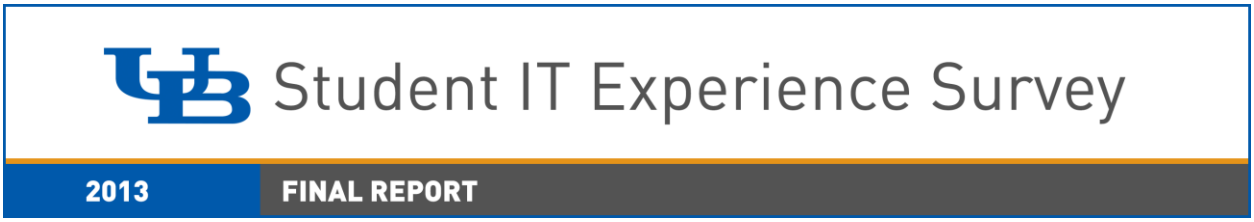


Final Report

2013 Student IT Experience Survey
UB IT Policy & Communication
Office of the VPCIO

Prepared by IT Policy & Communication- ubit-communication@buffalo.edu – February 19, 2014 – Version 3

Student IT Experience Survey

2013 FINAL REPORT

Introduction

The seventeenth "Student Information Technology Experience Survey" was made available October 21-November 4, 2013. Data were collected using Vovici™ software and further analyzed using SPSS™. The instrument contained 37 questions and was designed in consultation with Instructional and IT support staff in each technology area surveyed, as well as the University Libraries, University Campus Living staff and other campus stakeholders. There were a total of 1,924 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 however, 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.

This report is available at: http://www.buffalo.edu/ubit/services/scoreboard/surveys.html

The purpose of this survey is 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. Students were encouraged to participate in the survey through the University web portal (MyUB), and by screen "pop-up" invitations in the CIO/University Libraries 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 $100 shopping spree at the UB Campus Tees store was offered to students to encourage participation in this year's survey.

This report is organized into nine sections:

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

Survey Highlights

- The overall level of satisfaction of IT services rose somewhat, and dissatisfaction with IT services dropped from the previous survey.
- More students are using multiple devices (average holds steady at 2-3), and increasingly reliant on mobile devices (including laptops) as primary in-class resources, although overall use of laptops decreased slightly.

- Adoption of Apple™ devices continues to rise slightly, along with non-Apple mobile tablets and smartphones.
- Verizon remains the mobile carrier of choice for students; Apple™ OS use remains slightly higher than Android™ – and when combined represent over 97% of the OS reported by students.
- Students have strong interest in increased mobile apps to access UB services.
- 62.4% of students select security settings to automatically patch and update their personal machine, which is a slight drop since 2012.
- UB is still not experiencing widespread adoption of any particular e-book reader, with over one-third of students reporting use of a laptop to access e-books. Kindle and iPad did have a significant showing at just 9.8% and 7.1% respectively.
- Students continue to express desire for expanded public site and printing services, in addition to places where they can charge their devices.
- Students asked for improved Wi-Fi coverage on campus, as well as updating to an RFID system instead of card swipes.
- Students offered helpful suggestions for how to improve "getting started with IT at UB" services, which can be found at the end of this report.

Demographics

The total number of respondents (n=1,924) saw a significant decrease from last year (Table 1), attributed to a reduced participation incentive ($100 less than 2012) (Figure 1).

