

Consumerization/User-Provisioned Technology Survey

Thank you for participating in this ECAR survey. This study is designed to develop a framework for the important issues that surround the consumerization of IT in higher education and to document current practices for managing/supporting computing environments for students and employees who provision their own technologies. ***ECAR acknowledges that user-provisioned technology is not new to higher education, but the scope and nature have changed with the proliferation of easy-to-use, inexpensive technology.***

The consumerization of information technology refers to the phenomenon where technology emerges from the consumer market and spreads into an organizational environment. The phrase “user-provisioned technology” includes devices and services (e.g., file sharing and collaboration tools like Dropbox and Google Docs) that make up students’ and employees’ personal computing environments.

Only EDUCAUSE researchers will have access to institutionally identifiable data collected in this survey. Aggregated results, as well as a list of institutions participating in the survey, may be included in reports, publications, or other products of this research, but they will not contain any information that could be used to identify an individual or a particular institution.

This survey should be completed by the EDUCAUSE Primary Representative or by appropriate management or staff under the direction of the EDUCAUSE Primary Representative. It should take no more than 20 minutes to complete this survey.

Please complete this survey by January 11, 2013.

SECTION 1. Introduction

1.1 Please enter the survey ID provided in the e-mail invitation you received. Your ID is a 4–6 digit number; no letters or symbols should be included. Required. _____

1.2 Your name. Required. _____

1.3 Your e-mail address. Required. _____

1.4 What is your job title? _____

SECTION 2. Scope and Culture

2.1 Please *estimate the average* number of Internet-capable devices per person accessing your institutional network(s):

	Don't know/no reliable way to estimate these data	2010 (two years ago)	2012 (the most recent year)	2014 (two years from now)
a. Students				
b. Faculty				
c. Staff				
d. Administrators				
e. Visitors				

2.2 Regardless of the type of device or service, *estimate the percentage* of employees (faculty, staff, administrators) using their own provisioned technologies for work-related activities. Please enter the percentage as a whole number, e.g., 34 for 34%.

	Don't know/no reliable way to estimate these data	2010 (two years ago)	2012 (the most recent year)	2014 (two years from now)
a. Devices (any personally owned device)				
b. Services (any personally provisioned cloud-based storage or collaboration service)				

2.3 To what extent is your institution motivated to allow employees (faculty, staff, administrators) permissive use of user-provisioned technologies?

	Not at all motivated	Somewhat motivated	Motivated	Very motivated	Extremely motivated	Don't know
a. To increase productivity						
b. To increase satisfaction						
c. As a recruitment mechanism						
d. To reduce procurement costs of institutionally provided technology						
e. Other, please specify: _____						

2.4 To what extent do you agree with the following statements about your institution’s culture for user-provisioned technology and personal computing environments?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don’t know
a. There are focused efforts to manage <u>assets</u> (i.e., devices and technologies) of user-provisioned technologies.						
b. There are focused efforts to manage <u>access</u> (i.e., data and intellectual property) of user-provisioned technologies.						
c. Generally speaking, the institution supports a culture of innovation (i.e., encourages new, pioneering technologies and activities).						
d. The institution has a welcoming environment for user-provisioned technologies for <u>faculty</u> .						
e. The institution has a welcoming environment for user-provisioned technologies for <u>staff</u> .						
f. The institution has a welcoming environment for user-provisioned technologies for <u>students</u> .						

2.5 To what extent are the following issues/activities institutional priorities with regard to user-provisioned technologies?

