A Field in Flux

Blaise Cronin, PhD, DSSc, DLitt (h.c.)
Rudy Professor Emeritus of Information Science
Indiana University
Then...

- 1915 School to train (female) librarians
- 1939 Female Librarians’ High School
- 1974 University School
- 1982 Library Science and Documentation University School

Eugenio d’Ors
Now...

- **MS** Digital Content Management
- **MS** School Libraries & Reading
- **MS** Library & Heritage Collections
- **MS** in Information & Document Management in Business
- **PhD** Information & Documentation in the Knowledge Society
Requiescat in pace

- 1897 Columbia College of Library Economy
- 1899 New York State Library School at Albany
- 1926 Columbia University School of Library Service
- 1992 Closed!

"Inventor of the Dewey Decimal System. a.k.a the D.D.S."
The kiss of death?

Queen’s University, Belfast  
*Dept. of LIS*

University of Strathclyde, Glasgow  
*Dept. of IS*

Indiana University, Bloomington  
*School of LIS*

1975  
2014
The paradox

If LIS programs are successful they will be taken over and disappear; if LIS programs are not successful they will be eliminated.
My prediction of 30 years ago

• ‘Pace setters’ (pioneering, trans-disciplinary research & teaching)

• ‘Average-rated’ (mainstream, institutionally-focused -- neglected)

• ‘Also-rans’ / ‘Tree huggers’ (small, blinkered -- strategic drift)
Stratification

Innovative

Reactive

Vocationally-oriented

Research-intensive

Academic credibility
Matthew effect?

USA: 5 departments account for ~27% of articles contributed by LIS faculty

UK: 4 departments account for ~66%

- High-status departments may gain a permanent advantage....

Walters & Wilder (2015)
North America

- 60+ LIS programs; ~1,000 f/t faculty
- Growth overall
- Closures, mergers, restructuring, renaming, rebranding, repositioning
- Divergence: iSchools and L-schools
Gender ratios: LIS education

Senior Faculty Gender Ratios, 1986–2003.

Gender Ratio by Faculty Position

Percentage

Year

Deans/Directors

Professors

Associate Professors

Assistant Professors

Dillon & Norris, 2005
# US salary comparisons (LJ, 2014)

## 2013 Compensation by Gender

Comparison of full-time median compensation for a selection of job functions working at all library types.

<table>
<thead>
<tr>
<th>Job Function</th>
<th>Male</th>
<th>Comparable %</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Job Titles</td>
<td>$58,000</td>
<td>89%</td>
<td>$51,780</td>
</tr>
<tr>
<td>Library Director</td>
<td>$76,000</td>
<td>74%</td>
<td>$56,250</td>
</tr>
<tr>
<td>Library/Branch Manager</td>
<td>$55,000</td>
<td>100%</td>
<td>$55,000</td>
</tr>
<tr>
<td>Reference/Information Services</td>
<td>$47,000</td>
<td>94%</td>
<td>$44,187</td>
</tr>
<tr>
<td>Adult/Public Services</td>
<td>$55,000</td>
<td>85%</td>
<td>$47,000</td>
</tr>
<tr>
<td>Technical Services</td>
<td>$50,900</td>
<td>106%</td>
<td>$54,000</td>
</tr>
</tbody>
</table>

*Percentage that women make of comparable men's salaries.*
Employment trends (US Dept. of Labor)
Relative decline
Where the money goes...

University Library Expenditures 2011-12

- Total Salaries: 44.41%
- Total Library Materials: 44.48%
- Other Operating: 11.11%

'LIS education is likely to go the way of the pandas...'

Van House & Sutton, 1996
Panda syndrome II

‘The LIS profession is likely to go the way of the pandas.’

Sutton, 1998
‘Doomsday scenario’

‘In the year 2000 … the information scientist and the librarian will have gone the way of the brontosaurus.’

Lewis, 1981
‘It is an exciting time to be part of the information profession. The dodo bird should have been so fortunate.’

Mersky & Hankins, 2004

http://www.ala.org/educationcareers/employment/foreigncredentialing/worldlist
‘Crying wolf’

Crisis? What crisis?

