

Science/Engineering Bibliographic Databases' Future: Collection Development Issues at the University of Maryland

Nevenka Zdravkovska & Bob Kackley
University of Maryland, College Park,
Maryland, USA

Background on the University



Background on Sciences/Engineering @ UMD

Clark School of Engineering

Engineering	17 th
Aerospace engineering	8 th
Computer engineering	17 th
Electrical engineering	14 th
Civil engineering	21 st
Mechanical engineering	24 th

College of Computer, Mathematical & Physical Sciences

Computer Science	13 th
Artificial intelligence	9 th
Systems	12 th
Programming languages	17 th
Mathematics	21 st
Applied mathematics	12 th
Physics	13 th
Atomic, molecular, optical	5 th
Plasma physics	2 nd
Quantum physics	9 th
Nuclear physics	10 th
Condensed matter, solid state	13 th
Elementary particles/string theory	13 th

2008 U.S. News & World Report Graduate Rankings

Fountain in front of the Math Building

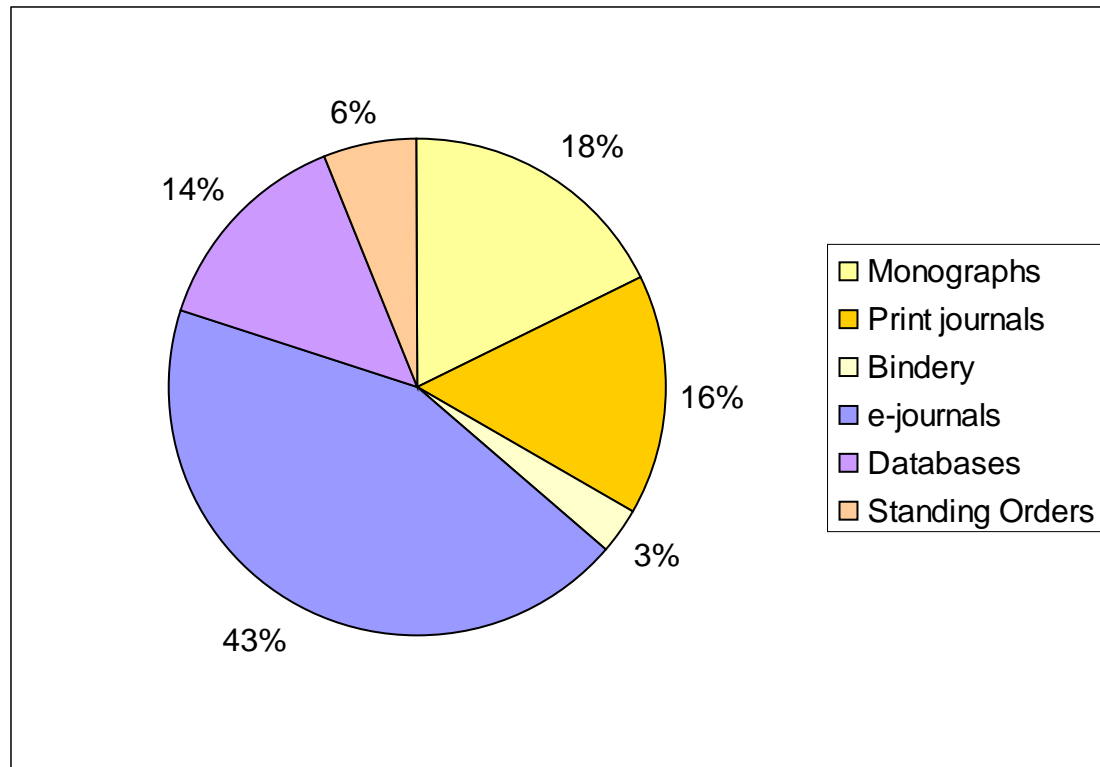


Background on the Libraries & EPSL



- UM's 8 libraries
- Engineering & Physical Sciences Library (EPSL) largest of the branches
 - 12 permanent staff (6 professional librarians)

