

# Future of Cultural Heritage Institutions

## - Programs and Research agenda

Jim Michalko  
VP, RLG Programs

ARL Fellows  
31 October 2007

# Cultural repositories

## - the circumstances

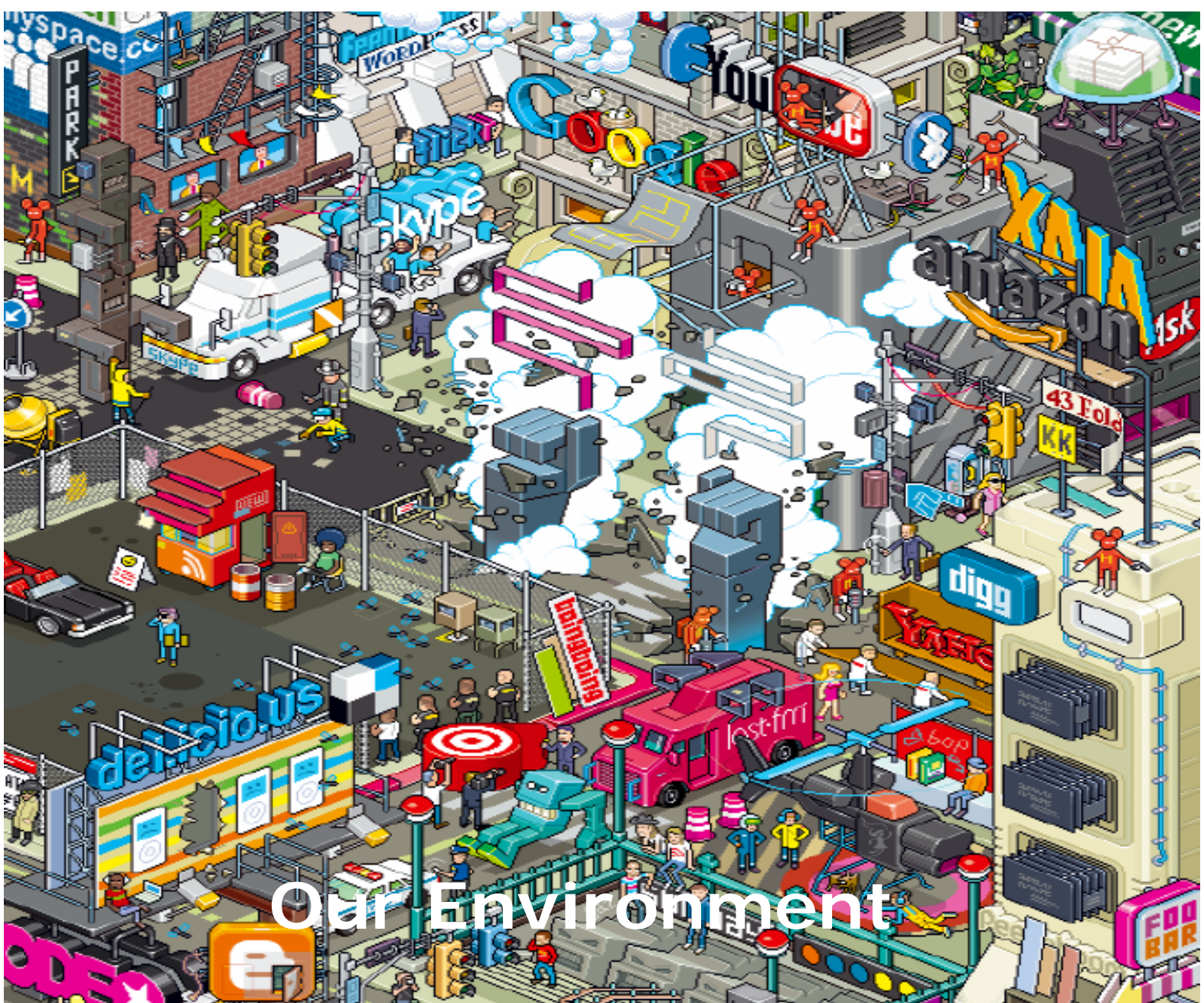
- Libraries, archives, museums
  - Altered service environment
- Diminished value proposition
  - Must aggregate presence
  - Must enter network
  - Must alter investment patterns
- Two perspectives
  - Information consumer behaviour
  - Institution operating environment

# Information consumer behavior

- Information consumer behaviour
  - Network-level aggregation of supply and demand
  - Patterns of learning, research, information production and consumption
  - Personal collections and data reproduction
  - Customer relation management

