

The Voice of the User: Where Students and Faculty Go for Information

Highlights of Outsell/DLF Study of the Academic Information Environment

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June 27, 2002



Agenda

- **The Current State of the Industry**
- **Highlights from Outsell/DLF Research**
- **In Outsell's Opinion**
- **Next Steps**



User Research Needed

- **To help libraries and universities plan information services and technologies focused on explicit needs of faculty and students.**
- **To encourage the Information Industry to create better information products for the education market based on increased knowledge of users' needs.**



Study Objectives

- Survey information users at colleges and universities.
- Learn how faculty and students use information to support their research, teaching, and learning functions.
- Compare information use, preferences, and behaviors between students and faculty at different levels, in different institution types, and across disciplines.
- Learn where academic information users prefer to find and use information.
- Discern how they perceive and use libraries as part of their overall information environment.
- Explore issues such as Internet usage, problems and barriers, and unmet needs.

Methodology

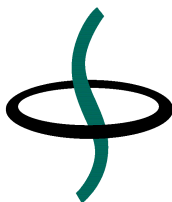
Sample

- **Users**

- Faculty Members
- Graduate Students
- Undergraduate Students

- **Disciplines**

- Arts and Humanities
- Biological Sciences
- Business
- Engineering
- Law
- Physical Sciences/Math
- Social Sciences



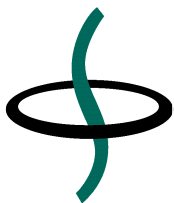
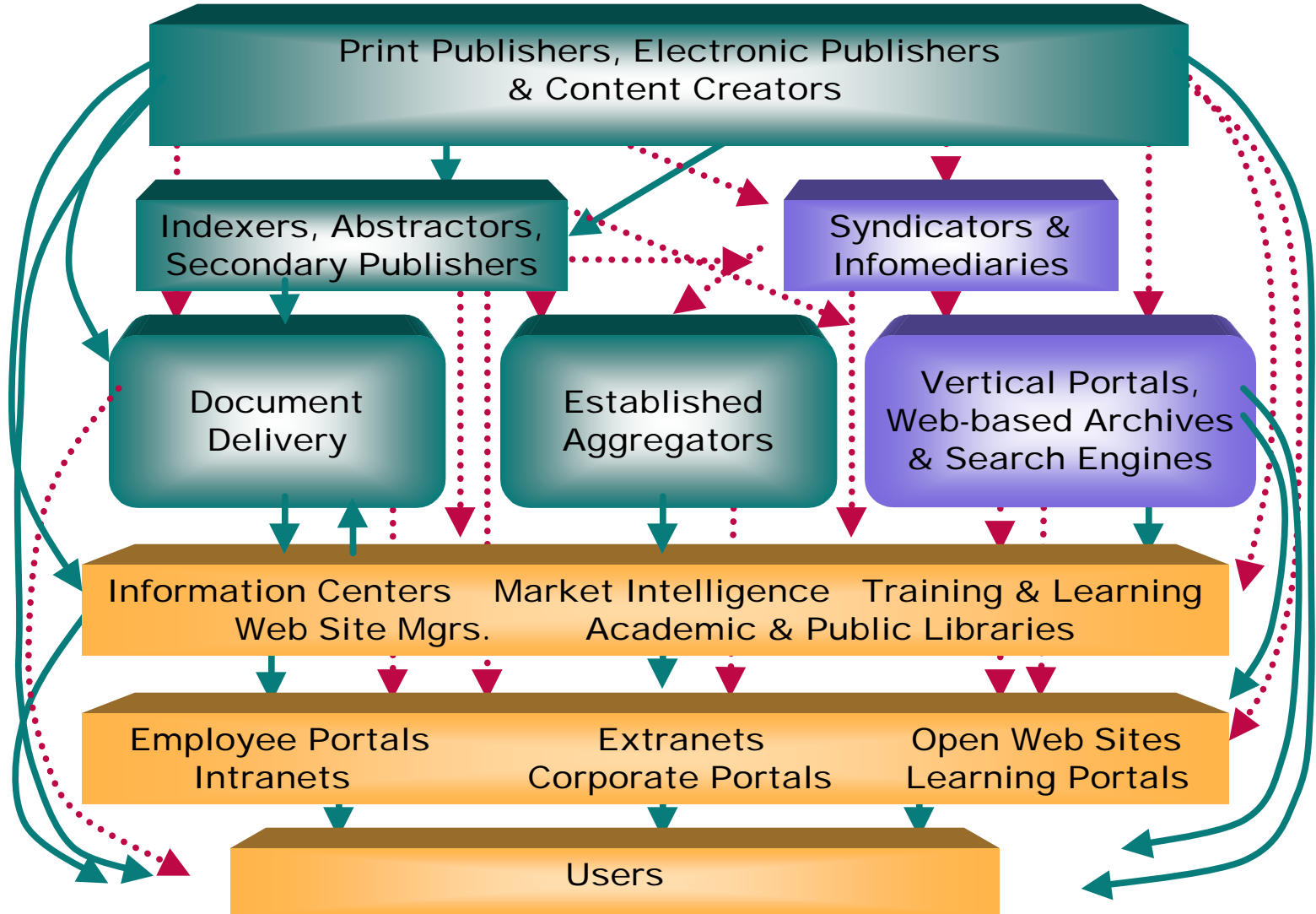
Methodology

