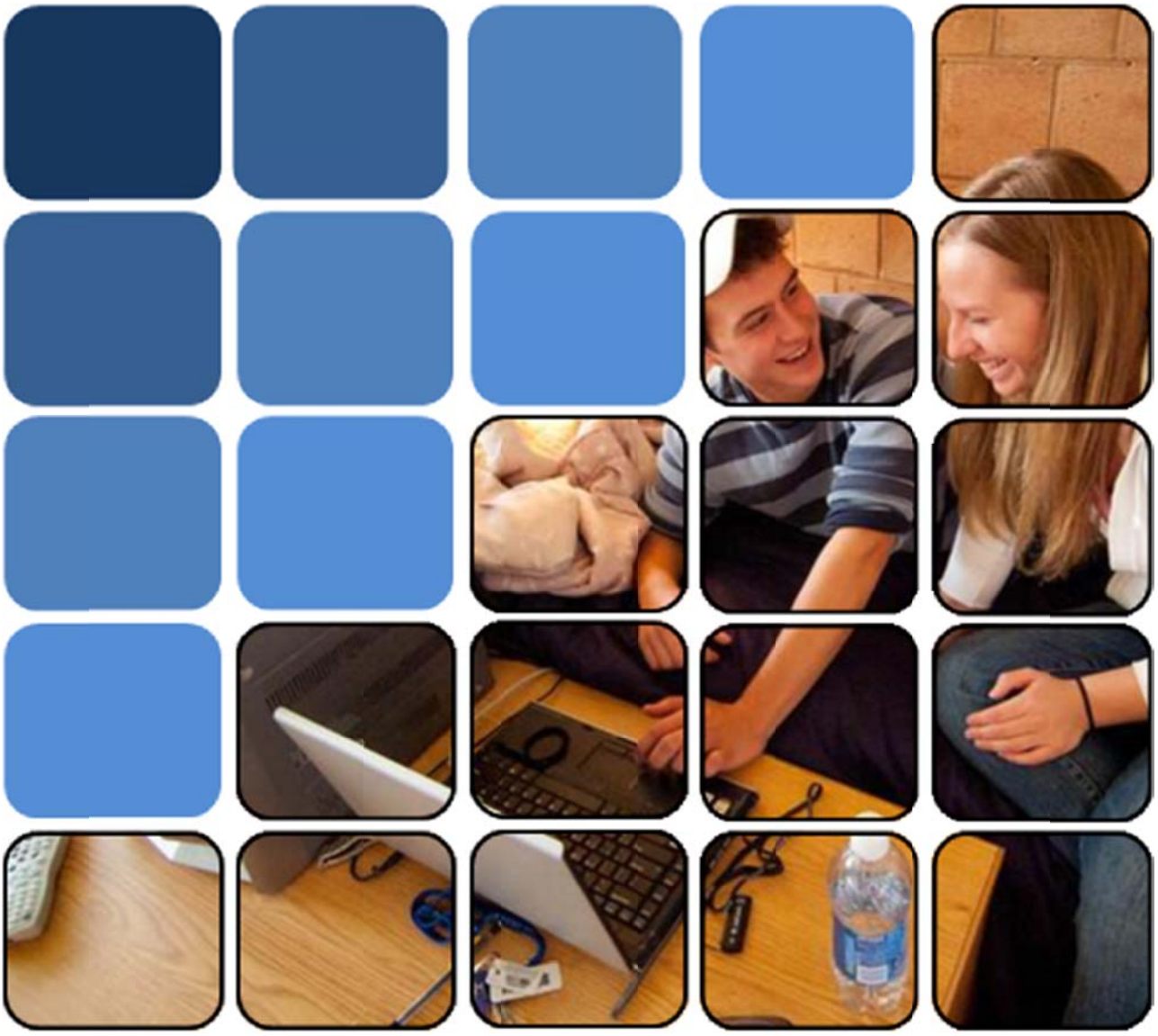

2014 UBIT Student Experience Survey

Final Report

UBIT Policy & Communication

Office of the VPCIO

UB Information Technology

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Introduction and Background

2014 marks the 18th year of the UBIT Student Experience Survey. This survey allows UB campus community members to re-examine students' technology experiences and validate observed or reported trends, particularly with respect to the introduction of new (or modification of existing) technology services.

The survey was open from October 21 to November 7, 2014. Data was collected using Vovici™ software and further analyzed using SPSS™. The instrument contained 38 questions and was designed in consultation with Instructional and IT support staff in each technology area surveyed, as well as UB offices of Student Life, Campus Living, Undergraduate Education, the University Libraries, and other campus stakeholders.

There were a total of 1,043 valid unique responses. Only three questions were coded to require a response, providing participants with the opportunity to skip a question if they chose, and several questions enabled multiple responses ("check all that apply"). The response rate was fairly consistent across all questions (with the exception of open-ended responses). To assist with general readability of many graphics, the percentages were rounded to the nearest whole percent. With a 95% confidence level, we can assert a confidence interval of 2.15 percentage points for most questions answered by the total valid responses.

Students were encouraged to participate in the survey through various UB Facebook and Twitter accounts, the MyUB web portal and by screen "pop-up" invitations in UB's public computing sites, School of Management, and Law School computing labs. Only one response was allowed per student using UBITName authentication. Several academic units also supported this effort by marketing the survey link on departmental websites. A random drawing with the prize of a pair of Beats headphones was offered to students to encourage participation in this year's survey.

This report is organized into seven sections:

- Demographics
- Students' Choice of Hardware, Device(s) and OS
- The Mobile Lives of Students
- Security, Awareness, and Learning Technology
- Technology and University Life
- Getting the Word Out
- Students and Social Media
- Qualitative Responses- Suggestions and Critical Feedback

This report is available at: http://www.buffalo.edu/ubit/about-us/service-metrics/scoreboard/surveys.html

Survey Highlights

- Device Usage
  - Laptop use continues to fall while tablet usage, specifically of iPads and Kindles, is on the rise.
  - Desktop use increased for the second year in a row.
  - While iPhones remain largely dominant, Android products are more widely used in the schools of Engineering, Medical and Biological Sciences, Nursing, and Public Health and Health Professions. By contrast, UB's School of Engineering was the only one where Android phones were used more widely in 2013.
- Connectivity
  - 63% of students are satisfied with Wi-Fi coverage while a significant 20% report being dissatisfied (23% were dissatisfied in 2013).
  - Verizon continues to be the cell phone carrier of choice for most undergraduate UB students while AT&T dominates the graduate student market.
- Awareness
  - Compared to 2013, student awareness of UB's software offerings increased by 6%.
- Assistance
  - When starting their careers at UB, students cite that they would've liked more assistance getting connected to Wi-Fi or UBmail, particularly on mobile devices.
  - Students also cite they would like instructions or updates on services to be communicated to them via email. Some students also requested the use of video tutorials.
- Certifications
  - When students were asked about the types of technical certificates or badges they would like to be available from UB, cloud computing was the most frequent response, followed by programming. Students also requested software training for their specific fields, with programs ranging from MS Office to AutoCAD and MATLAB.
- Instructional Technology
  - Students continue to ask that their instructors be better trained in technology.
  - They request that instructors respond to student communications more frequently, particularly via email.
  - Students asked for professors to integrate their courses into UB*learns* for assignments, chat sessions, sharing of course materials and grades, and sharing recorded classes.
  - Consistent with the 2013 survey, students continue to ask for standardization of participation clickers required for certain classes, often requesting that a mobile app be used in place of a physical device.

Demographics

The total number of survey respondents (n=1,043) saw a decrease from last year (Table 1), but with more equal participation across the class groups overall. Sophomore and first year graduate students both experienced a decrease of 3% from the 2013 survey.

Figure 1:

Class Standing of Respondents

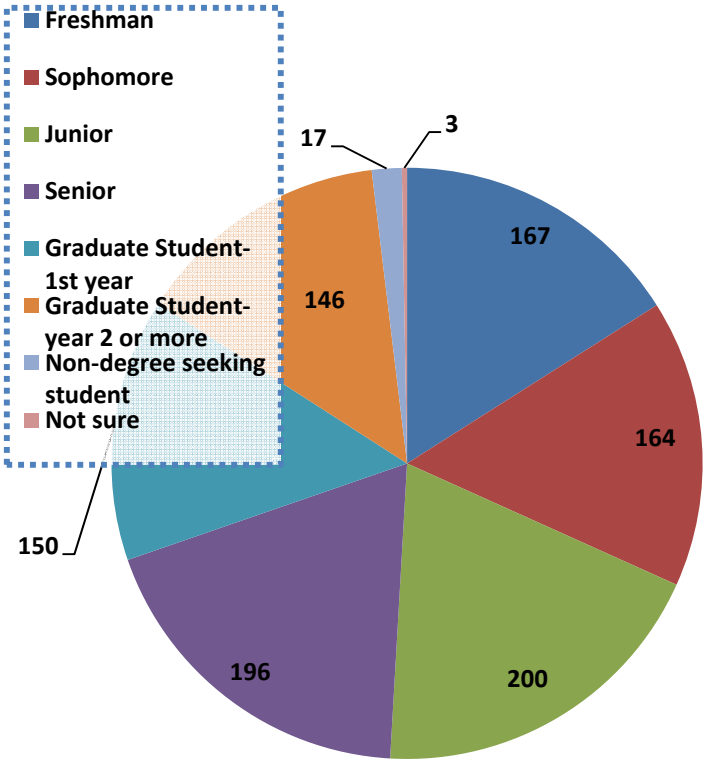


Table 1:

Number of Survey Respondents

Year	n
2014-2015	1,043
2013-2014	1,924
2012-2013	2,914
2011-2012	2,421
2010-2011	996
2009-2010	816
2008-2009	3,221
2007-2008	3,434
2006-2007	1,943
2005-2006	5,548

Students self-selected whether to participate in the survey. **Table 2** examines the number of survey responses received segmented by school, followed by the percentage of those responses (**n=1,043**) compared with UB's Institutional Analysis enrollment figures.

