The 2009 21st-Century Campus Report: Defining the Vision

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Study Focus and Objectives

Now in its second year, the CDW-G 21st-Century Campus Report examines the current and future role of technology in higher education. CDW-G surveyed more than 1,000 college students, faculty and Information Technology (IT) staff members to understand their respective perceptions of campus technology.

The 2008 report provided a baseline for campus technology use. The 2009 study examines how student needs are changing, and how campuses are – and are not – responding. This year's survey also asks the higher education community to define the elements of the 21st-century campus. The resulting report identifies strengths and weaknesses associated with campus technology and recommends steps forward.

Key Findings

► **Access defines the 21st-century campus**

  – Students, faculty and IT staff agree that the 21st-century campus is defined by access – wireless access, resource access and access to each other

► **Importance of campus technology skyrockets for students**

  – Students increasingly associate educational value with campus technology; 81% use technology every day to prepare for class, up from 63% in 2008

  – Despite the critical importance of technology to students, 45% say it is fully integrated into their curriculum, down from 54% in 2008

► **Faculty and students do not see eye-to-eye on technology use**

  – Faculty rate their use and understanding of technology as high, but students disagree with that assessment

  – Students rate faculty lack of tech knowledge as the biggest obstacle to classroom technology integration and see it as a growing problem

► **Looking ahead, students and faculty lack confidence in institutions' workforce preparation**

  – Just 32% of students and 22% of faculty strongly agree that their college/university is preparing students to successfully use technology when they enter the workforce

Defining the 21st-Century Campus

► Students, faculty and IT staff have a clear vision for the 21st-century campus – it's all about access and connections

How do you define the "21st-century campus?"

"The ability to access all school materials – textbooks, handouts, syllabi, online grades. Professors who actually use e-mail to communicate, and a place where students can chat, post and blog online about classes – with the ability to do all that from my own computer." – Student

"Fully wired and wireless; ready access to computers, software, printers, scanners and other peripherals; paperless (for the most part); technology seamlessly integrated into courses and administrative functions; competent tech support; and budgetary support for all of the above." – Faculty

"A campus which has fully embraced the concept of distance education* and offers an extensive array of online courses in addition to supplementing office hours and discussion sections for traditional courses with online forums and content offerings." – IT Staff
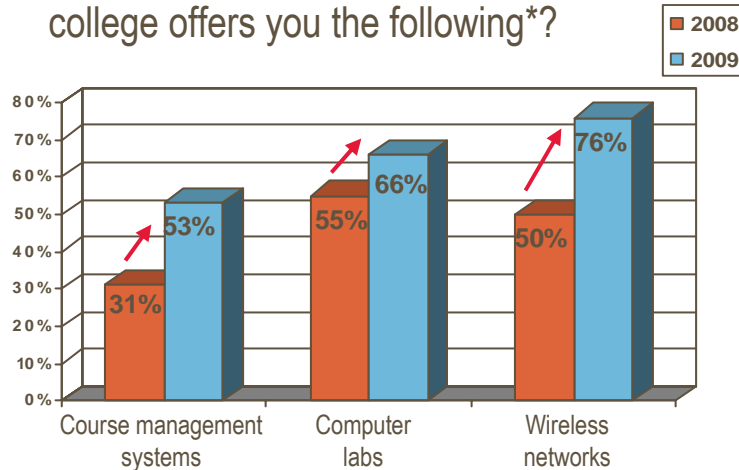
"One where students and faculty have <u>access</u> to, and <u>familiarity</u> with, the most advanced education technology." – Faculty

*Distance education includes, but is not limited to, online courses and traditional classes in which faculty and/or students are in different locations.

Increasing Technology Expectations

► Compared to 2008, students place increased significance on campus technology

Students: How important is it that your college offers you the following*?

Legend: ■ 2008 ■ 2009

Chart (values):
- Course management systems: 2008 = 31%, 2009 = 53%
- Computer labs: 2008 = 55%, 2009 = 66%
- Wireless networks: 2008 = 50%, 2009 = 76%

Y-axis: 0% to 80%

*Students also report using technology more often to prepare for class than they did at this time last year – 81% of students in the 2009 study reported using technology every day, vs. just 63% in the 2008 study***

Faculty and IT have witnessed the shift first hand

70% of faculty said campus technology was very important to incoming students in 2009 – a significant increase from *58%* in 2008

76% of IT staff said campus technology was very important to incoming students in 2009 – again, significantly higher than *67%* in 2008

*Percent of students who said that technology was "extremely important" **2008 CDW-G 21st-Century Campus Technology Report.