	Not at all a priority	Low priority	Medium priority	High priority	Essential priority	Don’t know
a. Developing a comprehensive institutional mobile strategy						
b. Establishing data loss liability coverage						
c. Extending enterprise systems for mobile access						
d. Facilitating anytime/anywhere access to course materials for students						
e. Hiring IT personnel with mobile application/deployment and support skills						
f. Implementing (or maintaining) a VDI or <u>virtualized desktop</u> system						
g. Implementing a <u>data loss prevention</u> system						

h. Implementing a <i>mobile device management</i> system						
i. Implementing/improving mobile security for <i>data</i>						
j. Implementing/improving mobile security for <i>devices</i>						
k. <i>Improving</i> end-user experiences for those who bring their own technology						
l. <i>Simplifying</i> end-user experiences for those who bring their own technology						
m. Providing more user support for <i>faculty-provisioned</i> technologies						
n. Providing more user support for <i>staff-provisioned</i> technologies						
o. Providing more user support for <i>student-provisioned</i> technologies						
p. Supporting innovative teaching opportunities						
q. Outsourcing support for user-provisioned technologies						
r. Updating/upgrading infrastructure to support device proliferation						
s. Other, please specify: _____						

2.6 Please indicate the “deployment status” of the following technologies at your institution.

	Deployed broadly	Deployed sparsely	In planning	Considering	Considered, not pursued	No discussion to date
a. Securing data						
b. Securing devices						
c. Preventing data loss						
d. Extending enterprise systems for mobile access						

SECTION 3. Planning and Policy

3.1 Thinking about your institution's strategic plan, which option best describes the overall planning strategy for user-provisioned technologies?

- No formal strategy exists, not planning for one
- Planning a formal strategy, and it will be implemented more than a year from now
- Planning a formal strategy, and it will be implemented within a year from now
- Have a formal strategy, but it is not being implemented
- Have a formal strategy, but it needs expanding/updating
- Have a formal strategy, and it works well
- Don't know
- My institution doesn't have a strategic plan

3.2 For which items does your institution have formal policies covering user-provisioned technologies?

	No policy	Integrated into another policy	Addressed in a dedicated policy	Don't know
a. Permitted <u>devices</u> (e.g., allowed, recommended/not recommended, banned device)				
b. Permitted <u>services</u> (e.g., allowed, recommended/not recommended, banned services)				
c. Permitted <u>apps</u> (e.g., allowed, recommended/not recommended, banned apps)				
d. Security requirements for <u>services</u>				
e. Security requirements for <u>devices</u>				
f. Security requirements for <u>data</u>				
g. Scope of support services provided by institution				
h. Ownership of software programs, services, or apps on user-provisioned technology				
i. Options for reimbursement (devices, apps, service plans, etc.)				
j. Employee privacy expectations				
k. E-discovery rules on devices or services				
l. Limitations of liability for devices or services				

m. Integrated acceptable use policy				
n. Employee exit strategy (e.g., data wiping/recovery of device)				
o. Accessibility issues addressed (e.g., 504 compliance)				

SECTION 4. Management

4.1 Does your institution offer reimbursement, stipends, or other types of allowances for faculty and staff to purchase user-provisioned technology?

- No <<Go to 4.3 >>
- Yes, and we plan to continue this practice for the foreseeable future. <<Go to 4.2 >>
- Yes, but we plan to discontinue this practice in the foreseeable future. <<Go to 4.2 >>
- Don't know <<Go to 4.3>>

4.2 Please describe the reimbursement/stipend/allowance scenario for user-provisioned technology: _____

4.3 Which organizational unit is responsible for institutional strategies pertaining to user-provisioned technology strategies?

- Primarily central IT
- Shared between central IT and other administrative or academic units
- Primarily other administrative or other academic units
- Primarily system or district office
- Primarily outsourced
- N/A—no one organizational unit responsible
- Other, please specify: _____

4.4 In the past two years, to what extent has user-provisioned technology impacted the institution financially in each of the following areas?

	Costs have declined substantially	Costs have declined somewhat	Costs have stayed about the same	Costs have increased somewhat	Costs have increased substantially	Don't know
a. Institutionally provisioned <u>devices</u>						
b. Institutionally provisioned <u>services</u>						
c. <u>IT infrastructure</u> that supports user-provisioned technology (e.g., network upgrades, security enhancements, mobile device management (MDM) system implementation)						
d. <u>IT support services</u> to support user-provisioned technology (e.g., help desk, training)						
e. Data and security breaches						

4.5 Over the next two years, to what extent do you expect user-provisioned technology to impact the institution financially in each of the following areas?

