profiling system, allowing the application of different community metadata standards and indexing/faceting options at the collection level; 3) a streamlined model to push born-digital and digitized collections as well as research data sets to users, requiring minimal or (in some cases) no item-level metadata; 4) flexible packaging methods to display different content types in different ways; 5) bulk metadata export, import, and editing mechanisms; and 6) the potential for multi-tenancy through Amazon Web Services optimization and on-demand scaling. Current development efforts focus on bringing this architecture closer to realizing deploying a single preservation platform that allows for collection-specific curation and access interfaces while unifying digital collections management, research data management, and, eventually, institutional repository management and archival description. This talk will: 1) describe the goals and underlying philosophies driving our decision to develop this platform; 2) illustrate our existing, fully functional data repository, with a focus on how this integrated strategy afforded rapid and flexible development; and 3) request feedback from attendees on future plans to integrate institutional repository and archival management functions into the unified system.

Kyle Rimkus contributed to this presentation.

https://digital.library.illinois.edu
https://databank.illinois.edu/
https://medusa.library.illinois.edu/
CNI has been working with the Learning Spaces Collaboratory (LSC) to examine how new and renovated spaces can better reflect contemporary needs and contribute to the programmatic priorities of their institution. One way of defining the characteristics of a space is to create a "job description" for it, and that is what groups of participants did at a roundtable co-sponsored by CNI and LSC in December 2018. We'll highlight some specific aspects of job descriptions for spaces, including responsibilities, required skills, etc. Another theme of that roundtable and one heard increasingly in space design circles, is the notion of permeability, space that can be fluid and that changes according to the people using it for particular purposes at particular times. Permeability can happen anywhere, on all campuses, in all building types, and even outdoors. We will examine permeable space design and examples of collaborative use for teaching, learning, and research in academic libraries. Finally, we'll describe linking assessment to the goals for the space and moving assessment to a mission-critical focus instead of merely a focus on user satisfaction.

Medium- and long-term strategic planning for technology, whether it be for one product or a whole portfolio, is a tricky business. Trying to project what technology will look like in six months and how to make the best choices to respond to user needs is hard enough, much less trying to project three or five years out. Technology futuring is incredibly complex; picking one future that we are ""sure will work out"" is often folly, but trying to think constructively about the many possible futures that could emerge can be overwhelming, especially within the context of the rapidly evolving needs of a dynamic university. There are numerous methods and templates available for facilitating the process of strategic planning, each with strengths and weaknesses. This presentation will describe a new method for iterative, fluid, and inclusive strategic planning based on principles of complexity theory and systemics, designed specifically for the needs of the academic technology environment. The purpose of the Roadmap is to start from higher principles and integrate near-term goals with mid-range plans and long-term intentions while keeping aligned with the direction of front-of-house services, maintaining focus on user needs, anticipating future resources, and maintaining flexibility to adapt to possible futures. The method works with simple, common tools and can scale easily from a single product to an entire complex portfolio. Developed for articulating a strategy for the highly complex University of Michigan library technology portfolio, this method is also in active use by the Fedora open source project. The presentation will include links to templates, interactive examples, and ways to get started using the method.
TAB
Tuesday
10:15-11:00
6.1 Beyond Tools and Space:
Building a Community of Practice for Making

Harriette Hemmasi  
Dean of the Library 
Georgetown University

Beth Marhanka  
Head of the Gelardin New Media Center 
Georgetown University

Don Undeen  
Maker Hub Manager 
Georgetown University

Makerspaces are defined less by the tools they contain, and more by the communities of practice that develop within them. But how do you build the expertise needed for your community to thrive? The Maker Neighbor and volunteer programs at the Georgetown University Library Maker Hub have resulted in a diverse, talented pool of collaborators who attract new users from all areas of the campus and the community into the library. This dynamic environment is creating opportunities for interdisciplinary work and collaboration, leading to entrepreneurial ventures and surprising innovations. From traditional research practices to research through design and creative production, the Georgetown University Library staff is supporting the processes of generating and communicating new knowledge.

https://www.library.georgetown.edu/makerhub
6.2 Project ReShare:
A Community-Owned Resource Sharing Infrastructure

Sebastian Hammer
Co-founder and President
Index Data

Sydney Thompson
Department Head of Access Services
North Carolina State University / Triangle Research Libraries Network