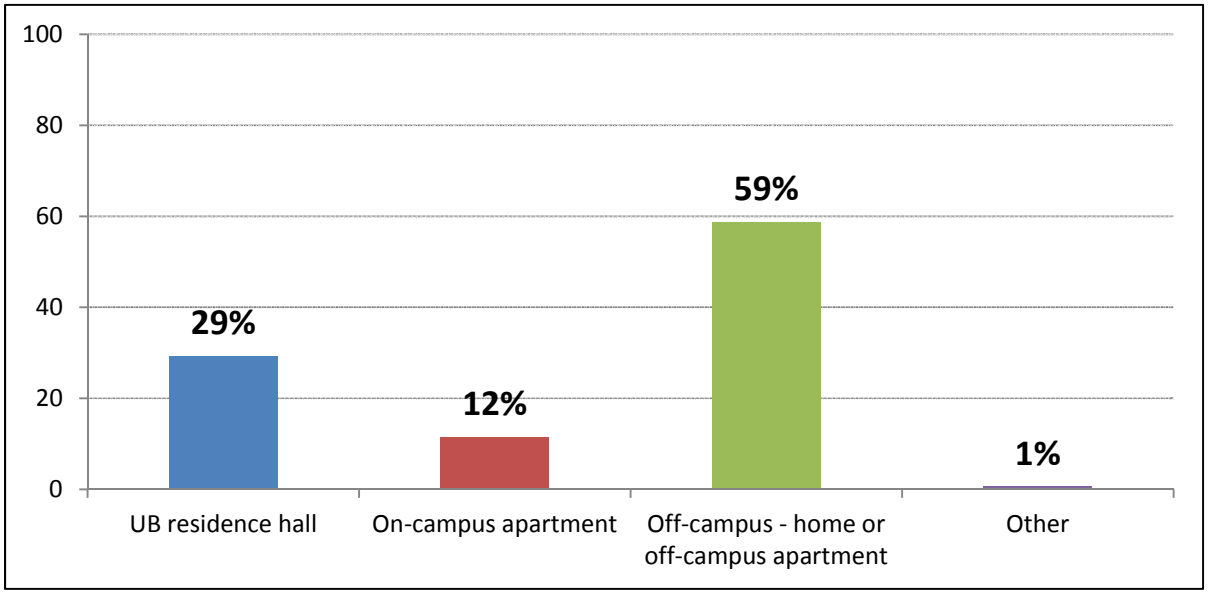
Survey responses fell within or close to the percentage of confidence overall. Exceptions include Engineering and Applied Sciences, which was over-represented by 13%, and Undecided students, who were under-represented by nearly 25%. The responses were also examined over the past three years, which indicate relative consistency across schools over time (**Table 2**).

Table 2: Survey Participation as Percentage of Enrollment

School	2014 Survey Response Count by School	% 2014 Response (n=1,043)	% Valid Campus Population Sample by School		% 2013 Response (n=1,924)	% 2012 Response (n=2914)	% 2011 Response (n=2391)
Architecture & Planning	23	2%	2.2% (-.2%)		1%	2%	2%
Arts & Sciences	265	25%	19.4% (+5.6%)		27%	27%	29%
Dental Medicine	4	0%	1.6% (-1.6%)		1%	1%	1%
Education	28	3%	4.6% (-1.6)		3%	3%	4%
Engineering & Applied Sciences	307	30%	17.2% (+12.8%)		27%	21%	21%
Law	23	2%	1.8% (+0.2%)		2%	2%	3%
Management	135	13%	11.3 (+1.7%)		12%	12%	12%
Medicine & Biomedical Sciences	61	6%	3.6 (+2.4%)		7%	7%	5%
Nursing	20	2%	0.9% (+1.1%)		4%	4%	3%
Pharmacy & Pharmaceutical Sciences	50	5%	2.0% (+3.0%)		5%	6%	6%
Public Health & Health Professions	72	7%	3.6% (+3.4)		8%	8%	7%
Social Work	10	1%	1.4% (-0.4%)		2%	2%	2%
Undecided	45	4%	28.9% (-24.9%)		4%	5%	6%

Figure 2: Primary Residence at UB (n=1,043)

A student's choice of residence may impact his or her access to quality resources, as on-campus housing has direct access to the UB network and robust bandwidth (**Figure 2**). The number of on-campus residence respondents increased from 32% in 2013 to 41% in 2014.



Students' Choice of Hardware, Device(s) and OS

Hardware

Students' use of Desktop computers increased again in 2014, after years of declining ownership. iPads, netbooks and Kindles all saw an increase in use among UB students. Both iPhones and Android all saw slight increases in use from 2013 **(Figure 3)**. All these findings are consistent with the trend of owning and using devices specific to their perceived purpose, and consistent with tablets and smartphones replacing functionality previously provided by laptops. While a smaller percentage of the student population uses laptops, but greater percentages bring them to class **(Figure 4)**.

Figure 3: Comparative Use of Laptop, Desktop, and Tablet Computers

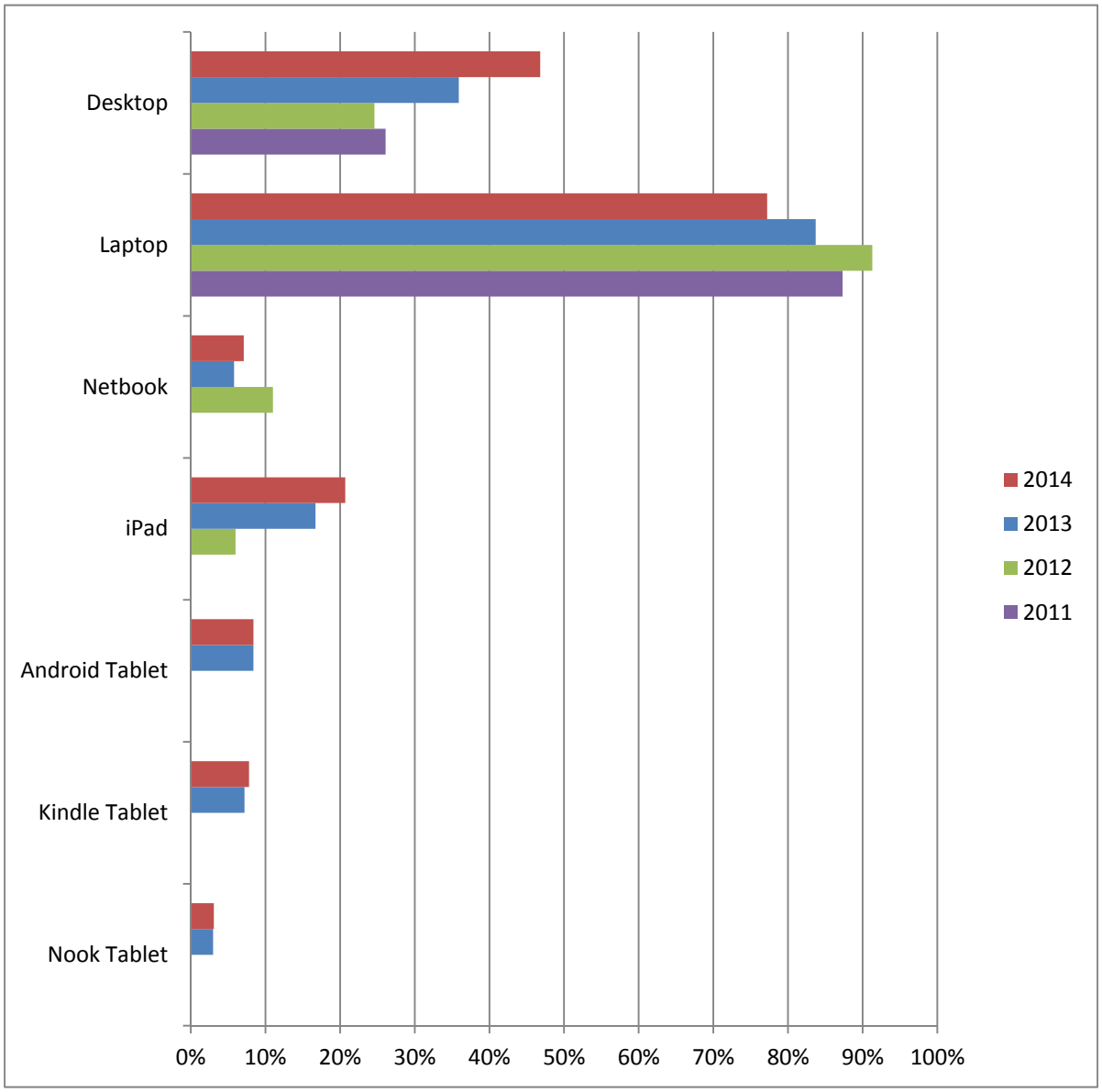


Figure 4: Types of Device Students Use vs. Bring to Class

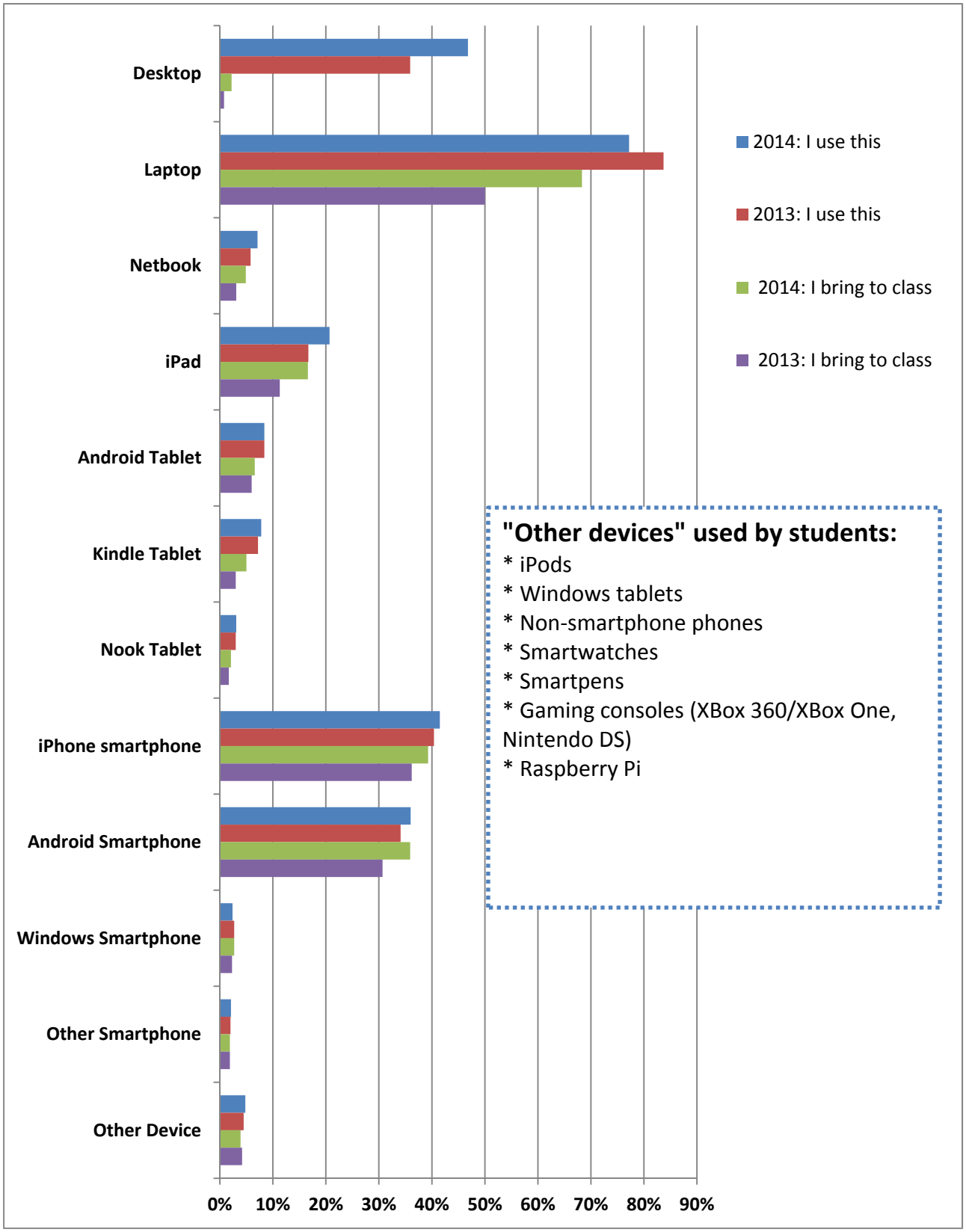


Table 3 A/B/C: Device Use by School

A. Computer Use Percentage by School

When examined at the school level: (**Table 3**)