Institutions

- **Academic institutions**
 - **Doctoral and research universities**
 - **Liberal arts colleges**
 - **Medical schools**
- **Universe of 450 target institutions, both public and private**
- **Completed 3,234 30-minute in-depth telephone interviews nationwide.**
- **Interviews conducted November 2001 – January 2002.**
- **Distribution of interviews matches distribution of user populations by institution type.**



The Current State of the Industry



We Segment the IC Market and Provide:



- **Data, information & analysis of:**
 - 3,000 vendors
 - 400+ product evaluations
 - Corporate & education markets
 - Global 2000 buyers
 - Performance benchmarks -
4 content deployment functions
 - 23,000 information users
- **On-going intelligence & trend tracking**
- **Advice & experiential knowledge**

The State of the Academic Information User

- **Institution type and the functional role of the user drive striking differences information habits and use preferences.**
- **Self-sufficiency is the academic information work paradigm.**
- **Users trust the library, but the Internet wins for daily information use.**
- **Print is still preferred format for using content, but users want to find it online.**
- **Fee-based content losing its value-add edge.**



Faculty & Graduate Student Profile

Key Questions

- **What are the teaching, research, and service responsibilities of faculty and graduate students?**
- **How much time do faculty and graduate students spend on each responsibility?**
- **For teaching, research, and service functions, what are their primary activities?**