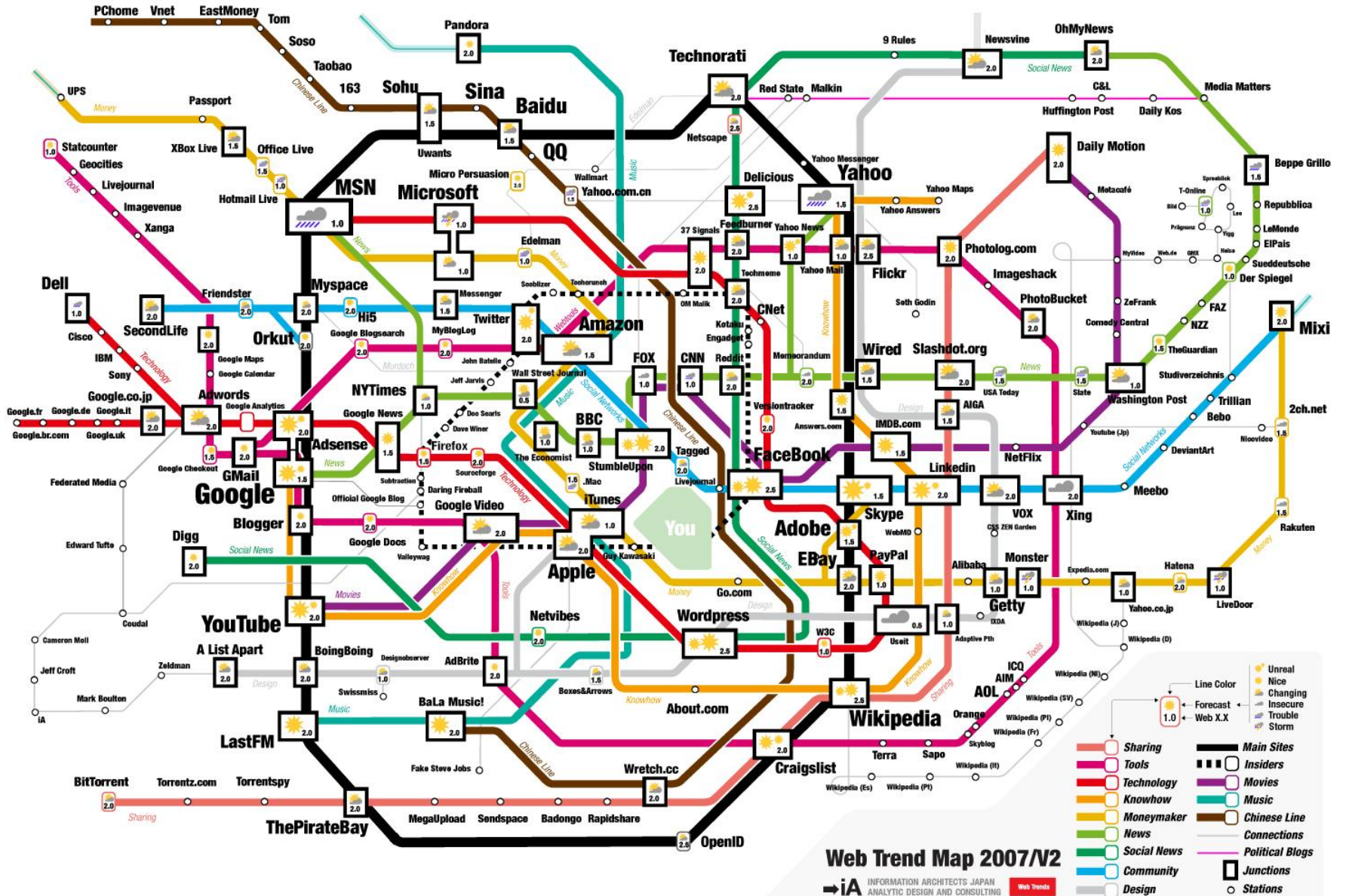


**Et al, etc.**







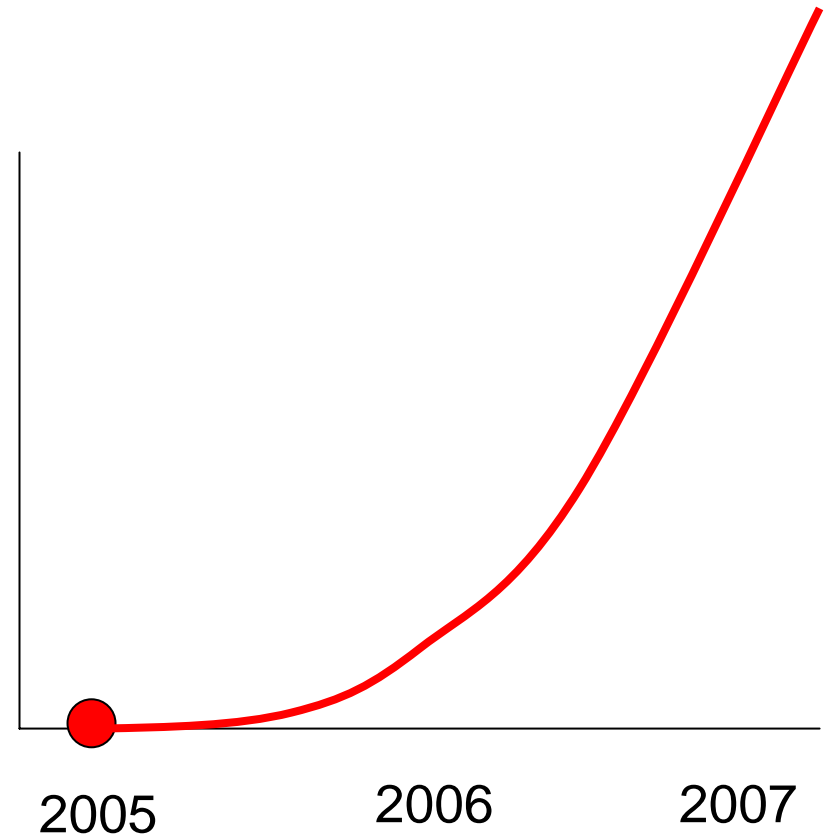
# Our Environment

# The 200 most successful web sites



# Social networking - explosion

	Rank
 <b>You Tube</b> ™ Broadcast Yourself	4
 <b>WIKIPEDIA</b>	9
 <b>Blogger</b> ™	14
 <b>flickr</b> ™	31



personal

amazon.com

James's Amazon.com

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Find Gifts

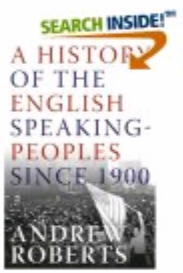
Web Search GO

mes, Welcome to Your Amazon.com™ (If you're not James Michalko, [click here.](#))

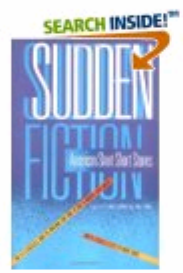
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1 2 3 4

Here's a daily sample of items recommended for you. Click here to [see all recommendations.](#)



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[Sudden Fiction](#) (Paperback)



[Along Came John Patton](#) (Audio CD)



[Songlines](#) (Audio CD)



[In the Wee Small Hours](#) (Audio CD)

- Adult Alternative
- All Categories**
- Ambient
- Compilations
- Cool Jazz
- Dance & DJ
- Elect
- Inside Fiction Books
- Poetry
- Progressiv
- States

- ee Jazz
- Bebop & Post-Bop
- Britin
- Classics
- Music
- Jazz Funk
- Jazz Fusion
- Literary
- Look
- gae
- Singer-Songwriters
- Swing Jazz
- United

**Along Came John** ~ Big John Patton (Audio CD)  
 ★★★★★ (2)  
 Listen to samples  
 Price: \$11.98  
 18 used & new from \$6.65

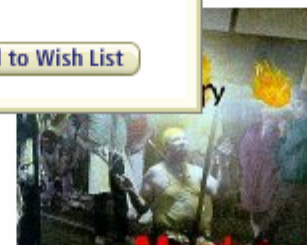
---

I Own It  Not interested  
 x|★★★★★ Rate it  
 Recommended because you purchased **Too Damn Hot** ([Fix this](#))

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In Stock  
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customers Who Searched for "jon cleary" L



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# Track Me Not

The screenshot shows a browser window with the Amazon.com URL: [http://www.amazon.com/gp/yourstore/ref=pd\\_irl\\_gw/002-0642313-3209658](http://www.amazon.com/gp/yourstore/ref=pd_irl_gw/002-0642313-3209658). The page title is "Amazon.com: Recommended for You". The search bar contains "Amazon.com".

