Campus Technology 2009

# The 21st-Century Campus: Are We There Yet? Challenges and Opportunities for Campus Technology



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### Introduction

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 IT staff members to understand their respective perceptions of campus technology.

The study examines how technology is used on campus today, identifies leaders and barriers, and recommends next steps.





#### Moderator

Julie Smith, Vice President, CDW-G Higher Education

Panelists\*

Franklin Steen, Chief Information Officer, Hunter College

Frank Shields, Recent Graduate, Virginia Tech

Jerry Waldron, Chief Information Officer, Salisbury University

\*Please note that panelist participation does not imply an endorsement of CDW-G.



### **Executive Summary**

#### • Wired Yet?: The CDW-G 21st-Century Campus Index rates IT in U.S. higher education

 Combines student, faculty and campus IT executive input; U.S. schools are just halfway to 21st-century capabilities such as full technology integration in and out of class

#### • Tech Matters: Students believe technology is critical to their education

- Nearly all science and business majors, and almost three-quarters of liberal arts majors, say technology matters in their studies
- Reality Check: While technology matters to students, just 33% of faculty say technology is fully integrated into the educational experience
  - Professors' lack of knowledge is considered the biggest impediment by faculty and campus IT execs
  - Even professors who have access to technology in every class do not use it in every class
  - Students use technology to prepare for class with significantly greater frequency than they
    use technology in class
  - Despite the importance of collaboration in the workplace, 73% of students don't use Wikis;
     83% don't listen to podcasts; 88% don't use Web conferencing

#### Bottom Line: Technology matters

- Campus technology is an important factor in school selection and workplace readiness
- Institutions that can elevate professors' technology skills and relate campus technology to future careers will own a marketable <u>competitive advantage</u>



# The 21st-Century Campus Index

The 21st-Century Campus Index considers input from students, faculty and campus IT professionals to gauge how well an institution is integrating technology into the educational experience

#### Methodology

Scores are based on a sum of the weighted average of positive responses for each indicator

#### **Student Indicators**

Professors understand technology and it is fully integrated into my classes

Use technology in every class

Always an open seat in computer labs

#### **Faculty Indicators**

Technology is fully integrated into my campus; there are no obstacles

Technology is integrated into every class

Satisfied with the technology training I receive

#### IT Staff/Executive Indicators

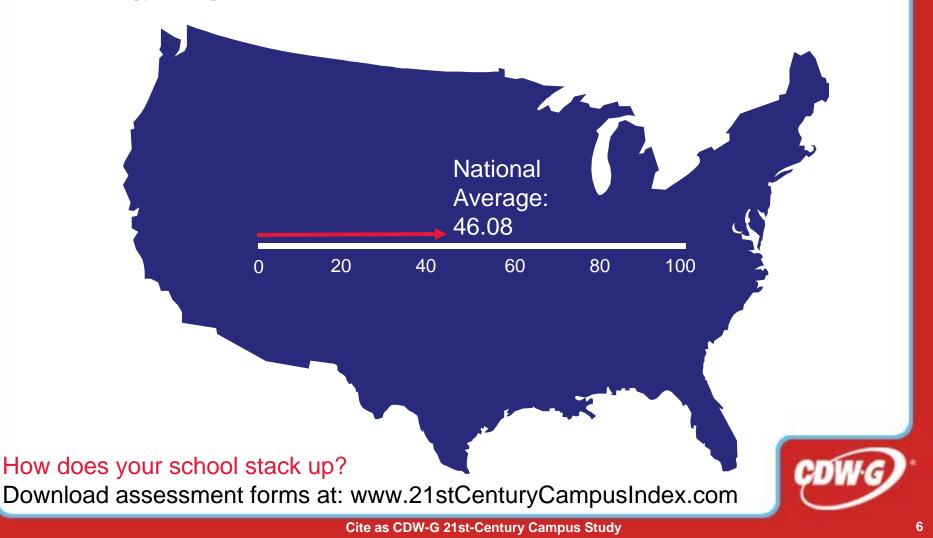
Offers one-to-one laptop programs Offers campus network access Campus supports: **Distance** learning Blogs Wikis Podcasts Videoconferencing Web conferencing Online chat Course management systems Laptops PCs Social networking

Wi-Fi



### 21st-Century Campus Index

Considering 20 factors, U.S. schools score in the mid-range on technology integration. There is more work to be done



## Tech Matters in the College Search

Regardless of major, students say that campus technology played a key role in their school selection

| College<br>Admission | 200 | Top five areas of study/major<br>reported technology was <b>impo</b><br><b>very important</b> to their coll<br>selection | rtant or |
|----------------------|-----|--|----------|
|                      | Î   | Vocational & technical studies   | 90%      |
| Office               |     | Communications   | 89%      |
|                      |     | Engineering  | 79%      |
| Handicap access      |     | Business   | 78%      |
|                      |     | Education  | 73%      |



