Perspectives

From the Rearview Mirror & the Windshield

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Quality in University Libraries – Palma de Mallorca – January 2005
Overview

• The perspective from the rearview mirror
• The perspective from outside of the car
• The perspective from the windshield
• What do we have in the car?
• Speculations on a GPS for academic libraries
Perspective from the rearview mirror

• **Trends**
  – Indicate how libraries are changing
  – Vary significantly across institutions & countries
  – Are difficult to interpret without context
Traditional metrics

Entries
- ARL
- Enlarged EU
- Spain
- Cientificas Espanolas
- Catalunya

Circulation
- In–house use
- Borrowed or used

Entries
+253% 1994-2003

Circulation
+115% 1994-2003

In–house use
-16% 1991-2003

Borrowed or used
-49% 1991-2003

+20% 1997-2001
Traditional metrics

-29% 1991-2003

Interlibrary service +214% 1991-2003

Instruction

Reference

- ARL
- Científicas Españolas
- Catalunya
 Libraries in Europe are also spending more, but acquiring less.

Monographs purchased per student: -32%

Serials purchased per student: -1%
ARL e–metrics (large research libraries)

• Electronic resources
  – Number of full text books & journals

• Use of networked resources
  – Virtual visits, digital reference, database sessions & queries, full text documents viewed

• Expenditures for networked resources
  – Full text books & journals, databases, utilities, networks, & consortia

• Digitized collections
  – Size, use, & cost to create & maintain
## ULG e–metrics (mid–size academic libraries)

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>Average</th>
<th>Carnegie Mellon</th>
</tr>
</thead>
<tbody>
<tr>
<td># licensed e–resources</td>
<td>174</td>
<td>168</td>
<td>185</td>
</tr>
<tr>
<td># searches Worldcat</td>
<td>25,528</td>
<td>39,166</td>
<td>40,811</td>
</tr>
<tr>
<td>Cost per search</td>
<td>$0.36</td>
<td>$0.42</td>
<td>$0.75</td>
</tr>
<tr>
<td>% visits that are virtual</td>
<td>27%</td>
<td>42%</td>
<td>61%</td>
</tr>
<tr>
<td>% reserve use digital</td>
<td>81%</td>
<td>Errors in data</td>
<td>95%</td>
</tr>
<tr>
<td>% journals e–full text</td>
<td>82%</td>
<td>Errors in data</td>
<td>83%</td>
</tr>
<tr>
<td>% spent on e–resources</td>
<td>23%</td>
<td>27%</td>
<td>44% (26%)</td>
</tr>
<tr>
<td>Spent per FTE</td>
<td>$91</td>
<td>$111</td>
<td>$181</td>
</tr>
</tbody>
</table>
Entries 1992-2003

Virtual visits 2000-2004

Catalog searches 1991-2003

Database searches 1991-2003

Printing 2000-2003

Circulation 1992-2003

In-house use 1992-2003

Full text articles viewed 1998-2003

Photocopying 1991-2003

Estimate 90% of e-resource use is remote

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Estimate 90% of e-resource use is remote
89,281 pages digitized for reserves 1999–2004
User dissatisfaction

- Complete runs of journals
- Easy remote access
- Easy–to–use access tools
- Easy–to–use library web site
- Easy access to information
- Convenient access to information

Difficulty navigating & searching library web sites

Issues with the design, functionality, & access restrictions of licensed online library resources
Perspective from outside the car

- **Environmental scans**
  - Reveal full scope of change
  - Illuminate why libraries are changing
  - Help identify which changes are mission critical
  - Facilitate formulating a critical & appropriate response to change
Worldwide internet & economics

< 1% GDP on libraries
< 7% GDP on education
* = 75% worldwide spending on libraries

$ Billions on education

Norway $13
US $500
Netherlands $20
Japan $139
Canada $39
UK $70
Australia $19
Germany $89
Italy $54
France $82
Spain $29
Language barriers

