

The New Role of Academic and Research Libraries in the Changing Environment

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The Projection on Future Research Library

- A model for academic libraries for the next 20 years:
- 1.) Complete the migration from print to electronic collections
- 2.) Retire legacy print collections
- 3.) Redevelop the library space
- 4.) Reposition library and information tools, resources, and expertise
- 5.) Migrate the focus of collections from purchasing materials to curating content. The interactions of the parts of the model and organizational issues for implementation are explored

Source: Lewis, David W.: A Model for Academic Libraries 2005 to 2025



Vision & Trends on Research Libraries

-from CLIR report (www.clir.org)

- **Core library functions** will continue to support a university's mission and the public good
- Libraries will become more of an **abstraction** than a traditional presence
- Libraries will **mirror the changes of scholarly works**, and become even closer partners in teaching and research
- Libraries will work more **collectively** and **collaboratively** esp. balance printing vs. digital resources
- Libraries will become a **laboratory** in supporting e-science
- Libraries will play critical role in ensuring **authentication** and **persistence** of digital information
- Libraries will become more **distributed** into the space that are traditionally academic spaces



The Emerging Role of Librarian esp. for “Science Librarian”

- Librarian as “middleware”: information/knowledge facilitator across multi-disciplines
- Informatician: practitioners of informatics
- Informationists: embedded librarians provide knowledge management services to health professionals
- Knowledge broker/manager
- Data Scientist
- Data Curator
- “Digital Services Engineer”
- Cyberian



Reality-Check...from Key Stakeholders

According to Ithaka's survey on library's key stakeholder - faculty:

Library's three big roles:

- “Purchaser”
- “Archive”
- “Gateway”

-Source: *Ithaka's 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education*



ITHAKA'S 2006 STUDIES OF KEY STAKEHOLDERS IN THE DIGITAL TRANSFORMATION IN HIGHER EDUCATION

Figure 3: Percent of faculty rating these library roles as "very important," in 2003 and 2006.

