

ECAR Study of Undergraduate Students and Technology, 2013

UW-Madison Results

Prepared by Judy Borreson Caruso

The University of Wisconsin-Madison participated in the EDUCAUSE Center for Analysis and Research's survey on Undergraduate Students. In the Spring of 2013, 6639 UW-Madison students were invited to participate.

Overall:

517 Undergraduate Respondents

97% between the ages of 18-24

	Respondents	Percent
Freshmen	108	20.9%
Sophomore	121	23.4%
Junior	141	27.3%
Senior	131	25.3%
Other	16	3.1%

Ownership

	No, and I don't plan to purchase one within the next 12 months	No, but I plan to purchase one within the next 12 months	Yes, I currently own one
Laptop	3	1	513
Tablet or iPad	357	58	102
Smartphone	96	42	379
Dedicated e-reader	417	24	76
Desktop computer	427	23	67

Operating System (of Owners)

Of the 513 owners of a laptop: 53% have Windows OS, 45% Mac and 1% other OS.

Of the 102 owners of Tablet or iPad, 64% have IOS(iPad) OS, 28% Android, and 8% Other/I don't know.

Of the 379 owners of Smartphones, approximately 62% have IOS (iPAD) and 30% Android.

Of the 76 owners of a Dedicated e-reader, 72% have Kindle OS, 20% Nook and 8% Other

Of the 67 owners of Desktop computers, 87% have Windows OS, 7% Linux, and 6% Mac.

Devices used (regardless of ownership)

	Haven't used in the past year	Use for academic and other purposes	Use of academic purposes only	Use for other purposes only
Laptop	0.4%	97.7%	1.4%	0.6%
Tablet or iPad	48.7%	27.9%	2.0%	21.4%
Smartphone	20.5%	60.0%	0.2%	19.3%
Dedicated e-reader	72.5%	12.0%	3.2%	12.4%
Desktop computer	43.2%	37.6%	13.3%	6.0%

How important is each device to academic success

	N/A; Don't use the device	Not at all important	Not very important	Moderately important	Very important	Extremely important
Laptop	0.8%	0.2%	1.2%	4.1%	12.6%	81.2%
Tablet or iPad	57.4%	12.6%	14.3%	9.4%	4.3%	2.0%
Smartphone	21.9%	8.4%	20.9%	23.4%	12.7%	12.7%
Dedicated e-reader	71.3%	12.1%	9.3%	5.5%	1.6%	0.2%
Desktop computer	50.3%	8.1%	14.1%	15.0%	8.5%	4.0%

If you use a desktop computer provided by your institution, in what ways or for what purposes do you use it?

Of the 499 respondents who use the institution-provided desktop	
Convenience - I don't always have my laptop with me	52.7%
Access printing	56.7%
Access library	43.5%
Access specialty software	42.5%
Use a designed workspace	28.9%
Access to faster or more stable Internet	19.6%
Access specialty hardware	13.6%
Build academic social networks	1.8%
Other	1.4%

Own printer – 69.4%

Rate your institution’s support for the following activities from a mobile device:

	Service not offered for mobile device	Haven't used service in the past year	Poor/Fair	Neutral	Good/Excellent
Accessing library resources	4.5%	33.6%	11.7%	12.6%	37.7%
Checking grades	2.1%	15.2%	16.0%	13.8%	52.8%
Registering for courses	5.3%	29.9%	20.2%	13.7%	30.9%
Accessing financial aid info	3.1%	38.6%	15.5%	14.9%	28.0%
Ordering transcripts	3.5%	49.8%	12.4%	12.0%	22.4%
Using the course or learning management system	2.9%	25.4%	18.4%	14.1%	39.3%
Accessing information about events, student activities and clubs/orgs	1.2%	24.2%	11.4%	15.6%	47.6%
Scheduling appointments (e.g., academic advising, student health, counseling, etc.)	3.5%	30.4%	14.6%	14.8%	36.8%

How many of your instructors (in the past year):

	None	Some	Most	All
Effectively use technology to support your academic success?	0.6%	27.6%	59.9%	11.9%
Provide you with adequate training for the technology used in courses?	10.5%	40.5%	36.2%	12.8%
Have adequate technical skills for carrying out course instruction?	0.2%	31.4%	56.8%	11.5%
Use "the right kind(s)" of technology?	1.4%	29.4%	58.0%	11.2%

How important is it that YOU are better trained or skilled at using available technologies to learn, study, or complete coursework?

