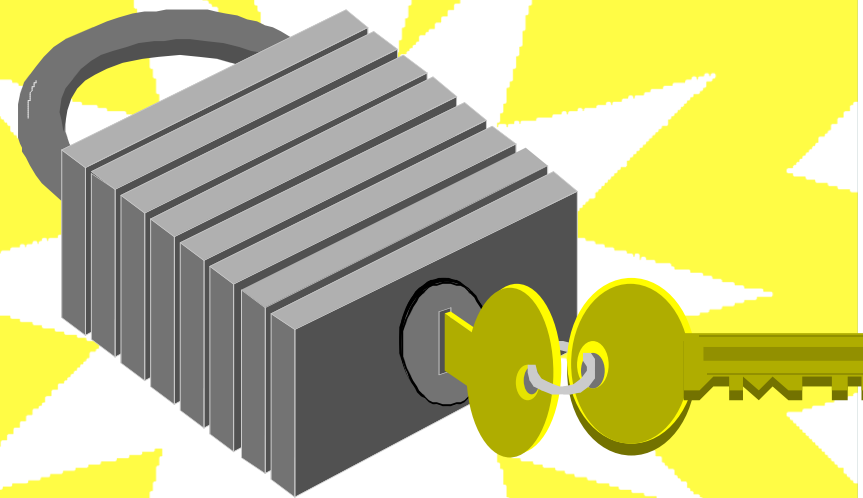




SCHOLARLY PUBLISHING & ACADEMIC RESOURCES COALITION
An initiative of the Association of Research Libraries