	Costs will decline substantially	Costs will decline somewhat	Costs will stay about the same	Costs will increase somewhat	Costs will increase substantially	Don't know
a. Institutionally provisioned <u>devices</u>	<<Go to 4.5a>>	<<Go to 4.5a>>				
b. Institutionally provisioned <u>services</u>						
c. <u>IT infrastructure</u> that supports user-provisioned technology (e.g., network upgrades, security enhancements, MDM system implementation)						
d. <u>IT support</u> services to support user-provisioned technology (e.g., help desk, training)						
e. Data and security breaches						

4.5a Given that you expect to see user-provisioned technology costs decline, tell us how you would like to repurpose funds formerly spent on institutionally provisioned devices:

4.6 Does your institution use a mobile device management (MDM) system?

- Don't know <<Go to 4.7>>
- No <<Go to 4.7>>
- Yes <<Go to 4.6a-d>>

4.6a MDM vendor name: _____

4.6b MDM product name: _____

4.6c How long have you used this MDM system?

- Less than one year
- One to two years
- More than two years
- Don't know

4.6d How satisfied are you with the MDM system?

- Very dissatisfied
- Somewhat dissatisfied
- Neutral
- Somewhat satisfied
- Very satisfied
- Don't know

4.7 Does your institution use a data loss prevention (DLP) system?

- Don't know <<Go to 4.8>>
- No <<Go to 4.8>>
- Yes <<Go to 4.7a-d>>

4.7a DLP vendor name: _____

4.7b DLP product name: _____

4.7c How long have you use this DLP system?

- Less than one year
- One to two years
- More than two years
- Don't know

4.7d How satisfied are you with the DLP system?

- Not at all satisfied
- Not very satisfied
- Neutral
- Somewhat satisfied
- Very satisfied
- Don't Know

4.8 Does your institution use a virtualized desktop integration (VDI) system?

Don't know <<Go to 4.9>>

No <<Go to 4.9>>

Yes <<Go to 4.8a-d>>

4.8a VDI vendor name: _____

4.8b VDI product name: _____

4.8c How long have you use this VDI system?

Less than one year

One to two years

More than two years

Don't know

4.8d How satisfied are you with the VDI system?

Very dissatisfied

Somewhat dissatisfied

Neutral

Somewhat satisfied

Very satisfied

Don't know

4.9 For whom does your institution mandate security awareness training regarding bringing/using one's own technology? *Select all that apply.*

Students

Faculty

Non-faculty knowledge-worker employees

Administrators

Other employees (not covered above)

N/A

Don't know

4.10 What are the most important training/education needs for employees using their own technology for work-related purposes? _____

4.11 To what extent do you agree with the following statements about your institution’s technology infrastructure to accommodate widespread use of Internet-capable mobile devices?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
a. <i>At the present time</i> , we have adequate Wi-Fi coverage on campus.						
b. <i>In the next two-years</i> , we will need to upgrade/expand Wi-Fi coverage on campus.						
c. <i>At the present time</i> , we have adequate network bandwidth capabilities.						
d. <i>In the next two years</i> , we need to upgrade/expand network bandwidth capabilities.						
e. <i>At the present time</i> , we have adequate cell phone service coverage on campus.						
f. <i>In the next two years</i> , we will need to upgrade/expand cell phone service coverage on campus.						

SECTION 5. Support

5.1 What level of support does the institution provide for employees (faculty, staff, administrators) in the following areas?

	Not supported	Best effort support	Full service support
a. Laptops	<<Go to 5.3>>	<<Go to 5.2>>	<<Go to 5.2>>
b. Tablets	<<Go to 5.3>>	<<Go to 5.2>>	<<Go to 5.2>>
c. Smartphones	<<Go to 5.3>>	<<Go to 5.2>>	<<Go to 5.2>>
d. Cloud-based services and collaboration tools (e.g., Dropbox, Google Drive, Basecamp, Dimdim, etc.)			
e. Software as a service (e.g., ERP, MIS, CRM, etc.)			
f. Social media			
g. Other technologies: Please describe _____			

5.2 What is the main challenge to providing support services for user-provisioned devices to employees? _____

5.3 What level of support does the institution provide for students?

	Not supported	Best effort support	Full service support
a. Laptops	<<Go to 5.5>>	<<Go to 5.4>>	<<Go to 5.4>>
b. Tablets	<<Go to 5.5>>	<<Go to 5.4>>	<<Go to 5.4>>
c. Smartphones	<<Go to 5.5>>	<<Go to 5.4>>	<<Go to 5.4>>
d. Cloud-based services and collaboration tools (e.g., Dropbox, Google Drive, Basecamp, DimDim, etc.)			