Figure 1: Class Standing of Respondents

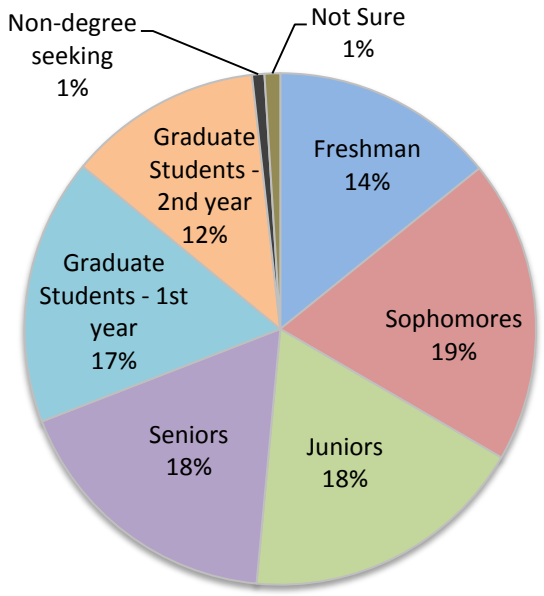


Table 1: Number of Survey Respondents

Year	N
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

Though students self-select whether to participate, the sample is fairly consistent and valid. Table 2 first examines the number of survey responses received by school, followed by the percentage of those

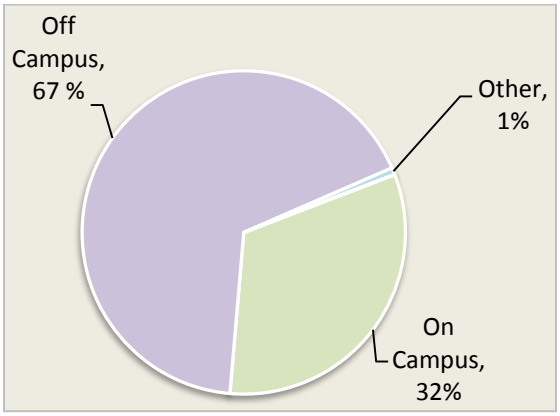
responses (n=1,924). This was compared with UB's Institutional Analysis enrollment figures. When compared with the actual campus population, most survey responses fell within or close to the percentage of confidence overall. The responses were also examined over the past three years, which indicate relative consistency across schools over time (Table 2).

Table 2: Survey Participation as Percentage of Enrollment

School	2013 Survey Response Count by School	% 2013 Response (n=1,924)	% Valid Campus Population Sample by School		% 2012 Response (n=2914)	% 2011 Response (n=2391)	% 2010 Response (n=996)
Architecture & Planning	22	1%	4% (-4)		2%	2%	2%
Arts & Sciences	510	27%	5% (-3)		27%	29%	32%
Dental Medicine	9	1%	2% (-2)		1%	1%	3%
Education	51	3%	4% (+.2)		3%	4%	5%
Engineering & Applied Sciences	496	27%	9% (-4)		21%	21%	19%
Law	28	2%	5% (-3)		2%	3%	2%
Management	228	12%	6% (-4)		12%	12%	14%
Medicine & Biomedical Sciences	133	7%	8% (-4)		7%	5%	6%
Nursing	70	4%	8% (-5)		4%	3%	2%
Pharmacy & Pharmaceutical Sciences	91	5%	7% (-5)		6%	6%	4%
Public Health & Health Professions	158	8%	10% (-6)		8%	7%	5%
Social Work	43	2%	9% (-4)		2%	2%	3%
Undecided	84	4%	6% (-1)		5%	6%	6%

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).

Figure 2: Primary Residence at UB (n=1,924)



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

Student use of laptops decreased slightly from last year (Figure 3 A), while the use of desktop machines rose slightly. However, laptops are still by far the most popular device both owned and brought to class. There has been an increase in use and ownership of tablets; 25% of responding students own a tablet, and 36% report owning a desktop computer.

Figure 3 A: Comparative Ownership of Laptop, Desktop, and Tablet Computers (2004-2013)