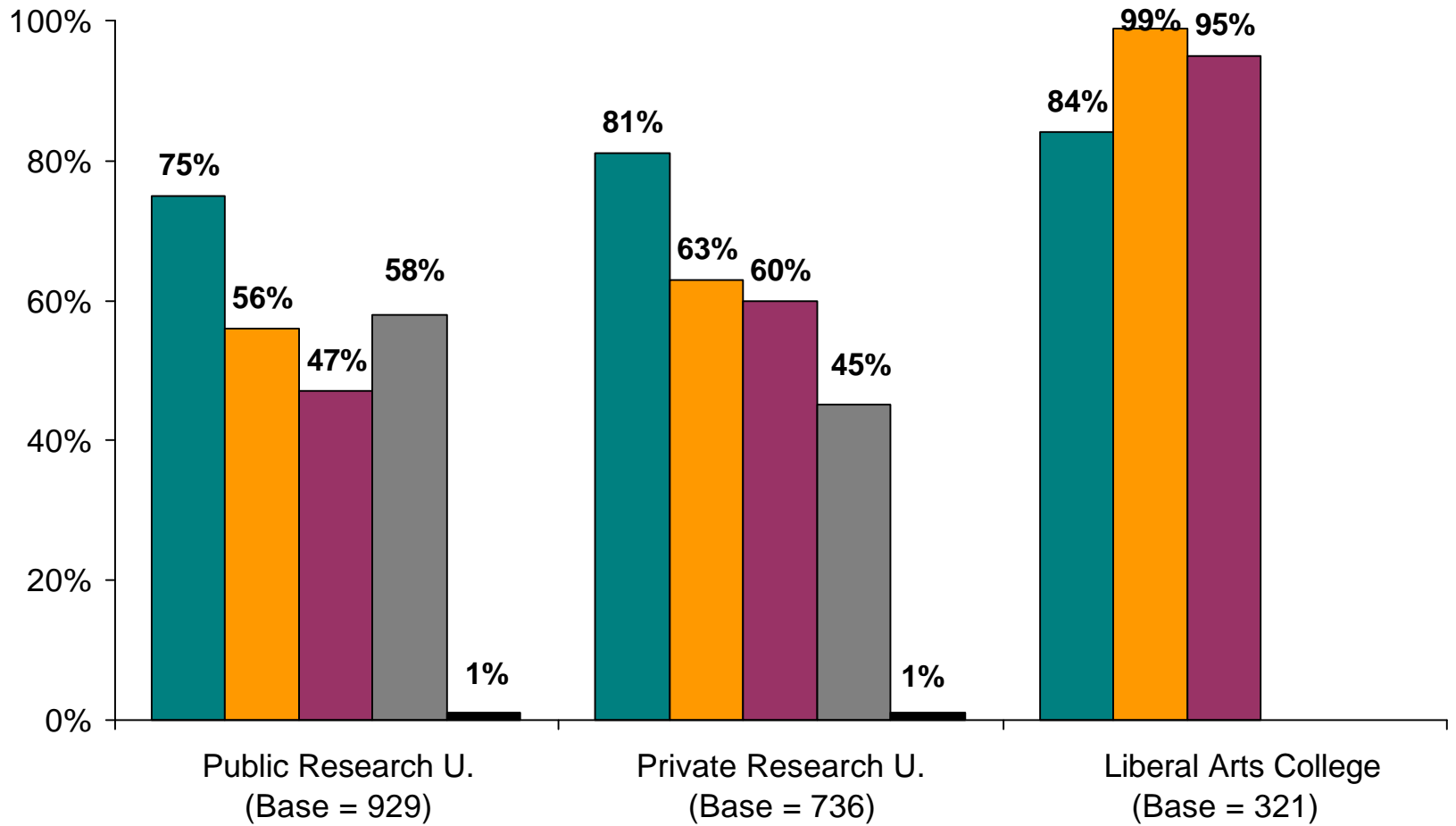


Key Findings

- **Most faculty report they are responsible for teaching, research, and service.**
- **Most grad students name coursework and research as responsibilities, with only one-third teaching and performing service.**
- **Liberal arts faculty have strong focus on teaching-related responsibilities.**
- **Research practices vary significantly both by discipline and by institution type.**



Responsibilities



Academic Work Environment

Key Questions

- **Where are undergraduates, graduate students, and faculty when they access information?**
- **How much time do they spend at these locations carrying out their responsibilities?**
- **What technologies do they have available to them in each location?**



Key Findings

- **The top areas where users do their information work: library, residence, and office.**
- **Faculty work from their office or residence 85% of the time.**
- **Undergraduate and grad students spend nearly one-third of their time working in a physical library.**
- **Home and office work areas are networked and well equipped with desktop and/or laptop computers, scanners, fax, laser printers, etc.**
- **Nearly all faculty and students have access to their institution's network, but most are still in dial-up mode.**