### Tech Matters In the Classroom

Students say technology is critical to their ability to study for their chosen field – including students in non-technical majors

| import | nts who believe technology is<br>t <b>ant or very important</b> to their<br>to study for their major: | to save hyable can<br>ate more hyable can<br>der his direction<br>rengthened its fina-<br>titment to expandin<br>treservation move<br>oreservation move<br>effective advocate<br>aging smart grow<br>tives to demons<br>tool for comp | a of C isunch  |
|--------|---|---|----------------|
| 100%   | Engineering   | rese adve   | the an arva    |
| 92%    | Science   | aging smarren   | strate revitan |
| 90%    | Vocational and technical schools  | tives to com  | os AV          |
| 90%    | Business  | a tool 1  | SAV            |
| 89%    | Communications  |   |                |
| 86%    | Law and legal studies   |   | Manager        |
| 85%    | Education   | keting  | ster or        |
| 84%    | Medicine  | al Marketing<br>Veb Mar   | Manager        |
| 80%    | Agriculture   | 's Web sti  | ion ineer      |
| 79%    | Health  | on Proutic  | n Teachers     |
| 76%    | Fine and applied arts   | Electis   | h Teachager    |
| 72%    | Liberal arts  | Eug   | rt Main Tr     |

# But College IT Prep Lags Workplace Needs

Despite technology implementation, campuses are not exposing students to common workplace collaborative technologies

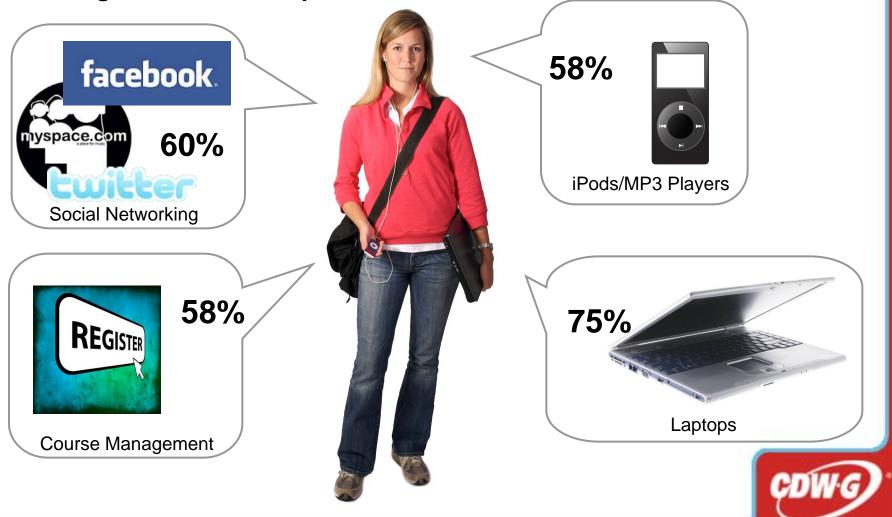
| Но | w fam | iliar are students with newer te | chnology tools? |
|----|-------|----------------------------------|-----------------|
|    | 91%   | Don't use videoconferencing      |                 |
|    |       |                                  |                 |
|    | 88%   | Don't use Web conferencing       |                 |
|    | 83%   | Don't listen to podcasts         |                 |
|    | 720/  | Dep't use Wikie                  |                 |
|    | 13%   | Don't use Wikis                  |                 |
|    |       |                                  |                 |

"[Professors should] research a day in the life of a person in our chosen field and see how they use technology on a day-to-day basis ... [and] apply those skills in the classroom." – *Student* 



### **Students Use Tech Tools**

From social networking to academic research, technology is embedded in the higher education experience



### Students Want Faculty Linked In

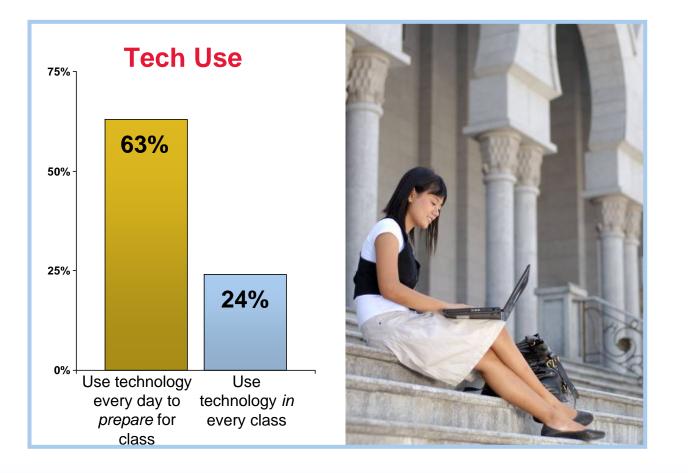
Today's collegians want more than a lecture-hall atmosphere from their college experience – they want regular and immediate communication with faculty. Students rated online chat with professors the tech capability that would be most useful in their studies. Still, just 23% of IT staff say their campus currently offers it

| Hi, Professor  | Student's #1 Desired                                |
|--|---|
| Student  | Tech Capability:                                    |
| I had a question about<br>Tuesday's assignment.<br>Student<br>Sure, what can I help<br>you with? | Online chat with<br>professors<br>(39% of students) |
| Sure, what can I help  | professors  |
| you with?  | (39% of students)                                   |