Dillon & Norris, 2005
Then ... now
Then … now

Lone scholar
Immutable scripts
Print
Location-tied

Hyper-connected
Mutable scripts
Multiple media
Mobiquitous
The Zeitgeist

- Social media
- Crowdsourcing
- Folksonomies
- Open access
- Open peer review
- Creative Commons
- Collaboratories
- Citizen science
I AM A **SOCIAL** LIBRARIAN

---

**CURATOR, CREATOR, AND PROMOTER**
- from my desktop or mobile device to my parent platform of choice
- entering the library into the social content ecosystem
- with web articles, social streams, videos, and subscription content
- a tsunami of information produced by the growing Internet of Things
- of interconnected smart objects

---

**EDUCATOR**
- using social tools to empower library users
- with information skills for the social age
- underpinned by a knowledge of effective and ethical use
- populating our library's social web with information and resources
- and meaningful conversations throughout the ecosystem

---

**FILTER AND CONNECTOR**
- isolating and posting streams for specific users
- enabling their discovery of timely subject-specific information
- connecting with apps, tools and services
- in persons, at hangouts, over video
- in a complex information landscape intertwined with the cloud

---

**FACILITATOR AND EXPERIMENTER**
- avatars and profile extend the library's value
- in real time to the social screens of library patrons
- while back at the library, I create and facilitate
- with makerspaces, digital media labs, hackspaces, or creation spaces
- embracing the DIY culture and its collaborative tools

---

**BEACON**
- attracting library users to our physical location
- with social mapping, traffic and reviews
- inspiring and engaging our library's supporters
- tapping into the financial and friend resources of the crowd
- continuously shining a light on new social media directions

---

I AM **READY**

NEVER UNDERESTIMATE THE POWER OF THE (SOCIAL) LIBRARIAN
LIBRARIANS AND RESEARCH IMPACT

A story of measurement, insights and action

BEYOND BOOKS AND ARTICLES
Thoughts about publishing is still the gold yardstick of academic research. However, the current metrics are not well-recognized and adapted in conversations and shared in assessments. Librarians and information professionals are helping to raise awareness of the breadth of outputs and impacts for tracking these new measures.

BEYOND CITATION COUNTS
Citations and associated indices (Altmetrics, etc.) are the new measures of research impact, and are being augmented by public, social and media metrics (Altmetrics) in do-it-yourself mashups or pre-aggregated tools. Librarians are shaping researchers’ metrics and tools are invaluable, as well as how to assess their strengths and limitations in measuring.

BEYOND TENURE DECISIONS
Researchers can apply such evidence to inform collaborative funding and promotional opportunities. Librarians are working with researchers on raising the visibility and impact of their research and enhancing research and career opportunities, and with the research office on performance measurement and faculty assessment activities.

Never Underestimate the {IMPACT} of a Librarian

REFERENCES

Library Connect
Subscribe for free to the Library Connect Newsletter
http://libraryconnect.org/newsletter
Core elements of the field  
(after T.D. Wilson)

<table>
<thead>
<tr>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Content <em>(more diverse)</em></td>
</tr>
<tr>
<td>People</td>
<td>People <em>(more varied)</em></td>
</tr>
<tr>
<td>Systems</td>
<td>Systems <em>(socio-technical)</em></td>
</tr>
<tr>
<td>Organizations</td>
<td>Organizations <em>(real &amp; virtual)</em></td>
</tr>
</tbody>
</table>
The Information field(s) -- M. Bates