Taking Technology to the Classroom

► Classroom technology, however, still presents challenges

► Faculty equate smart classrooms with Internet access and advanced projectors, they do not place the same value on interactive tools and distance learning capabilities

► IT equates smart classrooms with connectivity *and* interactivity

IT Staff/Faculty: Which of the following technologies define a smart classroom?
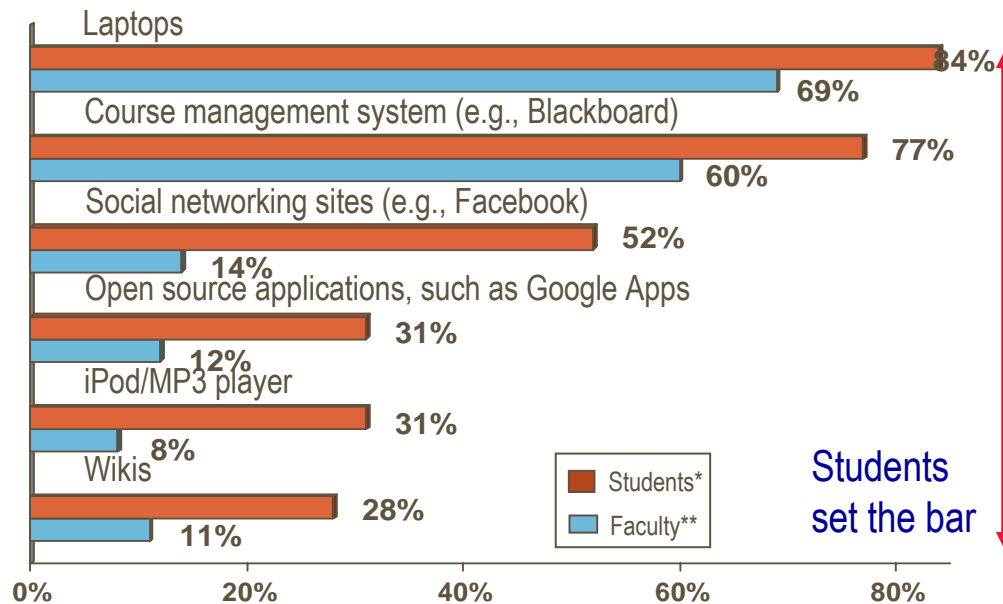
	IT Staff	Faculty*	
Wireless Internet access	82%	74%	✔
Internet connection	81%	86%	✔
LCD projector	75%	80%	✔
Interactive whiteboard	73%	41%	✘
Distance learning capabilities to connect students in multiple locations	70%	40%	✘
Video or voice recording mechanism for lectures	61%	36%	✘

*Of those faculty who teach in a smart classroom.

Following the Leaders

► When it comes to the latest technology in higher education, faculty should look to students' lead

Top technology tools used in conjunction with education

Technology	Students*	Faculty**
Laptops	84%	69%
Course management system (e.g., Blackboard)	77%	60%
Social networking sites (e.g., Facebook)	52%	14%
Open source applications, such as Google Apps	31%	12%
iPod/MP3 player	31%	8%
Wikis	28%	11%

Students set the bar

IT Staff: What are the campus technology trends that you are watching?

#1 – Social networking

#2 – Wireless

#3 – Distance learning

#4 – Mobile computing

#5 – Web 2.0

*Which of the following technologies/Internet tools do you use in conjunction with your education (e.g., to study, while in class, to work on projects)? Please check all that apply.
**Which of the following technologies/Internet tools do you use in conjunction with teaching (e.g., to prepare for lectures, while teaching a class, to work on projects, to work with colleagues and/or students)?

Making the Connection

▶ While 52% of students report using social networking tools for educational purposes, faculty are not using these tools to connect with students

▶ Though both use Web 2.0 technology outside of class, faculty and students still rely on traditional methods to communicate with each other