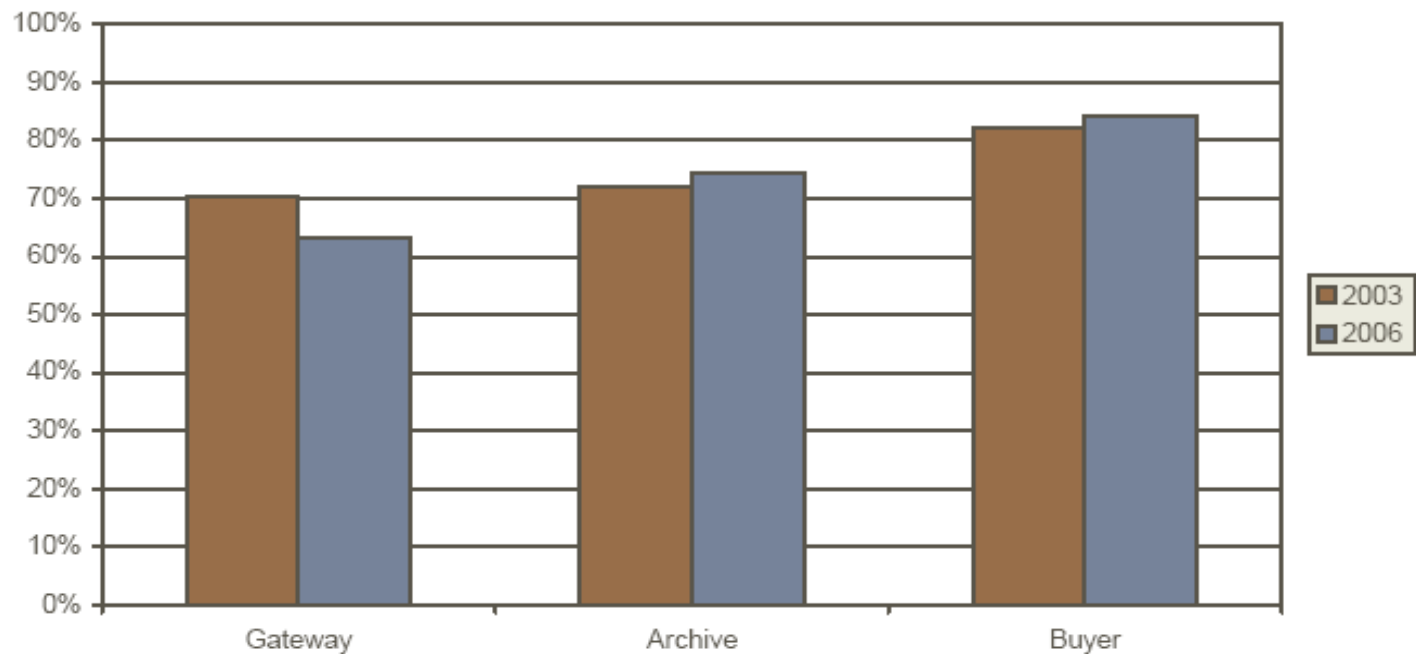


Figure 4: Percent of faculty rating these library roles as “very important,” by discipline.

