The 2013 ECAR Student Technology Survey was administered by Educause February 18 - April 12, 2013 to a random sample of 6,300 undergraduates, achieving a response rate of 10.3% (N=648). To collect comparable data for the graduate student population, an adapted version of the survey was administered internally at UA to 2,475 graduate and professional students, achieving a response rate of 9.4% (N=232). The following highlights compare survey results for the two student populations.

**Device Usage**

- To varying degrees, both undergraduate and graduate students use the following technological devices for personal and academic purposes:

<table>
<thead>
<tr>
<th>Device</th>
<th>Undergraduate Students</th>
<th>Graduate Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptop</td>
<td>97%</td>
<td>96%</td>
</tr>
<tr>
<td>Windows</td>
<td>58%</td>
<td>59%</td>
</tr>
<tr>
<td>Mac</td>
<td>42%</td>
<td>39%</td>
</tr>
<tr>
<td>Linux</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Tablet</td>
<td>47%</td>
<td>27%</td>
</tr>
<tr>
<td>iPad</td>
<td>70%</td>
<td>77%</td>
</tr>
<tr>
<td>Android</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>Smartphone</td>
<td>63%</td>
<td>57%</td>
</tr>
<tr>
<td>iPhone</td>
<td>59%</td>
<td>55%</td>
</tr>
<tr>
<td>Android</td>
<td>40%</td>
<td>39%</td>
</tr>
<tr>
<td>E-Reader</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Kindle</td>
<td>77%</td>
<td>67%</td>
</tr>
<tr>
<td>Nook</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Desktop Computer</td>
<td>52%</td>
<td>45%</td>
</tr>
<tr>
<td>Windows</td>
<td>81%</td>
<td>83%</td>
</tr>
<tr>
<td>Mac</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Linux</td>
<td>1%</td>
<td>4%</td>
</tr>
</tbody>
</table>

- Students indicated that the following technological devices were very/extremely important to their academic success:

**Importance of Device Usage on Students’ Academic Success**

- **Laptop**: 90% (Undergraduate) 95% (Graduate)
- **Tablet**: 45% (Undergraduate) 31% (Graduate)
- **Smartphone**: 37% (Undergraduate) 31% (Graduate)
- **Desktop Computer**: 62% (Graduate)
• 65.3% of undergraduates own two to three Internet-capable devices
• 30% of undergraduates report being banned from using Smartphones in class, as compared to 4.7% banned tablets or iPads, and 2.7% banned laptops
• Most popular uses for smartphones in class are to look up information (54.2%), to photograph information (54.1%), to access digital resources (38.9%), and to record instructors (32.4%)
• The most commonly reported barriers to smartphone usage among undergraduates are device usability issues (36.9%), inadequate battery life (34.2%), cost of data service (31.6%), and slow network connection (30.7%)
• Top ratings (good/excellent) for UA provision of access via handheld mobile device:
  o Checking grades: 63.7% undergraduates, 45% graduates
  o Using the course management system: 52.8% undergraduates, 35.6% graduates
  o Accessing library resources: 45.8% undergraduates, 40% graduates
• Lowest ratings (poor/fair) for UA provision of access via handheld mobile device:
  o Registering for courses: 23.2% undergraduates, 15% graduates
  o Using course management systems: 20.1% undergraduates, 27% graduates

Technology and the College Experience
• 69% of undergraduate and 54% of graduate students report that most/all faculty effectively use technology to impact their academic success
• 50% of undergraduate and 64% of graduate students indicate that it is very/extremely important to be better trained or skilled at using available technologies
• Of those undergraduate students who indicated that training was important, they preferred the training be face-to-face (66%), short term (62%), either facilitated like a traditional course (49%) or offered as an on demand web resource (48%), and facilitated by an instructor (64%)
• Students indicated the following resources to be most important to their academic success:

![Top Rated Campus Technology Resources Important to Students' Academic Success](chart)
Learning Environments