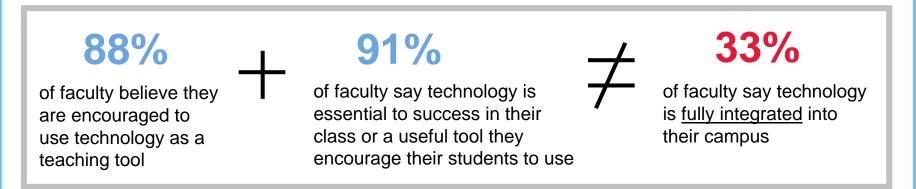
## Students Use Tech Most Often for Prep

Students are using technology most frequently outside the classroom in preparation for class, highlighting the need for campus resources such as wireless networks and available campus computer labs



### Tech in Class Doesn't Add Up

While the majority of faculty are encouraged to use technology and believe it is important for students, just 33% say it is fully integrated into their campus



#### Additionally...



### and 71%

of faculty are satisfied with the training they received but

of faculty say the biggest challenge is not knowing how to use the technology

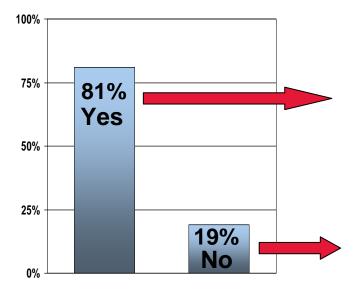
44%

## Smart Classrooms Encourage Tech Use

Not surprisingly, faculty who hold their classes in a smart classroom are more likely to integrate technology into every class than their colleagues who do not

**Faculty:** Do you hold any of your classes in a "smart classroom?" (e.g., Internet connection, LCD projector, interactive whiteboards, smart podiums)





43% of faculty members who hold their classes in a smart classroom use technology during every class

28% of faculty members who <u>do</u> <u>not</u> hold their classes in a smart classroom use technology during every class

### Recommendations

#### Monitor: What's Relevant?

- Identify technologies that students will use post-graduation (communication and functional tools) by major
- Provide training and exposure

#### • Assess: What's Happening on Campus?

- Survey incoming students on their technology needs and expectations
- Conduct an annual technology assessment (download template at <u>www.21stCenturyCampusIndex.com</u>) that identifies how faculty use technology in class and student expectations
- Identify challenges/best practices/opportunities
- Engage stakeholders on the technology solutions that are right for the campus

#### • Train: What Do Professors Need?

- Survey faculty to learn what they want and need to learn
- Ensure that training accommodates professors' schedules
- Identify interesting classroom technology case studies and publish them to the faculty community

#### Connect: How to Use Web 2.0 Tools?

- Leverage chat, blogs and social media tools to connect students and faculty; build community within and beyond the campus
- Keep an eye on technology trends to keep campus technology competitive





#### Thank You

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### Methodology

- CDW-G directed O'Keeffe & Company to conduct an online survey of college students, faculty and IT staff in May 2008
- Sample Size
  - Students: 401
  - Faculty: 305
  - IT Executives: 301
  - Tech Index Combined Sample: 671

#### • Margin of Error

- Full Sample: +/- 3.09% margin of error at a 95% confidence level
- Students: +/- 4.89% margin of error at a 95% confidence level
- Faculty: +/- 5.61% margin of error at a 95% confidence level
- IT Executives: +/- 5.65% margin of error at 95% confidence level
- Tech Index: +/- 3.72% at 95% confidence

### **Respondent Demographics**

#### Faculty

- Average number of years teaching at a college level: 13
- 65% female; 35% male
- Subject area taught
  - 22%: Liberal Arts
  - 17%: Science
  - 17%: Other
  - 14%: Education
  - 9%: Business
  - 5%: Fine and Applied Arts
  - 4%: Communications
  - 3%: Health
  - 3%: Vocational & Technical
  - 2%: Engineering
  - 2%: Medicine
  - 1%: Law and Legal Studies
  - 0%: Agriculture

#### **IT Staff**

- Average number of network users respondents' campuses support: 46,725
- Average size of IT staff
  - 49%: 1-50 IT staff members
  - 12%: 50-100 IT staff members
  - 39%: 100+ IT staff members

#### **Students**

- Average age: 21
- 51% female; 49% male
- Year in school
  - 30%: Freshman
  - 28%: Sophomore
  - 20%: Junior
  - 22%: Senior
- Area of study
  - 25%: Business
  - 11%: Other
  - 9%: Liberal Arts
  - 9%: Science
  - 8%: Education
  - 8%: Health
  - 7%: Engineering
  - 6%: Fine and Applied Arts
  - 5%: Communications
  - 5%: Medicine
  - 3%: Law and Legal Studies
  - 2%: Vocational & Technical
  - 1%: Agriculture