Collections



Journals Cancellations

- Serials inflation in early 2000's at rate of 10%/year (Databases at 8%/year)
- Cancellations in total UM Libraries Budget:
 - FY02- 2%
 - FY03-5%
 - FY04-2.5%
- 2nd Review in 2005 with creation of 25% target into 3 prioritized segments
 - FY07-8%
 - FY08-9%
 - FY09-5%

Free Journals' Tools

- EigenFactor – Ranking and Mapping Scientific Knowledge
<http://eigenfactor.org/>
- SJR SCImago Journal and Country Ranking
<http://www.scimagojr.com/>
- Journal-Ranking.com
<http://www.journal-ranking.com/ranking/web/index.html>
- Journal Info (Lund University)
<http://jinfo.lub.lu.se/>
- Eureka – Science Journal Watch
http://www.eurekajournalwatch.org/index.php/Main_Page

Bibliographic Databases

- FY09 Databases and Serials Received Equal Scrutiny budget-wise
- Overlap already on journals in many databases
- Report that Google Scholar indexes 90% of recent engineering research??????????
- 2008 Univ. of British Columbia dropped INSPEC -- we followed suit despite loss of subject area comprehensiveness
- But potentially will save much \$ in the future???

Databases Comparison Tools

- *CUFTS: Open Source Serials Management*
 - <http://researcher.sfu.ca/cufts>
- *JISC (Joint Information Systems Committee) Academic Database Assessment Tool*
 - <http://www.jisc-adat.com/adat/home.pl>

Cost/Search

	A	B	C	D	G	H	I	J
1	Database	Vendor	FY04	FY05	FY06 \$/S	FY07 \$	FY07 S	FY 07 \$/S
61	EEBO	ProQ	\$ 3.07	\$ 0.77			4282	
62	EI Compendex	EI	\$ 1.31	\$ 1.32	\$ 0.12	\$ 29,883.00	22089	\$ 1.35
63	ERIC	Ebsco	\$ -	\$ -	\$ -	\$ -	143766	\$ -
64	Ethnic Newswatch	ProQ	\$ 0.17	\$ 0.05	\$ 0.07	\$ 4,425.00	71972	\$ 0.06
65	Family & Society Studies	Ebsco			\$ 0.06	\$ 2,693.00	33141	\$ 0.08
66	Gallup Brain	Gallup			\$ 4.55	\$ 1,687.00	630	\$ 2.68
67	Gender Watch	ProQ	\$ 0.05	\$ 0.02	\$ 0.02	\$ 1,515.00	75156	\$ 0.02
68	General Science Abstr	Ebsco	\$ 0.46	\$ 0.23	\$ 0.14	\$ 2,400.00	17891	\$ 0.13
69	GEOBASE	FirstSearch	\$ 0.22	\$ 0.89	\$ 1.70	\$ 9,049.00	4655	\$ 1.94
70	GeoRef	Ebsco	\$ 0.54	\$ 0.24	\$ 0.22	\$ 2,648.00	11303	\$ 0.23
71	GLBT	Ebsco			\$ 0.57	\$ 6,355.00	8771	\$ 0.72
72	Grove Art	Grove			\$ 0.28		6116	\$ -
73	Grove Music	Grove			\$ 0.11	\$ 2,720.00	20504	\$ 0.13
74	Health Source	Ebsco			\$ -	\$ -	54171	\$ -
75	Historical Abstracts	ABC	\$ 0.52	\$ 0.39	\$ 0.49	\$ 6,132.00	7298	\$ 0.84
76	Hist of Sci & Tech	RLG			\$ 0.90	\$ 3,140.00	3256	\$ 0.96
77	Hoovers	ProQ	\$ 0.09	\$ 0.06	\$ 0.08	\$ 4,495.00	69447	\$ 0.06
78	Humanities Abstr/ Int Comple	Ebsco	\$ 0.55	\$ 0.27	\$ 0.19	\$ 5,358.00	20823	\$ 0.26
79	IEEE Library	IEEE			\$ 2.97		83466	\$ -
80	INSPEC	Ebsco	\$ 0.76	\$ 0.68	\$ 0.89	\$ 34,679.00	34055	\$ 1.02
81	Intl Bibl of Theatre Dance	Ebsco			\$ 0.16	\$ 2,394.00	8361	\$ 0.29
82	Intl Idex to Black Per	ProQ	\$ 4.88	\$ 4.51	\$ 7.19	\$ 3,445.00	699	\$ 4.93
83	Intl Political Sci Abstr	SP/Ebs	\$ 1.39	\$ 0.87	\$ 0.56	\$ 2,357.00	9916	\$ 0.24
84	Jnl Citation Reports	ISI/Thomson	\$ 1.69	\$ 1.65	\$ 0.57	\$ 8,338.00	12492	\$ 0.67
85	Library Literature	Ebsco	\$ 0.14	\$ 0.10	\$ 0.08	\$ 2,195.00	9916	\$ 0.22
86	LION	ProQ	\$ 1.30	\$ 0.85	\$ 0.88	\$ 21,662.00	37713	\$ 0.57
87	Literature Resource Center	Gale	\$ 0.38	\$ 0.46	\$ 0.51	\$ 19,748.00	24079	\$ 0.82
88	LLBA	CSA	\$ 0.25	\$ 0.19	\$ 0.16	free	14283	\$ -
89	LN Academic	LN	\$ 0.10	\$ 0.10	\$ 0.14	\$ 46,676.00	304227	\$ 0.15
90	LN Congressional	LN	\$ 0.87	\$ 0.05	\$ 0.71	\$ 13,539.00	15400	\$ 0.88
91	LN Govt Periodicals	LN	\$ 0.39	\$ 0.63	\$ 0.63	\$ 1,903.00	1187	\$ 1.60
92	MathSciNet	AMS	\$ 0.17	\$ 0.09	\$ 0.08	\$ 7,090.00	48838	\$ 0.15
93	Mental Measuremenst YB	Ebsco	\$ 0.22	\$ 0.05	\$ 0.17	\$ 1,218.00	8993	\$ 0.14

