New Dance Steps: 
Emerging Areas Connecting Us With Our Researchers

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Setting the Stage

• Fall 2012: ARL E-Science Institute Team member

• Feb 2013: Assumed position of Director, Science and Engineering Libraries
  • Consolidated operations under one head, assumed liaison responsibility for chemistry
  • Tasked with developing a new vision and moving forward in new directions
  • Lots of consultation and new conversations with Science & Engineering faculty and students, especially those in chemistry
Big Vision: Sci-Eng Libraries

- **Re-think** Library Services, Collections, Spaces, and Personnel
- **Meet** interdisciplinary and **collaborative** needs of teaching and research
- **Research Commons:** student study space, group collaborative space, access to core library resources
Big Vision (cont.)

- **Research Commons**: large-scale visualization, high performance computing, E-Science support
- Continued **commitment to e-resources** in science, engineering, and technology

- Utilize existing staff and hire strategically for **integrated research support**:
  - Science Informationist
  - Data Visualization Specialist
  - GIS Specialist
Spaces

Re-Imagine the Science Libraries -- Chemistry-Biology and Geology-Mathematics-Physics (GMP) libraries

- New focus for Chemistry-Biology Library space
- Consolidate some print collections in the sciences at GMP
- Create new Research Commons at GMP

Research Commons, U. of Washington
Spaces

New focus for Chemistry-Biology Library space

• Transform upper level space for student needs:
  • Increase group collaboration space (flexible furniture, whiteboards, lounge area); add collaborative technology over time
• Lower level: expand individual quiet study seating
• Add AirMedia, teleconferencing, poster printing
• Retain print reserves/textbooks, selected reference books, Info Commons workstations, and core staffing (e.g., Graduate Asst)
• Continue to increase electronic access to research collections, where feasible
New Focus for Chem-Bio Space

- Relocated circulating books to GMP Library *(lots of consultation)*
- Removed shelving from upper level, and some from lower levels
- Purchased new collaborative furniture:
  - Mobile tables
  - Chairs
  - Whiteboards
Chem-Bio Space: Work In Progress
-- Upper Level
Chem-Bio Space: Work In Progress

-- Lower Level (Quiet Study)
Research Commons at GMP

Science and Engineering Libraries
Research Commons
9,465 sq. ft.
The Research Commons will include a research support suite and a collaboration and study space with...

- Data/GIS consultation & computing services
- Data visualization studio
- Open collaborative clusters
- Instruction/workshop room
Research Commons at GMP

LIBRARY VISUALIZATION THEATER
Braunstein Level 200

Level 200 - Proposed Image

Drawing Scale: AS NOTED
New Role: Science Informationist

– Amy Koshoffer began May 2014

– Many new conversations and consultations with researchers in sci/eng:
  • Data management planning for grant submissions
  • Research data lifecycle and legacy: storage, sharing, metadata, preservation, etc.
  • Digital repository publishing needs
  • Evaluating current landscape of data management practices (white paper in progress)
  • Identifying and teaching best practices
New Role: Science Informationist

New classes and web guides

• Data Management Planning series
  – Based on the New England Collaborative Data Management Curriculum: http://library.umassmed.edu/necdmc/
  – Modules:
    » Overview of Data Management
    » Types, Formats, and Stages of Data
    » Contextual Details Needed to Make Data Meaningful to Others
    » Data Storage, Backup, and Security
    » Legal and Ethical Considerations for Research Data
New Role: Science Informationist

New classes and web guides (cont.)

• “Research Ready” series in development
  – Analysis and visualization tools and techniques
  – Statistical software
  – Coding (R, Python)
• “mini DM course” for lab groups or grad seminars

Other informationist team instruction

• NCBI tools, altmetrics, author identifiers, public datasets
Digital Repository

Current Digital Repository:  drc.libraries.uc.edu
Home for several special digital collections, including
• Oesper History of Chemistry Collections
• Neil Armstrong Commemorative Archive
• Albert B. Sabin Archives

Very little faculty-submitted content

We’re moving to new repository system based on Hydra that is open source and more flexible in supporting new faculty needs in e-science (deposit of data sets, software code), open publishing, and other areas, and that emphasizes the need for long-term preservation of valuable research materials.
In mid-2013, UC Libraries joined Project Hydra, a multi-institution open source software development partnership.

Hydra development spurred creation of a Software R&D unit within UC Libraries, with shared staffing from UC’s Central IT unit and a college.

Most current work is on the “Curate” Hydra Head. Phase I of Curate was originally developed by Notre Dame, Northwestern, and Data Curation Experts.
“If you want to go fast, go alone. If you want to go far, go together” – (from ProjectHydra.org).

Hydra is an open source community (with Partners, including UC), and has a Philosophy (from ProjectHydra.org/community-2-2/philosophy):

Hydra is about building a framework rather than a closed application.

Hydra invests time and resources into collaborative, community working.
Proposed Functionalities

• Self-submission (including designated proxies)
• DOI support (permanent link)
• Batch import from Dropbox, Google Drive, FTP
• ORCID (author ID) integration
• Profile metrics (e.g. citation metrics)
• Custom access groups, to ease collaboration
• Audio / video streaming integration
• Support for large data sets
• Publishing to digital exhibits
Digital Repository: Early Adopters

EA Working Group Members
Chair: Ted Baldwin (Sci & Eng)
Kristen Burgess (Health Sci)
Cheryl Ghosh (Education)
Arlene Johnson (Humanities)
Amy Koshoffer (Sci & Eng)
Elizabeth Meyer (Art/Design)
Eira Tansey (Archives)
Linda Newman (Software R&D)
Identifying Early Adopters

More new conversations - big learning curve! Engaging approx. 20 faculty “early adopters” for both our Digital Repository (Hydra) and Open Journals System (OJS).

Process (based on Notre Dame model):

- Identify enthusiastic faculty:
  - Interested in new technologies
  - Able to articulate needs and priorities, give feedback on functionalities
  - Willing to promote repository to peers
- Faculty with real use cases & content to deposit (big or small).

Expected time commitment: 1 hour/month, feedback process begins Fall semester 2014
Thank you

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https://fisher.osu.edu/blogs/gradlife/files/tango-steps.jpg