www.arl.org/sparc

Open Access: Unlocking The Value of Research

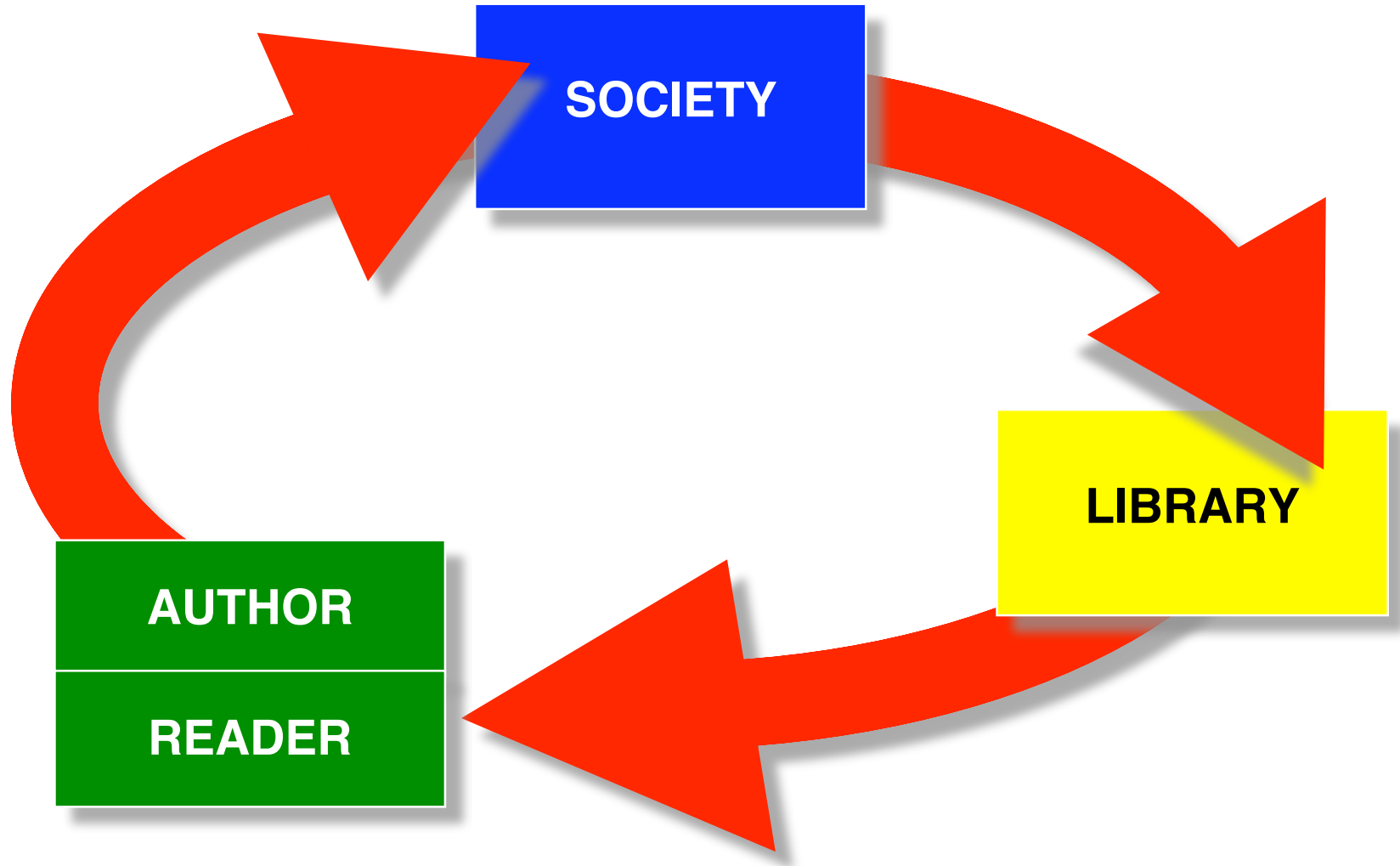


Rick Johnson (rick@arl.org)
Enterprise Director, SPARC
Ohio State University • January 15, 2003



Circle of Gifts

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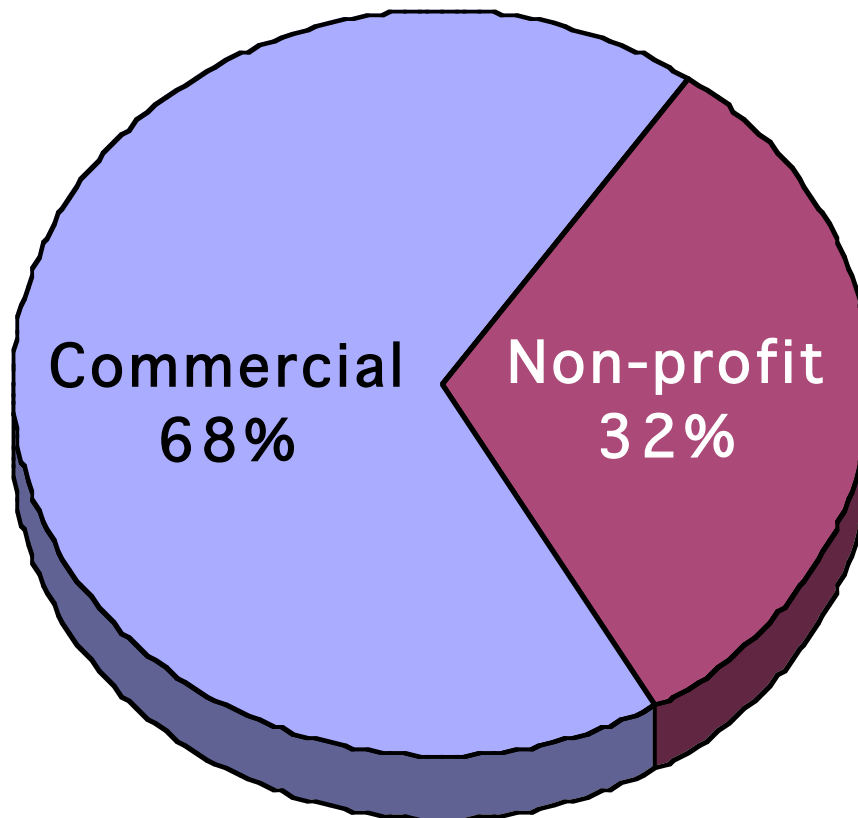




Commercialization

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Scientific, Technical & Medical Publishing Market \$7.8 billion



Includes Primary & Secondary STM publishing.

Aggregators represent an additional \$1.6 billion (Total: \$9.5 billion.)

Source: Outsell Inc., "Industry Trends, Size and Players in the Scientific, Technical & Medical (STM) Market (Aug. 2000).



Conflict of cultures

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	Scholarship	Commerce
Goal	maximize awareness of work	maximize shareholder value
Strategy	publish	control info access & price
Reward	reputation, tenure, promotion	increased financial return