Academic Work Environment

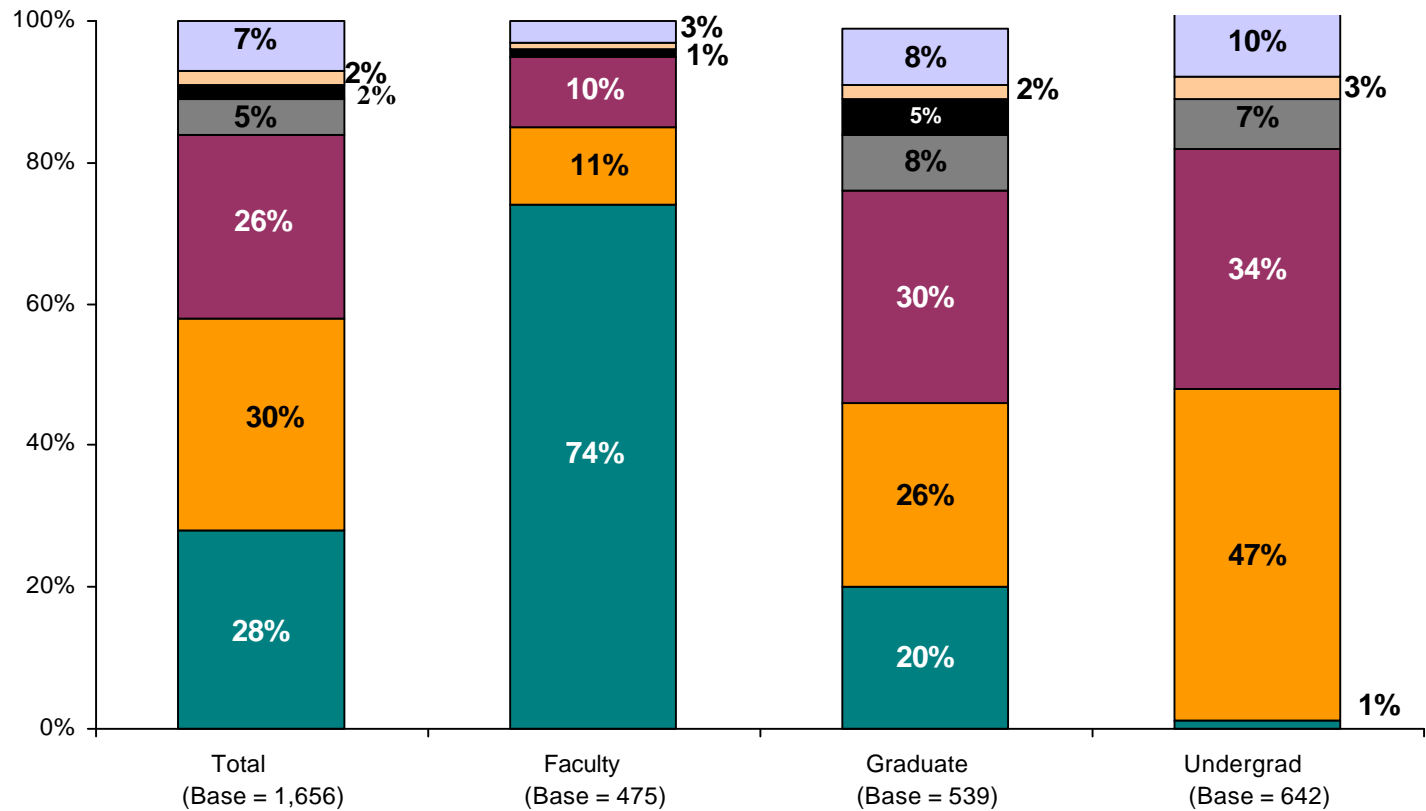
Where Located When Accessing Information

Location	Total	Faculty	Grad	Undergrad
<i>Base</i>	(1,656) %	(475) %	(539) %	(642) %
Physical library	55	41	58	62
Residence	54	39	50	68
Office	38	96	31	1
Computer Lab	12	1	17	15
Classroom	4	2	5	5
Scientific Lab	4	4	8	*
Other	8	7	10	7

* Less than one-half of one percent.

Academic Work Environment

% of Time Spent at Each Location



Information Use Habits and Preferences

Key Questions

- **What are the top types of information content relied on most often?**
- **What types of information content are considered most important—for teaching, for research, for coursework?**
- **Where do users find information about the information they need?**
- **Where do they get access to the information itself?**
- **How and where do faculty make course readings and information available to students?**



Key Findings

- **Reference, scientific/technical, and news are the top three information content categories used most often.**
- **Patterns of use vary significantly both by discipline and by users' application of information.**
 - **Ex: scientists show very different patterns of using online indexes, technical reports, and photographs for research as compared to teaching.**
- **Use of print books and journals predominates, for now.**
- **To find information, everyone goes online first.**
 - **Next, faculty turn to print before asking for personal assistance.**
 - **Students prefer to ask for help before going to print resources.**
- **Students' and faculty research and coursework needs are met by online information more than half the time.**