- Laptops are widely used across all schools, with the lowest percentage of use in the Law school (61%) and the highest use by the Social Work and Dental schools (90% and 100% respectively).

School	Desktop (2014)	Desktop (2013)	Laptop (2014)	Laptop (2013)	Netbook (2014)	Netbook (2013)
Architecture (23) 2%	39%	35%	87%	85%	4%	10%
CAS (265) 25%	50%	38%	78%	92%	9%	6%
Dental (4) 0%	50%	43%	100%	86%	0%	14%
Education (28) 3%	50%	44%	82%	92%	11%	8%
Engineering (307) 26%	40%	35%	77%	89%	9%	7%
Law (23) 2%	39%	35%	61%	81%	4%	8%
Management (135) 13%	49%	49%	76%	88%	7%	8%
Med & Bio Sciences (61) 6%	51%	40%	80%	93%	8%	3%
Nursing (20) 2%	45%	40%	85%	92%	0%	6%
Pharmacy (50) 5%	52%	31%	72%	86%	0%	7%
SPHHP (72) 7%	50%	36%	79%	92%	3%	7%
Social Work (10) 1%	50%	36%	90%	95%	10%	5%
Undecided (45) 4%	56%	47%	56%	91%	2%	4%

B. Tablet Use Percentage by School

iPads remain the most widely used tablets by UB students. Android tablet use is about equal in the Engineering and Dental departments, but elsewhere there is a clear preference towards iPads among UB students.

Notably, students in the Law school were using the Nook at a rate of more than double that of any other school this year; this is also notable because less than 1% of respondents from the Law school reported using a Nook in 2013.

School	iPad (2014)	iPad (2013)	Android (2014)	Android (2013)	Kindle (2014)	Kindle (2013)	Nook (2014)	Nook (2013)
Architecture (23) 2%	22%	50%	0%	25%	4%	25%	0%	0%
CAS (265) 25%	24%	49%	9%	24%	9%	22%	5%	12%
Dental (4) 0%	50%	50%	50%	75%	0%	25%	0%	25%
Education (28) 3%	32%	58%	0%	17%	11%	25%	4%	17%
Engineering (307) 26%	16%	52%	10%	38%	7%	24%	3%	7%
Law (23) 2%	26%	83%	17%	17%	9%	17%	13%	0%
Management (135) 13%	24%	68%	24%	21%	9%	23%	3%	5%
Med & Bio Sciences (61) 6%	21%	50%	11%	38%	7%	19%	0%	2%
Nursing (20) 2%	20%	50%	5%	39%	5%	28%	0%	11%
Pharmacy (50) 5%	20%	71%	6%	13%	2%	29%	2%	0%
SPHHP (72) 7%	19%	52%	8%	18%	10%	25%	1%	18%
Social Work (10) 1%	30%	40%	10%	7%	20%	33%	0%	27%
Undecided (45) 4%	11%	48%	9%	24%	9%	24%	2%	19%

C. Smartphone Use Percentage by School

Compared to 2013, the gap in numbers between Apple and Android usage continues to close (although iPhone still remains largely dominant), with fewer "other" smartphones and Windows phones reported as well.

School	iPhone (2014)	iPhone (2013)	Android (2014)	Android (2013)	Windows (2014)	Windows (2013)	Other (2014)	Other (2013)
Architecture (23) 2%	43%	60%	30%	40%	0%	0%	0%	7%
CAS (265) 25%	46%	57%	31%	42%	3%	2%	2%	2%
Dental (4) 0%	50%	57%	50%	57%	0%	14%	0%	14%
Education (28) 3%	50%	66%	29%	31%	7%	6%	0%	0%
Engineering (307) 26%	35%	40%	42%	60%	3%	7%	3%	3%
Law (23) 2%	43%	63%	17%	37%	0%	0%	0%	0%
Management (135) 13%	49%	61%	35%	41%	2%	2%	2%	3%
Med & Bio Sciences (61) 6%	31%	55%	46%	45%	0%	1%	3%	2%
Nursing (20) 2%	35%	58%	55%	36%	0%	2%	0%	6%
Pharmacy (50) 5%	48%	51%	28%	44%	2%	7%	0%	3%
SPHHP (72) 7%	35%	62%	40%	35%	0%	4%	1%	3%
Social Work (10) 1%	80%	69%	1%	26%	0%	3%	0%	3%
Undecided (45) 4%	44%	53%	29%	44%	0%	3%	2%	3%

Operating Systems

Figure 5: Operating Systems Used on Primary Computers

Windows 8 (including Windows 8.1) is now used more than Windows 7 by UB students (**Table 4**). Windows is still the dominant OS used by UB students.

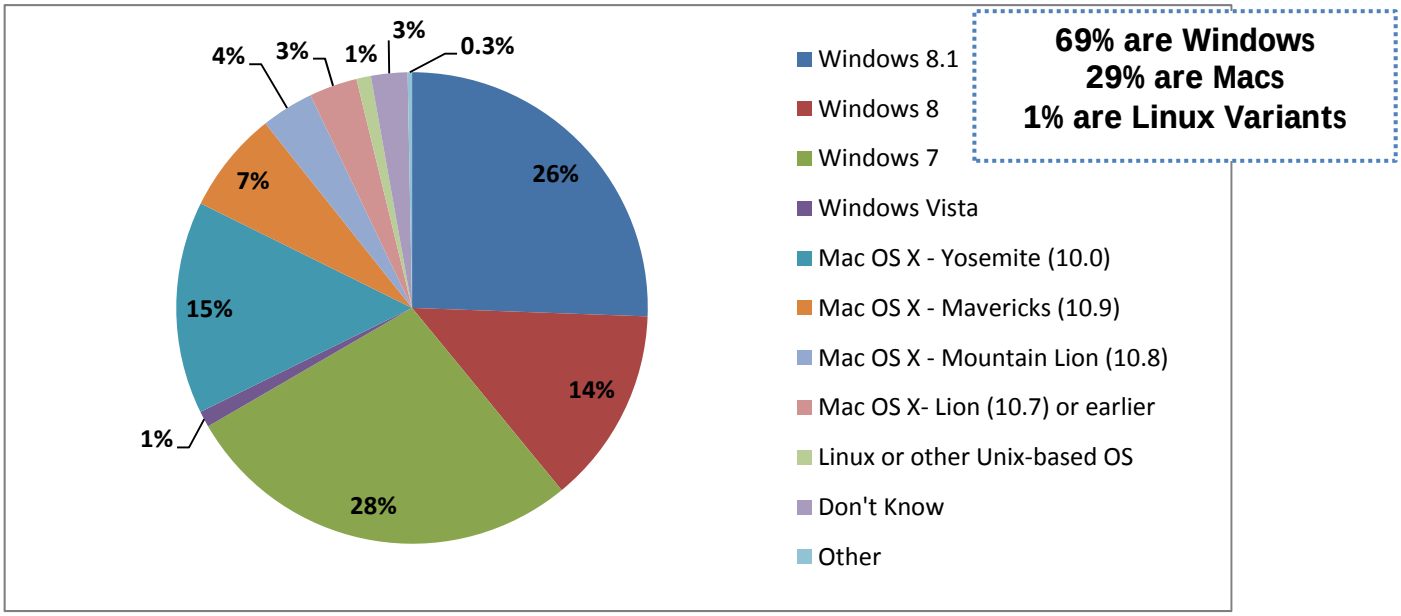


Table 4: Comparative Operating Systems from 2011-2014

Most students using Macs on campus rapidly adopted the latest version of Mac OS X (10.10 Yosemite), released in the month prior to this survey.

Operating System	2014	2013	2012	2011
Windows 8.1	26%	N/A	N/A	N/A
Windows 8	14%	25%	N/A	N/A
Windows 7	28%	44%	63%	63%
Windows Vista (or earlier)	1%	4%	7%	7%
Mac OS X - Yosemite (10.10)	15%	N/A	N/A	N/A
Mac OS X - Mavericks (10.9)	7%	N/A	N/A	N/A
Mac OS X - Mountain Lion (10.8)	4%	15%	10%	10%
Mac OS X - Lion (10.7) (or earlier)	3%	7%	7%	7%
Linux or other Unix-based OS	1%	1%	1%	1%
Don't Know	3%	3%	3%	3%
Other	0%	1%	1%	1%

The Mobile Lives of Students

We've been tracking the developing role that mobile technology plays in the lives of our students. It's no surprise that that mobile usage has only increased in the past year.

Figure 6: Mobile Device Carrier by Class Standing

The vast majority of students reported using large cellular provider services. Verizon is the most popular cellphone provider among undergraduates, servicing roughly 40%. AT&T remains the most popular provider for graduate students by a large margin (43% vs. T-Mobile's 25%).