Free Databases

Appendix 1 – Commercial Databases (Selected)

Title	Description	Features/Uniqueness
Multidisciplinary		
<u>WorldCat</u> 1200 (or 1500?) – present	Records for materials cataloged by OCLC member libraries. <u>WorldCat</u> offers holdings information vital for collection development, cataloging, authority control, and retros conversion services.	Free version exists, <u>WorldCat Local</u> . Google-like search box, with same content, but limited search options. OCLC is selling
Web of Science 1900 – present (coverage depends on years purchased)	The interface for access to 1 Citation databases: Arts & Humanities Citation Index, 2 Citation Index, and Social S Citation Index.	
Scopus (Elsevier) 1966 - present	Comprehensive database for scientific, technical and medical information, containing approximately 13,000 journals from 4,000 publishers, and abstracts going back to 1966	

Appendix 2 - Free Databases (Selected)

Title	Description	URL
Multidisciplinary		
Google Scholar Dates vary	Google Scholar enables you to search specifically for scholarly literature, including peer-reviewed papers, theses, books, preprints, abstracts and technical reports from all broad areas of research.	http://scholar.google.com/
Google Book Search	Some of the digitized out-of-copyright books are old indexes. This is another way of verifying or finding citations.	http://books.google.com/
<u>WorldCat Local</u>	Records for materials cataloged by OCLC member libraries.	http://www.worldcat.org/
The European Library 2.0	Portal that lets you search the library catalogs of National Libraries in Europe, digital resources, etc.	http://search.theeuropeanlibrary.org/portal/en/index.html
Sciences/Engineering		
<u>Scitopia</u>	Searches the entire electronic libraries of the leading voices in major science and technology disciplines and provides relevant results. More than three and a half million documents.	http://www.scitopia.com

On Demand Databases

- 1998 at Georgetown University library, INSPEC via OCLC – was cut (\$20K/yr)
- INSPEC via DATASTAR (European Dialog now owned by Proquest) on Pay-Per-View then
- Successful plan for less than original designation of \$5K – so, BIOSIS Previews added as well in that fashion
- Future of databases as well as journals ???

Conclusion

“The research needs of the 21st century revolve around finding new truths not confirming that which is already known”

Wallace, Danny P. 2007. Academic Library and Research in the Twenty-First Century: Linking Practice and Research. *Journal of Academic Librarianship* 33: 529-531

Thank You!

nevenka@umd.edu
rkackley@umd.edu