Wanted: Academic Chemistry Librarians at Research Institutions

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Mission of an Academic Chemistry Library

- To support chemical information research and educational needs on campus

- Methods to accomplish this mission are undergoing rapid change
Traditional Library Roles

- Select new materials
- Provide bibliographic access to materials
- Store and archive materials
- Offer reference assistance
In Transition Period

- We are now in a transition period where we must still provide traditional library collections and services

- While we are in the process of building digital libraries for the future

- Doing both at the same time is exciting, challenging, and is labor-intensive
Academic Chemistry Librarianship is a Great Niche

- Information-intensive user population
- Broad range of research areas and educational activities
- Large and complex databases
- Cutting edge interfaces
- Expensive resources
The Pipeline

- Chronic Shortage of Academic Chemistry Librarians

- Few library school students have a degree in chemistry or in any of the sciences

- Competition with industry for talent
Career Pathway for Academic Chemistry Librarians

- Reference & Instruction
- Bibliographer/Subject Specialist
- Unit Head
- Head of Science Library
- Associate Director of Public Services or Collections
- Library Director
Qualifications Needed

- Knowledge of chemical information resources
- Understand local programmatic needs
- Strong analytical and problem-solving skills
- Fund management skills
Qualifications Needed

- Advanced online searching skills
- Technical expertise in using computers
- Excellent interpersonal and communication skills
- Flexibility and ability to adapt easily to change
- Academic degree in chemistry is highly desired
Job Responsibilities: Collection Development

- Learn about research areas and educational activities within the Chemistry Department
- Collection Development Policy Statement
- RLG Conspectus Levels
Job Responsibilities: Collection Development

- Formulate budget requests
- Evaluate expenditures and reallocate as needed
Job Responsibilities: Collection Development

- Moving from ownership to leased access
- From one payment to ongoing payments
- We are in the process of reselecting our collections
  - Multiple versions available
  - Most abstracts and indexes now electronic
  - Reference items and books becoming available electronically
- Journals
  - Moving from print to digital and from “Just in Case” to “Just in Time”
  - Print versions will soon be a luxury
  - Digital access to all years of core journals
Job Responsibilities: Collection Development

- Use traditional selection methods of publishers ads, catalogs, and approval plans

- Digital selection methods for content are serendipitous and include such things as:
  - Listservs postings, news announcements, articles, meta-sites
  - Discover while surfing the web
  - Use NetMind
  - Check web pages of peer institutions and professional organizations

- More collaboration is needed
Job Responsibilities: Licenses and Contracts

- Large new overhead cost for libraries
- Definition of a site
- “Base dollars” based on previous expenditures
- No cancellation clauses
- Embargoes on content
- Remote/proxy access limitations
- No or poor management reports
- Unrealistic timeframes for contract changes
Job Responsibilities: Acquisitions

- Orders, tracking, and receiving process is different for print and electronic resources. Many exceptions exist for electronic resources. Public services librarians are helping to devise workflows.

- Vendors Have Not Kept Pace With Changes. Going Direct to Publishers Has Higher Overhead Cost.

- Implementation of Integrated Library Systems (Acquisitions, Cataloging, Serials, Circulation) and providing bibliographic access to digital resources compete for staff time.
Job Responsibilities: Acquisitions

- New Challenges

  - Orders, tracking, and receiving process is different for print and electronic resources. Many exceptions exist for electronic resources. Public services librarians are helping to devise new workflows.
Job Responsibilities: Cataloging

- While well-established methods exist for cataloging print resources, practices vary for e-resources
- Full, partial, no cataloging
- Web pages that are produced manually or database/OPAC driven
- Area that was once the responsibility of technical services staff has fallen to public services staff such as Chemistry Librarians
Job Responsibilities: Storing & Archiving Materials

- Information Explosion
- Library Stacks are Saturated
- Preservation Needed for Older/Heavily Used Materials
- Libraries Traditionally Archived Materials
  - Digital Versions With Lease-only Access Pose Threat to this Paradigm
  - LOCKSS Project (Decentralized Archiving Model)
    http://lockss.stanford.edu/
Job Responsibilities: Services

- Circulation & Reserves
  - “My Circulation”

- Reference
  - In person or via email
  - Virtual assistance

- Document Delivery
  - End-user initiated
  - Staff verifies requests, chooses supplier
Job Responsibilities: Services

- Users search online sources themselves
- Librarians train, consult, and do complex searches
- Promotion and training aids needed from producers
- Many users lack information literacy skills
  - More difficult now that resources are digital
  - Attitude: only have enough time to consult online resources
  - More e-seminars and web guides need to be developed by librarians to help users acquire needed skills when they have the need to know
Job Responsibilities: Online Searching

- Increasingly Intuitive But Many Revised Annually
- Many Different Interfaces
- Seamless Interfaces
- Full-Text Searching
- 2D/3D Structure Searching
- Reaction Searching
- Numeric Data Searching
- Post-Search Processing
- Exporting Results
- Alerts
Job Responsibilities: Online Searching

- The Next Wave: Intelligent Search Interfaces and Personal Information Agents
- Evolution of Web Sites to Portals
- The Real Challenge Will Be for Libraries to Build Interfaces to Deal With Many Different Types of Resources
Career Path

- How I became an academic chemistry librarian