Not at all important	4.3%
Not very important	11.0%
Moderately important	44.5%
Very important	27.3%
Extremely important	13.0%

For those who said very important or extremely important, what way do want to receive more technical training?

MODE (check all that apply)	
Face-to-face	64.4%
Online	44.2%
Don't care	24.5%
N/A (when checked no other options can be checked)	4.8%
Other	1.4%
LENGTH (check all that apply)	
Full-term (e.g. semester, trimester, quarter)	21.6%
Short-term	76.0%
Don't care	17.8%
N/A (when checked no other options can be checked)	2.9%
Other	1.4%
DESIGN (check all that apply)	
Structured like a traditional course	42.3%
On-demand web-based resources	54.8%
On-demand help desk support	43.3%
Don't care	15.9%
N/A (when checked no other options can be checked)	2.4%
Other	1.0%
TRAINER (check all that apply)	
Your instructors	47.1%
Your peers	35.1%
College/university help desk staff	55.3%
Don't care	36.1%
N/A (when checked no other options can be checked)	2.4%
Other	1.4%

How interested are you in your institution providing guidance about course offerings, such as using “you may also like” or “we recommend” suggestions?

Don't know	8.0%
Not at all interested	5.5%
Not very interested	18.7%
Moderately interested	42.9%
Very interested	18.7%
Extremely interested	6.2%

How interested are you in your institution using information about you to alert you of new or different academic resources (e.g. tutoring, skills-building opportunities, etc.)?

Don't know	4.6%
Not at all interested	4.3%
Not very interested	9.9%
Moderately interested	52.6%
Very interested	21.7%
Extremely interested	7.0%

Which forms of communication do you wish your instructors used less or more?

	Don't know or N/A	1 (less) - 2	3	4 - 5 (More)
E-mail	2.9%	3.5%	34.7%	58.9%
Text messaging	44.1%	31.3%	11.3%	13.4%
Instant messaging/online chatting	35.3%	29.4%	15.3%	20.0%
Twitter	42.9%	34.1%	11.3%	11.7%
Facebook	42.1%	34.3%	12.7%	10.9%
Other social networking sites	46.9%	37.5%	10.5%	5.2%
Social studying sites (Cramster, CourseHero, GradeGuru, etc.)	39.9%	27.2%	15.5%	17.4%
Phone or phone-like communication over the Internet	45.0%	31.5%	13.8%	9.5%
Face-to-face (in-person) interaction	3.5%	6.4%	27.0%	63.1%
Audio/video interaction (virtual face-to-face with Skype "video," G-talk "video," etc.)	33.1%	30.8%	16.7%	19.4%
Course or learning management system	11.9%	18.3%	27.4%	42.4%

How important are these resources/tools to achieving your academic success?

	Did not use in the past year	Not at all/not very important	Moderately important	Very/Extremely important
Academic institution's library website	8.1%	13.6%	33.2%	45.2%
Course or learning management system	11.0%	9.3%	23.9%	55.8%
Web-based citation/bibliography tools (EndNote, CiteULike, OttoBib, etc.)	14.1%	20.6%	29.8%	35.5%
College/university website	1.4%	7.3%	19.3%	72.1%
E-portfolios	47.7%	27.9%	15.9%	8.6%
E-books or e-textbooks	23.9%	19.4%	25.9%	30.9%
Freely available course content beyond your campus (OpenSourceWare, Khan Academy, iTunesU, Mayo Clinic, etc.)	29.5%	17.8%	21.5%	31.1%
Simulations or educational games	31.1%	28.1%	22.9%	18.0%

For those who've used these tools in the past year, to what extent have they used