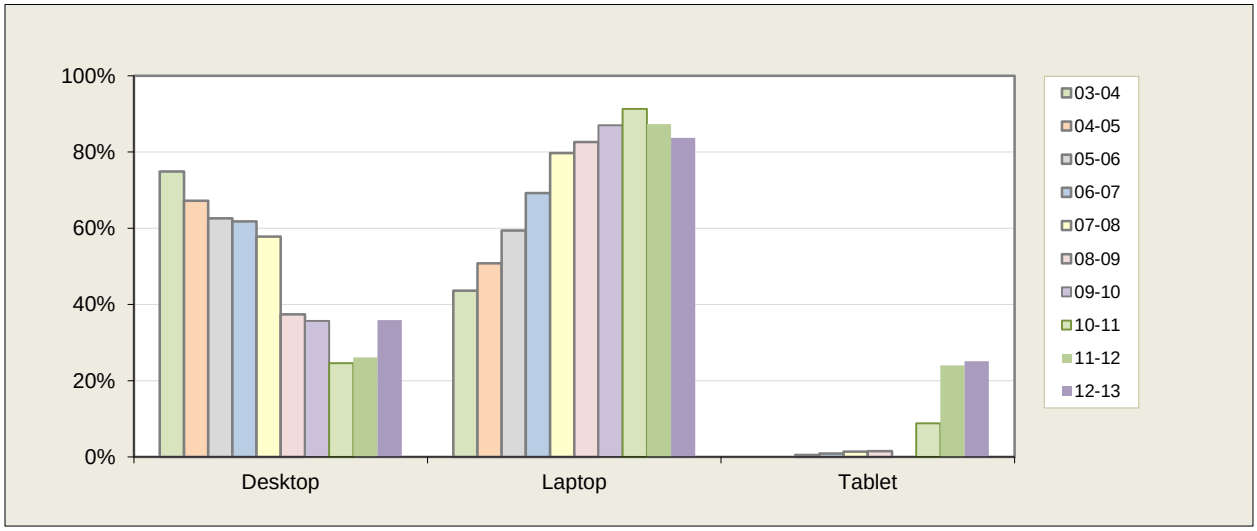
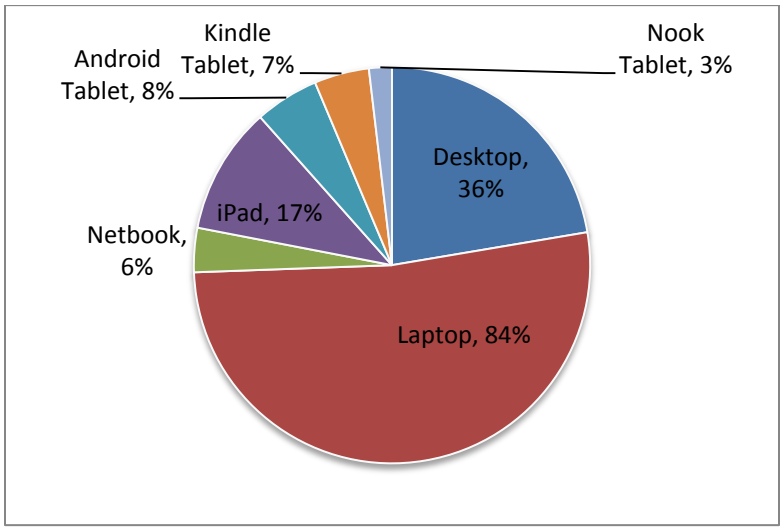