The ReShare Community is a group of libraries, consortia (Big Ten Academic Alliance, the Greater Western Library Alliance, Ivy Plus Libraries, PALCI, and the Triangle Research Libraries Network), information organizations, and developers, with both commercial and non-commercial interests, who came together in 2018 to create a new and open approach to library resource sharing systems. ReShare aims to inject new life into the space by developing a community-owned, modular resource sharing platform, enabling libraries and consortia to use modern approaches that place library users at the center, from discovery, to request management and fulfillment. Libraries have long-established protocols and agreements among local, regional, national, and international networks to provide discovery and access to print and digital resources, extending the use and value of each library's collection exponentially. However, current resource sharing solutions leave much to be desired. The technology marketplace has been characterized by stagnating technology, closed or siloed environments, and a consolidation of commercial options, leaving consortia to desire a fresh start, a re-imagined infrastructure that promotes an increased ability to innovate, experiment, and communicate across systems for resource sharing and other strategic library functions such as shared collection development and print retention initiatives. Project ReShare's key differentiator is its foundation as a wholly community-owned solution. This approach offers libraries and commercial partners alike a fundamentally new approach to the pursuit of technology solutions and new models for shaping collections and connecting people with what they need, by greatly deepening our ability to collaborate. For this presentation, Project ReShare members will explore the frustrations with the current resource sharing environment, share their perspectives on why this project is important, and discuss the benefits of this type of collaboration for the library community at large.

http://projectreshare.org/
6.3 Variations in Public Scholarship Works:
Examining The Impact of Three Related Scholarly Digital Projects on Present and Future Resources

Wayne Morse Jr.
Co-Director, the Emory Center for Digital Scholarship
Emory University

Public scholarship through digital humanities can be accomplished in multiple ways; even projects related by similar objectives can reach their goals in different ways with different challenges. Three related but different digital scholarship projects at Emory University's Center for Digital Scholarship (ECDS) engage non-traditional scholars using similar software stacks and digital components, but provide very different experiences for users. Each scholarly site presents large amounts of data, visualizations, and scholarly reviews, however, each in a different way based on a unique approach to scholarship. These different approaches have sizeable impacts on the extended care and feeding of the sites, overall usability, and sustainability in general. The goals of this session include presenting the scholarly and structural similarities and differences of these sites, talking through the implications of partnering in the development of similar scholarly sites, and bringing together ideas from others experiences to best plan for future endeavors.

* Emory Center for Digital Scholarship - http://digitalscholarship.emory.edu
At the CNI fall 2018 meeting, California Digital Library (CDL) and Dryad presented on why our two organizations have partnered and what our goals for open data publishing are. Taking in the feedback we received from CNI institutions, we have continued to develop a new Dryad platform (with capabilities and opportunities for institutions to plug in), and have released a new Dryad membership model. In preparations to launch our new Dryad service, it is essential that we continue to hear from the institutional community on values and needs for open data publishing. This session will be an open discussion on our plans for building up a community of support for academy owned and sustainable data publishing.
Stakeholders in the research and scholarly communication landscape are increasingly recognizing the need for name disambiguation and system interoperability in order to meet reporting requirements, measure impact, and reduce administrative burden while tracking researchers and their contributions across institutions and workflows. ORCID (Open Researcher & Contributor Identifier) provides a solution for persistently linking researchers to their contributions and institutional affiliations over time while also serving as a mechanism for interoperability in sharing data across systems. Faculty activities, research business informatics, and profile systems have launched into new business ventures and/or open source software contributions leveraging ORCID to improve higher-education services in libraries, research offices, and technology units at research institutions across the globe. In January of 2018, four consortia in the US joined forces to form a nation-wide consortial approach to ORCID membership for research institutions in the US, known as the ORCID US Community. The primary goal of the ORCID US Community is to encourage ORCID adoption and foster a community of practice around ORCID in the US. This presentation will provide an overview of ORCID adoption, trends, challenges, and opportunities across the ORCID US Community, featuring member case studies from the Pennsylvania State University, North Carolina State University, and the University of Virginia.

http://orcid-us.org
https://orcid.org
http://guides.libraries.psu.edu/orcid
https://ci.lib.ncsu.edu/
https://www.library.virginia.edu/libra/orcid-at-uva/
6.6 Practices and Patterns in Research Information Management: Findings from a Global Survey