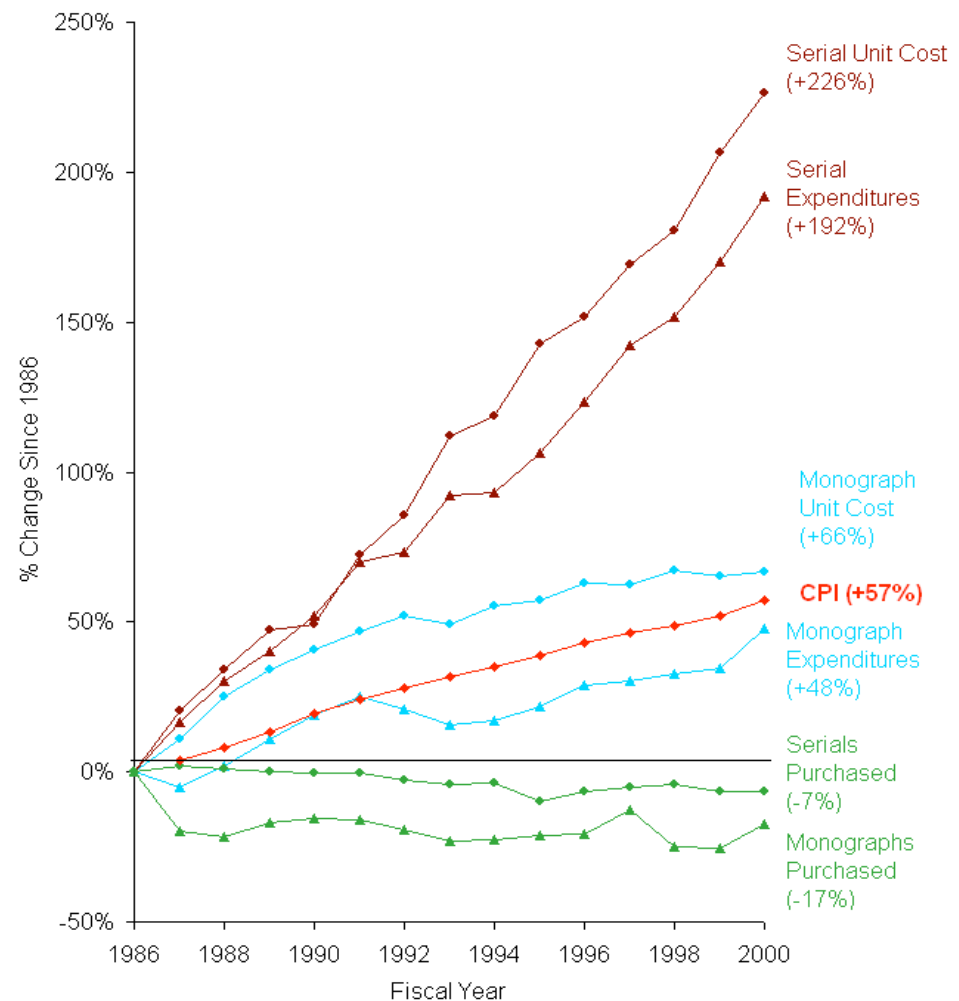


Resulting problems in the market

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- **High journal prices, driven by:**
 - price inelasticity of demand
 - need to enhance *shareholder* (not *stakeholder*) value
- **Substantial price disparity** between commercial & non-commercial journals

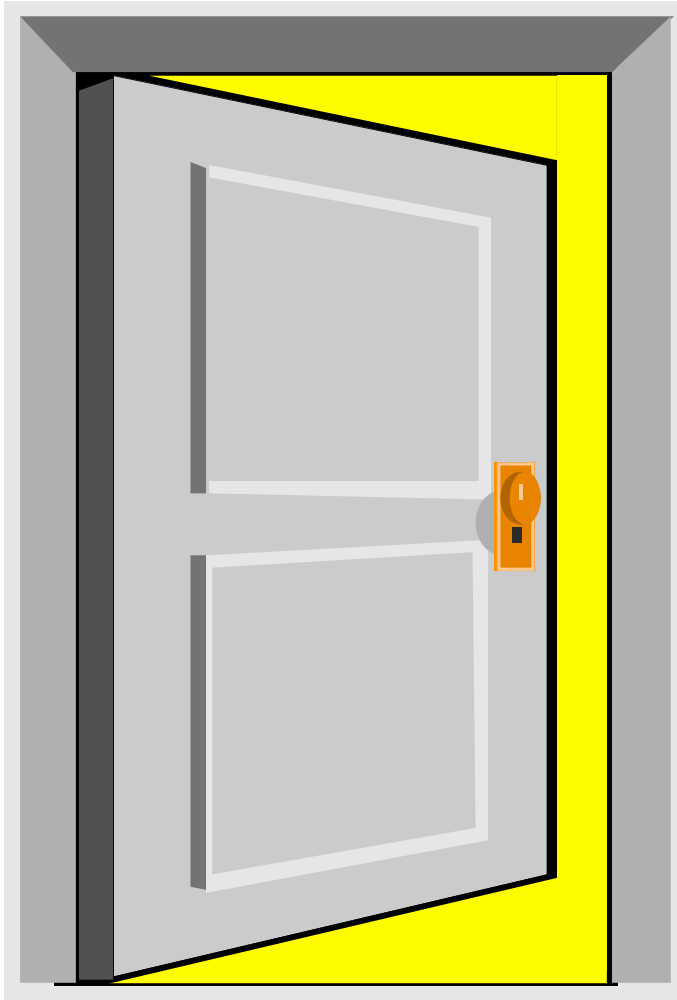
Monograph and Serial Costs in ARL Libraries, 1986-2000





Unlocking opportunities

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Digital networked environment offers:

- Opportunities for **expanded access**
- Potential for **new uses** of research
- Better ways to handle **increasing volume** of research generated