* = language on web

Top 10 spoken languages:
- 1 Mandarin
- 2 Hindi
- 3 English
- 4 Spanish
- 5 Bengali
- 6 Portugese
- 7 Russian
- 8 German
- 9 Japanese
- 10 Korean

Languages of web content:
- Italian
- French
- Other

* = language on web
Change in delivery of education

• E–learning
  – Online & hybrid courses
  – Course & learning management systems
  – Collaborating to create & enable use, reuse, & management of learning objects
  – Developing standards for interoperability & rights management

• Ask–a–services & tutor.com
Change in scholarly infrastructure

- Ubiquitous computing & high bandwidth
- Scholarly communication
  - Digital libraries
  - Digital assets
  - Grid computing
  - Commoditization of knowledge
  - Open access
  - Institutional repositories
- Integrating information literacy
- Interdisciplinary collaboration
Change in distribution & use

• Micro–content & micro–payments
  – Personal & social publishing via blogs & wikis
  – Many–to–many social interactions
  – Delivery via convenient channels

• Disruptive, converging technologies
  – Affordable mobile communication devices
    • Email, telephone, camera, media player, PDA, text messaging, Word & PDF files, browser, digital wallet
• **Search inside**
• **Look inside**
• This book cites these books; these books cite this book
• Rate, review, share thoughts or images about this book
• Read reviews of this book
• Email a friend about this book

• Add book to shopping cart, wish list, or gift registry
• Buy new or used
• Look for similar items
• Sign up for email alerts
• Translate into English
• Recommendations
• Account information

Customers who shopped for other items in your Wish List also shopped for:

- **The Other Boleyn Girl**
  by Philippa Gregory
  Price: $10.20
  Add to Wish List

- **Marie Antoinette : The Journey**
  by ANTONIA FRASER
  Price: $11.53
  Add to Wish List

- **The Queen's Fool : A Novel**
  by Philippa Gregory
  Price: $10.20
  Add to Wish List
Google Print (Beta)

- Full text search
- View full text (public domain)
- View excerpts (in copyright)
- Find book in local library
- Buy new or used
- Library partnerships
- Publisher partnerships
- Targeted advertisements

“Stand on the shoulders of giants”

- Cited by . . .
- View citations
- Library search
- Web search

“Ask a question. Set your price. Get your answer.”
• Web directory — arts, business, computers, education, entertainment, health, news, recreation, reference, . . .

• Services — auctions, briefcase, calendar, chat, classifieds, hot jobs, personals, pets, shopping, stocks, weather, . . .

• My Yahoo!

• International
June 2001:
15,949,118 unique users
Average 300 pages & 2 hours per person per month

Currently:
1 billion queries per month
8,000 members of eBay API program

• Tools & services
  – General (16)
  – Bidding & buying (3)
  – Selling (24)

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    – General (16)
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  • My eBay
    – Customize
    – Personalize
    – Buying reminders
    – Buying totals
    – Items I’m watching
    – Items I’m bidding on
    – Items I’ve won
    – Items I didn’t win
U.S. academic users want

• Self-sufficiency, seamlessness, & ubiquitous access

- Up over 6% in one year
- 60% use weekly

- Undergrads
- Graduate students
- Faculty
U.S. academic users “satisfice”

- Google™ is good enough
  - 90% want convenient, speedy, easy access
  - 78% say web provides most of what they need
  - 61% prefer remote access to full text
  - 48+% start with Internet search engine
- Undergraduates = expediency > relevance
  - 73% use the Internet more than the library
  - 48% use e–resources all or most of the time
  - 46% believe other web sites have better information than the library web site
Perspective from the windshield

- The view is hazy & incomplete,
  but we CAN see the road
The future is digital

- Increasing computer–savvy users
  - Nomadic, wireless, wearable computing
- Increasing seamlessness & personalization
  - Distributed, interoperable, enterprise systems
- Increasing knowledge economy
- Increasing speed of change
- Increasing competition
Library funding & accountability