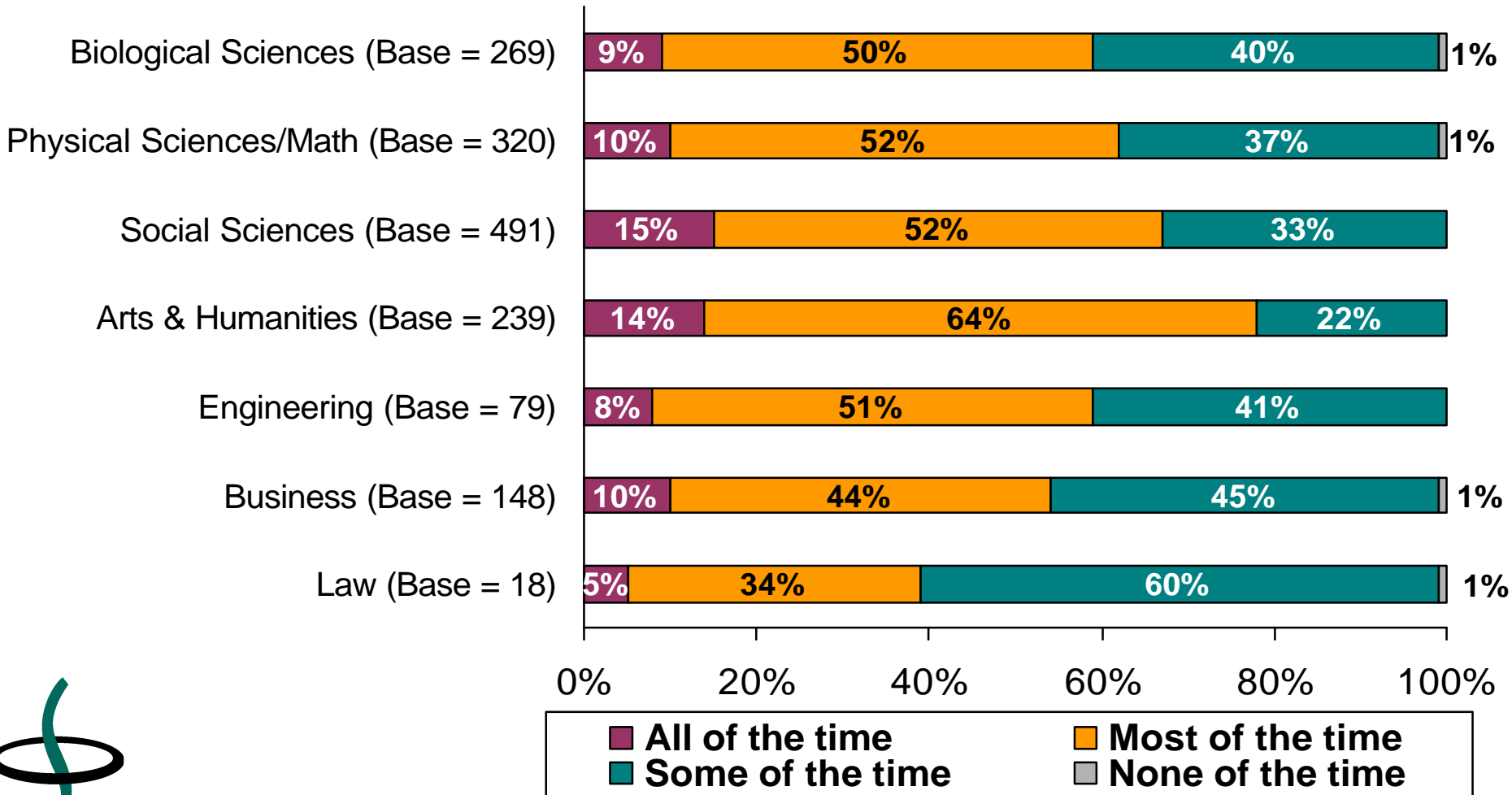
Information Types Used By User Category

	Total Research	Total Teaching	Total Learning
<i>Base</i>	(1,563) %	(1,299) %	(2,304) %
Print or hardcopy books	97	96	93
Print or hardcopy journals	97	81	81
Online abstracts and indexes	88	60	73
Papers delivered at professional meetings	85	48	41
Online databases, data sets or data sources	82	60	80
Manuscripts and other primary source documents	81	57	64
Print abstracts and indexes	78	38	59
e-journals	75	37	53
Dissertations	71	21	38
Technical reports	58	33	38
News	54	66	64
Magazines	49	55	57
Photographs, prints and other visual resources	49	63	60
Pre-prints	39	22	21
e-books	18	10	20