Introducing SPARC

www.arl.org/sparc

SPARC objectives

- Raise awareness
- Incubate alternatives

In order to:

- Expand access
- Reduce cost

**Scholarship
for Scholars**

SPARC approach

- Experiment with change in real situations
- Reduce start-up risk
- Publishing economics important (but can't override vision)
- Link advocacy and action



Looking for better ways (1)

www.arl.org/sparc

1. Expanded non-profit publishing capacity

- **Alternative journals**
- **New digital platforms**

2. New business models

- Open access journals

3. Disaggregated system

- Disciplinary repositories
- Institutional repositories




◀\$300 ▼\$800





Alternative journals

www.arl.org/sparc

Established Title		 SPARC ALTERNATIVE	Savings Oppty	
Title	Price	Title	Price	
<i>Topology & Its Applications</i>	\$2,645	<i>Algebraic and Geometric Topology</i>	Free	\$2,645
<i>Journal of Crystal Growth</i>	\$9,911	<i>Crystal Growth & Design</i>	\$1,853	\$8,058
<i>Evolutionary Ecology</i> <i>(price reduced in 2001)</i>	\$504	<i>Evolutionary Ecology Research</i>	\$350	\$154
<i>Topology</i>	\$1,400	<i>Geometry & Topology</i>	Free	\$1,400
<i>Organic Geochemistry</i>	\$2,701	<i>Geochemical Transactions</i>	\$100	\$2,601
<i>Sensors & Actuators, A&B</i> <i>(now separate)</i>	\$6,427	<i>IEEE Sensors Journal</i>	\$425	\$6,002
<i>Machine Learning</i>	\$1,093	<i>Jnl of Machine Learning Research</i>	Free	\$1,093
<i>Plant Ecology</i> <i>(formerly Vegetatio)</i>	\$2,618	<i>Jnl of Vegetation Science</i>	\$291	\$2,327
<i>Tetrahedron Letters</i>	\$10,345	<i>Organic Letters</i>	\$2,850	\$7,495
<i>Chemical Physics Letters</i>	\$11,033	<i>PhysChemComm</i>	\$100	\$10,933
<i>Jnl of Logic & Algebraic Programming</i>	\$803	<i>Theory & Practice of Logic Programming</i>	\$300	\$503
	\$49,480		\$6,269	\$43,211



New digital platforms

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- Online information community for bioscience journals
- Unique collaborative organization governed by scientific societies and libraries



- Online information community for independent and society journals in mathematics and statistics
- Created by Cornell University Libraries



Looking for better ways (2)

www.arl.org/sparc

1. Expanded non-profit publishing capacity

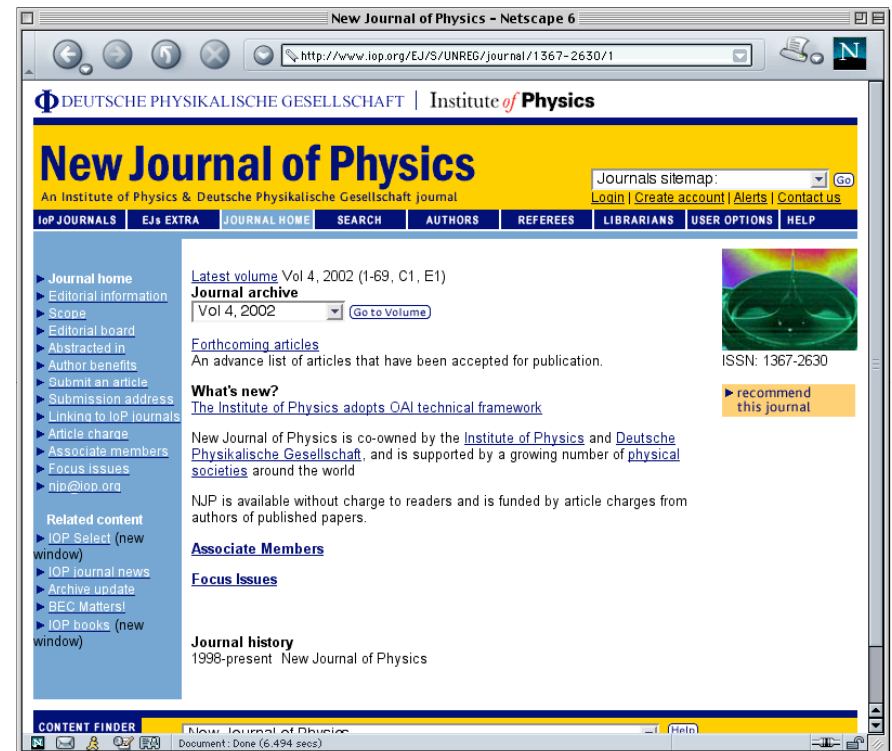
- Alternative journals
- New digital platforms

2. New business models

- **Open-access journals**

3. Disaggregated system

- Disciplinary repositories
- Institutional repositories





Open-access journals

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- Pay for **publication**, not **access**.
- Shift will be pulled by community, not pushed by others.
- Less impetus to go open access for moderate, empathetic publishers.
- Will require experimentation.

