The 2016 ECAR Students and Technology Study: Engagement, Efficacy, and Enrichment

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Senior Research Fellow

30 November 2016
Thanks to our sponsor
Guideposts

- Project overview
- Setting the context
- Student attitudes about & use of technology
- Students’ experience of campus technology
- Students’ technology preferences
- The effects of technology on students
Project overview
Poll question 1

Has your institution participated in the ECAR Student Study and/or ECAR Faculty Study?

- Yes, both
- Yes, the Student Study only
- Yes, the Faculty Study only
- Neither (not yet!)
- Don’t know
How does this work?

- ECAR
  - Conceptualizes
  - Operationalizes
  - Invites
  - Facilitates
  - Returns
  - Analyzes
  - Reports

- Institutions
  - Volunteer
  - Implement
  - Remind
  - Utilize
2017 ECAR student and faculty survey timeline

Review your institution's primary representative & survey administrator status

October 2016 – January 2017

Complete planning forms and upload any approval documentation needed on the ETRAC portal

Finalize local survey implementation logistics
- Choose dates
- Draft invitations
- Create marketing plan

30 January – 14 April 2017

Implement your survey
- Send out links to students/faculty
- Monitor response rates

Data files will be accessible on the ETRAC portal
- Raw data
- Benchmarking data

July 2017

Review your institution's primary representative & survey administrator status

Complete planning forms and upload any approval documentation needed on the ETRAC portal
ETRAC Portal: Dashboard

- Plan
  - Manage roles
  - Review my institution's participation
  - Plan your survey

- Launch & Monitor
  - Get your survey links
  - Monitor responses
  - Update survey plan

- Analyze
  - Review AUP
  - Review response rates
  - Explore data

MY ROLES

Welcome, Jamie Reeves | EDUCAUSE

Surveys Assigned as Administrator:

- STUDENT STUDY
- FACULTY STUDY

Surveys Assigned as Reviewer:

- STUDENT STUDY
- FACULTY STUDY
ETRAC Portal: Manage Roles

<table>
<thead>
<tr>
<th>ADMINISTRATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDUCAUSE PRIMARY REP</strong></td>
</tr>
<tr>
<td>John O'Brien</td>
</tr>
<tr>
<td>President &amp; CEO</td>
</tr>
<tr>
<td>EDUCAUSE</td>
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</table>

<table>
<thead>
<tr>
<th>ETRAC SURVEY ADMINS</th>
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<tbody>
<tr>
<td>By Last Name A to Z</td>
</tr>
<tr>
<td>Pam Arroway</td>
</tr>
<tr>
<td>Director of Analytics Infrastructure</td>
</tr>
<tr>
<td>EDUCAUSE</td>
</tr>
</tbody>
</table>

| Jamia Reeves |
| Research Assistant |
| EDUCAUSE |
ETRAC Portal: Manage Survey Plans

Data entered in each survey planning form is saved when you click "Submit". Planning form progress on this page is updated every 5 minutes. However, you may need to refresh this page to see the most recent update.

STUDENT STUDY
This study helps your institution to assess student technology expectations and experiences at your institution.

Survey Admin
Jamie Reeves
Research Assistant
EDUCAUSE

Resources:
- Student research prospectus
- Student survey instrument
- IRB planning information
- Sampling plan information
- Example e-mail invites
- FAQ

FACULTY STUDY
This study helps your institution to assess faculty technology expectations and experiences at your institution.

Survey Admin
Pam Arroway
Director of Analytics
Infrastructure
EDUCAUSE

Resources:
- Faculty research prospectus
- Faculty survey instrument
- IRB planning information
- Sampling plan information
- Example e-mail invites
- FAQ

NOT PARTICIPATING
Setting the Context
Student study participation overview

71,641 respondents
183 institutions
12 countries
37 states
Student attitudes about & use of technology
Mean scores of student techienessness

- Usage
- Attitude
- Disposition

Yearly mean scores from 2014 to 2016.
Mean scores of student techieness, by sex

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>68</td>
<td>64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75</td>
<td>74</td>
</tr>
</tbody>
</table>
Mean scores of student techieness, by ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Disposition</th>
<th>Attitude</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/African American</td>
<td>68</td>
<td>79</td>
<td>78</td>
</tr>
<tr>
<td>Hispanic</td>
<td>67</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>White</td>
<td>65</td>
<td>73</td>
<td>74</td>
</tr>
</tbody>
</table>
Mean scores of student techieness, by enrollment status

<table>
<thead>
<tr>
<th></th>
<th>Disposition</th>
<th>Attitude</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>66</td>
<td>74</td>
<td>75</td>
</tr>
<tr>
<td>Part-time</td>
<td>67</td>
<td>77</td>
<td>77</td>
</tr>
</tbody>
</table>

**Disposition**

- Full-time: 66
- Part-time: 67

**Attitude**

- Full-time: 74
- Part-time: 77

**Usage**

- Full-time: 75
- Part-time: 77
Student laptop, tablet, and smartphone ownership

- None
- Laptop, smartphone, and tablet
- Smartphone and tablet
- Smartphone
- Laptop and smartphone
- Laptop

= 1 percent
Device used for coursework versus device importance to student success

The graph illustrates the percentage of respondents who rated devices as very/extremely important to academic success, plotted against the percentage of respondents using the same devices for coursework. The devices compared include laptops (2012 and 2016), tablets (2012 and 2015), smartphones (2012 and 2016), and wearables (2016). The trend shows an increase in the use of these devices for coursework and an increase in their perceived importance over time.
Questions?
Students’ experience of campus technology
Poll question 2

What percentage of undergraduate students rate their overall technology experiences good to excellent?