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Recently Viewed Products	Recently Viewed Categories	Recent Searches
<ul style="list-style-type: none"><li> <a href="#">Songs of Faith and Devotion</a> ~ Depeche Mode</li><li> <a href="#">Ghost in the Shell: Stand Alone Complex O.S.T. Plus</a> ~ Japanimation (Yoko Kanno)</li><li> <a href="#">The X-Files - The Complete Fifth Season (Slim Set) DVD</a> ~ David Duchovny</li><li> <a href="#">Embedded PCs ISA Bus, The</a> by Ed Nisley</li><li> <a href="#">Quicksilver (The Baroque Cycle, Vol. 1)</a> by Neal Stephenson</li><li> <a href="#">Quicksilver (The Baroque Cycle, Vol. 1)</a> by Neal Stephenson</li><li> <a href="#">The Steve McQueen Collection (The Great Escape / Junior Bonner / The Magnificent Seven / The Thomas Crown Affair) DVD</a> ~ Steve McQueen</li><li> <a href="#">Hair Raising: Beauty, Culture, and African American Women</a> by Noliwe M. Rooks</li></ul>	<ul style="list-style-type: none"><li><a href="#">Amazon.com</a></li><li><a href="#">New &amp; Future Releases</a></li><li><a href="#">Music</a></li><li><a href="#">Computers &amp; Add-Ons</a></li><li><a href="#">Jazz</a></li><li><a href="#">Marketplace Shipping Times &amp; Rates</a></li><li><a href="#">Soul</a></li><li><a href="#">Books</a></li></ul>	<ul style="list-style-type: none"><li><a href="#">mode stores</a></li><li><a href="#">musics shell</a></li><li><a href="#">spoiler slim</a></li><li><a href="#">driver nybble</a></li><li><a href="#">roque cowboys</a></li><li><a href="#">baroque urchin</a></li><li><a href="#">james hunter</a></li><li><a href="#">bum erotics</a></li></ul>

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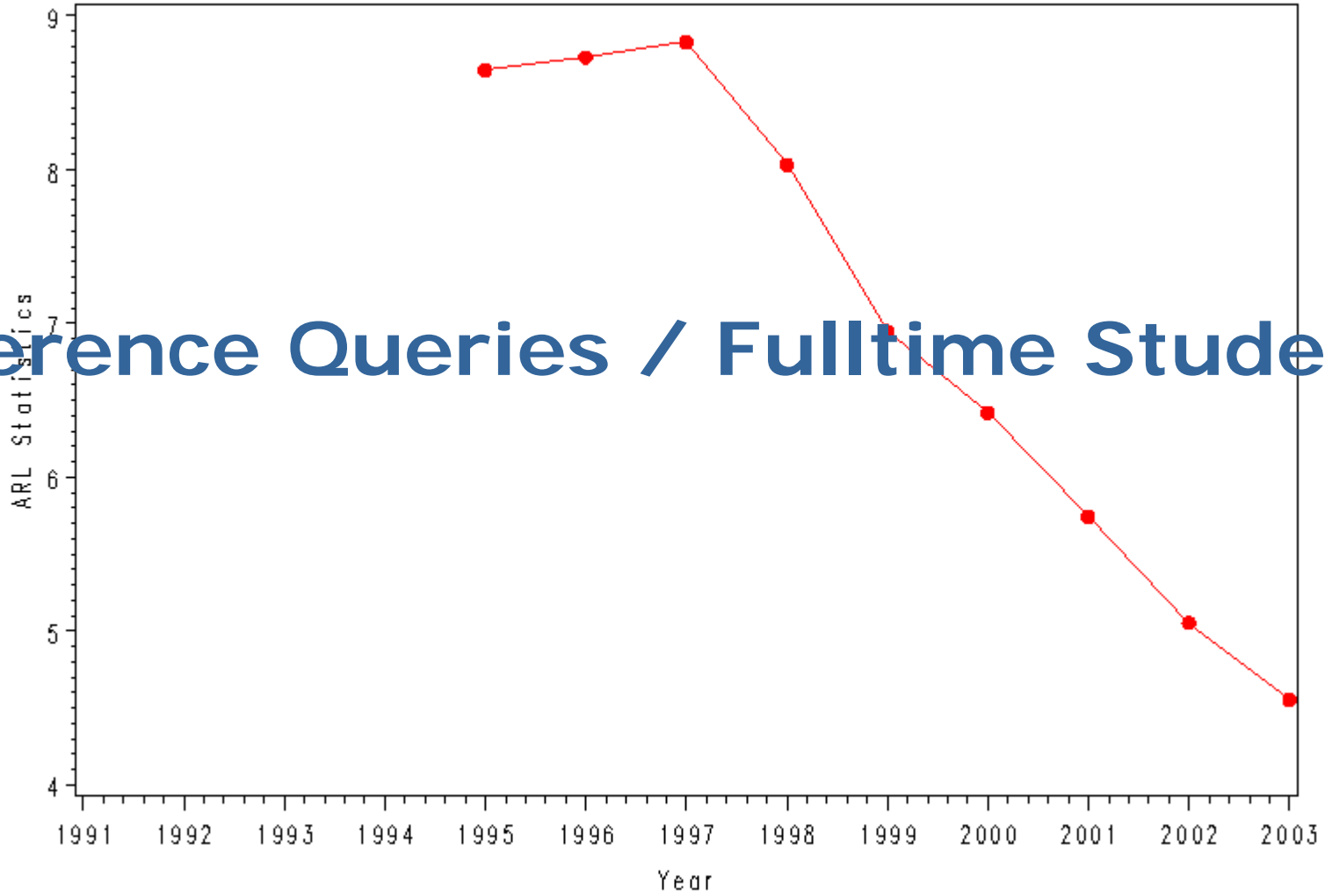
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# Institution operating environment