Jan Fransen
Service Lead for RIM Systems
University of Minnesota

Rebecca Bryant
Senior Program Officer
OCLC Research

Research information management (RIM) systems, also often called Current Research Information Systems (CRISs), aggregate, curate, and utilize metadata about research activities. While RIM activities are of long practice in Europe, there is now growing adoption by North American institutions, as institutions seek improved information for reporting and strategic decision-making, and also require improved workflows to support processes such as faculty activity reporting. In this presentation, we will share findings from the recently published "Practices and Patterns in Research Information Management: Findings from a Global Survey." Aggregating responses of nearly 400 survey respondents from 40 nations, this report provides the most comprehensive view of international RIM practices to date, and offers insights into incentives, uses, interoperability, persistent identifiers, metadata harvesting practices, and the increasing merging of repository and RIM workflows. We will particularly highlight regional distinctions, as this study confirms a previously anecdotal understanding of broadly divergent practices in Europe and North America.

Social science research increasingly requires specialized data analysis, data management, and programming skills that few researchers learn during their graduate training. By providing centralized staff trained both in research and data skills to support researchers, universities can increase research efficiency and enable social science researchers to undertake impactful projects that may otherwise be infeasible. We'll discuss service, organizational, and funding models at different universities, and share what we've learned providing such support over the past seven years. What type of support do social science researchers need? What are the challenges in providing this service? How do project management practices contribute to service sustainability and quality? Participants will learn about the resources required to offer data science support and the impact universities can expect for making such an investment.
Two years ago, the University of Wyoming (UW) Libraries and Geological Museum began 3D scanning fossil specimens using structured light scanners. To date, approximately 600 fossil specimens spanning 2.6 billion years, from the Precambrian to the Pleistocene Era, have been scanned and made available via UW's Digital Collections repository. Ultimately, our goal was to share accessible 3D content with a wide audience, which proved challenging due to a lack of existing standards for interactive 3D digital collections. Typical library/archival digital asset management systems lack support for interactive 3D content delivery. Further, prohibitive costs and technical and spatial requisites prevent virtual reality (VR) from being widely adopted by the general public. To address these challenges, we partnered with UW's Coe Student Innovation Center makerspace to develop a 3D content delivery system that utilizes both traditional print media as well as a smart device augmented reality (AR) application. This new, easily accessible content delivery method for collections has exciting potential for public outreach, fundraising, mobile and interactive collection uses, as well as promising pedagogical use as open educational resources. Attendees will be encouraged to try the system on their own iOS or Android phones/tablets.

http://www.uwyo.edu/ceas/engineering-initiative/csic/
http://hdl.handle.net/10176/wyu:167614
TAB
Tuesday
11:15-11:45
7.1 Islandora 8: New Release and the Future of the Platform

Melissa Anez
Project & Community Manager
Islandora Foundation

Codenamed Islandora CLAW during development, Islandora 8.x is an upgrade that brings together Drupal 8 with modern Fedora. A major re-architecting from Islandora 7.x, this newest version of the platform makes better use of its component pieces, for a front-end experience that feels more like vanilla Drupal and puts site building in the hands of non-developers. The new Islandora also works natively with linked data, can be mounted over nearly any type of filesystem, and opens up a world of third-party tools and widgets from the Drupal community to manage and enhance repositories. This project briefing will feature an overview of the Islandora 8.x platform, a look at some pilot projects already making use of the new Islandora, and a roadmap for what comes next.

https://islandora.ca/
7.2 The Engagement and Performance Operations Center (EPOC)

Jennifer Schopf
Director, EPOC; Director, International Networks
Indiana University

The Engagement and Performance Operations Center (EPOC) is a production platform for operations, applied training, monitoring, and research and education support. Established in 2018 as a collaborative focal point for operational expertise and analysis, EPOC is jointly led by Indiana University (IU) and the Energy Sciences Network (ESnet). EPOC provides researchers with a holistic set of tools and services needed to debug performance issues and enable reliable and robust data transfers. By considering the full end-to-end data movement pipeline, EPOC is uniquely able to support collaborative science, allowing researchers to make the most effective use of shared data, computing, and storage resources to accelerate the discovery process.