PUBLIC LIBRARY OF SCIENCE

ATG

Algebraic & Geometric Topology





Open-access journals

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Some options for paying the cost of publication:

- Article publication fees
- Institution submission charge
- Institutional contributions & subsidies
- Grants
- Named gifts
- Off-print sales to authors
- Advertising
- Sponsorships
- Partnerships
- Convenience format licenses
- Differentiated printed version
- Premium online version

No single model -- hybrids required to generate sufficient revenue.



Looking for better ways (3)

www.arl.org/sparc

1. Expanded non-profit publishing capacity

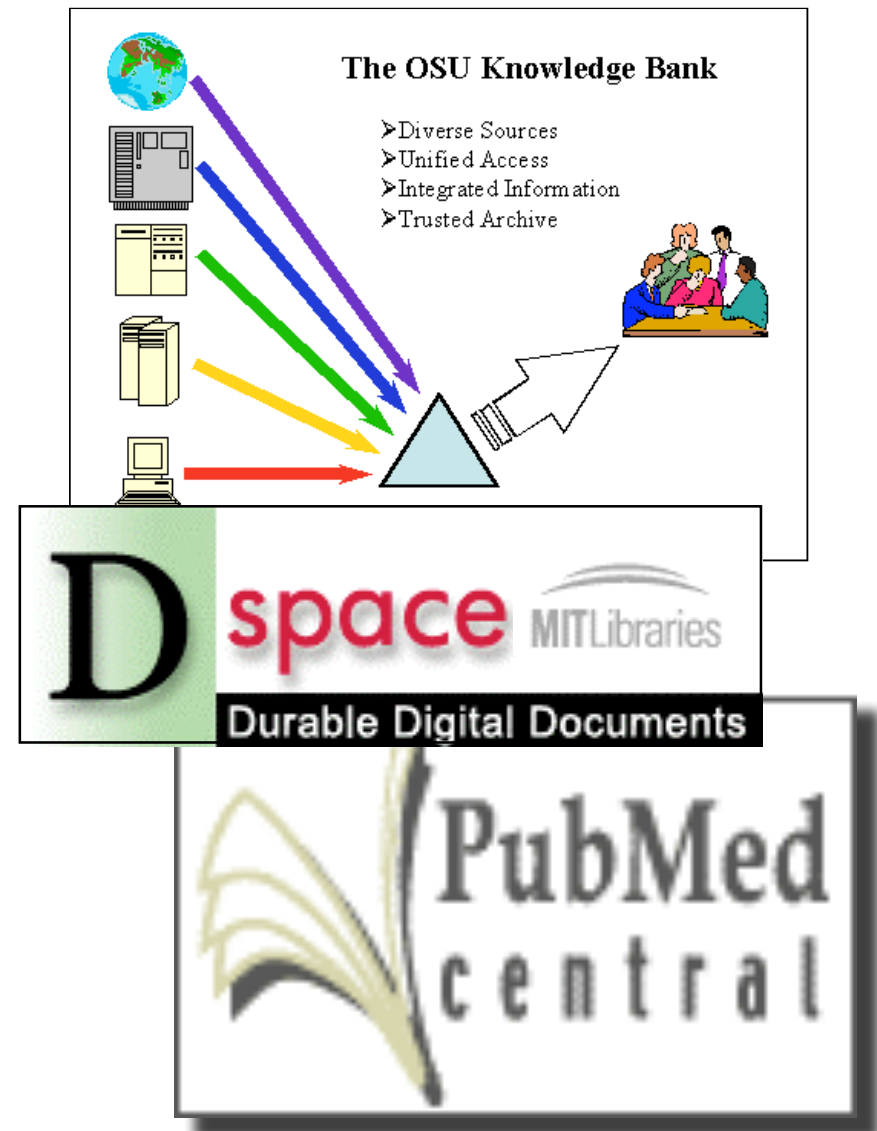
- Alternative journals
- New digital platforms

