

Print and Electronic Information: Shedding New Light on Campus Use

How is the digital revolution affecting scholars, teachers, and students in colleges and universities? Where and how do they now seek and use information for research and coursework? How do they perceive the campus library? What patterns of use are emerging that higher education institutions need to understand so they can plan effective information services and products?

To find out, the Digital Library Federation (DLF) commissioned a major survey from Outsell, Inc., a research firm serving the online information industry. In late 2001 and early 2002, Outsell conducted half-hour telephone interviews with 3,234 students and faculty members at nearly 400 colleges and universities. The results will be published by the Council on Library and Information Resources (CLIR), both in print and at <http://www.clir.org/>.

Analysts are breaking down the data to see how patterns differ according to whether respondents are faculty members, graduate students, or undergraduates; whether they are at public research universities, private research universities, or liberal arts colleges; and whether they are working in the arts and humanities, physical sciences and math, social sciences, biological sciences, business, engineering, or law. Here are some of the findings so far.

More than nine out of ten respondents are comfortable using and retrieving information electronically, including from Web sites at their institutions. This is true of faculty, graduate students, and undergraduates in colleges and universities, private and public.

Respondents average fifteen hours a week obtaining, reviewing, and analyzing information from all sources. Respondents divide their time for accessing and using information fairly evenly among their offices, their residences, and physical libraries, but graduate students are most likely to pursue information while in physical libraries, undergraduates in their residences, and faculty, by a large margin, in their offices. Both offices and residences are generally well equipped with computers, scanners, printers, and fax machines—but not often with high-speed connections.

Speed of delivery is less important to respondents overall than several other

features of electronic information sources. Quality ranks highest in importance, followed by ease of access, subject coverage, printing and downloading, search functions, and search options. Significant gaps exist between the importance that respondents attach to features related to electronic information sources and how well such features currently address their needs. These gaps may need attention from campus libraries and their electronic vendors.

Print remains important: a large majority of respondents continue to use printed and hard-copy books and journals more than any other information type. They use e-books (in contrast to e-

journals) the least. Of all respondents, 91 percent said that printed books and journals would continue to be important sources for the next five years. In addition, 55 percent said that browsing stacks or journal shelves in a library remains an important way to get information. However, respondents also prefer, by a modest margin, to consult electronic rather than printed abstracts and indexes to identify the print materials they need.

At the same time, 84 percent of survey respondents indicated that the Internet had changed the way they use their own institution's library. For research, respondents reported using considerably more information from their institution's library, physical and virtual, than from other sources. This is particularly true of researchers in the biological and social sciences, the arts and humanities, and engineering, but less so for those working in law, math, and the physical sciences. Overall, 64 percent of respondents noted that their current information needs for research are available through their own library's Web site. For coursework, students also reported using more information from their institution's physical and virtual libraries than from other sources, and 67 percent indicated use of their library's Web site. But for instructional purposes, teachers reported using only slightly more information from their institution's physical and virtual libraries than from other sources. That finding holds for all teachers except those in the business field. In total, 59 percent reported that their current information needs for teaching are available through their library's Web site. These findings illustrate one of the key conclusions of the study so far—that the behavior and patterns of information users are significantly related to how they are going to apply the information. A faculty member may use one method when seeking information for a class and may use another method when searching for material for a research paper.

The survey also provides information about how teachers distribute readings and other materials for courses. Teachers prefer to distribute course materials physically rather than online. Fully three-quarters of all teachers make course materials such as syllabi available to students

via handouts; half say they also use course Web pages. When all electronic formats (e-mail, course Web pages, e-reserves) are considered together, nearly two-thirds of all teachers say they make at least some course materials available online. Fully 100 percent, however, provide some or all such material in physical form. Some variation exists depending on kind of institution and academic discipline. Teachers at liberal arts colleges have a greater preference for course handouts than do their counterparts at universities. Nearly four-fifths of physical scientists and engineers use the network as a means of distributing course materials, compared with fewer than half of the arts and humanities teachers.

One more finding is striking. All respondents considered sixteen obstacles to seeking and using information and identified whether each obstacle was a major problem, a minor problem, or not a problem. The potential "drawbacks to using information" included difficulties in finding information, knowing what's available, determining quality, acquiring training, getting advice, accessing a networked computer, and "having to go to a library." But only one drawback on the list emerged as a "major problem" for more than a relatively small percentage of the respondents: 39 percent felt vexed in their pursuit and use of information by an obstacle that seems to persist no matter how good our technologies are—"not having enough time."

Much more will be covered in the final report. Anyone interested in meeting the future needs of scholars, teachers, and students will want to consider the results, which should shed new light on the use of both print and electronic scholarly information.

Daniel Greenstein, formerly director of the Digital Library Federation, is University Librarian and Executive Director of the California Digital Library. Leigh Watson Healy is Vice President and Chief Analyst of Outsell, Inc.



PUBLISHER/EDITOR
D. Teddy Diggs

ADVERTISING DIRECTOR
Greg Farman

DESIGN AND PRODUCTION
The Magazine Group
Jeff Kibler, Art Director
Soliteir Jaeger, Production Manager

DEPARTMENT EDITORS
E-Content:
Deanna B. Marcum, Council on Library and
Information Resources
New Horizons:
Peter M. Siegel, University of Illinois,
Urbana-Champaign
policy@edu:
Mark Luker, EDUCAUSE
techwatch:
Gregory Dobbin, EDUCAUSE
Viewpoints:
Gregory A. Jackson, University of Chicago

EDUCAUSE Review is the general-interest, bimonthly magazine published by EDUCAUSE. With a publication base of 18,000, EDUCAUSE Review is sent to EDUCAUSE member representatives as well as to presidents/chancellors, senior academic and administrative leaders, non-IT staff, faculty in all disciplines, librarians, and corporations. It takes a broad look at current developments and trends in information technology, what these mean for higher education, and how they may affect the college/university as a whole.

EDUCAUSE and EDUCAUSE Review are registered trademarks. Copyright © 2002 by EDUCAUSE. Materials may be photocopied for noncommercial use without written permission provided appropriate credit is given to both EDUCAUSE Review and the author(s). Permission to republish must be sought in writing (contact editor@educause.edu). Statements of fact or opinion are made on the responsibility of the authors alone and do not imply an opinion on the part of the EDUCAUSE Board of Directors, staff, or members. For more information about copyright, see <http://www.educause.edu/copyright.html>.



4772 Walnut St, Ste 206
Boulder, CO 80301-2538
phone: 303-449-4430; fax: 303-440-0461
info@educause.edu
<http://www.educause.edu/>

For subscription information, contact EDUCAUSE: 303-449-4430 (phone) or 303-440-0461 (fax) or er-sub@educause.edu. For advertising information, phone 512-335-2286, or fax 512-335-3083, or send e-mail to advertising@educause.edu. Send editorial submissions or comments to editor@educause.edu.

EDUCAUSE Review is also available online at <http://www.educause.edu/pub/er>.