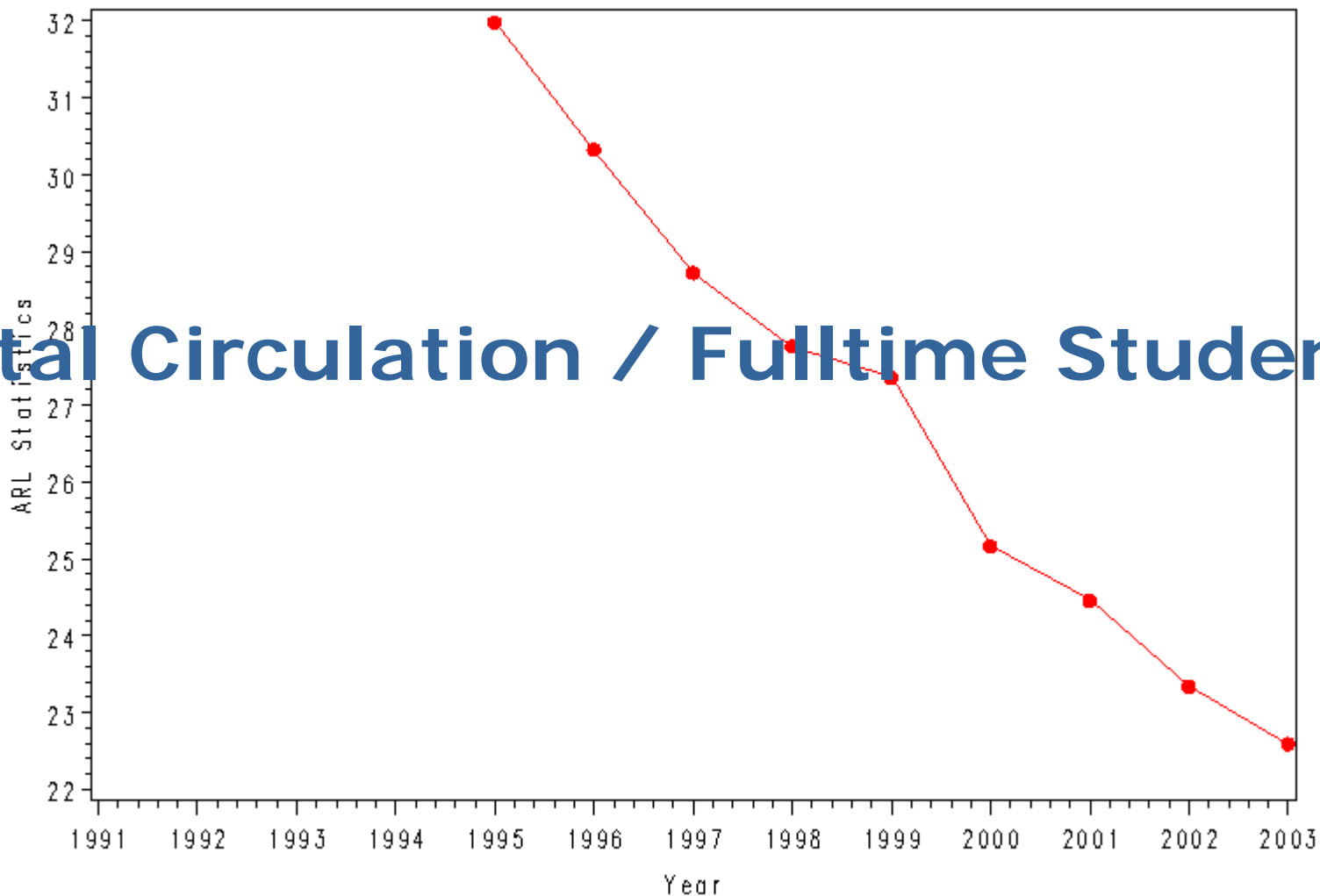
- Institution operating environment
  - Agile, rich new competitors
  - Library budget pressure
  - Service fragmentation
  - Redundant effort
- Barriers to progress
  - Process standardization
  - Resistance to outsourcing
  - One-dimensional client relations
- What conclusions do we draw?

# Reference Queries / Fulltime Students



Ratio

# Total Circulation / Fulltime Students

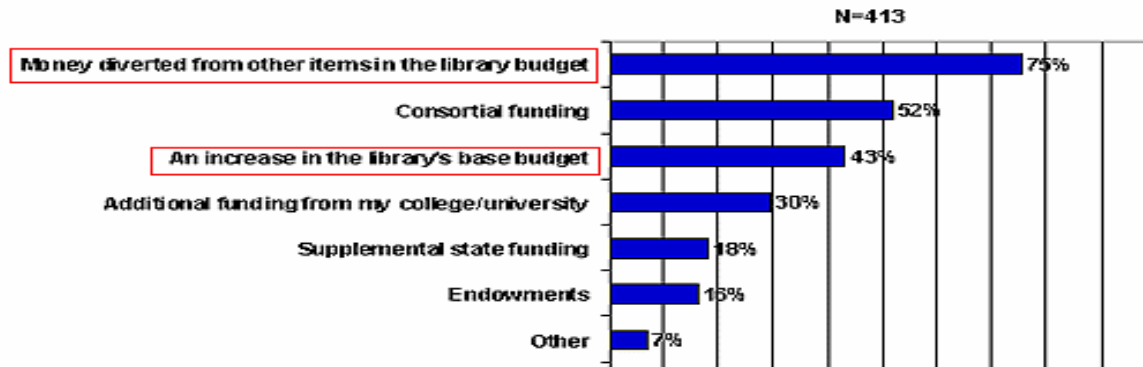


Ratio

# Budget pressures

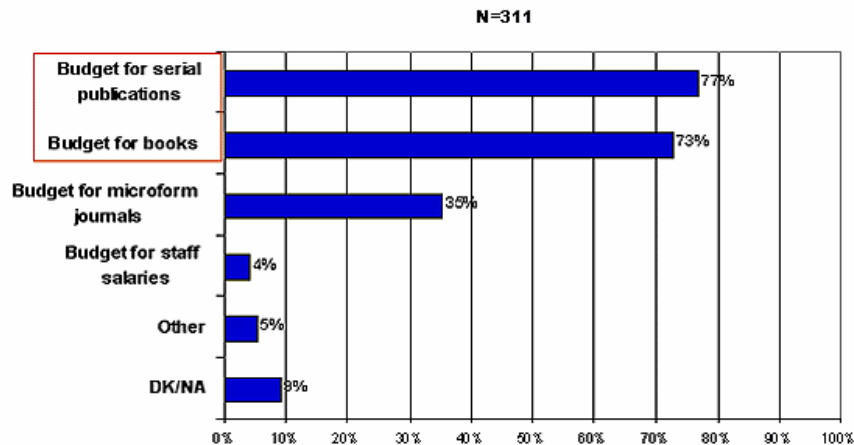
## Funding Sources for Electronic Resources

What funding sources are used to pay for electronic resources at your library? (check all that apply).  
 Asked only of those whose roles include 'Library Administrator' or 'Collection Development'.