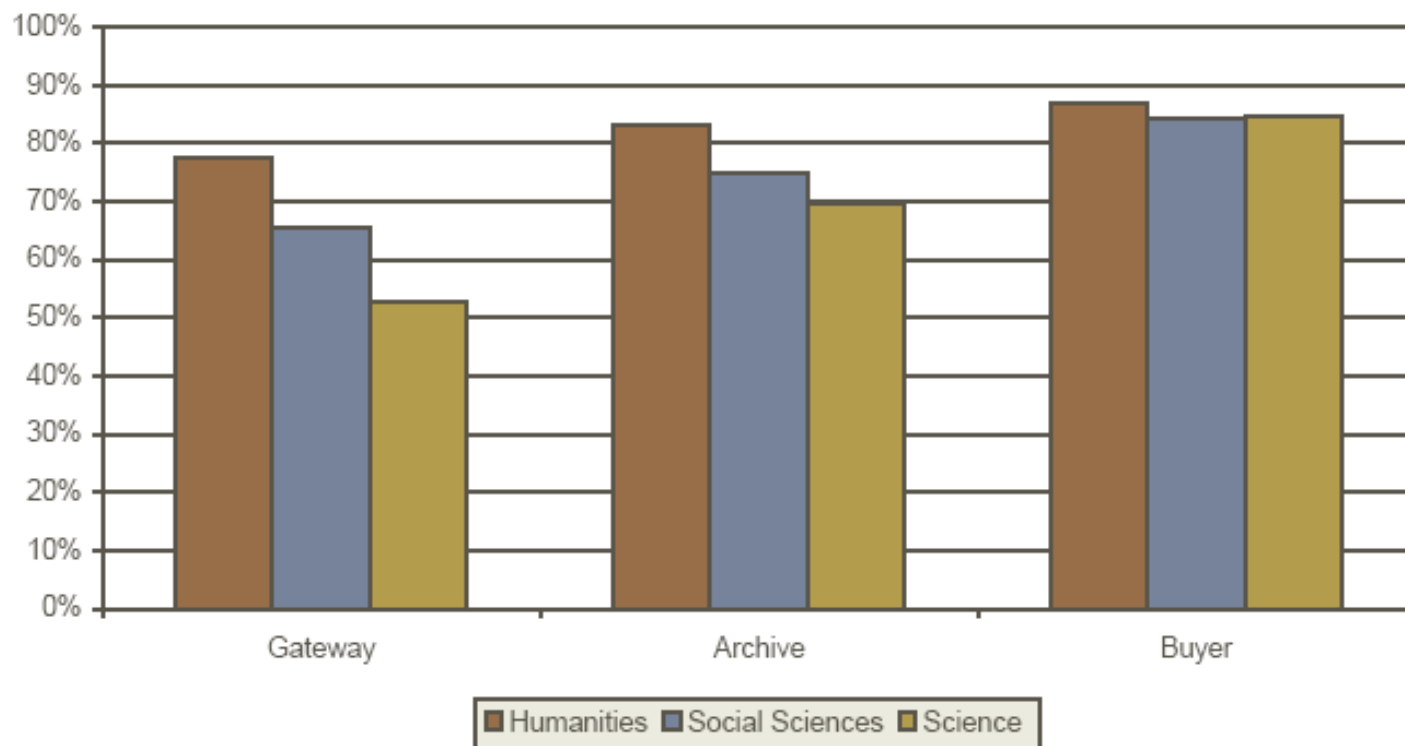
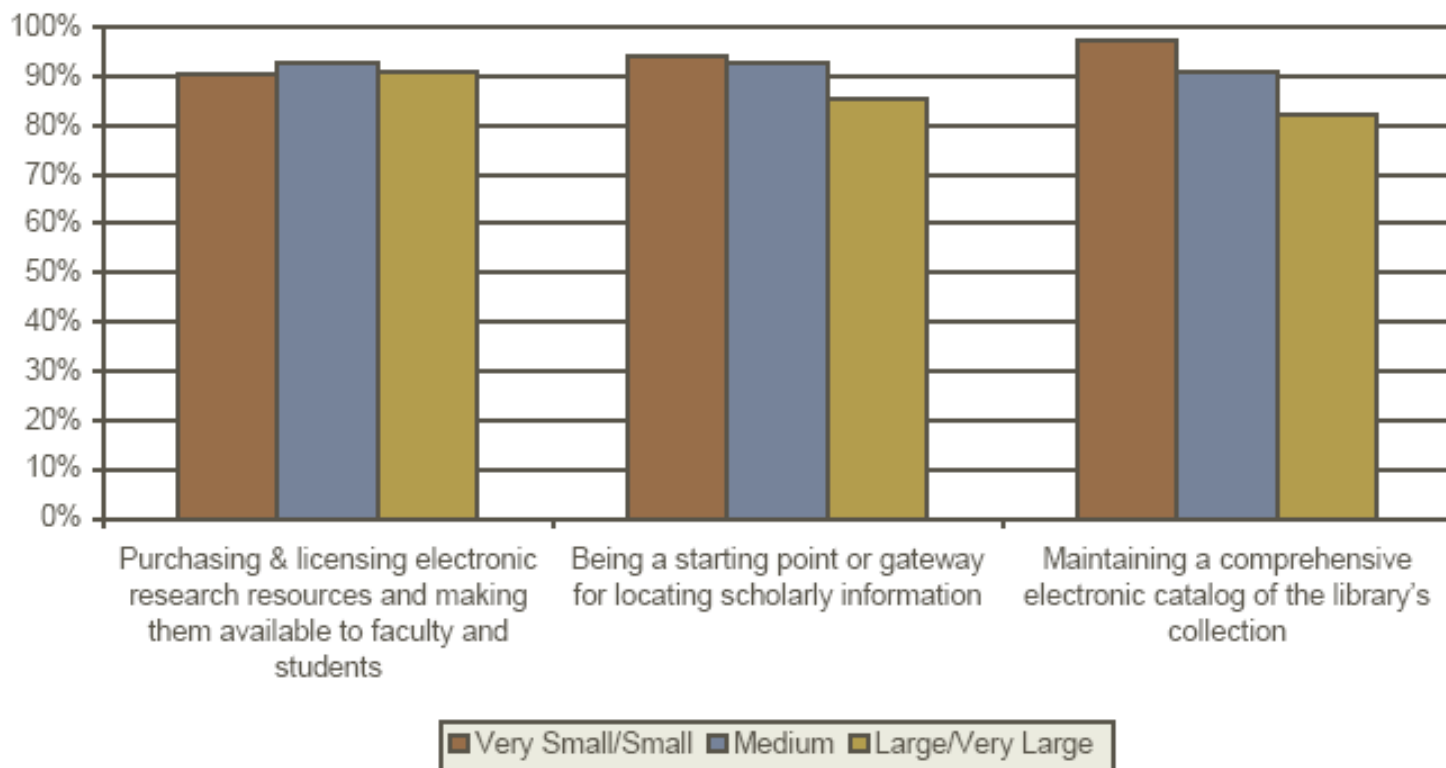