Figure 3 B: Comparative Use of Laptop, Desktop, and Tablet Computers by Type



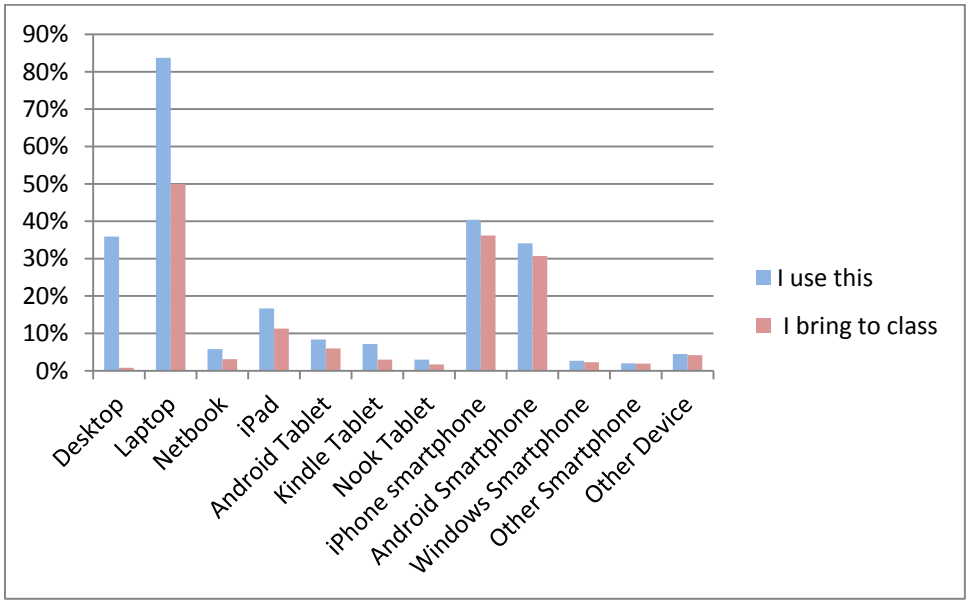
Some residence hall students have a number of devices attached to the University network (Table 3). It appears that freshman continue to have the most devices, which follows the trend from 2012. They're followed by sophomores and non-degree seeking students. The majority of students continue to connect to UB's network using 2-3 devices.

Table 3: Residence Hall Devices Accessing the Network by Class Standing

Number of Devices	Fresh	Soph	Junior	Senior	Grad year 1	Grad year 2	Non-degree Seeking	Not Sure
0-1	14%	14%	20%	23%	18%	24%	20%	47%
2-3	77%	79%	74%	71%	77%	69%	73%	47%
4-5	7%	7%	5%	4%	4%	6%	7%	0%
6+	2%	1%	1%	2%	1%	2%	0%	5%

UB's students are coming to campus with more and different types of mobile devices which require access to the campus network and services, which follows current national trends. Although more students now rely on laptops as their primary computing device, roughly half choose not to bring them to class, relying instead on public computing sites and mobile devices when outside of their residence (Figure 4).

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



When examined at the school level (Table 4), schools in the School of Social Work have the highest laptop ownership rate, at nearly 95%, and also report the highest use of iPhones. The School of Education, School of Management, and Law School all indicate the most significant use of Apple products, while the School of Nursing, School of Medicine and Biomedical Science and School of Nursing have the highest use of Android smartphones. Windows smartphones are most widely used by Dental students.

Table 4 A/B/C: Device Use by School

A. Computer Use Percentage by School

School	Desktop	Laptop	Netbook
Architecture (20) 1.1%	35%	85%	10%
CAS (476) 26.7%	38%	92%	6%
Dental (7) 0.4%	43%	86%	14%
Education (50) 2.8%	44%	92%	8%
Engineering (460) 25.8%	35%	89%	7%
Law (26) 1.5%	35%	81%	8%
Management (211) 11.8%	49%	88%	8%
Med & Bio Sci (121) 6.8%	40%	93%	3%
Nursing (65) 3.6%	40%	92%	6%
Pharmacy (88) 4.9%	31%	86%	7%
SPHHP (144) 8.1%	36%	92%	7%
Social Work (39) 2.2%	36%	95%	5%
Undecided (78) 4.4%	47%	91%	4%

B. Tablet Use Percentage by School

Instead of limiting responses to iPad vs. general tablets, which was done in years past, specific types of the most popular tablets were offered as options in the 2013 survey. iPads currently remain the most widely used tablet by students across most schools, the exception being Dental students, who most use Android tablets.

School	iPad	Android	Kindle	Nook
Architecture (4) .7%	50%	25%	25%	0%
CAS (162) 27.2%	49%	24%	22%	12%
Dental (4) 0.7%	50%	75%	25%	25%
Education (24) 4%	58%	17%	25%	17%
Engineering (144) 24.2%	52%	38%	24%	7%
Law (6) 1%	83%	17%	17%	0%
Management (80) 13.4%	68%	21%	23%	5%
Med & Bio Sci (42) 7.1%	50%	38%	19%	2%
Nursing (18) 3.0%	50%	39%	28%	11%
Pharmacy (31) 5.2%	71%	13%	29%	0%
SPHHP (44) 7.4%	52%	18%	25%	18%
Social Work (15) 2.5%	40%	7%	33%	27%
Undecided (21) 3.5%	48%	24%	24%	19%

C. Smartphone Use Percentage by School

The students in the School of Pharmacy, School of Public Health & Health Professions and School of Social Work use the widest range of smartphones.