- Overall, students indicate that they learn most in courses with some online content:
- While 49% of undergraduate students report currently taking a completely online course at UA, only 26% of graduate respondents report having done so
- 12% of undergraduate and 35% of graduate students report having no blended courses in the last year.
- **75% of UA undergraduates do not know what MOOCs are.** Only 3% of UA undergraduates have enrolled in a MOOC in the past year, with only 1% completing a MOOC
- Both undergraduate (49%) and graduate (47%) students agree/strongly agree that they are more actively involved in courses that use technology
- **53% of undergraduate and 57% of graduate students agree/strongly agree that the technology used in their programs will have adequately prepared them for the workplace**
- 58% of undergraduates felt adequately prepared to use the technology needed in their classes at the time they entered college, whereas 72% of graduate students felt prepared upon entering their programs

Undergraduate and graduate students report that technology helps them feel more connected to what is going on at UA and more connected to other students:

- **The majority of both undergraduate (57%) and graduate (60%) students prefer to keep their academic and social lives separate with respect to social networking sites**
- 71% of undergraduate and 81% of graduate students agree/strongly agree that technology better prepares them for future education/career
- **76% of undergraduate and 75% of graduate students indicate that technology helps them achieve their academic outcomes**
The Influence of Technology on Student Connectedness

Feel More Connected to UA
- Undergraduate Students: 61%
- Graduate Students: 62%

Feel More Connected to other Students
- Undergraduate Students: 52%
- Graduate Students: 57%
Qualitative (open-ended) Items:

The undergraduate and graduate surveys included a number of open ended questions, the results of which are presented below. Some questions from the UA graduate student survey were not included in the national ECAR survey of undergraduates, therefore several graphs present data only on graduate student responses. Also, open-ended survey items yield a wide variety of responses, so the percentages of each collapsed category of responses will be smaller than those questions with fixed responses. We have presented the most common responses for each question below.

If you use a desktop computer provided by your institution, in what ways or for what purposes do you use it? (N=12)

- Use provided desktop for class, internship, or place of employment: 33%
- Use provided desktop for homework: 25%
- Use provided desktop for printing: 17%
- I don’t have a provided desktop from the institution: 8%
- Use provided desktop for full keyboard: 8%
- Use desktop for fewer distractions: 8%
What types of new, better, or “cutting edge” technologies would benefit your college/university experience? (N=440)

Better classroom technology (Smartboards, etc.)
- Graduate (N=130) 6%
- Undergraduate (N=432) 12%

More accessible and improved computers
- Graduate (N=130) 1%
- Undergraduate (N=432) 12%

Satisfied with current technology
- Graduate (N=130) 0%
- Undergraduate (N=432) 11%

More accessible and affordable Ipad/Tablet Technology (renting, apps, etc.)
- Graduate (N=130) 1%
- Undergraduate (N=432) 10%

More reliable and secure WiFi
- Graduate (N=130) 0%
- Undergraduate (N=432) 8%

More accessible and affordable printing services
- Graduate (N=130) 0%
- Undergraduate (N=432) 8%

Not Sure or N/A
- Graduate (N=130) 0%
- Undergraduate (N=432) 6%

More interactive online technology (hybrid courses, faculty communication, visual tools)
- Graduate (N=130) 4%
- Undergraduate (N=432) 6%

Better hardware and software for students
- Graduate (N=130) 4%
- Undergraduate (N=432) 6%

Give us an example of your training needs or desired technical skills. (N=214)

Training on Microsoft Office (Excel)
- Undergraduate 22%

Training on class management systems (D2L, Blackboard, WebAssign)
- Undergraduate 21%

Training on software/technology compatability
- Undergraduate 21%

Training on general computer and laptop use
- Undergraduate 12%

Training on using library and internet academic resources
- Undergraduate 5%

Training on using interactive/presentation technology (youtube, prezi, etc.)
- Undergraduate 4%