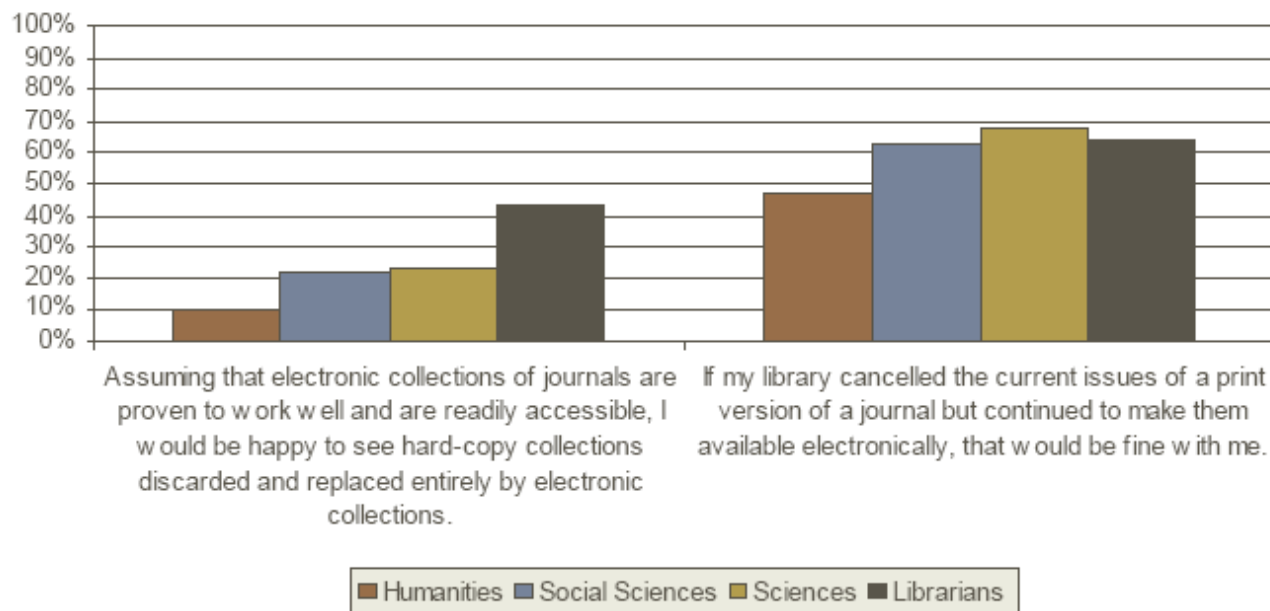