Services and support for researchers provided by EPOC include:
• providing immediate help, or Roadside Assistance, via a coordinated operations center to reactively resolve network performance problems with end-to-end data transfers;
• working proactively with science communities to create better data transfer behaviors, enabling faster data sharing and collaboration through Application Deep Dives;
• using the NetSage monitoring suite for discovery and resolution of network performance issues;
• providing managed data services with support from the IU GlobalNOC and EPOC's regional network partners;
• continuing training programs pioneered by IU and ESnet to ensure effective use of scientific tools and science support.

http://epoc.global
7.3 Collaborating with Data: Building a Partnership with an Electrophysiology Researcher

Jason Bengtson
Head of Information Technology Services
Kansas State University Libraries

As part of a National Institutes of Health supplemental grant-funded data curation project, Dr. Brenda Farrell (of the Baylor College of Medicine) and the presenter partnered to curate Farrell's electrophysiological data set. The project presented a unique opportunity for an information professional and academic to collaborate in a meaningful way. This presentation will discuss the many challenges encountered during the project and ways that it may serve as a roadmap for future collaborative efforts.

Co-author: Dr. Brenda Farrell

7.4 Introducing ROR: The Research Organization Registry

Maria Gould
Product Manager / Research Data Specialist
California Digital Library - University of California Office of the President

John Chodacki
Director, University of California Curation Center (UC3), California Digital Library
California Digital Library - University of California Office of the President

ROR is a community-led project to develop an open, sustainable, usable, and unique identifier for every research organization in the world. The ROR project addresses a gap in the scholarly community ecosystem: the lack of open, stakeholder-governed-infrastructure for research organization identifiers and associated metadata that can uniquely identify research outputs with the institutions where research is produced. In short, we believe that institutions and libraries should not have to pay to access information about what and where their researchers are publishing. In this talk, members of the ROR project team will describe the aims of ROR, discuss key use cases, present the work we have done so far to build the registry, share our plans for next steps, and solicit feedback from meeting participants about the long-term roadmap and data governance model.

www.ror.org
7.5 Evolving Statewide Digital Libraries

Gina Costello  
Associate Dean, Technology and  
Special Collections  
Louisiana State University

Jason Battles  
Deputy University Librarian  
University of Georgia

Governance, operations, and technology infrastructure vary among statewide digital libraries, although many are supported or administered by the state's flagship university. Louisiana State University and the University of Georgia are instrumental in developing and sustaining their longstanding statewide digital libraries. Each provides a different model for partnerships and technology sharing and each has evolved their approaches to provide better access to the resources and visibility to the partnering entities that contribute their substantial content. The presenters will discuss their state digital library landscapes and how their flagship institutions contributed to recent digital platform changes and lead reinvestment in these resources. Included will be a discussion of external partnerships, strategic and diverse content management, governance and sustainability, technology development approaches, and assessment of these issues for the general and future directions of digital libraries.

Technical notes: In 2018, Louisiana State University completed an over two-year-long project to migrate the Louisiana Digital Library from CONTENTdm to Islandora and substantially redesign the user interface and administrative portal. In the past year, the University of Georgia also finished an extensive project to move the Digital Library of Georgia from Solaris to Linux and to adopt Solr and Blacklight in completely redesigned user and administrative interfaces.

Sheila McAlister (Director of Digital Library of Georgia, University of Georgia) and Scott Ziegler (Head of Digital Programs & Services, Louisiana State University) were contributors to this project.

http://louisianadigitallibrary.org/  
https://dlg.usg.edu/
7.6 Building Systems Interoperability for User Discovery of High-Density Storage Collections

Bob Fox
Dean, University Libraries
University of Louisville

Bruce Keisling
Associate Dean
University of Louisville

Jeff Carrico
Associate Dean
Georgia Institute of Technology

Most libraries at some point deal with the inherent conflict between the storage of print collections versus the redeployment of those collections spaces for transformative programming needs or simply more student space. Each year, a number of libraries address this by developing or expanding onsite/offsite storage solutions so that they can both maintain their collections and also grow program/student spaces. While these new storage spaces can vary considerably in their operational approach, the host libraries must all consider similar technical questions in how their users will discover and interact with items that are moved to the storage spaces. Will these items be searchable through the library's discovery tools or a separate inventory control system? Will the library deploy a proprietary solution or a home grown one? Will the various tools that are used be interoperable? The presenters, from two institutions that implemented very different high-density storage spaces, will discuss their respective systems and note how they developed their infrastructures to facilitate the integration of numerous tools in a way that promotes user discoverability of the relocated collections. They will also discuss why their decisions made sense operationally for their libraries and address problems they encountered along the way.
7.7 Developing an Open Source Digital Collections Management System Using Scrum