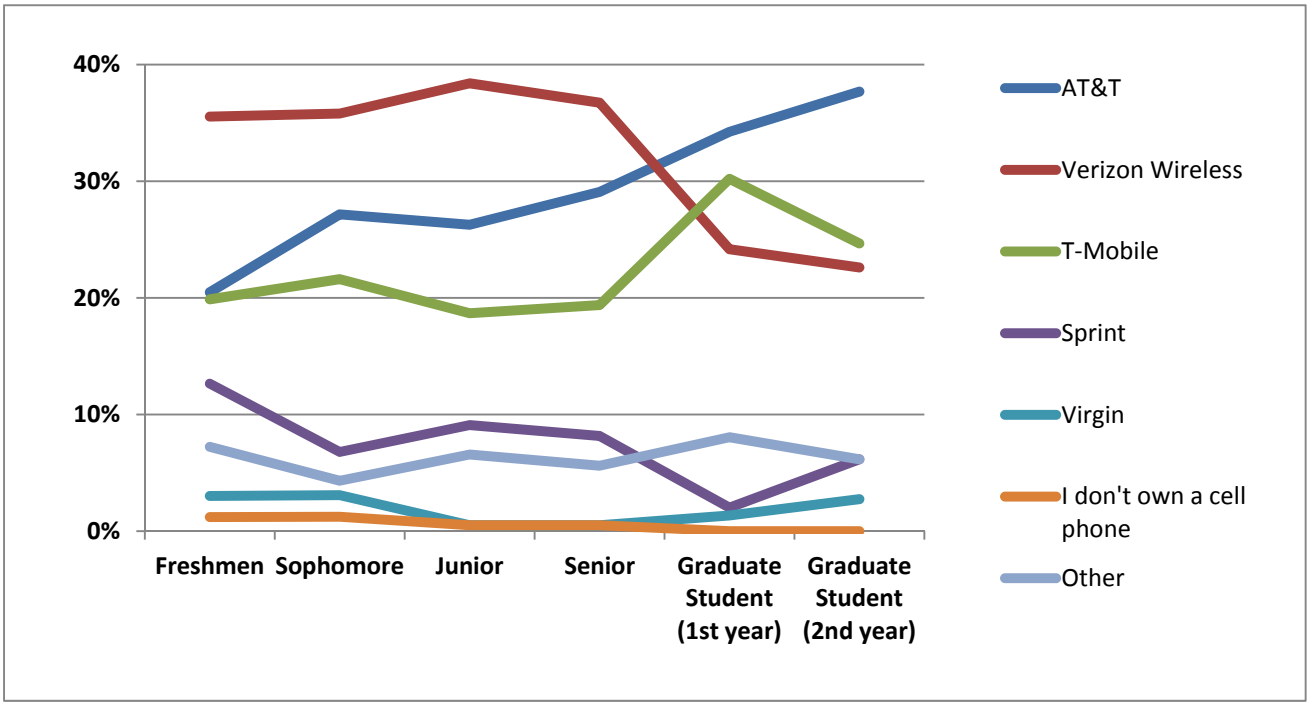


Table 5: Mobile Device Carriers Compared to 2013

Nearly 33% of students report using Verizon Wireless with almost 29% covered by AT&T. T-Mobile is the only major carrier to increase its share, up to 22% from 18% in 2013. Almost 7% of students use other providers such as Cricket, TracFone, MetroPCS, and US Cellular.

Who provides you cell phone service?	2014	2013
Verizon Wireless	33%	35%
AT&T	29%	36%
T-Mobile	22%	18%
Sprint	8%	8%
Other	7%	4%
Virgin Mobile	2%	2%
I don't own a cell phone	1%	1%

Table 6: Use of Mobile OS

Apple iOS remains the most popular smartphone operating system. Android use has increased, while Windows Phones and other operating systems have maintained small percentages of the student body.

Which Operating System do you have on your Smartphone?	2014	2013	2012
Apple IOS	54%	52%	50%
Android	47%	45%	41%
Windows Phone	3%	3%	3%
Other	3%	<1%	<1%

Open-ended Question: In which building locations and floors do you have difficulty getting reliable cell phone service?

Frequently mentioned buildings	% of mentions (out of 855 total responses)
Knox Hall	28%
Capen Hall	17%
Natural Sciences Complex	11%
Student Union	9%
Baldy Hall	5%
Norton Hall	4%
Alumni Arena	4%
Ellicott Complex	4%
Clemens Hall	4%
Lockwood Library	3%

Students identified **Knox Hall** overwhelmingly as an area on campus with poor cell phone service. The high frequency with which several buildings were mentioned in students' comments suggests that the most problematic areas are the hallways that connect the first floors of **Capen, Norton, Knox** and the **Student Union**. The **Natural Sciences Complex** was also reported to lack reliable cell service by 11% of students.

Basements and stairwells are also widely reported as having spotty cell reception, specifically in **Baldy Hall**, **Clemens Hall** and **Alumni Arena**.

Of the most popular cell service providers, **T-Mobile** was most noted for being less-than-reliable on campus. **Verizon** and **AT&T** were mostly mentioned in a positive context, with most of their customers commenting they are generally pleased with their service on campus.

UB Mobile App

In this year's survey, over 430 students offered feedback on the UB Mobile app, a significantly higher number than last year. The UB Mobile app was revamped in early 2013.

- Many students are seeking "*comprehensiveness*" and an "*all in one*" quality in the UB Mobile app, which could be achieved (based on student opinion) by including *a link to UBmail and the HUB*, and including more information embedded within the app instead of links to outside Web pages. The latter point was also shared in comments from students in previous years' surveys.
- Some students were frustrated that the features of UB Mobile were not available to access without an Internet connection.
- Some students expressed frustration at having to log in repeatedly upon exiting and re-entering the app.

Some illustrative sample comments:

- *"I think the 'Find People' and 'Find Departments' thing can be below the row [of icons]."*
- *"Add a way to 'guide' yourself to a building using Google/Apple."*
- *"Prefer to have in-app site of UBlearns or MyUB page instead of directing to web page of browser."*
- *"The top that says UB Mobile should have the weather and alerts streaming."*

Table 7: Level of Interest in Mobile Apps for UB Services

When asked about the level of interest in future mobile apps based on UB services, students selected from a range of "*interested*" to "*not interested*" responses.

	Very Interested	Somewhat Interested	Neither interested or not interested	Somewhat not interested	Not at all interested	Don't know
UBmail	76%	15%	6%	1%	1%	1%
MyUB	71%	20%	7%	2%	1%	0%
UB*learns*	69%	21%	7%	2%	1%	1%
HUB Student Center	67%	21%	7%	2%	2%	1%
Printing (iprint)	66%	19%	9%	3%	2%	2%
UB Card	58%	24%	11%	4%	2%	1%
UB Alerts	53%	30 %	12%	3%	2%	1%
Bus/shuttle information and alerts	49%	28%	11%	4%	7%	1%
UB events calendar	42%	32%	16%	4%	4%	1%
UBIT Alerts	42%	27%	21%	5%	4%	2%
Find an Available Computer	40%	29%	18%	5%	7%	2%
Read e-books or e-textbooks	39%	27%	18%	6%	7%	3%
UBIT Website	37%	25%	24%	6%	7%	2%
Traffic and parking alerts	36%	25%	20%	7%	10%	2%
UB Linked	28%	25%	28%	5%	8%	6%
Directory	27%	37%	23%	6%	6%	2%
UB Libraries website	27%	27%	29%	7%	8%	3%
iTunes U	24%	22%	25%	9%	14%	6%
House info. At UB	23%	25%	25%	7%	17%	2%
UBclicks	19%	20%	32%	7%	9%	15%
Ask A Librarian	15%	27%	28%	9%	16%	5%
Other	15%	12%	36%	4%	9%	24%

Consistent with 2013's survey, students remain most interested in the services they use on a daily basis being mobile-friendly, such as **MyUB**, **UB*learns***, **UBmail** and the **HUB Student Center**. An increasingly popular choice is the addition of a **mobile interface for Printing (iprint)**, for which 66% indicated they were "*very interested*."

Table 8: Level of Interest in Features of a Mobile HUB Student Center

This year, more students expressed they're "*very interested*" in a HUB Student Center app. While 50% or more students noted they were "*very interested*" in most HUB offerings being available in a mobile app, the most popular features were **View My Class Schedule**, **View My Grades**, **Class Search**, and **Enroll/Drop Classes**.

	Very Interested	Somewhat Interested	Neither interested or not interested	Somewhat not interested	Not at all interested	Don't know
View My Class Schedule	79%	14%	4%	1%	2%	1%
View My Grades	78%	15%	4%	1%	2%	1%
Class Search	70%	19%	6%	2%	3%	1%
Enroll/Drop Classes	67%	20%	8%	2%	4%	1%
View My Enrollment Appointment	65%	19%	9%	2%	3%	1%
View Holds	62%	21%	10%	3%	3%	1%
View To Do List	62%	19%	11%	3%	4%	1%
View Account Summary	59%	24%	9%	3%	4%	1%
View Course History	59%	23%	11%	3%	4%	1%
View Financial Aid	56%	23%	12%	3%	5%	1%
Pay Bill	54%	22%	13%	4%	6%	1%
Update Phone Number	46%	22%	19%	6%	7%	1%
Update Address	45%	22%	19%	6%	7%	1%
View Demographic Data	39%	22%	22%	8%	8%	2%
Other	29%	14%	20%	2%	8%	27%

Wi-Fi

The UB Secure WiFiSetup wizard was offered to UB students during the summer of 2013. More students reported using the tool in 2014.

A number of students who were dissatisfied with UB Secure WiFiSetup left additional comments, many stating that they experienced *repeated disconnects* from the network after using the setup wizard. Other students were *unable to connect at all* using this service. Several students also indicated issues in trying to *set* up Wi-Fi on a Windows 8 machine using this tool.