5.4 What is the main challenge to providing support services for user-provisioned devices to students? _____

5.5 Estimate how demand for support of user-provisioned technologies will change over the next two years. Consider all users (employees and students) and think about “demand” in a holistic sense, including things like support request tickets, help desk call volume, etc.

	Decrease	No change	Increase up to 50% more	Increase up to 100% more	Increase more than 100%	Don't know
a. Laptops						
b. Tablets						
c. Smartphones						

SECTION 6. Teaching and Learning

6.1 Does the institution have guidelines addressing if/how student-provisioned technologies can be incorporated into the teaching and learning environment (i.e., devices, services, apps)?

- Don't know
- No
- Yes

6.2 Does the institution have guidelines addressing if/how faculty-provisioned technologies can be incorporated into the teaching and learning environment (i.e., devices, services, apps)?

- Don't know
- No
- Yes

6.3 Is there a formal program/unit that helps faculty incorporate student-provisioned technologies into the learning environment (e.g., devices, services, apps)?

- Don't know
- No
- Yes

6.4 What is the practice for allowing/disallowing students to use their mobile devices in face-to-face courses? Select all that apply.

- It is up to individual faculty to allow/disallow mobile devices in class.
- Division/units set expectations to allow/disallow mobile devices in class.
- Institution sets expectations to allow/disallow mobile devices in class.
- Don't know

6.5 In the next two years, is your institution planning to substantially reduce the number of student-accessible, institutionally provisioned devices (e.g., computers in general-purpose computer labs)?

- Don't Know <<Go to 7.1>>
- No <<Go to 7.1>>
- Yes <<Go to 6.5a>>

6.5a If reducing institutionally provisioned machines will result in fewer lab spaces, tell us how you would like to repurpose or reconfigure the spaces that were formerly "computer labs":

SECTION 7: Conclusion

7.1 From the IT point of view, what is the greatest opportunity that user-provisioned technology provides higher education? _____

7.2 From the IT point of view, what is the greatest challenge that user-provisioned technology provides higher education? _____

7.3 Is your institution a leader in any of the following areas of user-provisioned technologies?

	No	Yes, and I'm open to ECAR following up with me to share more information.	Yes, but I'd prefer no ECAR follow up.	Don't know
a. Designing or implementing compliance standards or enforcement efforts for BYOD				
b. Developing short- or long-term plans addressing the fiscal implications of BYOD				
c. Incorporating BYOD issues into governance conversations or institutional structures				

d. Planning strategically for BYOD (at any level— institution, central IT, unit, etc.)				
e. Addressing security BYOD issues				
f. Adapting to (or around) BYOD support service strategies				
g. Embracing teaching and learning opportunities BYOD provides				
h. Addressing technology infrastructure issues related to BYOD				
i. Other: Please describe_____				

7.4 Do you have any other comments that aid in understanding your responses?

7.5 May we contact you to obtain clarification or further insight into some of your responses?

- Yes
- No

7.6 Are you willing for EDUCAUSE to integrate your responses from this survey with the Core Data Service to begin to provide you with a single repository of your institution’s responses to EDUCAUSE surveys?

- Yes, I am willing.
- No, I am not willing.
- I am uncertain. Please contact me to give me more information before integrating my responses to this survey with the Core Data Service.

Thank you for participating in this ECAR survey. The findings from this research will be published in spring 2013. If you have questions or comments about this work, please contact Eden Dahlstrom, ECAR researcher and principal investigator on this project, at edahlstrom@educause.edu.