THE INFORMATION SUB-DISCIiplines

**Disciplines of the Cultural Record** .................................................................

<table>
<thead>
<tr>
<th>Reading interests</th>
<th>Information policy/law</th>
<th>Information behavior</th>
<th>Library automation</th>
<th>Information retrieval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art librarianship</td>
<td>Library special collections &amp; manuscripts</td>
<td>Management information systems</td>
<td>Database mgmt systems</td>
<td></td>
</tr>
<tr>
<td>Theological librarianship</td>
<td>Business records management</td>
<td>Information architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information arts</td>
<td>Semiotics</td>
<td>Government archives</td>
<td>Business archives</td>
<td>Science/engineering librarianship</td>
</tr>
<tr>
<td>Publishing studies</td>
<td>Diplomats</td>
<td>Government records management</td>
<td>Electronic publishing</td>
<td></td>
</tr>
<tr>
<td>Digital asset management</td>
<td>College and academic libraries</td>
<td>Special libraries</td>
<td>Digital libraries</td>
<td></td>
</tr>
<tr>
<td>Social epistemology</td>
<td>Genealogical archives</td>
<td>Social science data archives</td>
<td>Technical writing</td>
<td></td>
</tr>
<tr>
<td>Film and broadcast archives</td>
<td>Business process management</td>
<td>Sound and audio archives</td>
<td>Data mining</td>
<td></td>
</tr>
<tr>
<td>Art museums</td>
<td>Historical and archaeological museums</td>
<td>Natural history museums</td>
<td>Science museums</td>
<td></td>
</tr>
<tr>
<td>Analytical bibliography</td>
<td>Site museums and monuments</td>
<td>Museum visitor studies</td>
<td>Biblio-/Webo-/Sciento-metrics</td>
<td></td>
</tr>
<tr>
<td>Cultural informatics</td>
<td>Social informatics</td>
<td>HCI for info systems</td>
<td>Grid storage of data</td>
<td></td>
</tr>
<tr>
<td>Museum informatics</td>
<td>Legal informatics</td>
<td>Business informatics</td>
<td>Bioinformatics</td>
<td>Geoinformatics</td>
</tr>
<tr>
<td>Digital humanities</td>
<td>Security informatics</td>
<td>Medical/health informatics</td>
<td>Chemical informatics</td>
<td></td>
</tr>
</tbody>
</table>

| Arts | Humanities | Social and Behavioral Sciences | Natural Sciences & Math |
Culture wars
Internecine tensions

Info Sci vs. Lib Sci
KM vs. LIS
Doc vs. KM
Arch vs. Rec Mang
Doers vs. Educators
Theory vs. Practice
Beware methodolatry!

Humanistic $\leftrightarrow$ Scientific
Values-based $\leftrightarrow$ Evidential
Qualitative $\leftrightarrow$ Quantitative
Relativism $\leftrightarrow$ Realism
Constructivism $\leftrightarrow$ Objectivism
Emic $\leftrightarrow$ Etic
‘Community intelligence service’

Mere grubbers in books according to professional tradition...will not do

William Learned, 1924
‘This necessary library science’

Pierce Butler, *An Introduction to Library Science*, 1933

- Scientific knowledge
- Sociological study
- Historical consciousness
British empiricism

The scattering of articles on a given subject

Bradford, S. C. *Documentation*. 1948
First formulation: 1934
Old wine, new bottle?

‘Evidence-based librarianship seeks to integrate the ‘science’ back into library science’

Eldredge, 2000
(Pseudo-) science vs. (quasi) religion

‘A secular priesthood, administering a sacrament of cultural communion to individual souls’

Butler, 1933
Aux armes citoyens!

- Direct action
- Lobbying & advocacy
- Libraries & democracy
- Touchy-feely
'This positivist perspective now governs the thinking of most serious researchers in library science (and probably all who refer to themselves as ‘information scientists’). How did it come to pass that such a foreign perspective could hold such sway in the profession once characterized by its intuitive, almost mystical, approach to its work?'

R. Harris, 1986
‘Critical chill’? Cronin & Meho, 2009

- Latour, Bruno 315
- Foucault, Michel 322
- Bourdieu, Pierre 188
- Barthes, Roland 67
- Derrida, Jacques 73
- Lyotard, Jean-François 37
- Levi-Strauss, Claude 34
- Baudrillard, Jean 29
- Ricoeur, Paul 44
- Deleuze, Gilles 35
- Merleau-Ponty, Maurice 19
- Guattari, Felix 18
- Kristeva, Julia 8
- Althusser, Louis 7
- Bataille, Georges 4
- Lacan, Jacques 2

Total cites = 1,202 (~1% of articles)
Redundancy...Sectarianism?