Figure 7: Use of UB Secure WiFiSetup

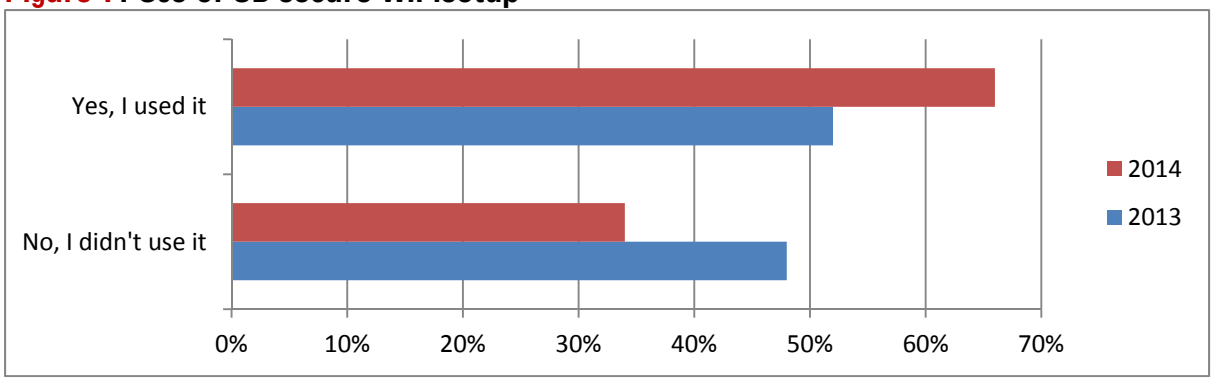
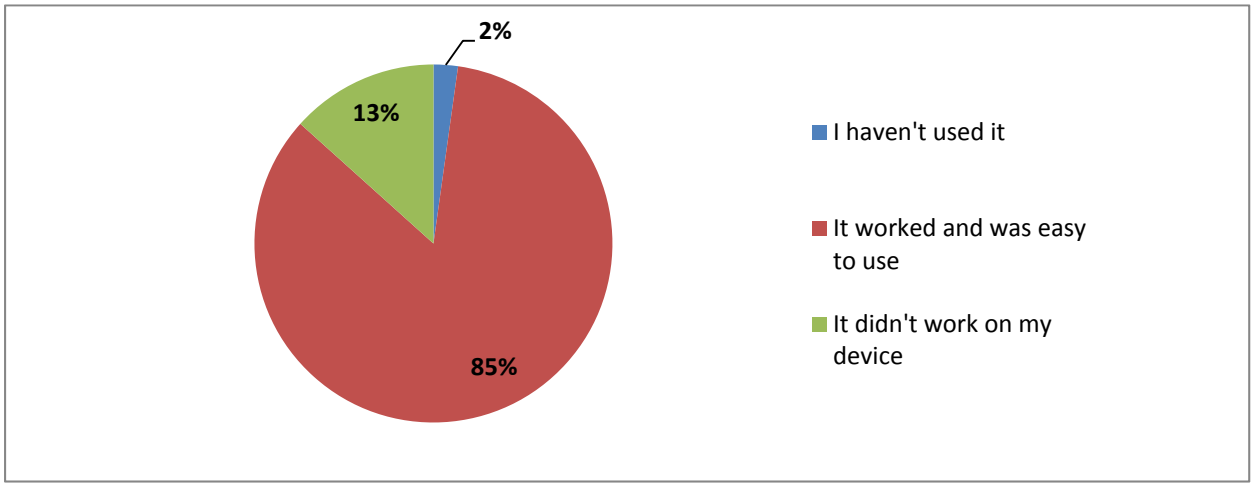


Figure 8: Experience Using UB Secure WiFiSetup



84 students who said UB Secure WiFiSetup didn't work for them provided additional feedback.

Some illustrative sample comments:

"…the first time I connected it worked. But after that for any use I have [to] reinstall it, then it works. Otherwise I always end up getting stuck…"

"It worked for my iPhone, but did not work for my Windows 8 laptop. I got it fixed from CIT Help desk by creating a new profile and deleting the old one on my laptop."

"It wouldn't configure Windows 8, so I log in at each connection to UB Secure."

Wi-Fi Availability on Stampede Buses

When asked where they would most like to have Wi-Fi available, 53% of students reported they prefer to have Wi-Fi available on all UB Stampede bus routes. 23% of students also reported they would like Wi-Fi available at the Flint Loop bus stop, closely followed by 19% giving Ellicott Tunnel and South Campus Main Circle as their top choice.

Figure 9: On which Stampede bus route would students most like to have Wi-Fi available?

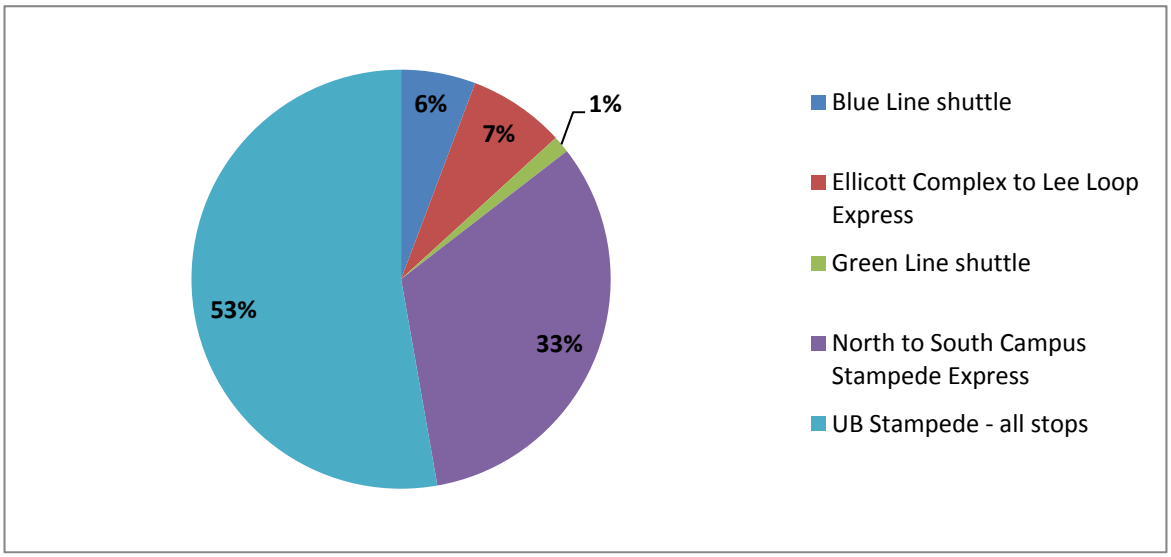
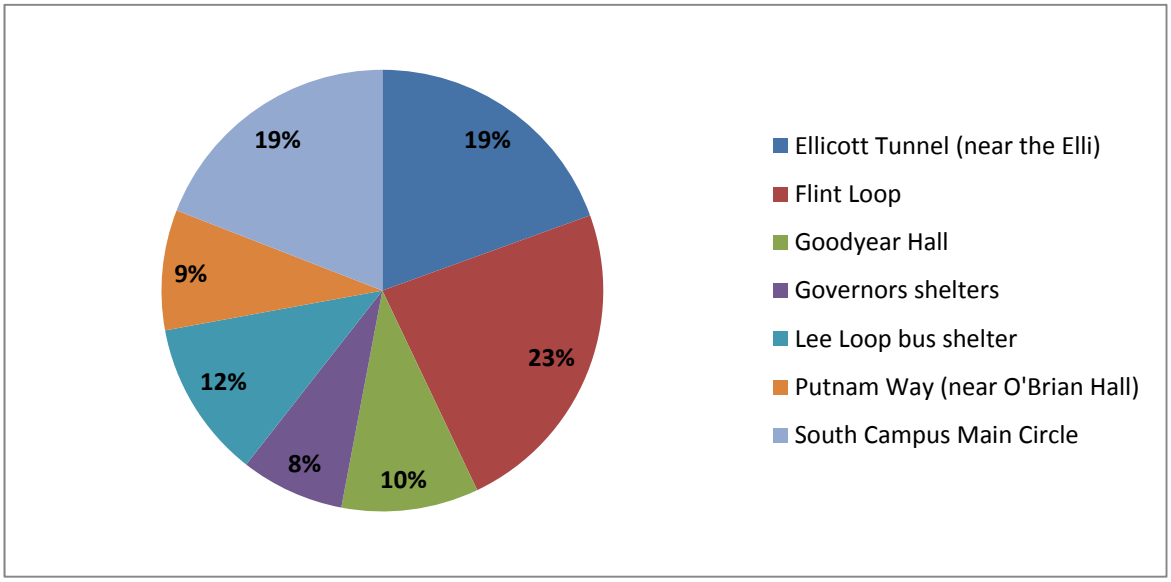


Figure 10: In which bus shelters/waiting areas would students most like to have Wi-Fi available?



My Virtual Computing Lab allows students to access popular UB-licensed software from anywhere. When asked what additional software they'd like to have access to, 442 students responded.

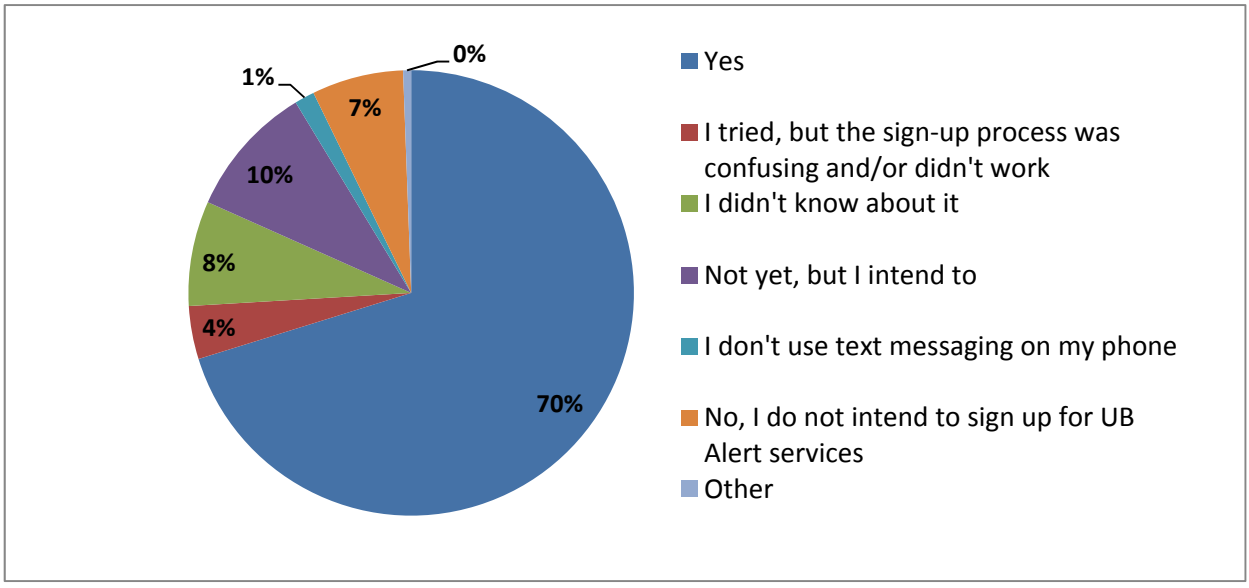
- More than 160 students (36%) asked for **Adobe software**, most notably **Photoshop.**
- Other popular suggestions were **AutoCAD** and **Eclipse**.
- A significant number of students (roughly 60, or 14%) commented that the current titles available are sufficient for their needs.

