

The Myth about the Digital Divide

“We Have Overcome the Digital Divide.”

Who can get through a day without going online? We shop online, bank online, and browse a broad array of information online.

Students network through sites like Facebook.com or MySpace. Technology is nearly ubiquitous on campus. Every K-12 school in the United States is connected to the Internet. And there is a computer in every home, right? Well, no, not really. Although conversations about the digital divide are now relatively uncommon, it would be incorrect to assume that all students own a computer or have an Internet connection.

Many computer-ownership figures are encouraging. For example, the median for computer ownership by students at all campuses participating in the 2004 EDUCAUSE Core Data Survey was 80 percent.¹ This figure could be interpreted to mean that the digital divide is almost gone. But even though the median was 80 percent, the statistical average was 67 percent—indicating that there are differences among campuses. At private colleges and universities, computer ownership averaged 81 percent; at public institutions, the figure was 59 percent. And those numbers still don't tell the entire story. At private doctoral institutions, 91 percent of all students owned their own computer; at public two-year institutions (community colleges and junior colleges), the figure was 35 percent.

Although computer ownership is not 100 percent, progress has been made on closing the digital divide. Student computer ownership grew from 51 percent in 2002 to 67 percent in 2004.² And increases were found across all categories of institu-

tions. For example, computer ownership at community colleges jumped from 12 percent to 34 percent during that two-year period. Even so, public computing labs are still needed. Not all students own computers. Some students own computers that do not have the processing power or software required for their courses. Others students lack, or cannot afford, broadband access where they live. Public computing labs are also convenient. Students who own laptops often prefer to use a lab while on campus rather than carrying a machine all day.

Defining the digital divide according to the haves and have-nots of computer ownership is only a starting point. Beyond computer ownership, colleges and universities should explore the “second-level digital divide,”³ which can be caused by several factors: machine vintage; connectivity; online skills; autonomy and freedom of access; and computer-use support. The definition of *digital divide* must include all of these other factors.

Possessing current technology, with sufficient memory and speed, is critical for technical access. The capabilities of a new computer contrast starkly with those of a five-year-old refurbished machine. Although a refurbished older machine may be helpful, it can pose some significant limitations. Refurbished machines are often provided with no operating system or applications because of licensing issues. Can the student afford to purchase the operating system? The applications? Will current versions of software even run on an older machine?

Connectivity can be an issue as well. Access to broadband, rather than dial-up, influences how often, how long, and how

effectively the Internet is used. As broadband access increases, so does time spent online and user satisfaction.⁴ Yet it would be incorrect to assume that broadband is universally available—or affordable. At the end of 2005, only 24 percent of rural Americans had broadband access, compared with 39 percent of urban and suburban dwellers.⁵ With many colleges and universities located in non-urban areas, and with most students living off-campus, broadband may not be affordable, or even accessible, to all students.

Differences in online skills—the ability to efficiently and effectively find information on the Web—constitute another factor in the digital divide. Not all students arrive at college digitally literate. This may be due to lack of technology access or training prior to college. Although current K-12 students have a mandated technology exposure, the same may not be true for adult learners. Most will have graduated from high school before the current computer requirements; some will have been in workplaces where technology was not used. For those with lower levels of technology skill, tasks take longer to complete and are more often abandoned. As Eszter Hargittai has noted, “If users often give up in frustration and confusion, then merely having access does not mean that a digital divide has been solved because a divide remains in their capacity to effectively use the Internet.”⁶

Autonomy and freedom of access represent another factor. Students who have a well-configured computer and broadband where they live have 24x7 access to information. However, students who share a computer or who must go to a public lab are limited by when a facility is open, when a computer is available, when they can get



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transportation to campus, and so on. The use of a shared machine is much lower than the use of a personal machine.

Finally, virtually everyone has questions about technology use, with issues spanning technology, content, disciplinary knowledge, and instructional expectations. Without readily available support, these questions can contribute to a second-level digital divide. Even if support is available, is it from someone who is skilled, both in the technology and in how to help a novice user? Students often turn to each other for help with technology, but it would be incorrect to assume that student experts or effective helpdesks are always available. Both lack of support and poor-quality support can dampen confidence and use. As Hargittai has noted: "Policy decisions that aim to reduce inequalities in access to and use of information technologies must take into consideration the necessary investment in training and support as well. Like education in general, it is not enough to give people a book; we also have to teach them how to read in order to make it useful. Similarly, it is not enough to wire all communities and declare that everyone now has equal access to the Internet.

People may have technical access, but they may still continue to lack effective access in that they may not know how to extract information for their needs from the Web."

In thinking about the digital divide, college and university leaders should ask themselves the following strategic questions:

1. *Do we know whether students have a computer? Do we know their skill level?* Although it is easy to assume that all students own a computer and are computer-literate, is that a correct description of the student body? Is ownership the same for all students, or are there significant differences between groups, such as traditional-age students and adult learners? Are there different needs based on academic discipline?
2. *Do we look beyond who has Internet access to consider online skills?* What online skills, support, and freedom of use define an appropriate threshold for digital access and use on campus?
3. *Do we limit the definition of digital divide to a "haves" and "have-nots" dichotomy?* The digital divide is not a yes-no proposi-

tion; it is a continuum. Beyond computer ownership lie issues of Internet access at a reasonable speed, as well as availability of support. The campus may need to define its own metrics to determine the extent of its underserved, "digital divide" population.

4. *How limiting will inadequate online skills be to students?* The ultimate issue behind the digital divide is the ability of students to learn, explore, and become participating members of their chosen communities. Education is increasingly dependent on students' technical proficiency not only to find information but also to analyze material and access experts. If students are regularly expected to participate in online discussions or use tools such as wikis, campuses should provide reasonable support to ensure that students can participate effectively and autonomously.

Both the first- and the second-level digital divides should continue to be a concern for academic, student life, and IT professionals and leaders on campus. Even in the increasingly electronic world of classes and campus activities, neither individual access nor digital literacy should be assumed. There is still a digital divide.

Notes

1. Brian L. Hawkins, Julia A. Rudy, and Robert Nicolich, *EDUCAUSE Core Data Service: Fiscal Year 2004 Summary Report* (Boulder, Colo.: EDUCAUSE, 2005), p. 33 <<http://www.educause.edu/apps/coredata/reports/2004/>>.
2. Ibid.; Brian L. Hawkins, Julia A. Rudy, and Joshua W. Madsen, *EDUCAUSE Core Data Service: Fiscal Year 2002 Summary Report* (Boulder, Colo.: EDUCAUSE, 2003), <<http://www.educause.edu/apps/coredata/reports/2002/>>.
3. Eszter Hargittai, "Second-Level Digital Divide: Differences in People's Online Skills," *First Monday*, vol. 7, no. 4 (April 2002), <http://www.firstmonday.org/issues/issue7_4/hargittai/>.
4. Nielsen//Net Ratings, press release, March 14, 2006, <http://www.nielsen-netratings.com/pr/pr_060314.pdf>.
5. Pew Internet & American Life Project, "Rural Broadband Internet Use," memo, February 2006, <http://www.pewinternet.org/pdfs/PIP_Rural_Broadband.pdf>.
6. Hargittai, "Second-Level Digital Divide."
7. Ibid.

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