Figure 8: Librarians rating these functions as "very important," by institution size.



ITHAKA'S 2006 STUDIES OF KEY STAKEHOLDERS IN THE DIGITAL TRANSFORMATION IN HIGHER EDUCATION

Figure 13: Percent of faculty & librarians strongly agreeing with these statements, by discipline.



Reality-Check...from Key Stakeholders

Library's three big roles:

Reality-Check Result:

- “Purchaser”-**highly related**
- “Archive”-**stay static**
- “Gateway”-**falling!**

-Source: *Ithaka's 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education*



Scholarly Communication (SC)

- Definition of Scholarly Communication
“Scholarly communication is the ***process*** by which scholarly information is ***produced, disseminated, preserved, and used***”

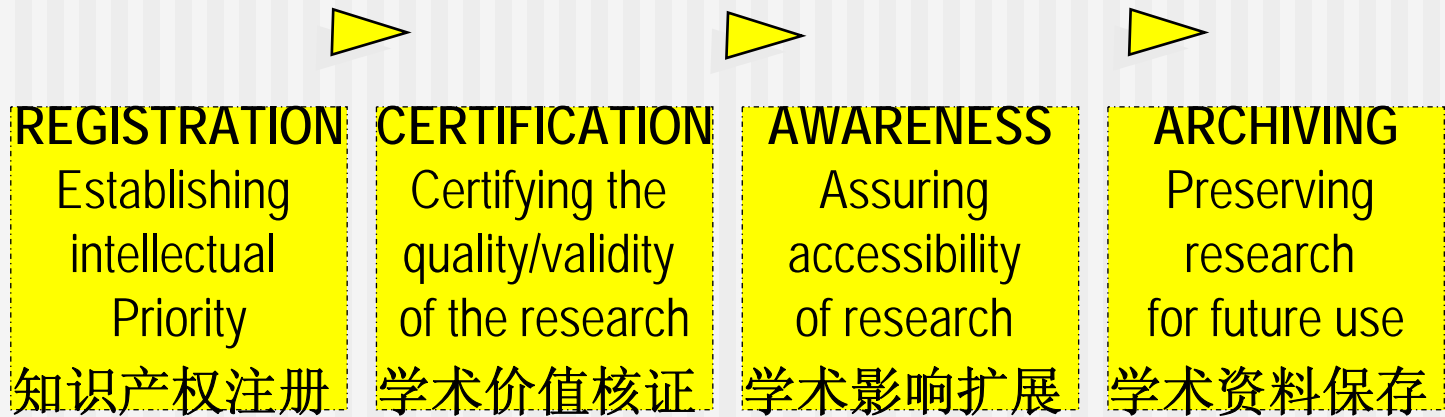
-Source:<http://www.lib.umd.edu/CLMD/Faculty/scholarly1.html>



Four Major Functions of Scholarly Communication

学术交流四大功能

Scholarly publishing comprises four functions:



Source: David Prosser, SPARC Europe Director

“Three Economies” in SC

- 1. A prestige economy, primary for scholars and important but secondary for the other players
- 2. A market economy, primary for publishers, usually not very important to scholars, and important but not primary for libraries
- 3. A subsidy economy, primary for libraries, which are subsidized by universities, less available to publishers than it used to be, and more important to scholars than they generally know. It should be no surprise that a system that comprises three different economies is difficult to operate successfully

-Source: Karla L. Hahn: “New Options for University Publishing”

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The Digital Impact on SC

- e-Science
- e-Research
- Cyberinfrastructure (CI)
- Digital humanities
- Digital social science



e-Science, e-Research, and Cyberinfrastructure

- The term "e-science" is roughly, not precisely a synonymous with "Cyberinfrastructure". Where EU and UK use the "e-science" and US use "Cyberinfrastructure"
- Some researchers favor a third term for similar efforts: "e-Research" which is more inclusive of the social sciences and humanities fields
- All three terms refer to the use of networked computing technologies to enhance collaboration and innovative methods in research.



e-Science, e-Research, and Cyberinfrastructure (cont.)

E-Science is ***not a new scientific discipline in its own.*** e-Science ***is the set of tools and technologies*** required to support collaborative, networked science. The entire e-Science infrastructure ***is intended to empower scientist to do their research in faster, better and different ways.***

- Tony Hey and Jessie Hey, 2006



e-Science, e-Research, and Cyberinfrastructure

Cyberinfrastructure (CI) according to the NSF report is composed of "**hardware, software, personnel and organizations**". The idea of CI is to use advanced networking, technologies to **facilitate collaborations, data management, data analysis, communication, and dissemination across institutional and geographic borders ...**".