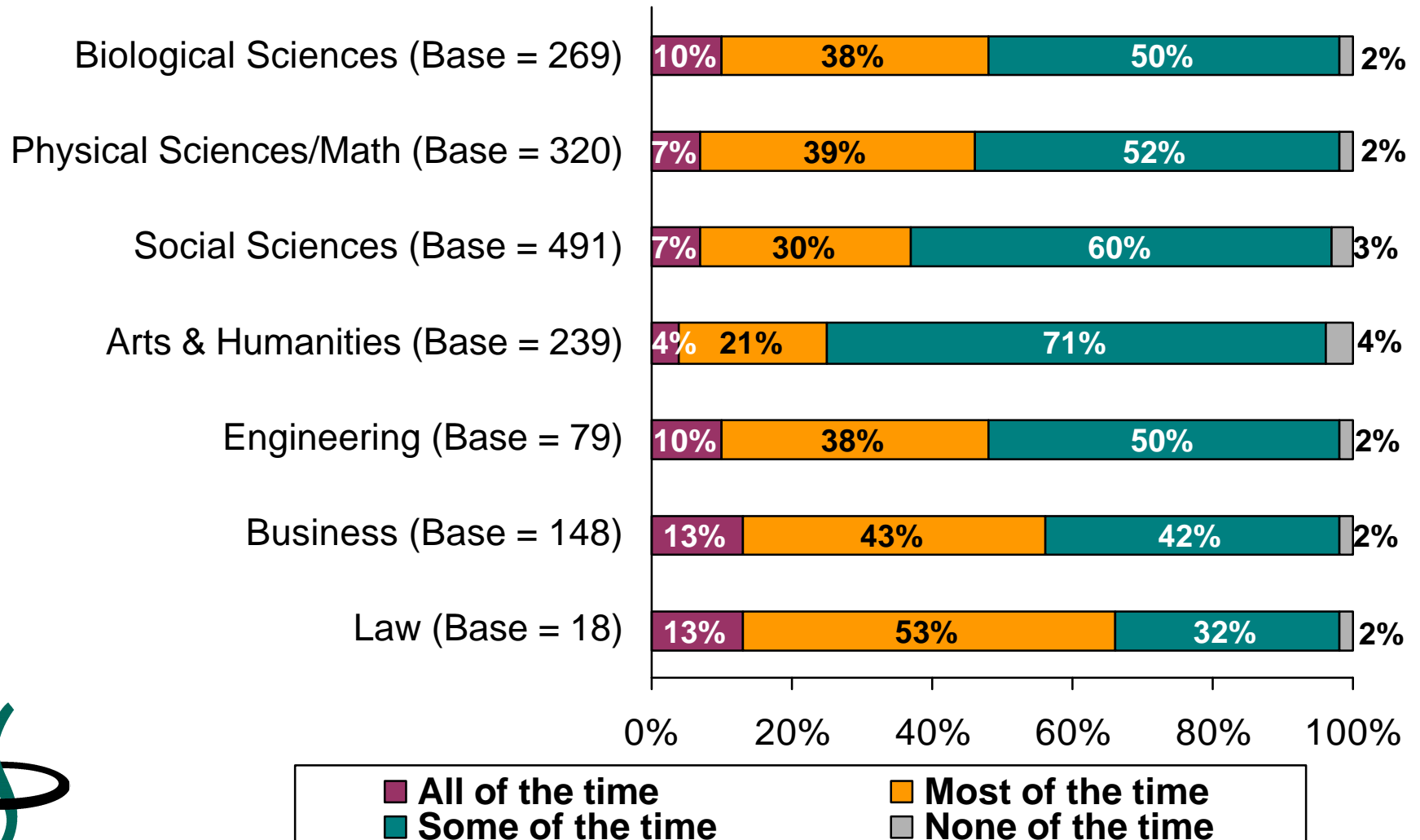
Information Use Habits

Use of Information in Hard Copy Format



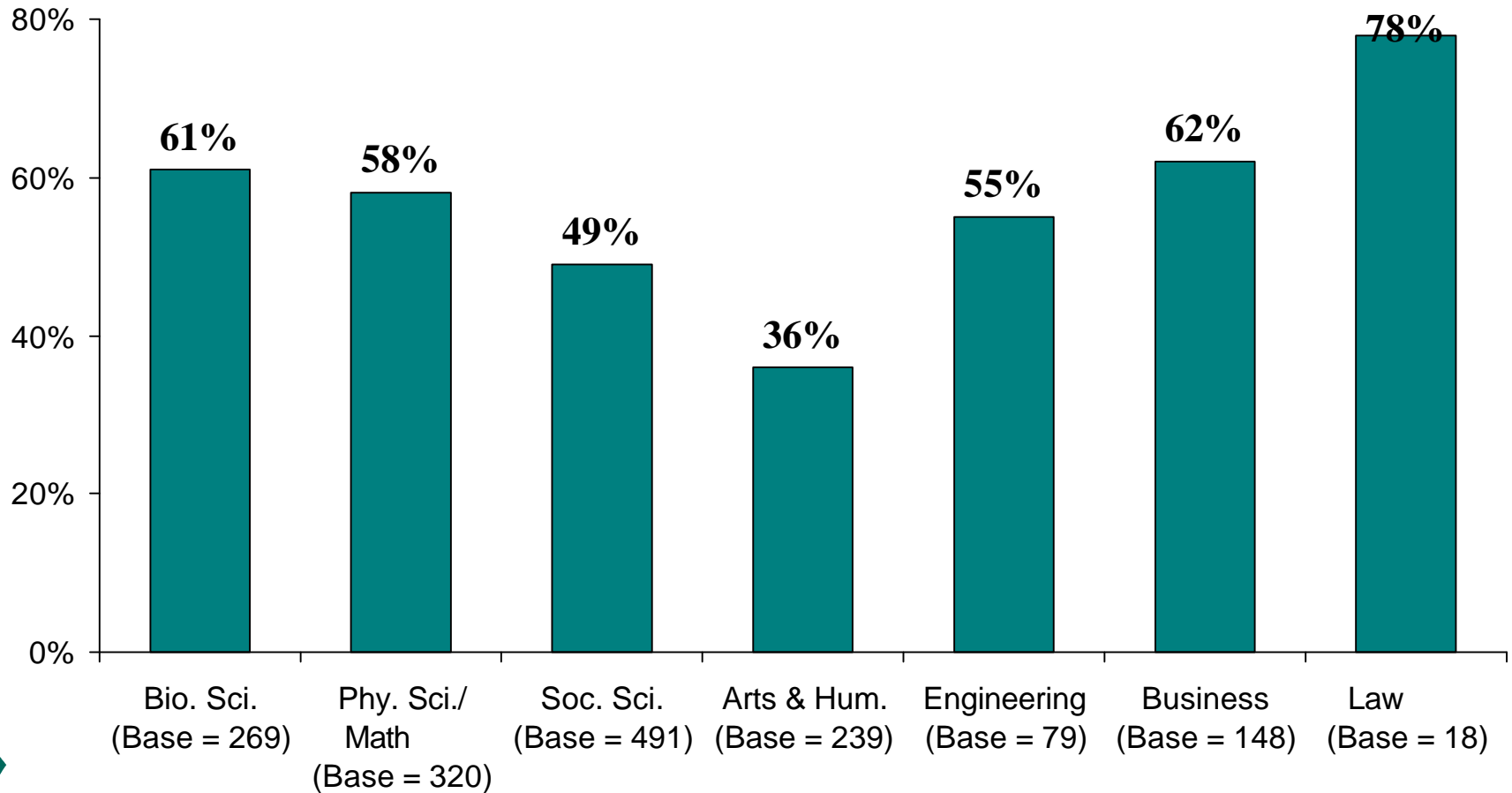
Information Use Habits

Use of Electronic Resources for Research



Information Use Habits

Research Information Needs Met Online



Information Use Habits

Where Faculty Make Course Readings Available

Info type	Public Research U.		Private Research U.		Liberal Arts Colleges	
	(252/116) %		(216/108) %		(161/11) %	
Base	UG	GR	UG	GR	UG	GR
Handouts	34	41	34	42	42	70
Campus library on reserve	24	27	32	27	50	30
Local bookstore	26	23	27	13	31	28
Course Web page	25	23	25	22	21	27
Campus library – General holdings	6	13	13	19	8	-
Online	3	6	3	4	9	-
Library e-reserve	3	3	4	8	6	19
Personal holdings	4	4	3	7	2	-
Books	2	3	2	2	4	-
Copy Center	4	-	2	-	-	-

Perceptions of Current Information Environment

Key Questions

- **What are students and faculty perceptions of the library and the Internet?**
- **How do they verify accuracy and authoritativeness of information resources?**
- **What are their perceptions of fee versus free information resources?**
- **What are users' major problems and drawbacks in getting the information they need?**



Key Findings

- **Nearly all users have a high degree of trust in library-deployed information resources.**
- **The Internet receives high marks as resource for daily information use, but most users don't trust it without additional verification.**
- **Most faculty/grads use free content for teaching/research, but believe fee-based information is of higher quality.**