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%
Students’ overall technology experiences

- Poor
- Fair
- Neutral
- Good
- Excellent

Percentage of respondents
Student experiences with wireless networks

- Reliability of access to Wi-Fi in campus libraries
- Ease of login to Wi-Fi network(s) provided by the institution
- Reliability of access to Wi-Fi in classroom/instructional spaces
- Reliability of access to Wi-Fi in student housing/dormitories
- Network performance

Percentage of respondents rating good/excellent

- On campus
- Off campus

[Source: EDUCAUSE]
Faculty use of technology as a means to engage students

Percentage of students who said most, almost all, or all of their instructors...

- Have adequate technology skills for course instruction
- Use technology during class to make connections to the learning material
- Encourage students to use online collaboration tools to communicate/collaborate
- Encourage students to use technology for creative or critical-thinking tasks
- Use technology during class to maintain their attention
- Encourage students to use their own technology devices during class to deepen learning

Percentage of respondents

[Diagram showing the percentage of respondents for each activity]
Determinants of technology experience

- Ease of log in
- Library Wi-Fi
- Dormitory Wi-Fi
- Network performance
- Skilled instructors
- Attitude
- Tech used in courses prepares for career
Questions?
Students’ technology preferences
Poll question 3

In what type of learning environment do students say they tend to learn most?

- One with no online components
- One with some online components
- One that is mostly but not completely online
- One that is completely online
- No preference
Students’ preferred learning environments

- No preference
- One that is completely online
- One that is mostly but not completely online
- One with some online components
- One with no online components

Percentage of respondents

2013 | '14 | '15 | 2016
---|---|---|---
One with no online components
One with some online components
One that is mostly but not completely online
One that is completely online
No preference
Determinants of learning environment preferences

- Active in courses that use technology
- Instructors use technology to deepen learning
- Women
- Disposition
- Attitude
- Taken completely online courses
- Taken mostly online courses

Prefer completely or mostly online
Determinants of learning environment preferences

- Taken completely face-to-face courses
- Taken mostly face-to-face courses

Prefer completely or mostly face-to-face
Questions?
The effects of technology on students
Technology engagement: Student-faculty

Technology helped me...

- Ask my instructors questions
- Get feedback from instructors in a timely manner
- Understand my instructors’ expectations
- Discuss course topics with my instructors
- View my instructors as approachable
- Develop a personal relationship with my instructors

Percentage of respondents agreeing
Technology engagement: Student-student

Technology helped me...

- Work with other students on class projects
- Participate in group activities
- Discuss course topics with other students
- Ask other students questions
- Get feedback from other students in a timely manner
- Learn something from other students
- Explain course ideas or concepts to other students
- View other students as approachable
- Develop a personal relationship with other students

Percentage of respondents agreeing

0%  25%  50%  75%  100%
Technology engagement: Student-content

Technology helped me...
- Conduct research for class assignments
- Keep track of course news or announcements
- Document class work or projects
- Investigate topics outside class time
- Reflect on course materials
- Analyze data

Percentage of respondents agreeing
0% 25% 50% 75% 100%
Determinants of technology engagement

- First-generation
- Usage
- Attitude
- Women
- Disposition

Engagement
Technology enrichment

Technology used in my courses...

- Contributed to the successful completion of my courses
- Was appropriate to the content being delivered
- Enriched my learning experiences
- Was relevant to my achievement of course learning objectives
- Helped me understand fundamental concepts
- Helped make connections to knowledge obtained in other courses
- Built relevant skills that were useful outside courses
- Helped me focus on learning activities or course materials
- Connected course materials and real-world experiences
- Helped me understand hard-to-grasp concepts or processes
- Helped me think critically

Percentage of respondents agreeing
Determinants of technology enrichment

- First-generation
- Usage
- Women
- Attitude
Technology efficacy

Technology used in my courses has enabled me to...

- Communicate basic messages
- Use technical or academic terminology correctly
- Receive feedback from others right away
- Understand what other people are trying to communicate to me
- Explain my ideas in specific terms
- Help others learn something from me
- Clearly explain new concepts I’ve learned to others
- Explain my thought process from start to finish
- Persuade my classmates why my ideas are relevant to class-related problems or topics

Percentage of respondents agreeing

Educause
Poll question 4

Which of the following digital distraction do students say they engage in the most?

- Using social media
- Texting
- Reading e-mail
- Read websites not related to class
- Surf the web
Technology distractions

I get distracted during classes because I...

- Text
- Read e-mail
- Use social media
- Surf the web
- Read websites not related to class
- Talk to neighbors
- Read books, magazines, or other printed materials not related to class
- Read a newspaper
- Pass notes

Percentage of respondents agreeing
Determinants of technology distraction

- Underprepared to use basic software/applications
- Encouraged to use devices in class to deepen learning
- Engagement with other students
- Social media engagement
- Adequately prepared to use technology needed in courses
- More likely to skip when materials available online
- Age

Distractions
Questions?
Thank you!

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Twitter: @dcbphd