	Of those who have used in the past year	As a percentage of all students
Freely available content		
Experimented with open educational resources	45.8%	31.7%
Use open educational resources on occasion	43.8%	30.3%
Use open educational resources all the time	10.5%	7.2%
E-portfolios		
Used in one course	82.2%	41.8%
Used in a few courses	9.3%	4.7%
Used in about half my courses	3.1%	1.6%
Used in most of my courses	4.2%	2.2%
Used in all of my courses	1.2%	0.6%
E-books or E-textbooks		
Used in one course	42.0%	31.4%
Used in a few courses	41.4%	31.0%
Used in about half my courses	9.8%	7.3%
Used in most of my courses	6.6%	4.9%
Used in all of my courses	0.3%	0.2%
Simulations or educational games		

Used in one course	68.7%	44.5%
Used in a few courses	27.4%	17.8%
Used in about half my courses	2.1%	1.4%
Used in most of my courses	1.8%	1.2%
Used in all of my courses	0.0%	0.0%

Which resources/tools do you wish your instructors used less or more?

	Don't know or N/A	1 (less) - 2	3	4 - 5 (More)
Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.)	15.6%	14.8%	25.8%	43.8%
E-portfolios	57.1%	25.1%	12.3%	5.6%
E-books or e-textbooks	24.7%	23.6%	20.1%	31.6%
Freely available course content beyond your campus (OpenCourseWare, Kohan Academy, iTunesU, Mayo Clinic, etc.)	31.4%	15.8%	17.6%	35.2%
Simulations or educational games	26.4%	20.0%	20.1%	33.5%
Lecture capture (for later use/review)	8.5%	4.3%	11.8%	75.3%
Online collaboration tools (Blackboard Collaborate, Adobe Connect, Google Docs)	19.3%	12.2%	24.8%	43.7%
Integrated use of my tablet during class	48.4%	20.7%	13.8%	17.0%
Integrated use of my smartphone during class	39.0%	24.6%	14.0%	22.4%
Integrated use of my laptop during class	23.6%	19.9%	17.3%	39.3%

What type of learning environment do you tend to learn most?

Courses with no online components	14.8%
Courses with some online components	75.8%
Courses that are completely online	2.5%
No preference	6.8%

What type of learning environment do you prefer?

Courses with no online components	20.0%
Courses with some online components	71.0%
Courses that are completely online	3.3%
No preference	5.7%

In the past year, how many of your courses have been “blended” courses (with some online components and some face-to-face components)?

None	11.9%
A few	34.8%
About half	24.2%
Nearly all	25.2%
All	3.9%

In the past year, have you taken a completely online course? (multiple yeses possible)

No	77.3%
Yes, at this institution	15.0%
Yes, at a different institution	9.1%

In the past year, have you taken a MOOC (massive open online course) through any institution/organization (e.g. Coursera, Udacity, edX, MITX, etc.)?

No, and I don't know what a MOOC is	75.8%
No	21.5%
Yes, but I didn't completed one	1.4%
Yes and I completed one	1.4%

For those who said “Yes and I completed one,” 42.9% received a digital badge or certificate for completing the MOOC

When you think about documenting the skills you gain during your higher education experiences, which of these would you include in your application portfolio for an employment interview?

N/A (which checked, no other items can be checked)	3.1%
Undergraduate degree/diploma from an accredited college or university	94.9%
Certificate from an accredited college or university program	58.5%
Certificiate from an industry-based training program	28.7%
Certificate of completion from an institution/organization offering freely-available course content	19.8%
Digital badge or patch that represents a skills-based competency or completed activity	19.6%
Other	1.8%

To what extent do you agree with the following statements?