Kathryn Michaelis  
Digital Projects Coordinator  
Georgia State University

Jonathan Bodnar  
Library Technology Project Manager & Web Services  
Unit Lead  
Georgia State University

In 2017, the Georgia State University Library decided to replace its local instance of CONTENTdm with Samvera/Hyrax. The decision required changes to the development unit's staffing, a commitment to developing the system to meet the library's digital collections needs, and a commitment to supporting the system in the long term. The development project started in mid-2018 and is ongoing. The five-person development team has followed the Scrum project management framework to organize its work into two-week sprints. In this briefing, the product owner and Scrum Master will review the pros and cons of using the Scrum framework in libraries, summarize the implications of their work for the ongoing support of the system, and discuss the impact of moving from a commercial product to an open-source product with an active community that offers opportunities for continuing collaboration.

Project Repo: https://github.com/gsu-library/sirenia  
Digital Collections System (current/cdm): http://digitalcollections.library.gsu.edu/
7.8 Digitization Selection Criteria as Anti-Racist Action

Scott Ziegler  
Head, Digital Programs and Services, Libraries  
Louisiana State University

Our digital collections can reinforce legacies of racism in our institutions or actively work against them. When selecting material in archives and special collections for digitization, we can work with these legacies or against them. As race scholar and National Book Award winner Ibram X. Kendi recently wrote, "All policies, ideas and people are either being racist or antiracist. Racist policies yield racial inequity; antiracist policies yield racial equity." For those of us working in the field of digital cultural history records, we choose what is digitized and thus what narratives to promote, what history to highlight, and what legacies to further. Louisiana State University (LSU) Libraries is in the midst of creating new digitization prioritization policies, and to inform our decisions, we're looking closely at our legacy of racist and exclusionary practices. As a collecting repository at a historically white university in the South, racism has infused all aspects of the collections we have and the policies of access we've developed. We are framing our digitization priorities to ameliorate some of these conditions by focusing on (1) collections that contain unrepresented communities, but have neglected to properly describe these communities, and (2) reviewing internal documents to identify collections previously restricted from "non-preferred" researchers. These efforts are in their early phase, and we still have much to learn.

This talk will describe efforts at LSU, explore recent scholarship in antiracism and how local contexts are integral in forming anti-racist digitization selection plans and increased community involvement, and will include opportunities for others to describe what they are doing in this regard at their institutions.
TAB
Tuesday
1:00-2:00
8.1 The Power of Community: Working Together to Build the Future of Fedora

David Wilcox  
Product Manager  
DuraSpace

Este Pope  
Head of Digital Programs  
Amherst College

Rosalyn Metz  
Director of Library Technology and Digital Strategies  
Emory University

Maurice York  
Associate University Librarian for Library Information Technology  
University of Michigan

Fedora is a flexible, extensible, open source repository platform for managing, preserving, and providing access to digital content. As a community-supported project, Fedora is made possible through the combined efforts of a distributed technical team and an active governance group made up of representatives from stakeholder institutions. Over the past year, these groups have developed a structure and process for working together to define and execute the strategic plan for Fedora. Most recently, this resulted in the release of Fedora 5.0 and the publication of a formal API specification. Next, these groups will design and develop Fedora 6.0, which will feature better performance and scale along with a greater focus on digital preservation via the adoption of the Oxford Common File Layout. This panel, featuring representatives from the Fedora technical team and governance group, will describe how they were able to define a structure and process to work collaboratively with a large number of people on a common strategic plan. The panel will also outline the features and benefits of the next major version of Fedora.

https://duraspace.org/fedora/
8.2 Community Standards for 3D Data Preservation (CS3DP)

Jennifer Moore  
Data Services Coordinator  
Washington University in St. Louis

Adam Rountrey  
Research Museum Vertebrate Collection Manager  
University of Michigan

Hannah Scates Kettler  
Digital Humanities Research and Subject Librarian  
University of Iowa

Community Standards for 3D Data Preservation (CS3DP) has built a community of practice, which aims to produce recommendations for the long-term accessibility, usability and interoperability of digital 3D objects, recommendations that currently do not exist. In Oct 2017, The Institute of Museum and Library Services (IMLS) awarded Washington University in St. Louis, in partnership with the University of Michigan and the University of Iowa, a National Leadership grant to address this emerging issue. In this presentation, project leaders will outline the complexities and current status of 3D data preservation efforts, introduce the community that has come together to work toward solutions and provide a CS3DP project update.