### Money is Diverted From:

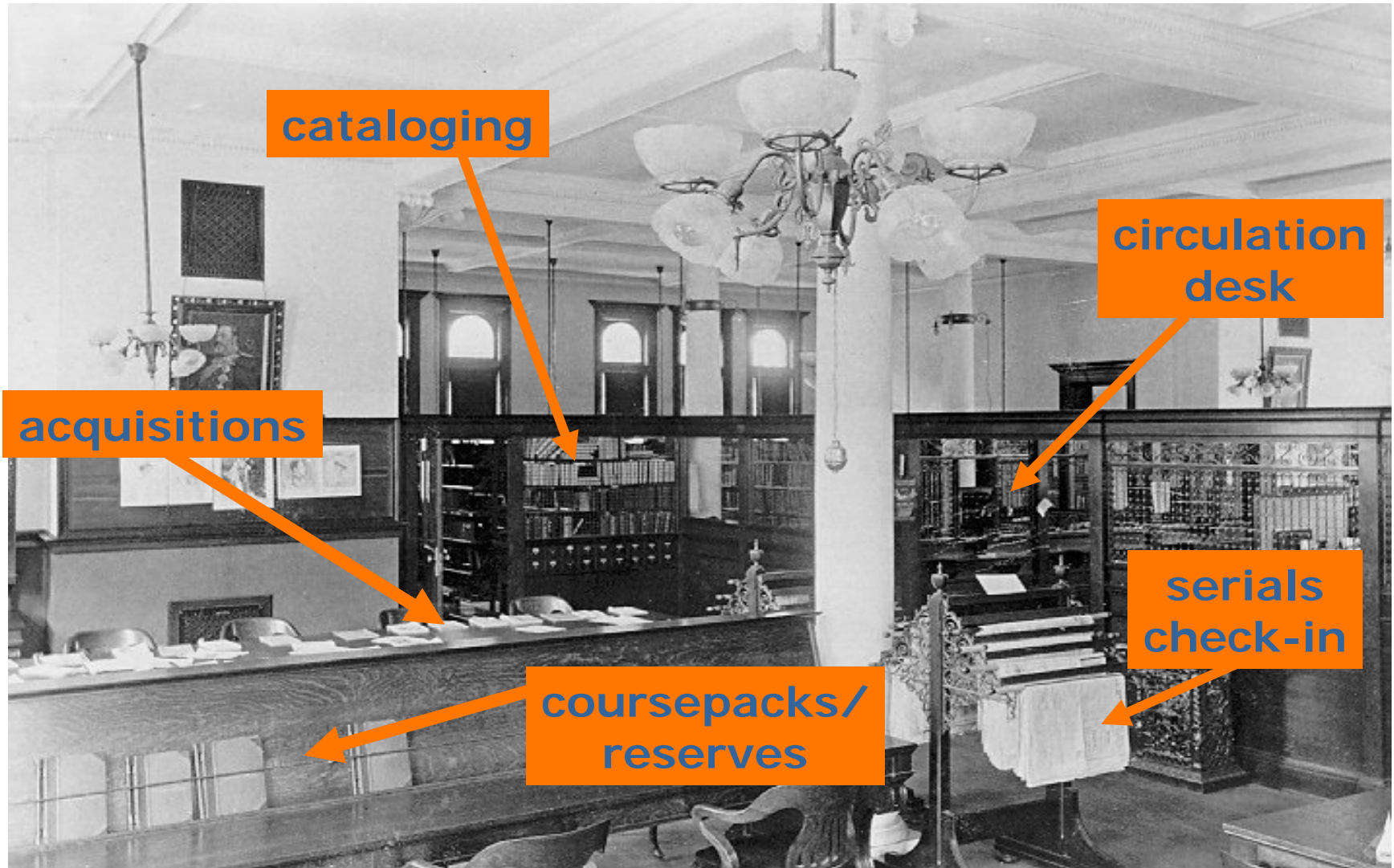
Where is the money diverted from? (check all that apply).  
 (Asked only of those who specified that money for electronic resources came from other items in the library budget.)



In 2004 ARL libraries spent the lion's share of \$665 million on books and serials and \$239 million on technical services labor

Source: Columbia University Library, Librarian Online Survey, 2002

# Legacy service management



# Academic collections - implications

- Change in physical access
- Emphasis on disclosure and digital surrogates
- Mission - Trustworthy and Authoritative
  - Tools and Services
    - Redundant physical collections
    - Purchase or provision of physical materials on demand
    - Disclosure as a major investment and activity
    - Collecting unique, rare, special, and non-traditional
    - Reorganization of library staffing effort and types of staff expertise

# RLG Programs - response

- Disruption, uncertainty, mandated change  
= renewed, revived collaborative action
- The overall aim is to enhance the ways in which libraries, archives and museums create value in the research and learning process.
- The program areas where we have chosen to focus were conditioned by
  - the specific research focus of the RLG Partner institutions
  - the skills and capacities resident in the division,
  - the mission of the OCLC enterprise in which the division is situated, and
  - the ability to engage issues over a multi-year horizon.

# Criteria for Programs and projects

- Eliminates a redundant effort or process
- Affects system-wide behaviors
- Creates shared capacity
- Changes community economics
- Cuts across cultural sectors
- Transforms something (process, standard, etc.) into a routine
- Translates something (process, standard, etc.) into community terms
- Responds to a known and shared Partner need
- Provides opportunities for Partner engagement
- Total Programs and Research investment does not substantially exceed community benefit



# OCLC Programs & Research Themes

 Managing the Collective Collection

 Renovating Descriptive & Organizing Practices

 Modeling New Service Infrastructure

 Architecture & Standards

 Measurements & Behaviors

 Supporting New Modes of Research, Teaching & Learning

**Work agenda flows from ...**

**... our view of the environment**

**.. and the areas we can  
have an impact**



Supporting  
New Modes  
of Research,  
Teaching &  
Learning



Managing the  
Collective Collection



Renovating Descriptive  
& Organizing Practices



Modeling New Service  
Infrastructure



Supporting  
New Modes  
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Collective Collection



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& Organizing Practices



Modeling New Service  
Infrastructure



Architecture  
& Standards



Measurements  
& Behaviors



Supporting  
New Modes  
of Research,  
Teaching &  
Learning

# Supporting new modes of research, teaching and learning

# Research and learning behaviors change

**Then:** Final 'product': publish and archive

**Now:** Process generates reusable outputs

E.g. data sets, learning materials, blog commenta

## New ways of consuming resources

### What is the record?

# Supporting new modes of research, teaching and learning

- The changing scholarly record
- Web archive collections
- Large text aggregations
- Personal research collections
- Organizational and service relationships - libraries, archives and museums



new search

my keywords • all keywords

sites names dates keywords genres peers

12 maritime objects

page 1 of 3

view only my maritime objects

**Eddystone Light-House**  
1829  
Wallis, Robert  
William, Owen, S.,  
Shoberl, Frederic,  
Ackermann, R.  
Primary, Visual Art