Faculty use social media outside of class

Legend:
- Outside of the classroom
- In conjunction with teaching

Social media gap

- Social networking sites: 36% / 14%
- Online chat: 26% / 17%
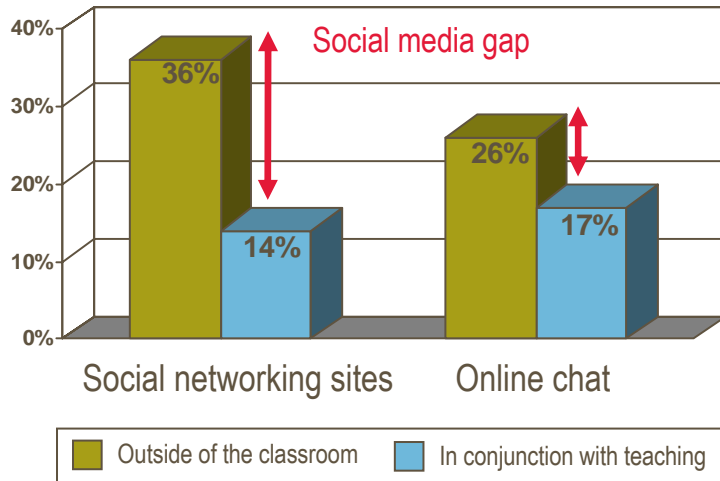
Students/Faculty: How do you prefer to communicate with each other outside of class*?

✔ Students and professors agree on e-mail as the top means of communication (95%) followed by in-person office hours (60%)

✘ Few utilize more recent technologies such as Facebook, (5%) instant messaging (4%) and Twitter (1%)

*Students and faculty asked to select top three means of communication.

Finding Middle Ground in the Classroom

▶ Faculty have a positive view of campus technology, and 86% report that they are encouraged to use it as an educational tool. Additionally:

– **75%** believe their institution understands how they use or want to use technology

– **67%** are satisfied with their technology professional development

– **74%** say they incorporate technology into every class or almost every class

– **64%** report teaching in a smart classroom, by their definition

▶ However, only 38% of students say their professors understand technology and have fully integrated it into their classes

Students: What recommendations would you give to your professors to better use technology in the classroom?

– "Find new ways to integrate existing technology that is relevant to the area of study"

– "Use less paper – make things available online"

– "Give more technology-specific assignments"

– "Allow for digital completion of assignments; no physical papers to turn in"

– "Record classes to be used as podcasts"

– "Use 'clickers' [student response system]"

Using Distance Learning to Fill a Gap

► Distance learning offers students access to top-notch faculty, regardless of where students or faculty are located

► Yet students' vision of the 21st-century campus often does not include distance learning. Although 72% of institutions offer it, many students do not see the benefits. Successful programs require student buy-in

Students: What are the benefits of distance learning?

52% said it increases the variety of classes they can take

32% said it enables them to study with a broader variety of faculty

18% said it enables them to interact with a greater number of students

26% do not see benefits of distance learning and/or do not want to take a distance learning class

First step to student buy-in:
Communicate available programs

When asked if their college/university supported distance learning, 72% of IT staff said "yes" compared to just 55% of students

*Students asked to select all that apply.

Overcoming Technology Challenges

► Institutions face two major roadblocks to technology integration – technology budgets and faculty training

💬 **IT staff** believes the biggest impediment to classroom technology is <u>lack of budget</u>:

Nearly half (47%) saw their IT budget decrease from the 2007-2008 school year to the 2008-2009 school year

💬 **Students** say the greatest challenge is the <u>lack of faculty technology knowledge</u>:

The number of students who see faculty knowledge as the greatest campus tech challenge rose from 25% in 2008 to 45% in 2009

Faculty: How can your institution improve your ability to use technology more in your classes?

#1 Response – Training

"More training sessions for faculty, more smart classrooms and incentives for adoption"

"Offer more training opportunities to learn about new technologies. Budget cuts have either eliminated or drastically reduced these options"

"Ensure all classrooms offer a consistent level of technology"

Making the 21st-Century Campus a Reality

► Students, faculty and IT staff agree the 21st-century campus is a vision, not reality

 – Less than half of students (45%) believe that technology is fully integrated into their curriculum, down from 54% in 2008

 – Just 35% of faculty report using technology in every class

Faculty:

What would you like to be able to do with technology in the classroom that you currently cannot?

#1 Response – Use interactive technology

"Interactive technology such as whiteboards or clickers"

"I would like to use interactive video conferencing (Skype) to 'bring' guest speakers to the classroom"

"I would like to utilize social networking sites with the students, but access is denied due to filtering software"

IT Staff:

What is the one piece of technology you wish you could offer your students and/or faculty?