- ASIST
- ALA
- IFLA
- EBLIDA
- EUCLID
- iSchools
- ALISE
‘It’s like déjà vu, all over again’

Interdisciplinary approach to understanding the opportunities and challenges of information management
### iSchools: Classification of disciplinary areas

Wiggins & Sawyer (2011)

<table>
<thead>
<tr>
<th>Area</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computing</td>
<td>233 (30%)</td>
</tr>
<tr>
<td>Information</td>
<td>88 (11%)</td>
</tr>
<tr>
<td>Library</td>
<td>79 (10%)</td>
</tr>
<tr>
<td>Social &amp; Behavioral</td>
<td>78 (10%)</td>
</tr>
<tr>
<td>Management &amp; Policy</td>
<td>70 (9%)</td>
</tr>
<tr>
<td>Science &amp; Engineering</td>
<td>69 (9%)</td>
</tr>
<tr>
<td>Education</td>
<td>58 (8%)</td>
</tr>
<tr>
<td>Humanities</td>
<td>54 (7%)</td>
</tr>
<tr>
<td>Communication</td>
<td>40 (5%)</td>
</tr>
</tbody>
</table>
### iSchools’ research interests

Holmberg, Tsou & Sugimoto, 2013.

<table>
<thead>
<tr>
<th>Research interest</th>
<th>No. of researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>human-computer interaction</td>
<td>85</td>
</tr>
<tr>
<td>information retrieval</td>
<td>72</td>
</tr>
<tr>
<td>digital libraries</td>
<td>71</td>
</tr>
<tr>
<td>information technology</td>
<td>54</td>
</tr>
<tr>
<td>information systems</td>
<td>52</td>
</tr>
<tr>
<td>data mining</td>
<td>52</td>
</tr>
<tr>
<td>social media</td>
<td>49</td>
</tr>
<tr>
<td>knowledge management</td>
<td>48</td>
</tr>
<tr>
<td>information seeking</td>
<td>42</td>
</tr>
<tr>
<td>education</td>
<td>36</td>
</tr>
<tr>
<td>software engineering</td>
<td>35</td>
</tr>
<tr>
<td>information management</td>
<td>35</td>
</tr>
<tr>
<td>information behaviour</td>
<td>32</td>
</tr>
<tr>
<td>privacy</td>
<td>30</td>
</tr>
<tr>
<td>technology</td>
<td>29</td>
</tr>
<tr>
<td>information policy</td>
<td>28</td>
</tr>
<tr>
<td>learning</td>
<td>28</td>
</tr>
<tr>
<td>evaluation</td>
<td>28</td>
</tr>
<tr>
<td>machine learning</td>
<td>27</td>
</tr>
<tr>
<td>artificial intelligence</td>
<td>25</td>
</tr>
</tbody>
</table>

*Table 1: The twenty most frequently mentioned research interests*
Who cites the IS literature?

Cronin & Meho (2008)
Citations to the IS literature

Cronin & Meho (2008)

Changes in Exports by Field

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER SCIENCE</td>
<td>6,000</td>
<td>4,000</td>
<td>3,000</td>
</tr>
<tr>
<td>BUSINESS AND MANAGEMENT</td>
<td>5,000</td>
<td>3,000</td>
<td>2,000</td>
</tr>
<tr>
<td>HEALTH/MEDICAL SCIENCES</td>
<td>4,000</td>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>3,000</td>
<td>1,000</td>
<td>0</td>
</tr>
<tr>
<td>LITERATURE</td>
<td>2,000</td>
<td>1,200</td>
<td>600</td>
</tr>
<tr>
<td>ENGINEERING</td>
<td>1,000</td>
<td>500</td>
<td>0</td>
</tr>
<tr>
<td>HISTORY</td>
<td>800</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>PSYCHOLOGY</td>
<td>600</td>
<td>300</td>
<td>100</td>
</tr>
<tr>
<td>LAW</td>
<td>400</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>ARTS &amp; HUMANITIES</td>
<td>200</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>
Who does LIS cite? Larivière, Sugimoto & Cronin (2012)
Epistemic drift?