**Les Noyades**  
1866  
Swinburne, Algernon  
Charles, 1837-1909,  
Chatto  
Poetry

keywords: ?  
American-South

notes:  
noting parallel  
between Irish

Wims 1830-1830

Morgan, Gerald.  
Bibliography

Exploiting the Sea:  
Aspects of Britain's  
Maritime Economy  
since 1870  
1998  
Starkey, David J., &  
Alan G. Jamieson  
Bibliography

sites names dates keywords genres

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RESEARCH | CONTRIBUTE

**YOUR CONSTRAINTS**

phrase: + Scotland remove  
genres: + Letters remove  
phrase: + sea remove  
save these constraints clear all

**CONSTRAIN FURTHER**

phrase: sea ? add

sites: Letters of Matthew Arnold + 11 items or -  
The Poetess Archive + 1 item or -

genres: Letters 12 items  
Primary + 1 item or -

year: ? add

name: ? add

12 matches ▼

12 results: page 1 of 1

select all  collect selected



ROTUNDA

collect

**Matthew Arnold to The Editor of The Times** →

*Matthew Arnold The Editor of The Times [before May 22, 1886] Sir All next week while the moment for the great vote grows near, I shall be on the sea going to visit our American kinsmen, who abstained from setting up a Southern Parliament themselves, but are so anxious, it seems, that we should set up an Irish one. Suffer me to say, before I depart, that the mind of the country, which is slowly but surely waking up on this Irish question, will not be satisfied unless the vote is taken on a clear issue and accompanied by a distinct engagement. The vote is not taken on a clear issue if*

source: The Letters of Matthew Arnold (ISBN: 0813916518)

site: Letters of Matthew Arnold →

name: Cecil Y. Lang (Editor)  
Matthew Arnold (Author)  
University of Virginia Press (Publisher)

date: 22 May 1886

genre: Letters 12 items

**Matthew Arnold to George Smith** →

# MUSEUMS & COLLECTIONS



Anatomy Museum



Pathology & Forensic Medicine Collection



Marischal Museum



Marischal Virtual Museum



Geological Collections



Natural Philosophy Collection



University Herbarium



Zoology Museum

## HISTORIC COLLECTIONS



welcome



LIBRARIES & ARCHIVES

DIGITAL RESOURCES

MUSEUMS

Resources: [Acts of Union](#) and [Jacobite Virtuosi](#) in Marischal Museum.

King's College · Aberdeen · AB24 3SW · Tel: +44(0)1224 272598 · Email: [speclib@abdn.ac.uk](mailto:speclib@abdn.ac.uk)

# Supporting new modes of research, teaching and learning

- The changing scholarly record
- Web archive collections
- Large text aggregations
- Personal research collections
- Organizational and service relationships - libraries, archives and museums