- **Top information problems: having enough time, knowing what's available, and having access to all information from one place.**



Perceptions of Current Information Environment

Views of Library and Internet Services

Statements	Bio. Sci.	Phys.Sci / Math	Soc. Sci.	Arts & Hum.	Engin.	Bus.	Law	Undecl.
<i>Base</i>	(112) %	(136) %	(237) %	(134) %	(33) %	(100) %	(9) %	(32) %
Library								
Info credible sources	99	98	98	98	98	99	98	94
High quality info	98	97	99	98	98	97	100	94
Info I use & cite	94	92	98	95	97	89	98	97
Info I use & trust	89	93	85	88	91	93	90	94
Internet								
Info I use & cite	69	81	77	71	81	89	88	100
High quality info	74	77	79	65	76	76	92	97
Info credible sources	70	74	76	70	76	81	83	76
Info I use & trust	40	51	45	37	47	57	59	55

Perceptions of Current Information Environment

How Users Find Right Information on Internet

- **Most common ways are to use a search engine (48%), or through the library's website (33%).**
- **Undergraduate students use search engines more than graduate students do (54% vs. 40%).**
- **At least one-half of students with undeclared majors (58%), business (57%), physical sciences/math (55%), engineering (52%), and arts and humanities (50%) use search engines.**
- **Graduate students use the library website to get pointed to the right information sources more than either faculty or undergraduate students (41% vs. 32% and 28%).**
- **The biological sciences have more respondents who access information through the library website than those in any other discipline.**



Perceptions of Current Information Environment

Problems and Drawbacks in Using Information

Top Five Problems and Drawbacks

- 1. Having enough time.**
- 2. Knowing what's available.**
- 3. Having access to all information from one place.**
- 4. Determining information quality, credibility, & accuracy.**
- 5. Having sufficient training on how to search for information.**



In Outsell's Opinion: Preliminary Conclusions

What Academic Information Users Want

- **Highly relevant information access at point of need.**
- **Self-serve online environment with high touch support.**
- **Access to the library for printed books, manuscripts, primary sources, and other elusive materials.**
- **Humanists need access to physical collections and are under served in the online environment.**
- **Engineers and scientists want anytime anywhere access to online information and are finding more needs met on the Internet.**



Next Steps and Future Directions

- **The study will be reported by Outsell and published by CLIR.**
- **Further analysis will be available from Outsell.**
- **New or follow-up research needed:**
 - **To assess needs of academic users at regional universities, community colleges, and public libraries.**
 - **Case studies.**
 - **User studies at individual institutions.**
- **Your ideas for making this research actionable?**



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