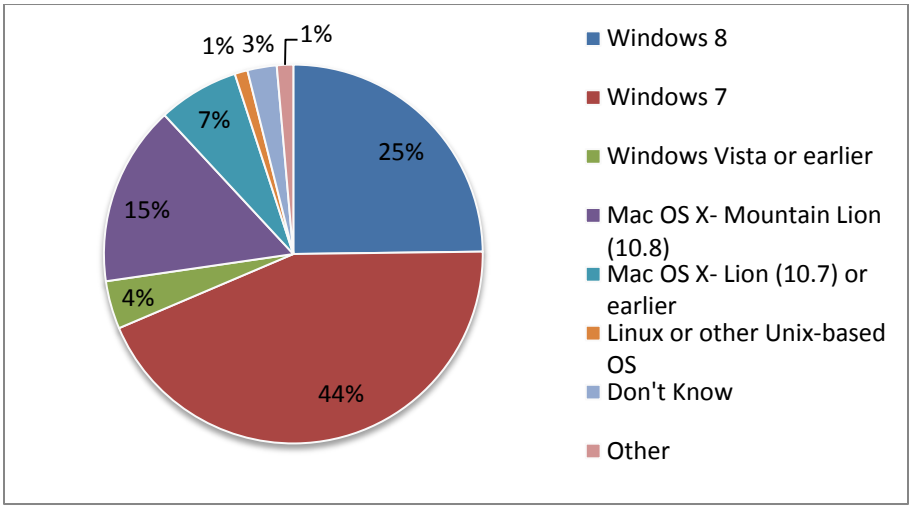
School	iPhone smartphone	Android smartphone	Windows smartphone	Other smartphone
Architecture(15) 1%	60%	40%	0%	7%
CAS (393) 27%	57%	42%	2%	2%
Dental (7) .5%	57%	57%	14%	14%
Education (35) 2.4%	66%	31%	6%	0%
Engineering (365) 25.1%	40%	60%	7%	3%
Law (19) 1.3%	63%	37%	0%	0%
Management (229) 12.3%	61%	41%	2%	3%
Med & Bio Sci (101) 7%	55%	45%	1%	2%
Nursing (55) 3.8%	58%	36%	2%	6%
Pharmacy (72) 5%	51%	44%	7%	3%
SPHHP (112) 7.7%	62%	35%	4%	3%
Social Work (35) 2.4%	69%	26%	3%	3%
Undecided (66) 4.5%	53%	44%	3%	3%

Windows 7 continues to lead as the most popular personal computer operating system (Figure 5). From information about operating systems on primary computers, we can infer hardware choices:

- 73% are Windows
- 22% are Macs
- 1% are Linux Variants

This represents a 0.4 percentage self-reported decrease in Macs from 2012.

Figure 5: Operating Systems Used on Primary Computers



The use of Windows Vista has again fallen from 6.8% in 2012 to just 4% in 2013. Use of Mac OS X Mountain Lion (10.8) has increased to 5% this year (Table 5).

Table 5: Comparative Operating Systems from 2010-2013

Operating System	2013	2012	2011	2010
Windows 8	25%	N/A	N/A	N/A
Windows 7	44%	63%	59%	60%
Windows Vista (or earlier)	4%	7%	14%	24%
Mac OS X- Mountain Lion (10.8)	15%	10%	N/A	N/A
Mac OS X- Lion (10.7) (or earlier)	7%	7%	8%	N/A
Linux or other Unix-based OS	1%	1%	1%	2%
Don't Know	3%	3%	2%	1%
Other	1%	1%	1%	1%

When students were asked for their browser preferences (Table 6), Google Chrome remains the overwhelming browser of choice. While still second in the rankings, Firefox use fell slightly from last year. Use of Safari stayed about the same, but Internet Explorer use decreased once again. About a dozen respondents that selected using an "Other" browser reported using Opera, with only two students noting use of Dolphin and Maxthon. Considerable overlap occurs as most students use more than one web browser.