2. New business models

- Open-access journals

3. Disaggregated system

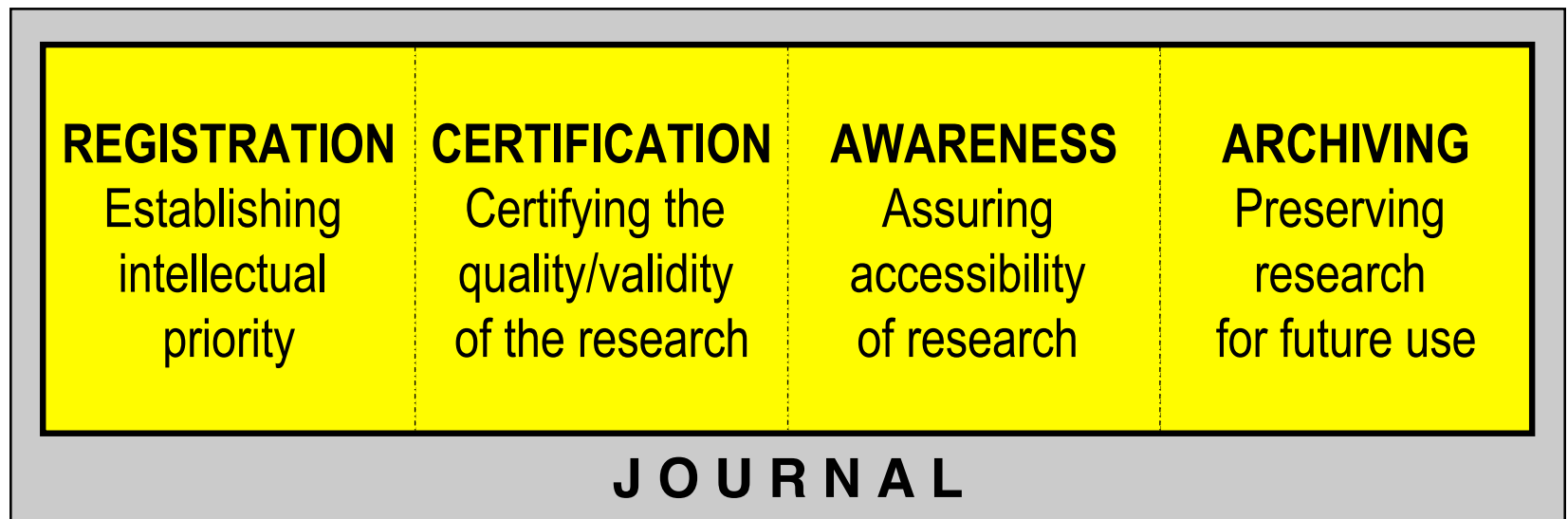
- **Disciplinary repositories**
- **Institutional repositories**





Aggregated system

Scholarly publishing comprises four functions:*



Current model:

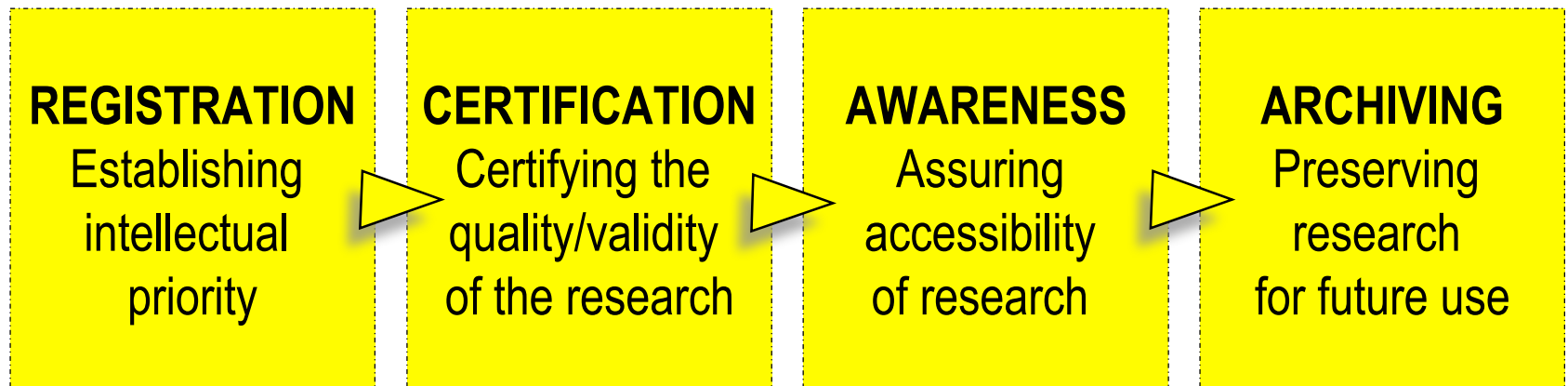
- Artifact of print publishing
- **Integrates** these functions in journals

*Roosendaal, Hans E. and Peter A. Th. M. Geurts (1998). "Forces and functions in scientific communication: an analysis of their interplay." CRISP 97.