Sugimoto (2011)

<table>
<thead>
<tr>
<th>Percentage of advisorships</th>
<th>1930s</th>
<th>1940s</th>
<th>1950s</th>
<th>1960s</th>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS</td>
<td>12%</td>
<td>50%</td>
<td>65%</td>
<td>65%</td>
<td>68%</td>
<td>69%</td>
<td>62%</td>
<td>59%</td>
</tr>
<tr>
<td>NonLIS</td>
<td>88%</td>
<td>50%</td>
<td>35%</td>
<td>35%</td>
<td>32%</td>
<td>31%</td>
<td>38%</td>
<td>41%</td>
</tr>
</tbody>
</table>
Tipping point?

Sugimoto (2011)

<table>
<thead>
<tr>
<th>Period</th>
<th>LIS</th>
<th>NonLIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930s</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1940s</td>
<td>64%</td>
<td>36%</td>
</tr>
<tr>
<td>1950s</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>1960s</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>1970s</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>1980s</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>1990s</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>2000s</td>
<td>44%</td>
<td>56%</td>
</tr>
</tbody>
</table>

Percentage of committeeships
Create a stronger presence

<table>
<thead>
<tr>
<th></th>
<th>Major Player</th>
<th>Middling Player</th>
<th>Minor Player</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholarly Communication</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Curation</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR / Search</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Usage Metrics</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCI</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Information Architecture</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
## Strategic investment/positioning matrix

<table>
<thead>
<tr>
<th>High Opportunity</th>
<th>High Capability</th>
<th>✓ Invest</th>
<th>High Opportunity</th>
<th>Low Capability</th>
<th>? Develop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Opportunity</td>
<td>High Capability</td>
<td>? Maintain</td>
<td>Low Opportunity</td>
<td>Low Capability</td>
<td>✗ Exit</td>
</tr>
</tbody>
</table>

- **High Opportunity**: Indicates areas where there are significant opportunities for growth or market expansion.
- **High Capability**: Indicates areas where the company has strong capabilities or resources.
- **Invest**: Recommended for investments to capitalize on the opportunities provided by high capability.
- **Develop**: Recommended for areas where development is necessary to improve capabilities.
- **Maintain**: Recommended for areas where current capabilities are adequate for the current level of opportunity.
- **Exit**: Recommended for areas where the opportunity is low and the capability is high, as these are typically not viable for further investment.
Why do research?

• To find answers to big/small questions
• To establish foundations
• To assess competing knowledge claims
• To test competing hypotheses
• To eliminate doubt
• To create economic & social benefits
• It’s expected of an academic field
Why do applied research?

To better understand:

* People
* Products
* Pricing
* Performance
* Policies
* Prospects
* Priorities
Why do research about research?

- Quality assurance
- Assess impacts
- Drive resource allocation
- Justify investment decisions
- Identify ‘stars’, pick winners
- Rank programs, etc.
Fifty shades of ...
‘Too much… research … is of marginal interest … an interesting hobby rather than a rigorous pursuit of new insights.’

UGC & National Advisory Board on Higher Education, 1986
…plus c’est la même chose

‘Often poorly funded, poorly conducted, poorly recognised’

Oppenheim, 2010
Cookie cutter research

- Information needs of __
- Authorship trends in ___
- A…Z library use study
- Information seeking behavior of ___
What ails LIS?

- Theoretical bricolage
- Lack of meta analysis
- Weak experimental design
- Redundancy & lack of consolidation
- Narcissism of minor differences
Cogito ergo ...

‘...it is time for the information behavior community to question its academic relevance and credibility....’

Critique of ‘confessional methods’ in IS

- Critical incident technique
- Focus groups
- Micro-moment time-line interviews

Davenport, ARIST, 2010
Paradox redux

If LIS programs are successful, they will be taken over and disappear; if LIS programs are not successful, they will be eliminated.
Per molts anys!