Security, Awareness, and Learning Technology

Security and privacy continue to be a challenge in the university environment. October 2014 was National Cyber Security Awareness Month and UBIT's information campaign was centered on "UB Has Your Back." Posters, social media posts and messages on the UBIT website encouraged use of anti-virus and firewall software, as well as avoiding sharing of passwords, clicking unknown links and downloading files illegally. This effort, combined with raising awareness of UB's secure Wi-Fi network, UB Secure, helped to emphasis safe computing practices for UB students.

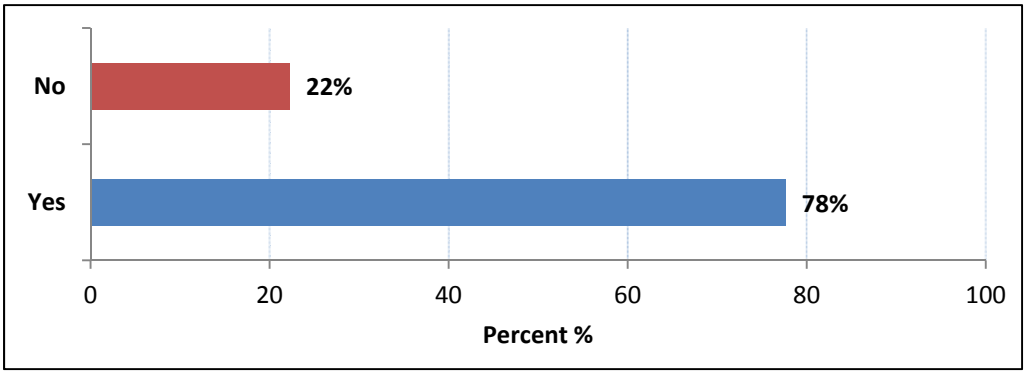
Security

Figure 11: Have students signed up for UB Alerts at emergency.buffalo.edu?



70% of UB students report that they have signed up for the UB Alert system. The second highest percentage, 10%, report they intend to, but have not signed up yet.

Figure 12: Do Students Feel UB is Looking Out for Their Online Safety?



A notable 78% of students report that they feel UB is looking out for their online safety.

Table 9: Preferred Method for Accessing Media (music, videos, games) Online

As a gauge to measure the effectiveness of our copyright awareness campaigns, we asked students to tell us their preferred method for accessing media (music, videos, and games) from the Internet.

Streaming videos from UB Libraries was new to the survey this year and shows approximately 108 students who responded to the survey stream from UB Libraries.

There were significant increases in the use of peer-to-peer applications and download sites in 2014. 40% of students now report using download sites, compared to 12% in 2013, and 14% of students use peer-to-peer download sites, an increase of 9% from 2013. The latter increase should be noted with concern.

"Other" responses included:

- Pirate Bay
- twitch.tv
- azubu.tv
- Solar movie
- Physical Media
- TV provider's homepage

What's your preferred method for accessing media online?	2014	2013	2012
Streaming services (e.g. Spotify, Pandora, YouTube, NetFlix…)	79%	76%	72%
Streaming Videos from UB Libraries	10%	N/A	N/A
Download sites (e.g. iTunes, Amazon, Google Play)	40%	12%	15%
Peer-to-peer download apps (e.g. Shareaza, Ares, BitTorrent…)	14%	5%	5%
I don't access online media	6%	4%	6%
Other	2%	<1%	<1%

Table 10: Devices Most Used to Read E-books

Awareness and interest in e-books to both contain textbook cost and provide enhanced convenience has increased. In order to assist with planning, students were asked which type of device they most used to access e-books. A quarter of students reported not accessing e-books at all (25%); this number has dropped by nearly 5% since 2013. Just over one-third (34%) reported using a laptop to read e-books and a 4% increase in the use of iPads.

Response	2014	2013
Laptop or Notebook	34%	34%
I do not read e-books	25%	30%
iPad	14%	10%
Desktop computer	7%	6%
iPhone or other smartphone	7%	6%
Kindle	7%	7%
Nook	3%	3%
Android Tablet	3%	5%
Other (please specify)	1%	1%

All "Other" responses:

- Surface
- iPod
- Windows (Toshiba) Tablet
- Limited Selection of EBooks
- Blackberry Tablet
- I don't read
- Surface RT
- Microsoft Surface
- Surface Pro

Learning Technology

Although this survey is primarily concerned with the hardware and systems that support Information technology (infrastructure), it's important to understand how this infrastructure supports academic technologies. Students were also asked if they use learning spaces around campus and how useful they found them.

The majority of students were satisfied with UBlearns, MyUB, and HUB Student Center. Students were also pleased with public IT sites and software downloads from the UBIT website. While 63% of students said they were satisfied with UB's Wi-Fi access, 20% report being dissatisfied with the service. In addition, 70% of students were satisfied with iprint in the public IT sites, but 11% were dissatisfied with iprint anywhere, a remote printing service.

Table 11: Level of Satisfaction with Learning Technologies Supported by UBIT

Level of Support	Very Satisfied	Somewhat Satisfied	Neither satisfied nor dissatisfied	Somewhat Dissatisfied	Very Dissatisfied	Do Not Use
MyUB	48%	36%	10%	4%	1%	1%
UB*learns*	44%	36%	14%	3%	<1%	2%
HUB Student Center	41%	36%	12%	7%	2%	2%
Software downloads from UBIT	38%	30%	16%	3%	<1%	12%
Public B&W printing (iprint)	37%	33%	15%	4%	2%	9%
Public workstations	32%	37%	17%	4%	<1%	9%
Wi-Fi - UB Secure	32%	31%	13%	12%	8%	5%
Your personal homepage	32%	31%	22%	3%	< 1%	12%
Public color printing (iprint)	31%	26%	17%	5%	2%	18%
Charge + Lock Station in Lockwood Cybrary	29%	21%	17%	3%	3%	27%
Library website	28%	31%	21%	3%	1%	16%
CIT Help Desk	27%	27%	22%	2%	1%	21%
Mobile device support	23%	26%	23%	5%	1%	23%
My Virtual Computing Lab	23%	25%	24%	3%	1%	25%
Library e-books	22%	22%	24%	2%	1%	30%
Remote printing (iprint anywhere)	22%	20%	19%	6%	5%	28%
UBIT Website instructions	21%	23%	25%	2%	<1%	29%
Streaming videos from UB Libraries	20%	22%	24%	2%	<1%	32%
UBITName Manager	19%	19%	26%	2%	<1%	35%
UBfs My Files	18%	20%	25%	2%	<1%	35%
Echo360 Course capture/recordings	17%	21%	25%	3%	2%	33%
UBclicks	16%	17%	25%	2%	<1%	40%
iTunes U	16%	16%	27%	2%	1%	38%
Wi-Fi - eduroam	14%	16%	24%	4%	2%	41%
Virtual Conference (Lync)	13%	17%	26%	2%	<1%	42%
VITEC Solutions computer repair	13%	16%	25%	2 %	2%	41%

Table 12: Getting Help with Technology

When asked about technical assistance, students ranked using Google's search tool to find a solution to their problem as their top choice. Students chose to next ask friends for help before turning to trial and error on their own. Contacting the CIT Help Desk was ranked fourth.

Help Source	2014 Ranking
Google the problem and read forums	**1**
Ask a friend for help	2
Trial and error on your own	3
Contact the CIT Help Desk	4
Watch short video tutorials	5
Manufacturer's website	6
Visit the UBIT website	7
Get off-campus repair/assistance	8
Visit VITEC Solutions device repair	9

The majority of students (64%) said they needed help connecting their devices to Wi-Fi in the past year. Nearly 40% reported needing help getting software to work while 27% said they needed assistance fixing a broken device.

Figure 13: What types of technology have students needed help with during the past year?

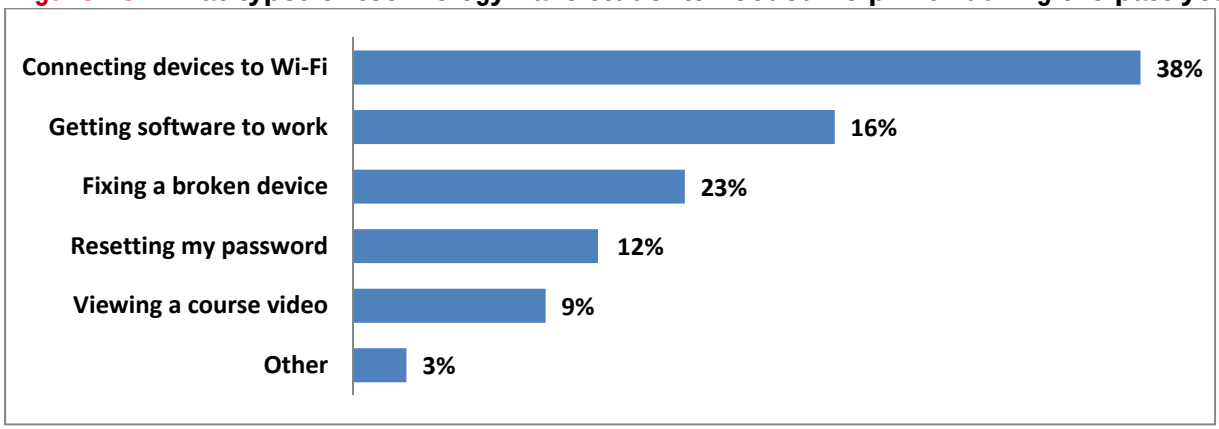


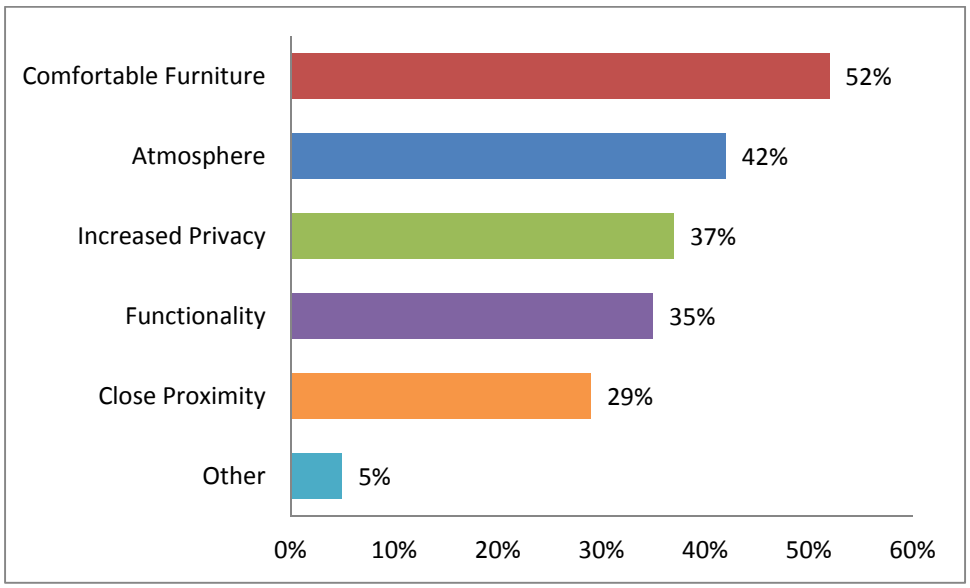
Table 13: Frequency of Informal Learning Spaces

Among informal learning spaces, located in public hallways and walkways across the UB campus, the Knox 20 learning space is reported as the most popularly used with nearly 9% of responding students using it more than once a week. Park Hall was the least used learning space, followed by the Baldy/O'Brian 3rd Floor Learning Space.