Digital Humanities

- The significant cultural shift on digital humanities scholar: scholar ***depends on electronic media and tools*** for individual and collaborative work; and the ***increase social dimension*** of new online environment: ***leverage expertise and specialized knowledge***, create personalized and customized resources

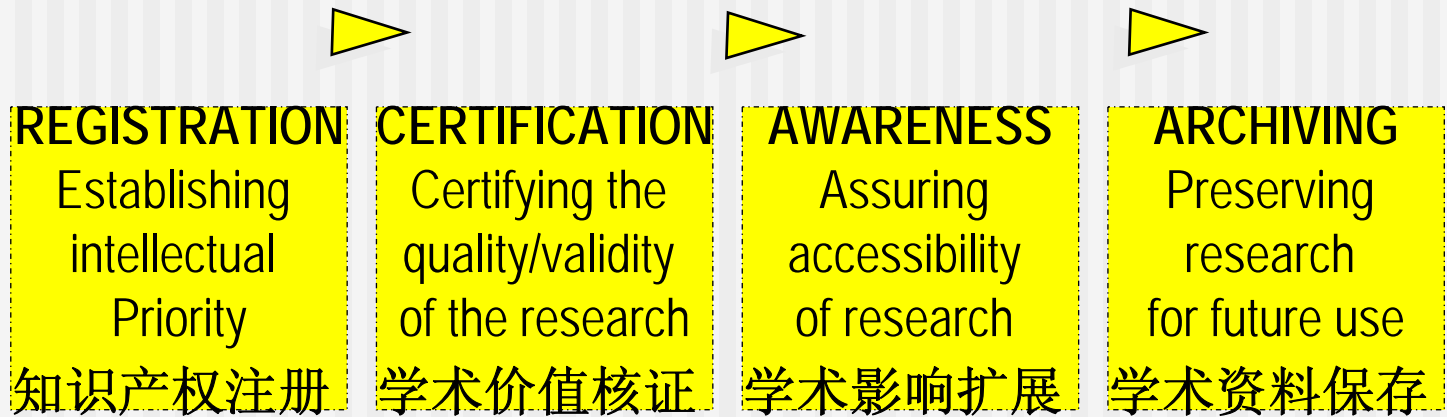


The Digital Impact on SC

- The new model is transformed by networked communication – the Internet Mediated
- The new model is relevant to communication system (the channel), publication (the media/content) and publishing practices (the process)
- The new model offers new form of presentation of scholarly outcome
- The new model brings in new business model
- The new model may change the peer review



Scholarly Publishing



Source: David Prosser, SPARC Europe Director



Research Libraries as Publishing Service

- Service is being driven by campus demand. Scholar approaches to library for advice and support
- Libraries bridge the gaps in traditional publishing systems. Libraries are not replicating traditional publishing. They translate existing title into new information environment
- Open Access creates more opportunities for libraries publishing services model
- Library publishing service carefully define their scope

-Source: Karla L. Hahn: "New Options for University Publishing"



Research Libraries as Publishing Service (cont.)

- Publishing service is focus on technologies
- The question is no longer whether libraries should offer publishing services, but what kinds of services libraries will offer.
- Question need to ask to what extent can the university benefit from investments in library publishing services, particularly in the context of related transformations in library services.

-Source: Karla L. Hahn: "New Options for University Publishing"

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What Library Publishing Services Should Focus on?