• Probabilities
  – Decline in public / institutional funding
  – Increase in competition for funding
  – Increase in time spent on fund raising
  – Urgent need to show contribution

Current library funding

- User fees
- Other
- Public funds
Speed of technological change

Expect exponential growth rate by 2015

What are the implications of economic contraction for the digital divide?
Projections

• **Daily usage volumes by 2009**
  – Text messaging +91%
  – Email with payload +54%
  – Blogs +97%
  – Currently 2 billion
  – Currently 16 billion
  – Interlibrary loan +11%

• **Annual production volumes by 2009**
  – E–books +33%
  – E–articles + 44%
  – E–magazines +77%
  – Music downloads + 60%

• **70% expect increase in e–learning**
Significant gaps

- **Users** – focus on expediency; are comfortable with anarchy; want interactive, collaborative “infosphere” & seamless social & academic life

- **E-learning** – focus on creation, use & re-use of interactive objects; collaborate & integrate

- **Libraries** – focus on accurate retrieval, metadata, controlled vocabularies & classification schemes; structure & present content in separate sphere
Significant perils

- Poorly curated data
- Lack of standards & best practices
- Lack of digital preservation strategies
- Lack of rights expression & management
- Wasted resources
What’s inside the car?

• Limited, potentially shrinking funds
• Tradition of slow adaptation
• Strong service ethos
• Professional staff
• Commitment
  – Equitable access
  – Stewardship
  – Privacy
Library resource allocation

- Need to reduce cost of staff & materials
- Need to find funds for capital renewal
- Need to collaborate to improve efficiency
Reduce cost of materials

• Stop seeing collections as primary asset

Just in case
Just in time
Just for me
Everything, everywhere, when I want it, the way I want it
Reduce cost of staff

• Stop automating 19th Century librarianship
  – Focus on what users want
  – Eliminate low use & low yield services

• Eliminate, combine & upgrade positions to acquire skills & competitive salaries
  – Integrate & maintain collections, systems & equipment, develop web interfaces & services, write grant proposals, conduct research, & analyze & manage data
Increase operating budget

- Fund sustainable facilities management & equipment replacement cycle
  - Computer equipment
  - Electrical outlets
  - Software applications
  - Café or coffee shop
  - Group study areas
  - Other renovations
  - Off-site storage
Speculations on a GPS for libraries

- Triangulate our position
  - Users
  - Publishers / aggregators
  - Teachers / scholars
  - Other information providers

- Reposition libraries in a world where content & distribution channels are ubiquitous
Mission critical requirements

• Create seamless experience

• Change structure & organization of library to improve quality & reduce cost

• Shift from being service provider to being proactive collaborator
Appear in users’ workspace

• Deliver content to mobile devices
• Integrate with non–library systems
• Provide library tool bar
  – Metasearch, MyLibrary, Google scholar,
    Ask–a–librarian, Renew / Hold / Recall book,
    Collaborate, Interlibrary borrow, . . .

• Make library content accessible
  in Google™ & Yahoo!®
Create seamless experience

- Customize & personalize delivery
  - Push content based on user characteristics
  - Integrate on-demand services
- Add value via context & provenance
Change structure & organization

• **Focus on user needs & expectations**
• Increase advocacy, assessment, & marketing
• Change what content libraries acquire, & how they acquire, organize, & deliver it
• Support new models of learning & research
• Facilitate partnering & fund raising
• **Learn to argue persuasively**
Become proactive collaborator

• Engage students & faculty
  – For example, blogs & wikis

• **Lead by leveraging strengths**
  – Develop coherent, seamless, easy–to–use knowledge management & delivery systems
  – Develop *whole, multi–lingual* collections
  – Address perils to digital future

• **Upgrade education of librarians**
Thank you!

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