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

National Average: 46.08

How does your school stack up?
Download assessment forms at: www.21stCenturyCampusIndex.com
Tech Matters in the College Search

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

Top five areas of study/majors that reported technology was **important or very important** to their college selection:

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Vocational &amp; technical studies</td>
<td>90%</td>
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<td>Communications</td>
<td>89%</td>
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<tr>
<td>Engineering</td>
<td>79%</td>
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<td>Business</td>
<td>78%</td>
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<td>Education</td>
<td>73%</td>
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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

<table>
<thead>
<tr>
<th>Students who believe technology is</th>
<th>100%</th>
<th>92%</th>
<th>90%</th>
<th>90%</th>
<th>89%</th>
<th>86%</th>
<th>85%</th>
<th>84%</th>
<th>80%</th>
<th>79%</th>
<th>76%</th>
<th>72%</th>
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<tr>
<td>important or very important to</td>
<td>Engineering</td>
<td>Science</td>
<td>Vocational and technical schools</td>
<td>Business</td>
<td>Communications</td>
<td>Law and legal studies</td>
<td>Education</td>
<td>Medicine</td>
<td>Agriculture</td>
<td>Health</td>
<td>Fine and applied arts</td>
<td>Liberal arts</td>
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<td>their ability to study for their</td>
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But College IT Prep Lags Workplace Needs

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

How familiar are students with newer technology tools?

- 91% Don’t use videoconferencing
- 88% Don’t use Web conferencing
- 83% Don’t listen to podcasts
- 73% 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.

- **60%** Social Networking
- **58%** Course Management
- **58%** iPods/MP3 Players
- **75%** Laptops
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.

Student’s #1 Desired Tech Capability:

Online chat with professors
(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 Use](chart.png)
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.

- 88% of faculty believe they are encouraged to use technology as a teaching tool.
- 91% of faculty say technology is essential to success in their class or a useful tool they encourage their students to use.
- 33% of faculty say technology is fully integrated into their campus.

Additionally...

- 85% of faculty say their schools provide technology training.
- 71% of faculty are satisfied with the training they received.
- 44% of faculty say the biggest challenge is not knowing how to use the technology.

Cite as CDW-G 21st-Century Campus Study
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)

- **81%** of faculty members who hold their classes in a smart classroom use technology during every class.
- **28%** of faculty members who do not 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 [www.21stCenturyCampusIndex.com](http://www.21stCenturyCampusIndex.com)) 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