Disaggregated system

Scholarly publishing comprises four functions:



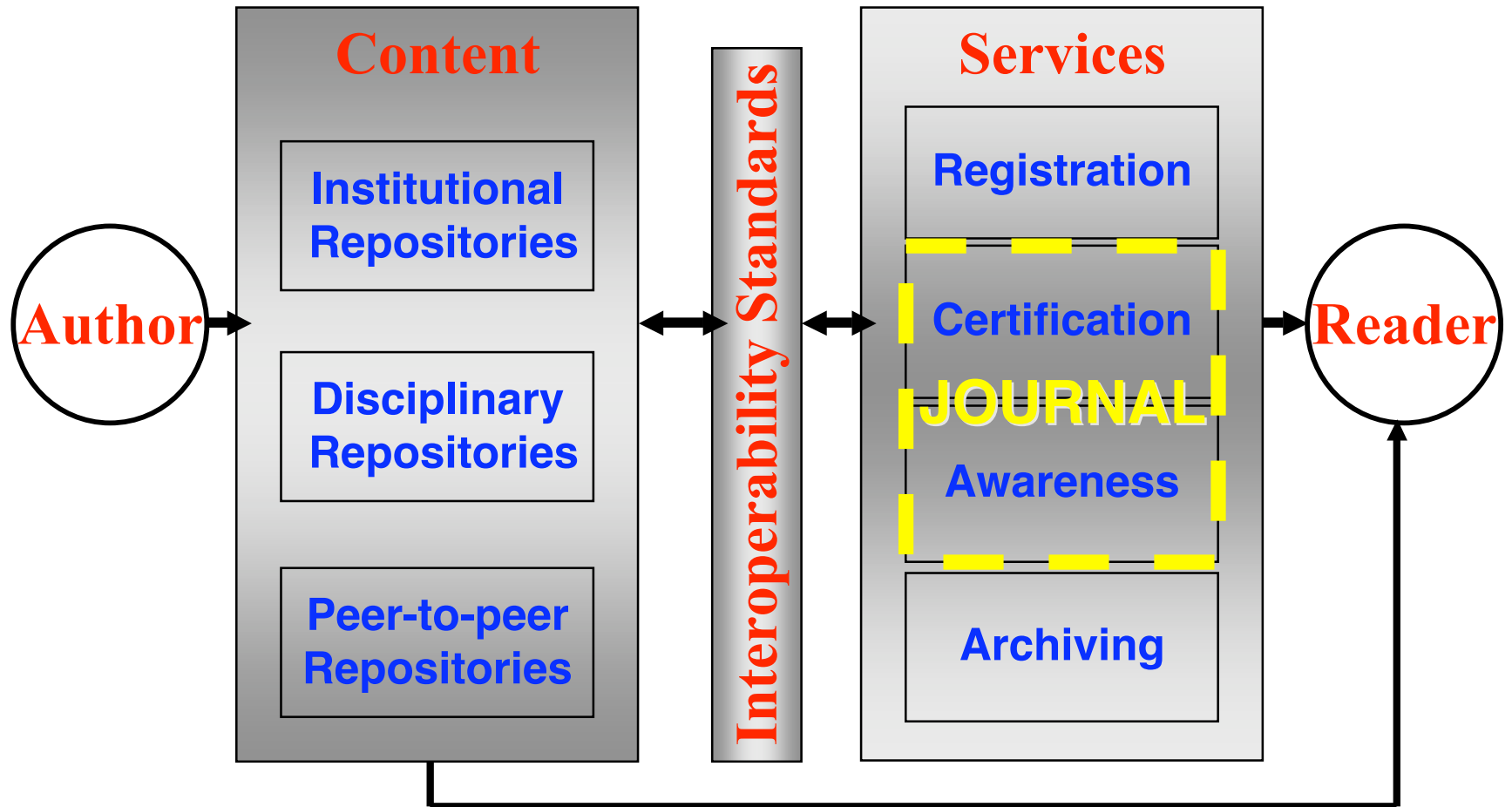
Disaggregated models:

- Allow functions to be fulfilled **independently** by discrete, networked service providers
- Lower prices by increasing cost efficiency
 - introduces competition, market efficiency of links



How the pieces work together

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What are institutional repositories?

Essential elements

- *Institutionally defined*: Content generated by institutional community
- *Scholarly content*: preprints and working papers, published articles, enduring teaching materials, student theses, etc.
- *Cumulative & perpetual*: preserve ongoing access to material
- *Interoperable & open access*: free, online, global