#1 Response – Laptops

"One laptop per student with direct support from my department"

"A more unified front for e-mail, registration and online learning"

"Back up all student/faculty/staff user data, not just data on institutional servers"

Prepping for the Workforce

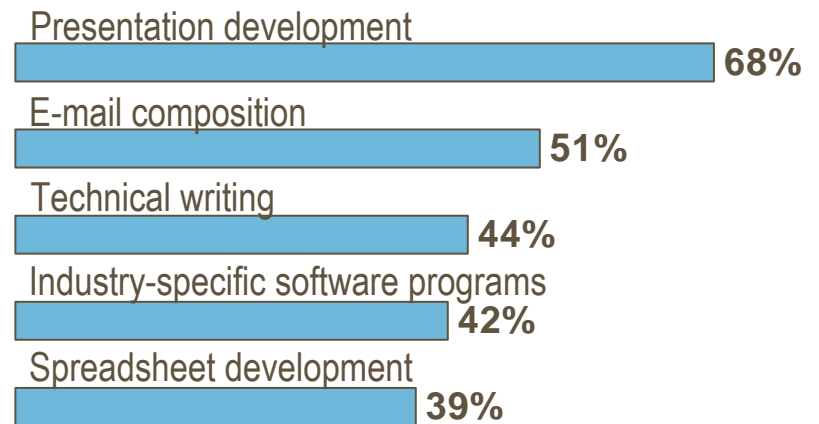► Students, faculty lack confidence in university's technology workforce prep

Less than a third (32%) of students "strongly agree" that their college/university is preparing them to successfully use technology as a business/professional tool when they enter the workforce

Faculty sees even greater deficit – only 22% of faculty "strongly agree" that their institution is preparing students to use technology at work

Liberal arts students feel significantly less confident than business students in their workforce preparation – 21% to 36% respectively


Students believe the most important workplace tech tools will be:

Presentation development
68%

E-mail composition
51%

Technical writing
44%

Industry-specific software programs
42%

Spreadsheet development
39%

Higher Education Call to Action

► **Seek input** – Administration should reach out to current students and recent grads to see how they use technology; IT should implement these techniques today to stay ahead of the curve

► **Make technology ubiquitous** – IT and faculty should employ the same technology/tools in the classroom as students use at home or will use in the workplace; the transition should be seamless

► **Work with faculty** – IT should work with faculty to offer targeted technology professional development, with a focus on improving faculties' skill sets and achieving teaching goals

► **Create connections** – Administration should promote distance learning capabilities; IT should help students/faculty connect with counterparts around the world to enhance the learning experience
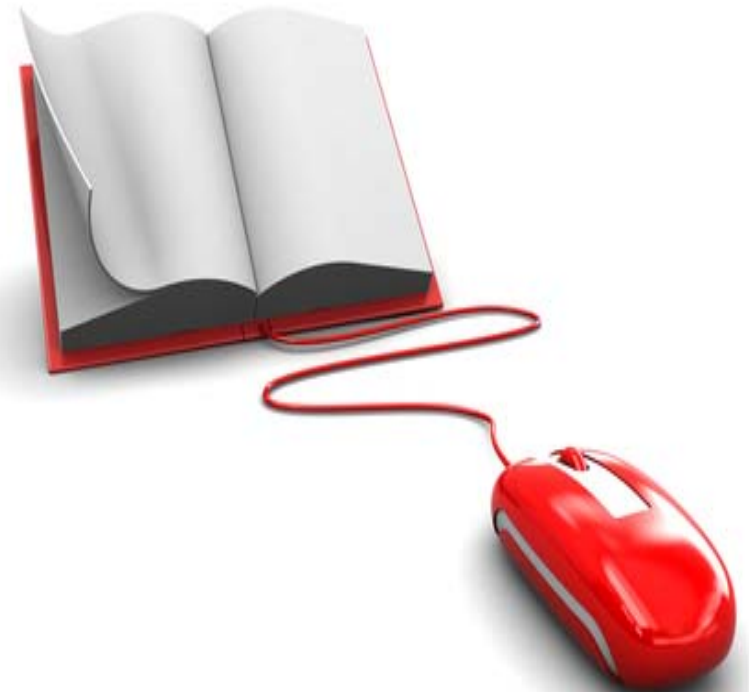
Methodology

► CDW-G hired O'Keeffe & Company to conduct an online survey of college students, faculty and IT staff in April 2009

► Sample Size and Margin of Error:

  – 1,017 Full Sample: +/- 3.1% margin of error at a 95% confidence level

  – 400 Students: +/- 4.9% margin of error at a 95% confidence level

  – 303 Faculty: +/- 5.6% margin of error at a 95% confidence level

  – 314 IT Staff: +/- 5.5% margin of error at 95% confidence level

Type of Institution	Students	Faculty	IT Staff
Public School	55%	47%	56%
Private School	33%	31%	29%
Community College/Vocational-Technical School	12%	22%	15%

Size of Institution	Students	Faculty	IT Staff
Less than 2,500 students	15%	17%	11%
2,500-9,999 students	37%	30%	29%
10,000-24,999 students	24%	29%	25%
25,000 students or more	24%	24%	35%

Thank you.

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