THE EDUCAUSE ALMANAC FOR UNDERGRADUATE STUDENT AND TECHNOLOGY SURVEY, 2016

All U.S. Institutions

The findings in this almanac were developed using a representative sample of students from 153 U.S. colleges and universities. A stratified random sample of approximately 10,000 respondents was drawn from the overall response pool to proportionately match a profile of current U.S. undergraduates regarding age, gender, ethnicity, Carnegie class, and institutional control (public/private). Reported statistics are an estimated proportion of the aggregate student population after removing "Don't know," "N/A," and "No preference" responses.

DEVICE OWNERSHIP, USAGE, AND IMPORTANCE

6%	Own zero or one Internet-capable device
61%	Own two or three Internet-capable devices
33%	Own four or more Internet-capable devices

93% Own a laptop
Of which…
- Windows (65%)
- Mac or OS X (29%)
- Chrome OS (3%)

27%	Own a touchscreen laptop
85%	Use a laptop in most or all of their courses
93%	Rate laptops as very/extremely important to academic success (among students who use laptops in at least one course)

57% Own a tablet
Of which…
- iOS (46%)
- Android (28%)
- Windows (15%)
- Fire OS (6%)

32%	Use a keyboard or docking station with their tablet
17%	Use a tablet in most or all of their courses
41%	Rate tablets as very/extremely important to academic success (among students who use tablets in at least one course)

96% Own a smartphone
Of which…
- iPhone (55%)
- Android (42%)
- Windows (1%)

38%	Use a smartphone in most or all of their courses
46%	Rate smartphones as very/extremely important to academic success (among students who use smartphones in at least one course)

29% Own wearable technology
Most commonly…
- Fitness device (58%)
- Headset (32%)
- Smartwatch (25%)

3%	Use wearable technology in most or all of their courses
24%	Rate wearable technology as very/extremely important to academic success (among students who use wearable technology in at least one course)
56%	Own gaming devices
35%	Own streaming-media devices (e.g., Roku, iTV, Amazon Fire Stick)

Rate the ability to do the following from handheld devices as at least moderately important:
- Academic activities (90%)
- Administrative activities (78%)

NETWORK SATISFACTION AND USAGE

34%	Typically connect zero or one device to the campus network
63%	Typically connect two or three devices to the campus network simultaneously
3%	Typically connect four or more devices to the campus network simultaneously

Rate as good or excellent:
- Reliability of access to Wi-Fi in campus libraries (76%)
- Ease of login to Wi-Fi network(s) provided by the institution (68%)
- Reliability of access to Wi-Fi in classroom/instructional spaces (67%)
- Network performance (e.g., high speed, no interruptions) (58%)
- Reliability of access to Wi-Fi in student housing/dormitories (52%)

Spend at least three hours engaged in these activities in a typical day:
- Online research/homework (59%)
- Social media (26%)
- Streaming video (22%)
- Online gaming (9%)

LEARNING ENVIRONMENT AND ACADEMIC EXPERIENCE

11%   Prefer a face-to-face learning environment
82%   Prefer a blended learning environment
8%   Prefer an online-only learning environment
68%   Were adequately prepared when entering college to use technology needed in courses
36%   Are concerned that technology advances may increasingly invade privacy

Report that most or all of their instructors:
- Have adequate technology skills for course instruction (69%)
- Use technology during class to make connections to the learning material (61%)
- Encourage the use of online collaboration tools (57%)
- Encourage the use of technology for creative or critical-thinking tasks (49%)
- Use technology during class to maintain student attention (48%)
- Encourage the use of student devices during class to deepen learning (34%)

Wish instructors used MORE:
- Lecture capture (i.e., record lectures for later use/review) (62%)
- Free, web-based supplemental content (60%)
- Early-alert systems (56%)
- Search tools to find references/information online for class work (56%)

Wish instructors used LESS:
- E-portfolios (47%)
- Nonkeyboard or nonmouse computer interfaces (44%)
- Social media as a teaching and learning tool (44%)

Find the following notifications at least moderately useful:
- Alerts if it appears their progress in a course is declining (86%)
- Suggestions for how to improve performance (85%)
- Suggestions about new or different academic resources (84%)
- Guidance about courses they might consider taking (83%)

Among students reporting a physical or learning disability that requires accessible or adaptive technologies for coursework:

49%   Rate institutional support of needed technologies as good or excellent
13%   Report that their institution is unaware of student needs

Would include on a résumé:
- Undergraduate degree/diploma (91%)
- Certificate from an accredited college or university (46%)
- Major projects completed during coursework (44%)
- Certificate from an industry-based training program (29%)
- E-portfolio (21%)
- Certificate of completion of a free course (19%)
- Digital badge (17%)

TECHNOLOGY AND STUDENT ENGAGEMENT

46%   Get more actively involved in courses that use technology
28%   Are more likely to skip classes when materials presented in class are available online
31%   Are more likely to skip classes when streamed or recorded lectures are available online

Agree that technology has helped them:
- Document class work or projects (82%)
- Ask instructors questions (79%)
- Get feedback from instructors in a timely manner (75%)
- Engage in the learning process (71%)
- Work with other students on class projects (69%)
- Participate in group activities (65%)
- Discuss course topics with other students (62%)
- Ask other students questions (61%)
- Learn through games or interactive activities (41%)

Agree that technology used in their courses has:
- Contributed to the successful completion of courses (78%)
- Enriched learning experiences (75%)
- Helped them focus on learning activities or course materials (69%)
- Built relevant skills that were useful outside courses (69%)
- Helped them understand hard-to-grasp concepts or processes (67%)

Become distracted during classes because they:
- Text (39%)
- Read e-mail (39%)
- Use social media (37%)
- Surf the web (35%)
- Play games on a laptop or mobile device (18%)

ENHANCE DECISION MAKING WITH ECAR STUDENT AND IT DATA

In 2016, ECAR collaborated with 183 institutions to collect responses from 71,641 undergraduate students about their technology experiences. The research can catalyze conversations among IT professionals about how to better serve their constituents; among institutional leaders about how to use technology strategically; and among students about how to articulate their technology needs and expectations.

ECAR research on students and IT is conducted annually, and all institutions are invited to participate for free. Participating institutions receive the annual research report; an aggregate-level summary/benchmarking report that compares the institution's responses with other institutions'; and the raw (anonymous) data of the institution's responses, allowing institutions to conduct further analyses.

For more information, or to confirm your intent to participate in the next survey, contact the EDUCAUSE research team at ecarsurvey@educause.edu.