	Don't know	Strongly/somewhat disagree	Neither agree nor disagree	Agree/strongly agree
I like to keep my academic life and my social life separate.	0.8%	25.9%	19.9%	53.4%
I get more actively involved in courses that use technology.	3.1%	19.0%	33.3%	44.6%
By the time I graduate, the technology I have used in my courses will have adequately prepared me for the workplace.	3.1%	21.0%	25.0%	50.8%
I skip classes when materials from course lectures are available online.	1.4%	58.7%	17.3%	22.7%
When I entered college, I was adequately prepared to use technology needed in my courses.	1.2%	19.4%	14.7%	64.7%
Technology makes me feel more connected to what's going on at the college/university.	1.2%	11.7%	22.6%	64.5%
Technology better prepares me for future educational plans (i.e. transferring to another degree program, getting into graduate school).	1.8%	7.3%	18.0%	72.9%
Technology makes me feel connected to other students.	1.2%	15.3%	19.5%	64.0%
Technology makes me feel connected to professors.	1.2%	18.8%	25.1%	54.9%
Technology helps me achieve my academic outcomes.	1.0%	5.6%	20.0%	73.4%
The use of mobile devices in class can enhance learning.	5.9%	41.7%	21.0%	31.4%
I am more likely to get involved in a campus activity when made aware of it though technology.	2.2%	12.7%	26.7%	58.4%
Technology makes my education more affordable.	8.4%	29.0%	33.5%	29.0%

How many Internet-capable devices do you own?

None	1.0%
One	9.3%
Two	42.0%
Three	30.2%
Four	11.4%
Five	3.7%
Six or more	2.5%

For those that own at least one Internet-capable device, what is your typical in-class experience with the following devices?

	N/A	Banned from using it in class	Discouraged from using it in class	Neither discouraged nor encouraged about using it in class	Encouraged to use it in class	Required to use it in class
Smartphone	12.6%	22.3%	50.4%	13.4%	0.8%	0.4%
Tablet or iPad	36.6%	3.8%	13.5%	41.6%	4.0%	0.4%
Laptop	1.0%	2.2%	15.2%	67.1%	13.6%	1.0%

How is a smartphone an effective learning tool during your classes (or how would it be)?

N/A - a smartphone is not an effective learning tool (when checked, no other items can be checked)	29.0%
To look up information relevant to the lecture/discussion	53.1%
To participate in class-related activities/discussions	22.9%
To record my instructors	28.4%
To photograph information	40.8%
To access digital resources	38.7%
Other	1.8%

Regardless of whether you own one, which of the following issues keeps you from using a smartphone as an academic tool?

N/A - a smartphone is not an effective learning tool (when checked, no other items can be checked)	15.1%
Cost of the device	28.5%
Cost of the data service	36.5%
Device usability issues (small screen, keyboard, etc.)	40.6%
Inadequate battery life	37.5%
Limited access to the network (hot spots, wireless carrier coverage, etc.)	29.3%
Slow network connection	35.1%

Lack of applications that are useful to me	25.9%
Cost of applications that are useful to me	19.1%
Concern about the security/privacy problems of mobile technology	10.2%
Concern about the potential health problems of mobile technology	4.2%
Other	6.8%

Overall Demographics

Male 37%; Female 60.3%; Prefer not to answer 2.7%

95.1% full-time

59.7% Live on campus

3.1% are currently taking courses at multiple institutions

Ethnic background

White	78.5%
Black/African American	1.6%
Hispanic	3.3%
American Indian or Alaskan native	2.2%
Asian/Pacific Islander	12.7%
Other	1.0%
Prefer not to answer	5.7%

Academic goal, regardless of current class standing

Digital badges that certify skills or vocational degree	0.4%
Associate degree	0.4%
Bachelor's degree	40.1%
Master's degree	30.1%
Doctoral degree	14.5%
Other professional degree	14.3%
Other	0.2%

Current or intended major

Agriculture and natural resources	1.8%
Biological/life sciences	16.8%
Business, management, marketing	13.5%
Communications/journalism	4.7%
Computer and information sciences	2.9%
Education, including physical education	3.7%
Engineering and architecture	14.2%
Fine and performing arts	1.4%
Health sciences, including professional programs	8.2%
Humanities	4.3%
Liberal arts/general studies	2.9%
Manufacturing, construction, repair, or transportation	0.2%
Physical sciences, including mathematical sciences	3.5%
Public administration, legal, social, and protective services	1.4%
Social sciences, including history and psychology	12.1%
Undecided	3.1%
Other	5.5%

Classes online

Take classes exclusively online	0.6%
Take some classes online and some classes face-to-face	13.1%
Take classes exclusively face-to-face	86.4%