# Managing the collective collection

**Optimized for a pre-network  
environment**

**Mass digitization**

**Off site storage**

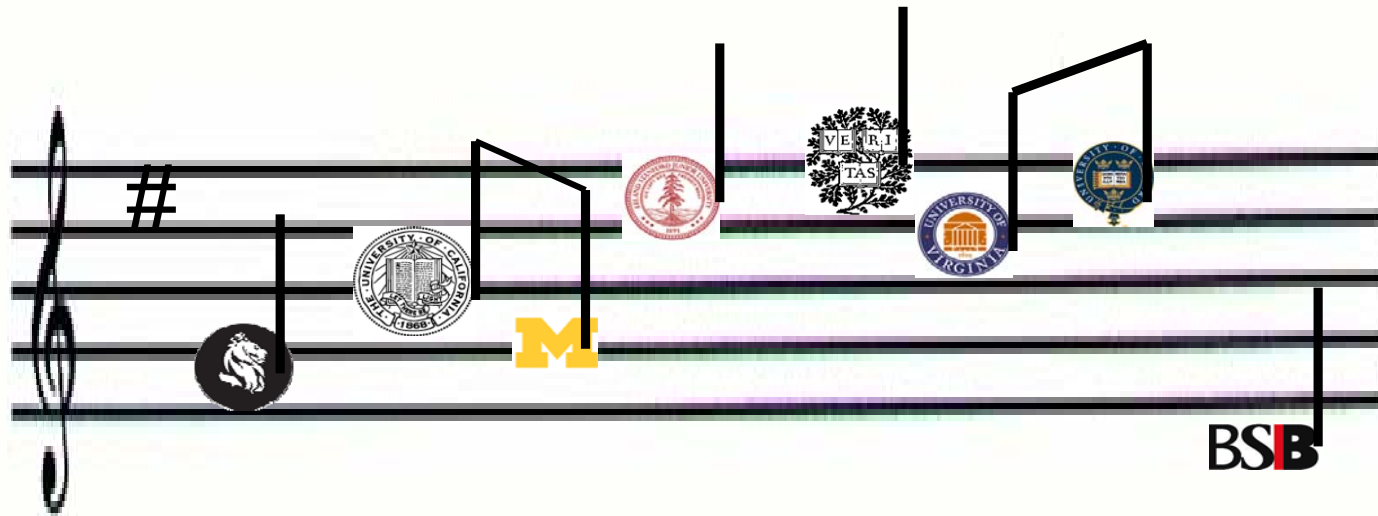
**Deep resource sharing**

**Preservation of the  
scholarly record**

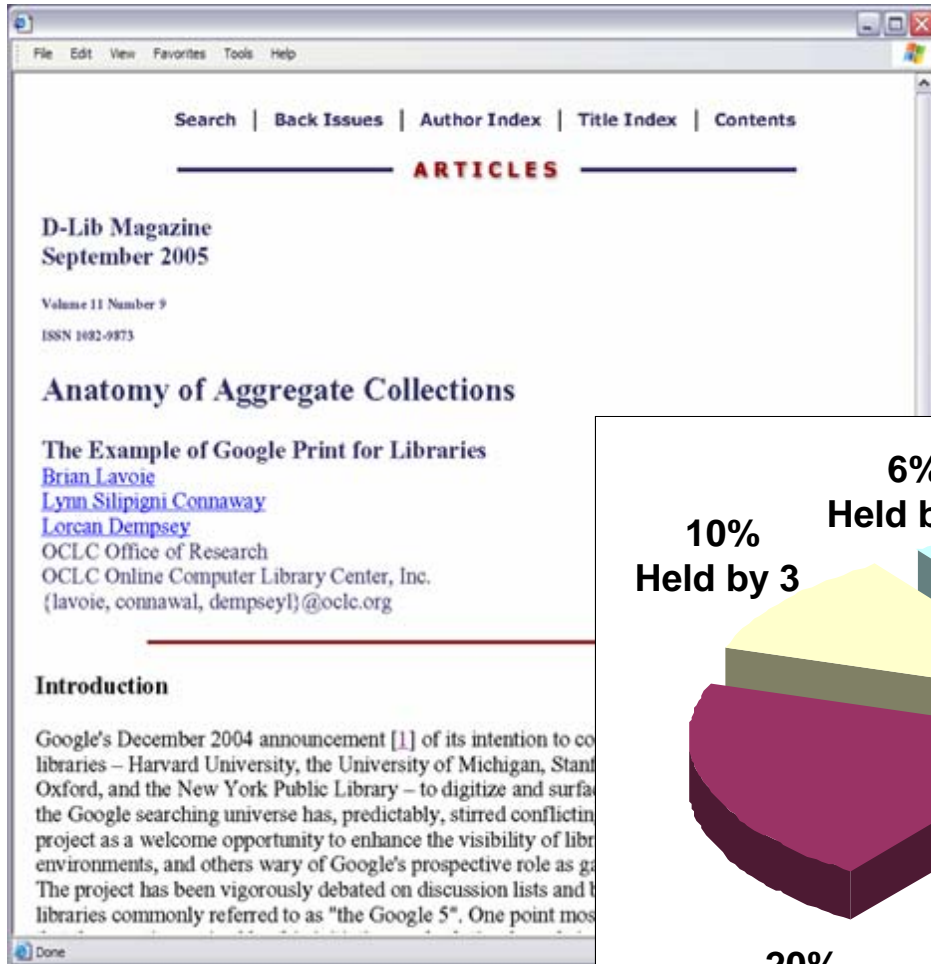
# Managing the Collective Collection

- Shared print collections
- Harmonizing digitization
- Data-mining for management intelligence and new services
- Collection sharing beyond libraries

# Harmonizing Digitization

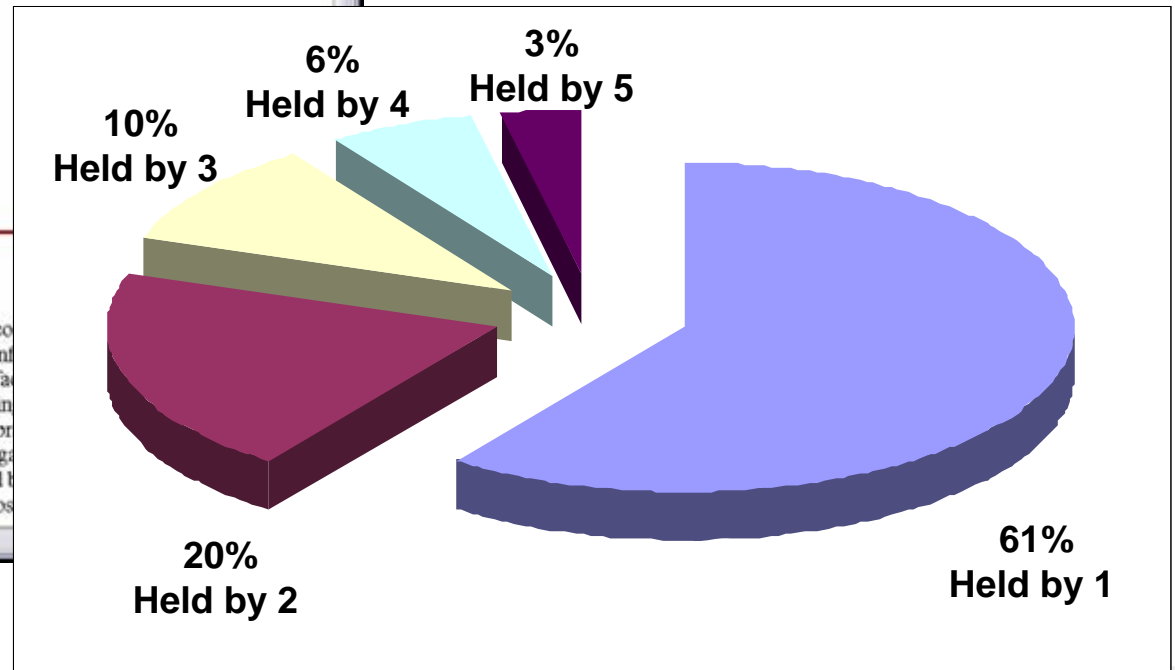


# Rareness is common ... in the G5



## G5 aggregate collection:

- 10.5 million books
- ~60 percent represent unique contribution by one or another of the G5 libraries





# Managing the Collective Collection

- Shared print collections
- Harmonizing digitization
- Data-mining for management intelligence and new services
- Collection sharing beyond libraries

# Renovating descriptive and organizing practices

# LC working group

Data silos vs data services

Releasing value on the web

Mixing metadata modes

Workflow and costs

# Renovating Descriptive and Organizing Practices

- Changing metadata creation processes
- Deliver tools and services to support efficient metadata processes
- Leveraging vocabularies for effective discovery

# O'Brien, Flann 1911-1966

## Overview

<b>Works:</b>	136 works in 335 publications in 13 languages and 13,254 library holdings
<b>Genres:</b>	Satire Black humor (Literature) Experimental fiction Humorous fiction Humorous stories
<b>Subject Headings:</b>	Authors, Irish—20th century
<b>Classifications:</b>	pr6029.n66, 823.912

## Publication Timeline



## Most widely held works about Flann O'Brien

- **No laughing matter : the life and times of Flann O'Brien** Anthony Cronin
- **Flann O'Brien** Sue Asbee
- **Flann O'Brien : a critical introduction to his writings : the story-teller's book-web** Anne Clune
- **Flann O'Brien's exorbitant novels** Thomas F Shea
- **Alive-alive O! : Flann O'Brien's At Swim-Two-Birds**

more ▼

## Most widely held works by Flann O'Brien

**At Swim-Two-Birds** Flann O'Brien  
32 editions published between 1939 and 2000 in 3 languages and held by 1,178 libraries worldwide



## Alternative Names

- Na Gopaleen, Myles 1911-1966
- O'Nolan, Brian 1911-1966
- Nagcopaleen, Myles 1911-1966
- Nagopaleen, Myles 1911-1966
- Copaleen, Myles 1911-1966
- Gopaleen, Myles 1911-1966
- Nolan, Brian 1911-1966
- Nag Copaleen, Myles 1911-1966
- Knowall, George
- Na gCopaleen, Myles 1911-1966