http://cs3dp.org/  
http://gis.wustl.edu/dgs/cs3dp/  
https://osf.io/ewt2h/wiki/home/
8.3 Managing Digital Institutional Content: Repository Projects

Evviva Weinraub
Associate University Librarian for Collections & Technologies
Northwestern University

Kim Pham
Information Technologies Librarian
University of Denver

Jack Maness
Associate Dean
University of Denver

"A Vertical Integration Model to Manage Digital Institutional Resources" (Pham, Maness)
Following COAR's Next Generation Repositories guiding principles, the technology space of our ecosystem to manage digital institutional content resources isn't relegated to one department on campus—rather, it is placed in the hands of those with the best skills and expertise to provide that support. The infrastructure, which is comprised of an archival catalog (Archivespace), digital collections (Node.js + ElasticSearch), preservation storage (ArchivesDirect), and a streaming server (Kaltura) is independently but collaboratively managed across IT, library departments and vendors, resulting in a vertically integrated hybrid architecture. The coordinated effort of digital curation activities still allows each group to focus on the service they have the most vested interest in providing. We will talk about the different management and development practices for each system, and how we developed our partnership to provide digital collections as a service.

"Next Gen-Repository: How Breaking up Makes Getting Back Together Even Easier!" (Weinraub)
Over the last 12 months, Northwestern University Libraries' Repository and Digital Curation department re-envisioned and rebuilt its repository architecture to be cloud-first, scalable, and services based. Northwestern University is a Samvera Partner and contributes heavily to the open source repository community and its products, including the A/V repository solution, Avalon, and the IR solution, Hyrax. The goal of Northwestern's new repository initiative was to develop a flexible system with loosely coupled dependencies that would allow Northwestern to pivot quickly when new technologies or more efficient options, either in monthly expenditure or labor, become available. The newly decoupled architecture allows Northwestern to grow based on content needs and respond to changing requirements rapidly. The process of moving to a cloud-first architecture has required the team as a whole to rethink assumptions including 1. how traditional roles like system administrators and
developers need to change and work together in new ways; 2. how many repository solutions are built "monolithically," making horizontal scaling in the cloud difficult; 3. how infinite scalability allows for flexibility and experimentation which in turn changes jobs. The transition as a whole has been successful. The digital collections, institutional repository, and Avalon instance are cloud-based and continue to evolve. During the next phase of development, we are investigating simplifying our infrastructure further to focus on core needs. This presentation will focus on how we got here and how we see the system evolving in the near future.

Digital collections: https://specialcollections.du.edu
Proposal with drawings: https://docs.google.com/document/d/1i2sMAO20-wh2_2v_a5U2QlTVkKwBNY5Be3dbsRvGIYA/edit?usp=sharing
8.4 Research Innovation Trends and Priorities in Canadian Research Libraries

Merrilee Proffitt  
Senior Manager  
OCLC Research

Vivian Lewis  
University Librarian  
McMaster University

In 2018 the Canadian Association of Research Libraries (CARL) and OCLC Research partnered to conduct a survey of research libraries in Canada. The survey, taken by 89% of CARL library directors, is the first of its kind to capture intelligence regarding trends, capacities, priorities and collaborations within the Canadian research library community. This briefing will focus on findings from this survey, as well as comparative data from complementary surveys conducted by OCLC Research in partnership with the Council of Australian University Libraries (CAUL) and Research Libraries UK (RLUK). Understanding key similarities and differences in regional priorities provides powerful suggestion as to where the global research library community might look for leadership and partnerships. We will also share how the survey is informing work being planned and carried out by OCLC Research and CARL.
# 8.5 Services & Resources to Support Students

**J. K. Vijayakumar**  
Director, University Library  
King Abdullah University of Science and Technology (KAUST) Saudi Arabia

**Garry Hall**  
Special Projects Lead, Library  
King Abdullah University of Science and Technology (KAUST) Saudi Arabia

**Todd Ogle**  
Executive Director, Applied Research in Immersive Environments and Simulations  
Virginia Polytechnic Institute and State University

"Increasing Student Engagement through Applied Research" (Ogle)  
The Applied Research in Immersive Environments and Simulations (ARIES) program in the University Libraries at Virginia Polytechnic Institute and State University supports applied research that brings together industry partners, faculty, and students interested in the cognitive and affective aspects of learning in immersive environments, games, simulations for training and performance support, and more. It provides a destination for students to discover, create and share their own creations in the form of games, simulations, virtual reality, and augmented reality experiences for learning and entertainment while having the informal interactions with interested peers, faculty, industry partners, and external researchers that are valuable for student development. The ARIES program's studio prepares students for the workforce with hands-on, experiential learning opportunities through interdisciplinary work in immersive environments development, gaming for entertainment and learning, evaluation, visualization design, and development. A description of program activities and the facilities employed as well as examples of student work from the first year of this new program will be shared.