Training on technology used in the workplace
- Undergraduate 3%
Why are you not interested in your institution using information they have about you to alert you of new or different academic resources? (N=61)

- Already receiving the notifications and information that I need: 28%
- Can find answer or information on my own: 28%
- Not interested in resources outside my academics: 23%
- Don’t want UA using my personal information or assessing my needs: 15%
- Won’t be at UA much longer (graduating): 5%

You mentioned that you wanted your instructors to use more freely available course content. Please share examples of how you would use this material (N=168)

- Use as a supplement to lectures and homework: 50%
- Use as visual resources (webcasts, videos, etc): 33%
- Use as a reference in class (replacing textbooks): 10%
- Use to learn new topics: 4%
- Other: 4%
You mentioned that you wanted your instructors to use more simulations or educational games. Please share examples of the types of simulations or games you would like to see more: (N=139)

- Any game that is interactive and visual: 45%
- Memory games: 18%
- Computer games or simulations: 14%
- Other: 12%
- On the job or real life simulations: 10%

What online resources do you go to first to learn about a new topic? (N=714)

- Google: 75%
- Wikipedia: 13%
- Library resources and website: 31%
- Other (EbscoHost, PubMed, Uptodate, etc.): 17%
- Course management systems (D2L and Blackboard): 14%
- Email: 7%
Tell us ONE thing that your instructors can do with technology to better facilitate or support your academic success. (N=623)

- Upload and update lecture materials on course website: 27% Graduate, 40% Undergraduate
- Interactive and engaging technology (clickers, youtube, polls): 16% Graduate, 16% Undergraduate
- Faculty training for better tech usage and communication: 14% Graduate, 14% Undergraduate
- Out of class technology (online homework and exams, online tutoring): 7% Graduate, 6% Undergraduate
- More online resources (e-books, Khan Academy): 6% Graduate, 6% Undergraduate
- Use less technology or provide more instruction/training for students: 11% Graduate, 14% Undergraduate
- Generally use more tech (projectors, etc.): 6% Graduate, 6% Undergraduate
- None or N/A: 15% Graduate, 15% Undergraduate

Tell us ONE thing that your institution can do with technology to better facilitate or support your academic success. (N=590)

- More affordable and accessible technology (outlets,....): 15% Graduate, 18% Undergraduate
- Improve classroom technology: 14% Graduate, 14% Undergraduate
- Improve speed and compatibility of all university....: 13% Graduate, 14% Undergraduate
- Improve communication technology (email, texts, im): 13% Graduate, 16% Undergraduate
- Provide technology training for faculty, staff, and....: 12% Graduate, 16% Undergraduate
- More online resources (e-books, software,databases): 11% Graduate, 16% Undergraduate
- Faster and more reliable WiFi: 9% Graduate, 9% Undergraduate
- Unsure: 4% Graduate, 4% Undergraduate
### Demographics

<table>
<thead>
<tr>
<th>Survey Version</th>
<th>Response Count</th>
<th>Population</th>
<th>Sample Size</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>648</td>
<td>31,565</td>
<td>6,300</td>
<td>10.3%</td>
</tr>
<tr>
<td>Graduate</td>
<td>232</td>
<td>8,658</td>
<td>2,475</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

**Respondent demographics compared to 2012-2013 UA Student Population**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Undergrad Survey Respondents N=648</th>
<th>2012-2013 UA Undergrad Students N=31,565**</th>
<th>Grad/Prof Survey Respondents N=232</th>
<th>2012-2013 UA Grad/Prof Students N=8,658**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>61</td>
<td>52</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>36</td>
<td>48</td>
<td>39</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>Minority</td>
<td>42</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Full Time</td>
<td>86</td>
<td>89</td>
<td>85</td>
</tr>
</tbody>
</table>

*Column percentages for each demographic group may not sum to 100% due to rounding and/or respondents choosing not to disclose.

** Office of Institutional Research and Planning Support 2012-13 Enrollment Highlights