How often do you use?	More than once a week	Once a week	Once a month or less	Never
Baldy 1st Floor Learning Space (Wall)	6%	7%	16%	72%
Baldy 1st Floor Learning Space (Corner)	4%	7%	14%	74%
Baldy/O'Brian 2nd Floor Learning Space	4%	8%	15%	73%
Baldy/O'Brian 3rd Floor Learning Space	3%	7%	14%	76%
Natural Sciences Complex- North Learning Space	7%	10%	18%	65%
Natural Sciences Complex- South Learning Space	6%	8%	15%	72%
Knox/Norton 112 Learning Space	7%	11%	17%	66%
Knox 20 Learning Space	9%	11%	18%	63%
Park Hall Learning Space	4%	5%	13%	78%

Figure 14: Suggestions to Improve Informal Learning Spaces

Students were asked what UBIT could do to improve informal learning spaces around campus. 52% said comfortable furniture was key: 19 students commented that there needed to be more comfortable, clean seating with a larger study area, due to frequent congestion. 42% said that the atmosphere of the spaces was important, and 37% said increased privacy would be desirable. Some students reported that they weren't aware of the spaces or what they were used for, while a smaller number said they would like more electrical outlets for charging in these locations.



What do students like about informal learning spaces? (Illustrative sample comments)

- *Nothing. What do those TV's even do?*
- *More functional tables/bigger workspace*
- *Provide coffee machines*
- *Cleanliness would make them better*
- *More wall plugs to keep laptops charged*
- *There are rarely chairs and seating open*
- *Quieter, more outlets, better furniture*

Technology and University Life

Figure 15 and Table 14: Preferred Learning Environments

In **Figure 15**, 42% of students reported having never been enrolled in any online or hybrid classes, while 33% have taken an online course at the college level. When students were asked about the role technology plays in their university life, 45% of respondents agreed with the statement, "Technology helps me achieve my academic outcomes" (**Table 14**).

In **Table 14**, Students were presented with a number of statements about technology and asked to what extent they agreed or disagreed with each statement.

When asked if technology made them more actively involved in the course, just over 27% said they neither agreed nor disagreed, with the greatest number (34%) saying they agreed with that statement.

39% of students said that "Technology better prepares me for future educational plans." However, if online technology is available, it does not mean they necessarily skip class: 21% said they strongly disagree with the statement, "I skip classes when materials from course lectures are available online," but slightly more students (26%) said they would skip classes if information was online.

Over 76% of students agreed or strongly agreed with the statement "Technology helps me achieve my academic outcomes," which is a 5% increase from 2013.

Figure 15: Online Learning Experiences

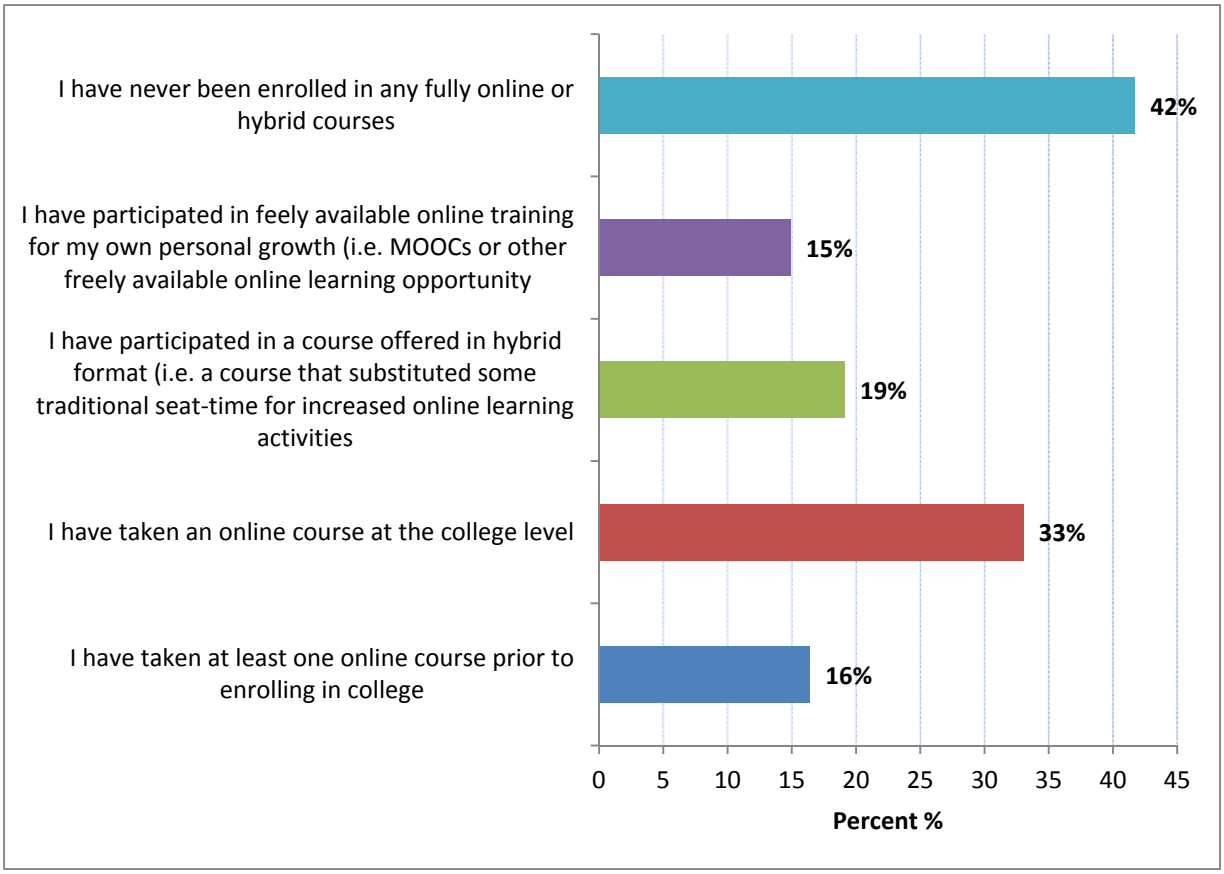


Table 14: Technology and Academics

Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	Don't know
I get more actively involved in the courses that use technology	26%	34%	27%	7%	3%	3%
Technology helps me find the information I need for class assignments and research papers	50%	37%	9%	1%	< 1%	2%
By the time I graduate, the technology I have used in my courses will have adequately prepared me for the workplace	32%	39%	19%	5%	1%	4 %
I skip classes when materials from course lectures are available online	13%	26%	22%	15%	21%	3%
When I entered college, I was adequately prepared to use technology needed in my courses	31%	41%	18 %	6%	3%	2%
Technology makes me feel more connected to what's going on at the university	34%	39%	20%	4%	1%	2%
Technology better prepares me for future educational plans (i.e. transferring to another degree program, getting into graduate school)	35%	39%	19%	3%	1%	3%
Technology makes me feel connected to other students	30%	36%	22%	7%	4%	2%
Technology makes me feel connected to professors	29%	37%	22%	7%	4%	2%
Technology helps me achieve my academic outcomes	34%	42%	19%	3%	1%	2%
The use of mobile devices in class can enhance learning	26%	31%	25%	10%	7%	3%
I am more likely to get involved in a campus activity when made aware of it through technology	32%	38%	22%	4%	2%	3%
Technology makes my education more affordable	26%	28%	26%	10%	6%	5%

Getting the Word Out

According to the EDUCAUSE Center for Analysis and Research (ECAR)'s 2013 Study of Undergraduate Students and Information Technology, "Students' relationship with technology is complex. They recognize its value, but still need guidance when it comes to better using it for academics." UBIT employs web-based service guides, flyers, posters and other materials to better inform students about available IT services.

Table 15: Channels for Learning about Free Software

UB offers access to a variety of software to students, faculty and staff at no cost via download through the UBIT website, or executing on My Virtual Computing Lab. The majority of students (43%) reported learning about free software through the UBIT website, and 32% said they heard about UB-owned software through a friend or classmate. The number of students who are unaware that UB offers them free software fell this year from 19% to 13%.

Response	2014	2013
UBIT website	43%	42%
From a friend or classmate	32%	31%
Orientation session	24%	22%
I didn't know UB offered free software	13%	19%
Stampede bus headliner/poster	20%	16%
From a professor	17%	12%
Flyer on my desk upon on-campus move-in	10%	9%
Flyer from orientation dinner or breakfast	7%	7%
Student planner	7%	8%
Guide to Residence Hall Living	9%	7%

Figure 16: Have you seen the UBIT Fairy?

In Summer 2014, UBIT launched a new campaign with the helpful "UBIT Fairy," who appeared in online videos, flyers, and newspaper advertisements to raise awareness of UBIT's services, particularly for new students during orientation.

While 71% of students responded that they never saw the UBIT Fairy before, 9% recall seeing her on an information flyer left in all of the residence hall rooms at the start of the Fall 2014 semester. 6% also saw the Fairy on an orientation session flyer this past summer.