"ePosters Replace Print Posters: KAUST Library Initiative to Better Prepare Students and Preserve Scholarly Resources" (Vijayakumar, Hall)  
Scientific posters are popular in conferences run by professional organizations in the UK, Europe and North America, with the majority focused on medicine and health care disciplines. Individual events may include hundreds (and even thousands) of posters with cumulative numbers from all events (including academia) estimated in the millions annually (1). Generally
posters are not retained, in spite of their value as scholarly resources; many are the first reporting of new research and contain information months in advance of peer-reviewed articles. Printed posters have been around for many years and, with recent digital advances can be transformed into dynamic displays through multimedia inclusion and zoom functionality, whilst being made available via the web to large, geographically distributed audiences. Electronic posters (ePosters) are environmentally friendly, they eliminate printing and transport problems, and they scale well for large conferences (e.g. American Society of Anesthesiologists has used ePosters since 2013, recently with over 3000 posters at multiple sites). Most importantly, they lend themselves to being easily captured and retained as scientific resources. Following successful pilot projects (for which data on student and faculty support and cost-effectiveness will be presented), KAUST University Library has introduced a campus-wide ePoster service for the University beginning in January 2019. This service replaces printed posters and better prepares students for ePoster presentation scenarios commonplace within professional organizations and provides open access via the KAUST Research Repository. Training overheads for both students and organizers are low and uptake has been high, with weekly events scheduled for the first four months of 2019. Academia is notably behind this practitioner-driven trend. KAUST Library believes that, by rolling out an ePoster system to the University, it is the first campus in the world to offer such a campus-wide solution, reflecting a digital smart campus vision of KAUST.


https://lib.vt.edu/
http://historyviz.com/
It is imperative that openness in scholarship be perceived not only as a virtue but also as an amplifier of the overall return on investment (ROI). Open access supporters almost exclusively use value statements to try and convince skeptics of the importance of openness, without much empirical evidence of its true impact beyond citation counts. There are audiences where these value statements are often unconvincing in contrast to the additional time and labor required to make scholarship open. For this reason, additional research and analysis to measure the direct impact of openness in terms of dollars, jobs, and lives saved or improved are essential. Framed another way: what is the direct loss of dollars, jobs, or lives saved/improved by research not being open? This presentation will (1) propose a mixed-methods, mixed-effects approach to modeling impact as well as a collaborative framework for collecting these variables, (2) report out on early research measuring the ROI on open research in terms of these high impact variables, (3) discuss how we plan to move beyond white-papers to creating interactive environments for exploring and visualizing this data in order to reach a broader audience, and (4) discuss how this data might be leveraged by universities to advance open access models.
Supporting researchers with their research information technology (compute and data, broadly defined) requirements uncovers a number of continuing and emerging challenges including: (1) the significant and non-sustainable growth in demand for compute and data beyond the desktop across all research domains, including non-traditional domains, (2) the need to keep up with the rapid innovation and change in information technology, and (3) the lack of awareness or appreciation of research computing and data professionals role in supporting researchers. Awareness of these issues was part of the impetus for the formation of CaRCC - the Campus Research Computing Consortium. CaRCC is an organization of dedicated professionals developing, advocating for, and advancing campus research computing and data (broadly defined) and associated professions. CaRCC has working groups that aim to provide tangible products and deliverables. Current focus areas include connecting the broader research computing and data ecosystem, professionalization and workforce development, developing focused facings or communities (such as researcher-facing or systems-facing) to develop and share leading practices, research computing and data futures, and defining stakeholders and shared value propositions for the community at a time of accelerating change. A panel of CaRCC leadership will be available to discuss CaRCC, its vision, mission and structure, and to highlight current activities. We hope for an open dialogue and the opportunity to listen to ideas and feedback from the CNI community.

https://carcc.org