Table 6: Browsers used by Students

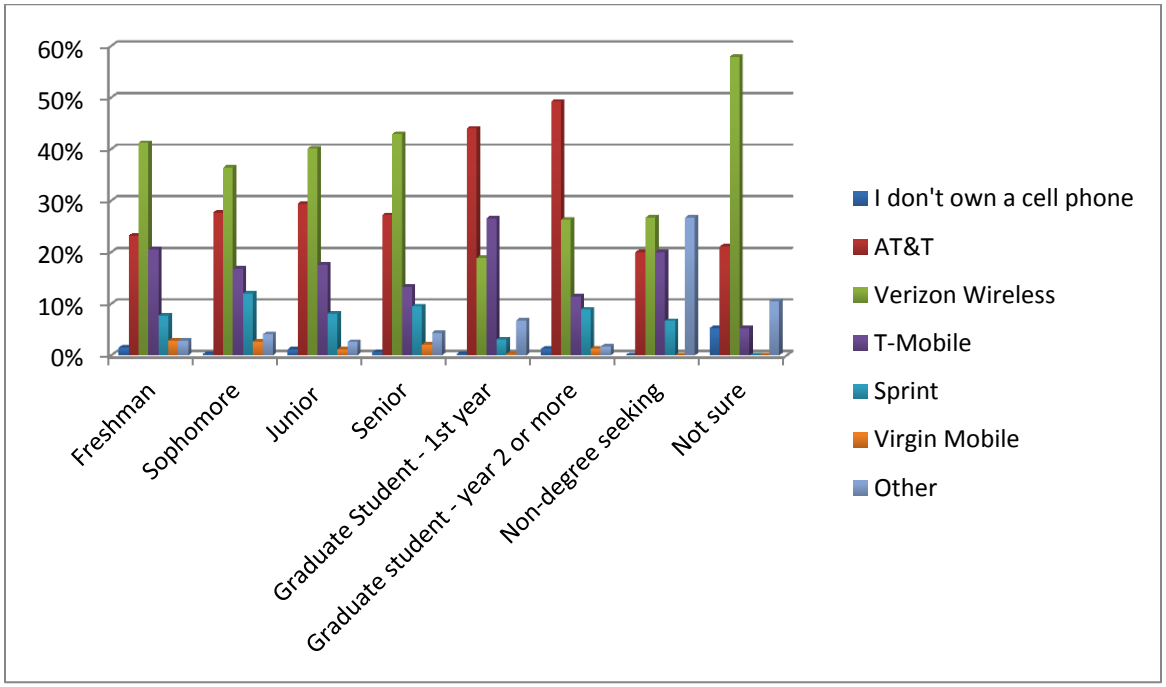
Response	2013	2012	2011	2010	2009	2008
Google Chrome	64%	51%	52%	37%	21%	6%
Firefox	28%	34%	69%	68%	68%	45%
Safari	23%	23%	23%	19%	17%	10%
Internet Explorer	12%	14%	39%	46%	46%	36%
Other	5%	1%	1%	1%	2%	2%

Students Continue Mobile Migration

Watching students during class changes, it's apparent how they depend on their mobile devices to keep them continuously connected. As in past surveys, we requested details regarding their choice of mobile device service providers and their preference for mobile operating system. Knowing these preferences helps UBIT understand cellular coverage problems on campus grounds, and influences how we plan support options based on usage trends.

The vast majority of students reported using large cellular provider services (Figure 6). Verizon is the most popular cellphone provider amongst undergraduates, servicing roughly 40%. Among graduate students, AT&T is the most popular provider by a large margin (43% vs. T-Mobile's 25%).