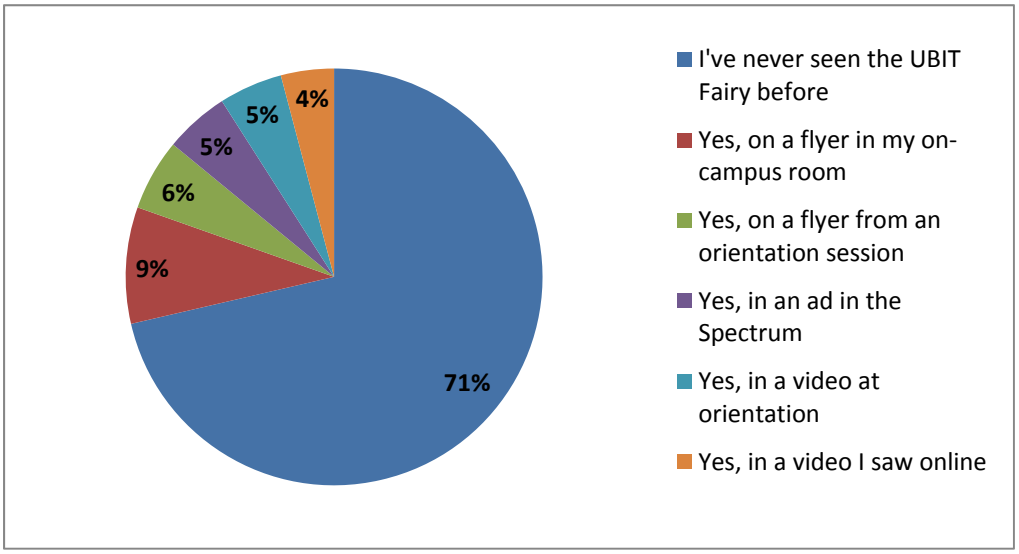
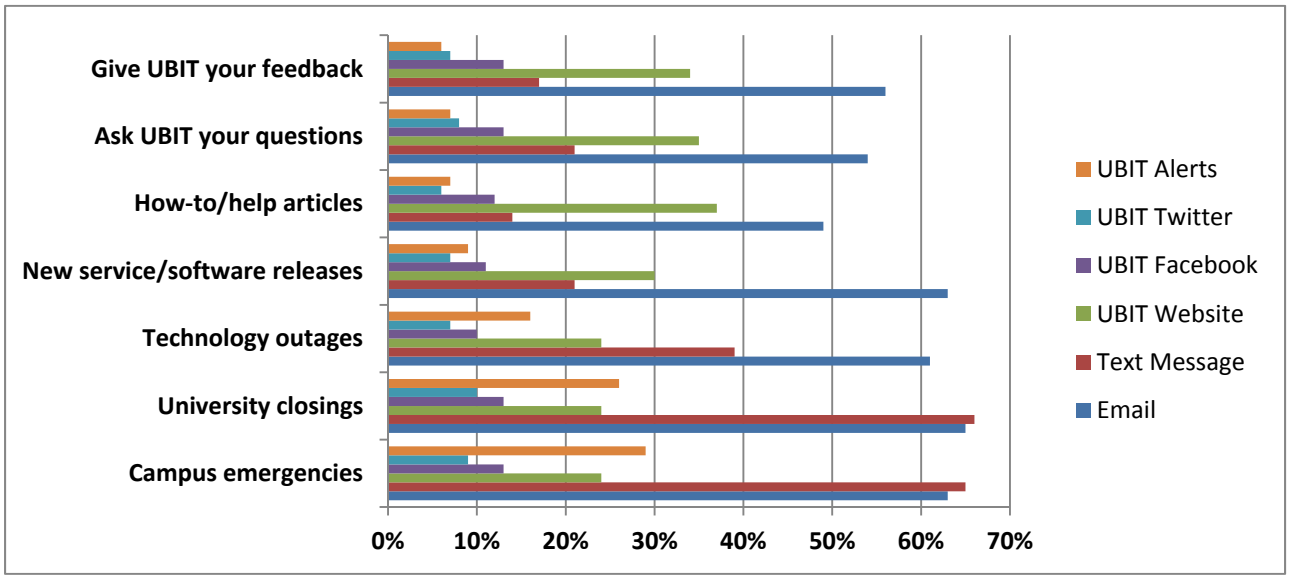


Figure 17: How would students like to hear from us AND tell us what they think?

Not surprisingly, students prefer to be contacted in a variety of ways depending on the message content and circumstances.

Students prefer email for nearly every type of feedback. They would prefer to receive text messages, however, in the event of University closings and campus emergencies.



Qualitative Responses
Suggestions and Critical Feedback

Similar to previous years, the 2014 survey included three qualitative questions:

- (Question 35) What would have made it easier for you to get stared with Information Technology at UB? Examples: Connecting to the Internet/Network, accessing UBmail, etc.?
- (Question 36) Tell us ONE thing that your instructors can do with technology to better facilitate or support your academic success?
- (Question 37) What technical subjects would you be interested in obtaining badges or certificates in association with your degree (i.e. cloud computing)?

Emerging Theme Analysis based on key words was used to identify service themes. In many cases, more than one comment was provided by a respondent regarding different services. Each comment was coded, resulting in six different categories (**Table 16**).

In addition to last year's categories, a new category was added for comments that suggest a desire for further education on topics relating to technology. This reflects the responses to Question 37, but responses throughout the survey that reflect a desire to learn more about technology.

Table 16: Technology Resources to Assist Study and Research Needs (n= 1,043)

Theme analysis	Count
Education and Information Regarding Technology	622
Technology Resources (i.e. recorded lectures, e-books, e-journals, iPrint)	456
Miscellaneous	201
Availability of Technology (i.e. software, computers, power outlet)	83
Connectivity Issues (Need for better/stronger connection; better wireless internet availability and connection on campus, etc.)	71
Satisfied in General; positive	10

The majority of the comments were requesting educational or other resources to be made available to students. Comments expressing connectivity issues (specifically access to UB's Wi-Fi networks) were significantly down this year (68) compared with last year (294)

Getting Started with IT at UB

Table 17: Getting Started with IT at UB

Students were asked about their experience getting started with IT at UB, in order to improve how new students are informed.

Theme analysis	Count
More help connecting (and staying connected) to UB Secure	60
Provide more instructions and tutorials for incoming students	36
Miscellaneous	22
More help accessing UBmail	20

The following comments were chosen to be representative of student sentiment concerning their needs for getting started with IT at UB:

Wi-Fi

- *Just a more convenient and consistent UB Secure. It keeps on disconnecting and changing to UB Gaming.*
- *More reliable connection to the Internet would improve my UB technology experience.*
- *Connecting to the internet and having Wi-Fi access.*

Tutorials and Instructions

- *A tutorial on connecting to UB Secure.*
- *Once signed up at the university, send an email about how to put email on mobile devices.*
- *Maybe a one stop shop guide that provided an overview of "everything info. tech." maybe there is and it was just never given to us at orientation.*

Receiving and Accessing Information

- *A frequently asked questions email, or a new semester email that shows common things students encounter when they start a new year/semester. This could be especially helpful when they move into the dorms.*
- *I am a transfer student and I attended the online orientation. I didn't receive any information about IT at UB. A packet in the mail, or a link through email, or even a section in the online orientation would have been very helpful!*
- *UB needs to clean up all its online website information. There are too many webpages and links. Some lead to nothing. Some are not applicable. Streamline all your website information and clean up Google.*

Instructor Use of Technology

Students were asked what instructors could do with technology to improve their learning experience. The largest number of suggestions (299) requested that instructors post lectures notes and presentations online, in addition to making the classroom experience more interactive. Students would also like instructors to record lectures to use as a study resource before exams or homework. Students commented on their appreciation for UB*learns* and suggest that professors use UB*learns* as the primary resource for connecting students and instructors.

A recurring topic that also appeared in 2013 is the use of clickers in class: students responses were favorable, but suggested faculty use one universal clicker compatible for all classes. Many students also found that their instructors simply didn't know how to use the classroom technology (projector, volume adjustment, PowerPoint) and recommended more training.

Table 18: Instructor Use of Technology

Theme analysis	Count
More technology resources should be provided (i.e. lecture notes, interactive technology, classroom mobile integration etc.)	299
UB*learns* should be utilized to a greater extent (i.e. post all content, utilize the discussion board etc.)	114
More classes should be recorded	109
Instructors should have better knowledge of classroom technology	57
Miscellaneous	52
Technology should be integrated into the process of assigning and grading classwork	48
Instructors should use technology to communicate quickly with students	38
Satisfied in General; positive	9

Lecture Notes

- *Use PowerPoints effectively, don't use BIG WALLS OF TEXT; make PowerPoints available before class, so that we can take notes on new material instead of trying to copy everything down.*
- *Allow us to use our laptops to take notes or put the lecture slides on UBlearns.*
- *Post more things online (better notes, extra practice work to better understand the material).*

Use of Technology

- *Not be afraid of it. Most of my professors will not allow us to use computers or mobile devices in class because of the fear that we are not paying attention. For those of us who want to use our laptops and other devices to enhance the learning experience, we are punished by this.*
- *Allow for more technology to be used with tests and quizzes the same way that they would be in the field.*

Recording Lectures

- *Record videos of lectures and maintain a record to analyze the content, students responses in class, serve as learning material for those who are not registered in class but are interested in knowing about the subject.*
- *Recorded lectures online are a huge help to go back and see things you missed. We are the ones paying for this education; we should be able to access it whenever we want.*

- *Record their lectures. So you can use to study for future tests and exams or if you happened to be sick that day, you can watch a rerun. Only put it up at the end of the week though.*

Badges or Certificates in Technical Subjects

New in the 2014 survey, student interest was gauged in the possibility of offering badges or certificates in technical subjects, e.g. cloud computing.

Cloud computing was, in fact, a popular response; other themes show a strong interest in certificates for higher-level programming skills (i.e. software design and development). While interest in these categories is broad and not heavily-oriented toward any one platform, many students were interested in designing and coding iOS and Android apps. Another popular request is to have a certificate available for mastering Microsoft Office and other professional software titles.

Table 19: Badges or Certificates in Technical Subjects

Theme analysis	Count
Programming	128
Cloud computing	84
Professional Software (MATLAB, GIS, AutoCAD etc.)	53
Microsoft Office (Word, Excel, Powerpoint etc.)	52
Basic Technology	29
Networking	19

Programming and Design

- *Database management, web design, maybe some code formats (Java, CSS, etc.)*
- *RTL Design, ASIC Design, Python and PERL Courses*
- *Cloud Computing, Android/iOS SDK, Big Data, Python, Google Go, Swift*
- *Programming (such as intro to HTML, Python, Java)*

Office and Professional Software

- *Microsoft Excel or Word… there are a lot of features that people are not aware of.*
- *Better knowledge of computer programs such as PowerPoint and Photoshop.*
- *I would like to receive certificates in using MS Office, and other commonly used programs.*

- *Microsoft software. Knowing how to use Photoshop is becoming a necessity in companies.*

Acknowledgements

To read additional unedited comments on getting started with IT at UB, please visit http://www.buffalo.edu/ubit/about-us/service-metrics/scoreboard/surveys.html

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