## Languages

- English (285)
- German (26)
- Irish (15)
- French (13)
- Dutch (6)
- Italian (4)
- Japanese (2)
- Polish (2)
- Hebrew (2)
- Spanish (2)
- Czech (2)
- Scottish Gaelic (1)
- Undetermined (1)

## Covers



Name:

Search

### Top Black humor (Literature) Identities

Aldiss Alfau Allen **Amis** Antrim Ardagh Astley Baldwin Banville **Beattie Bellow** Benabid **Berger** Billson **Block** Born Bradbury Bradley  
**Brautigan Breslin** Bromfield **Browne Burroughs** Cardwell **Cheever Condon** Coupland Covino **Crews** De Dexter  
**Dickens** Dixon Dobyns Echenoz Egolf Everett Flook **Frisch** Gates **Goldsmith Goncharov Graham Grass** Gray  
Green **Greene** Harrison Harsch Highsmith **Huxley** Janeway Janowitz Julavits **Kelman** Kim **Kundera** Lennon Lethem Leyner  
**Lipman Louie Lupica** MacFarquhar Mantel **McCabe McInerney McMurtry** Miller **Mills** Nicholson **O'Brien** O'Connor  
O'Nan Parks **Pelevin Pierre** Pollizzotti Purdy Queneau **Richler** Roberts **Russo Sillitoe** Simon **Southern** Stoppard Strozier Tanizaki  
Treichel **Valdés Welsh** Wenzel Wickham **Willett** Wilson Wilson Womack Woodrell **Yglesias**

### All Black humor (Literature) Identities

- |                         |                          |                        |                                  |                      |
|-------------------------|--------------------------|------------------------|----------------------------------|----------------------|
| 1. Aldiss, Brian Wilson | 76. De Bernières, Louis. | 151. Holland, Wayne.   | 226. McHale, Tom.                | 301. Rothmann, Ralf. |
| 2. Alfau, Felipe        | 77. De la Bere, Imogen.  | 152. Hollander, Kurt.  | 227. McInerney, Jay.             | 302. Royle, Dave.    |
| 3. Allen, Edward        | 78. Dexter, Pete         | 153. Holmes, Andrew.   | 228. McInerney-Whiteford, Merry. | 303. Russo, Richard  |
| 4. Allen, Jack          | 79. Dickens, Charles     | 154. Home, Stewart     | 229. McLaren, John               | 304. Sacks, Jen.     |
| 5. Alper, Debi.         | 80. Dickens, Charles     | 155. Horsfall, Paul.   | 230. McLaren, John.              | 305. Sáenz, Miguel.  |
| 6. Amis, Martin.        | 81. Dixon, Stephen       | 156. Houghton, Gordon. | 231. McMurtry, Larry.            | 306. Sahgal, Ajay.   |
| 7. Antrim, Donald.      | 82. Dobyns, Stephen      | 157. Hubert, Jocelyne. | 232. McNeil, Jean.               | 307. Sallis, James   |

[SEARCH](#)[BROWSE CATEGORIES](#)[BROWSE USER KEYWORDS/TAGS](#)[ABOUT](#) show objects with images only

Category history: \_\_\_\_\_

## Browse user keywords and tags

### Popular user keywords (randomised)

victorian button up v.s 2221 1808 eagle magnetic colt pepperbox  
d3590 salter trade spring balance no 50t buffaloes 2160 4708 156

archaeology scooter angels Wolf cannons **yellow** hull  
she goes to the fancy dress ball pen sleeves "rawleighs" bottle  
cascade calculator v-back fetish petals melbourne cup cloche

**wood** canadian sesquicentenary weird guitar synthetic

bundaberg jug with c shaped handle fibreglass poo pattern  
chelsea marie allen queensland bananas accordion curved guide  
old looking glass broach at top cigarettes speed black silk hat  
stocking nantgarw hankies norfolk island commemorative stamps

bobbin lace features veronica **bell** trilby lace fish creamers  
pilsener embroidered panel knights deigra:britt:omn:rex strategy

**boots** sheik sk11 lemon mens jacket nigel lothouse  
yankee watermymph vignette cedar board table francis burke 1937  
shalimar manufacturing **fabric** cyl pl 3055 **1943** 747-400  
map of australia dog collars keys drinwade oriental beer labels  
statue 8260 nelson current value ansonia clock co. pink lustre

**buttons** 11/25 penn-peer no.109 baitcasting reel d.6308 royals

### About user keywords and 'tags'

User keywords, or 'tags', are words added to object records by other users to enhance their discovery by others.

Sometimes museums describe objects in language that is highly specialist and user added keywords are useful in bridging the 'semantic gap' between the language of the museum and that of the user.

The box on the left is a randomised listing of 150 of these keywords that have been added by users of the site. The larger the word or phrase, the more objects it has been applied to.

Click on a word to find the objects that are associated with it.

Please note that this is an experimental way of navigating the collection and that the 'accuracy' of these keywords is not verified by the Museum. We recommend their use primarily as exploration and navigation tools.

# Renovating Descriptive and Organizing Practices

- Changing metadata creation processes
- Deliver tools and services to support efficient metadata processes
- Leveraging vocabularies for effective discovery



# Modeling new services infrastructures

# Modeling New Service Infrastructures

- Advance service framework work
- Participate in and/or lead efforts to gather requirements of and specifications for new service areas
- Build prototypes/software to showcase and demonstrate

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Load up your profile with information
- 2 Share it** **FREE**  
Give access to vendors, consortium partners, funding bodies and others
- 3 Update it** **FREE**  
Keep your profile current so workflows you've streamlined keep flowing

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## Get started!

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Profiles: [Create a New Profile](#) | [Authorize Me to Manage a Profile](#)

Help: [Frequently Asked Questions](#)

# Modeling New Service Infrastructures

- Advance service framework work
- Participate in and/or lead efforts to gather requirements of and specifications for new service areas
- Build prototypes/software to showcase and demonstrate

# Architecture & standards

# Architecture and Standards

- Lead and/or participate in both formal and informal 'standards' efforts representing library, archive and museum interests
- Provide standards infrastructure: registries (OpenURL, info-URI, DC, ..)

# Measurement & behaviors

# Measurements and Behaviors

- Gain a better understanding of end-user behaviors
- Design a coherent program for user-centered analyses of evolving services
  
- Virtual reference
- Users of information





Managing the  
Collective Collection



Renovating Descriptive  
& Organizing Practices



Modeling New Service  
Infrastructure



Architecture  
& Standards



Measurements  
& Behaviors



Supporting  
New Modes  
of Research,  
Teaching &  
Learning