- Hosting: technologies: hardware, software and development
- In addition to basic hosting, libraries offer related services such as permanent URLs, manuscript handling systems, and preservation through programs like LOCKSS. Many libraries are exploring services such as workflow setup, publication design, markup, file generation, and print on demand
- Workflow consulting: such as moving print publications into electronic publishing, publishing works with limited revenue-generating capability, standards of various sorts, markup and encoding, metadata generation, preservation, contracting with service providers, and copyright management
- Library publishing is not very much a movement but rather a development at this moment

-Source: Karla L. Hahn: "New Options for University Publishing"

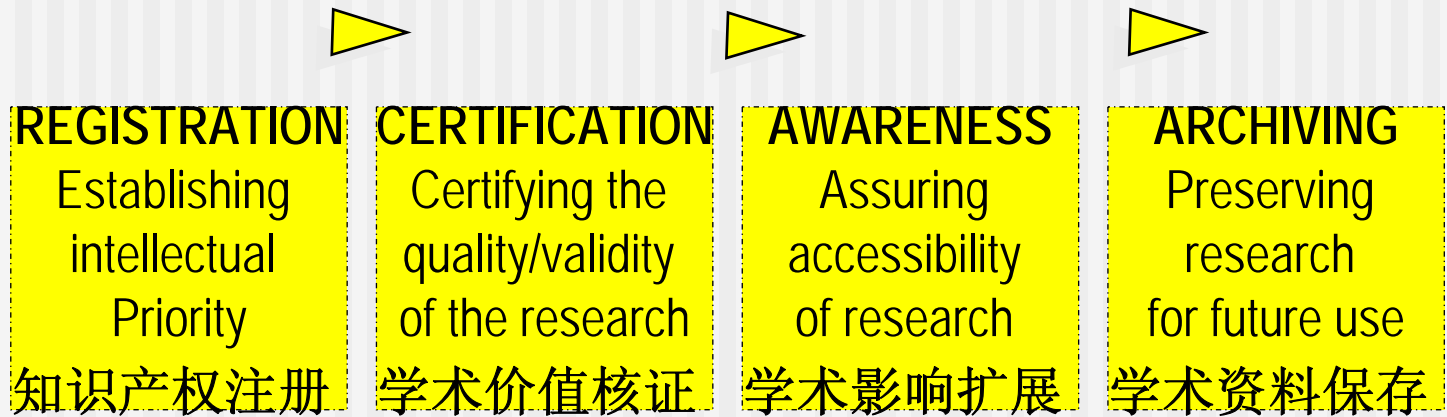


Library's Traditional and Emerging Role in SC Cycle

- Library's traditional role in SC
 - Collecting works after they have been published
 - Organizing and managing those works
 - Provide access both short and long term
 - At the “lower” end of SC cycle
- Library's new and developing role in SC
 - Converting legacy content into digital
 - Curate born digital contents
 - Developing publishing services
 - At the “higher” end of SC cycle



Scholarly Publishing



Source: David Prosser, SPARC Europe Director

The Changing Profession and New Staffing Environment

- The library clerical and professional staff ratio will be reduced 1:1 instead of 2:1
- Technologist will be increase to 25% of total library team
- Fewer librarians will be involved in the traditional library roles of selecting, processing, and managing print collections
- More librarians will provide their expertise in-person, either in reference or classroom instruction
- Librarians will be increasingly involved new roles of in curating collections and providing their expertise in ways that embed it in systems and in other environments
- If library can't find or train existing librarian to do the new job, they will look for staff without library credential

-Source: David W. Lewis: "A Model for Academic Libraries 2005 to 2025"



The Changing Profession and Its Impact on Organization

- The trends on diversification of library professionals: New librarian hiring from multi-discipline
- New professionals joining: e.g. IT, HR, Fundraising, Publishing, Marketing and Facilities
- Impact to traditional library staffing: organizational culture, employee relation, management, training and leadership
- They challenge the standards and practices of library profession
- They question librarian's relevancy and impact on institution

Source: Jim Neal's "Raised by Wolves"

<http://www.libraryjournal.com/article/CA6304405.html>

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Discussion

- Are those ARL trends mostly being reflected in China's academic and research library community? If not, why?
- What are your thoughts on changing of SC? And the role of future academic and research library? How those changes and new roles apply to Chinese libraries?
- What are the advantages and barriers for Chinese academic and research libraries to fulfill their future role?
- More