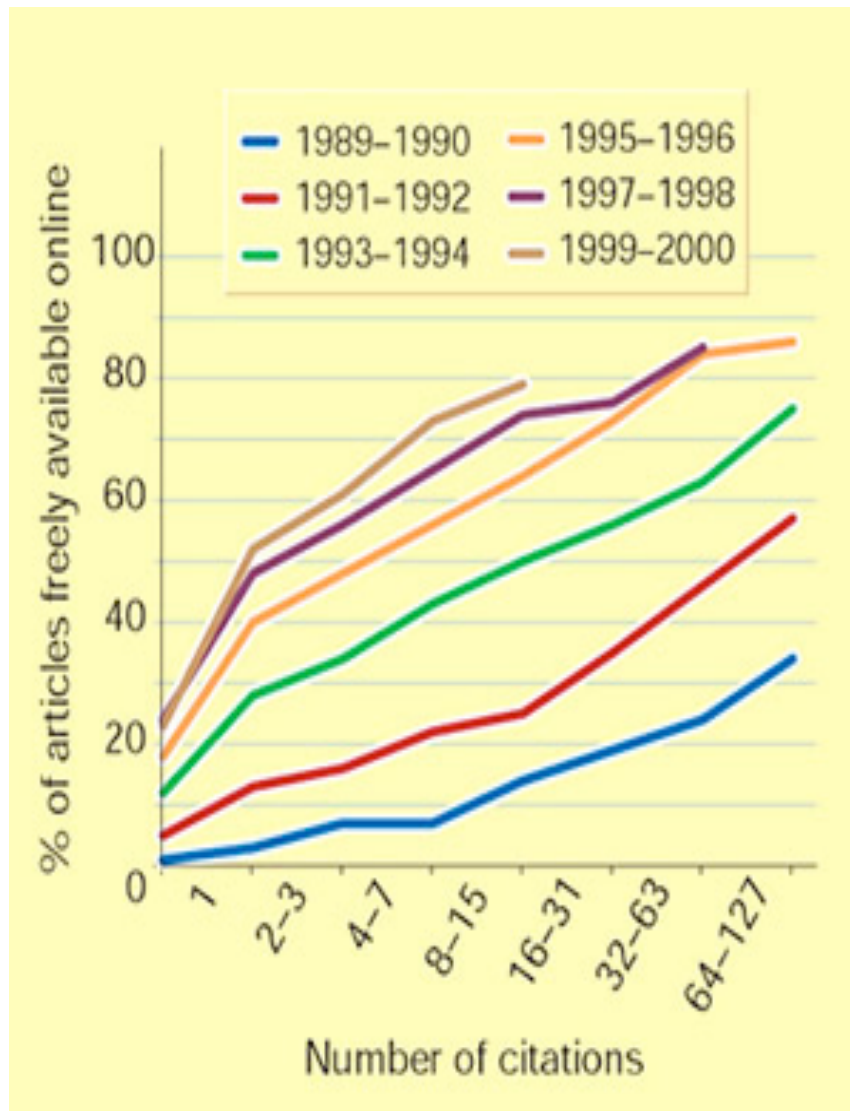
Why institutional repositories?

- Faculty already are posting their work on personal and departmental web sites
 - PrePRINT Network (www.osti.gov/preprints) identifies over 7,600 “preprint” sites in physical sciences
 - More than preprints – working papers, post-prints, data sets, digital monographs, conference papers, theses & dissertations, listserv archives, etc.
- Risk of transience, lack of interoperability
- Libraries can help.



Why open access?

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- Expanded **access** to research
- ◀ Expanded **impact** of research
- Reduced systemic **cost**

Lawrence, Steve (2001). "Free online availability substantially increases a paper's impact." *Nature*, Vol. 411, No. 6837, p. 521

www.nature.com/nature/debates/e-access/Articles/lawrence.html



Actions scholars can take

As an individual faculty member. . .

- Learn as much as you can about the issues confronting scholarly communication
- Find out about projects and proposals intended to transform the system
- Encourage discussion of scholarly communication issues in your department and school



Actions scholars can take

As an individual faculty member. . .

- Include electronic publications in promotion & tenure discussions
- Participate in discussions of campus intellectual property policies
- Encourage development of an institutional repository...and deposit your work there
- Stay open to new ideas
- Take responsibility -- help shape the future



Actions scholars can take

As an author, reviewer, or editor. . .

- Submit papers to quality journals with open access or reasonable pricing practices
- Post your own work to an institutional or disciplinary open-access repository
- Review, understand, and modify, if necessary, any publishing or editing contracts
- Be aware of the pricing, copyright, and licensing policies of publishers
- Consider declining to review for or serve as an editor of unreasonably expensive journals



Actions scholars can take

As a member of a scholarly society . . .

- Encourage the society to explore alternatives to contracting out or selling publishing rights
- Explore ancillary revenue sources to reduce dependence on subscription revenue
- Encourage the society to consider making their journals open access
- Encourage the society to create competitors to expensive titles



Actions scholars can take

As a library user . . .

- Support cancellation of expensive low-use titles
- Invite librarian participation in faculty departmental meetings & graduate seminars
- Find out about journal cost-effectiveness studies
- Support the library's participation in SPARC



Create Change!

www.arl.org/sparc



“Although the battle is being fought over subscription prices, what is really at stake...is the scientific process itself.”

New York Times, Dec. 8, 1998

Contact SPARC: sparc@arl.org