Figure 6: Mobile Device Carrier by Class Standing



Overall, nearly 35% of students report using Verizon Wireless with almost 33% covered by AT&T. Nearly 18% of students use T-Mobile with just under 9% covered by Sprint. Just over 4% use other providers such as Cricket, TracFone, MetroPCS, and US Cellular. Adoption of Verizon Wireless service increased across the board.

When asked about which OS their phone uses (Table 7), nearly 52% reported using Apple with just under 45% using Android, both up from last year. Combined they account for nearly 97% of smartphones on campus. Use of Windows Phones fell slightly from 2012 with use of BlackBerry phones plummeting from 6% to less than 1% of respondents.

Table 7: Use of Mobile OS

Which Operating System do you have on your Smartphone?	2013	2012
Apple IOS	52%	50%
Android	45%	41%
BlackBerry	<1%	6%
Windows Phone	3%	3%
Other	<1%	<1%

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. (Table 8)

Table 8: Level of Interest in Mobile Apps for UB Services

	Very Interested	Somewhat Interested	Neither interested or not interested	Somewhat not interested	Not at all interested	Don't know
Ask A Librarian	10%	17%	21%	11%	29%	13%
Bus/shuttle information and alerts	38%	27%	11%	7%	14%	4%
Directory	16%	26%	24%	11%	16%	6%
HUB Student Center	63%	24%	6%	3%	3%	%
UB Maps	44%	27%	15%	6%	7%	2%
MyUB	70%	20%	5%	1%	2%	1%
UB News	32%	29%	22%	7%	7%	2%
Read e-books or e-textbooks	33%	25%	19%	7%	13%	3%
Traffic and parking alerts	29%	28%	19%	10%	10%	4%
UB Alerts	48%	30 %	12%	4%	5%	2%
UB Card	54%	24%	12%	3%	5%	2%
UB events calendar	43%	31%	15%	5%	5%	2%
UBlearns	78%	14%	4%	1%	2%	1%
UBmail	84%	11%	3%	1%	2%	1%
UB's web search	32%	24%	24%	7%	9%	4%

According to the Educause Center for Analysis and Research (ECAR)'s 2013 Study of Undergraduate Students and Information Technology, "students are ready to use their mobile devices more for academics, and they look to institutions and instructors for opportunities and encouragement to do so," which correlates with UB students' responses. The apps receiving the most interest were popular services regularly accessed by students in their academic careers (UBmail, UBlearns, MyUB, HUB Student Center), which each received over 50% "very interested" responses. Students were also extremely interested in apps for UB Card and UB Alerts.

With over 62% of student respondents expressing they're "very interested" in a HUB Student Center app, we asked what specific features they would like the app to have (Table 9). While 50% or more students noted they were "very interested" in most HUB offerings, the most requested features were View My Class Schedule, View My Grades, Class Search, and Enroll/Drop Classes.

Table 9: Level of Interest in Features of a Mobile HUB Student Center

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

UB Mobile

In this year's survey, over 350 students offered feedback on the UB Mobile app, which was revamped in early 2013.

Many of the comments focused on the need for UBlearns, UBmail, and HUB Student Center buttons to be front and center in the app. Another frequent request was the need for offline transportation information.

A number of students said they'd like to see the app have information within the app versus linking to other websites.

Some sample comment excerpts included:

- *It looks like screen real estate isn't being properly used. Find People and Find Departments are too big and a waste of space. Having tabs at the bottom, including a search option, would be helpful.*

- *Make things load within the app itself. It feels like it's a page full of links, instead of an app. When you click on something, it makes you open a web browser. You should make it so you can access as much as possible in offline mode, and whatever needs to load online could be brought up inside the app. It could also use more buttons and menus to make it more user-friendly for touch screen devices.*

UB Secure WiFiSetup

To make it faster and easier to access the UB Secure Wi-Fi network, a new connection wizard called UBSecureWiFiSetup was put into place over Summer 2013. About half of the responding students reported using the tool (Table 10), with an overwhelming 81% of those students saying "it worked and was easy to use" (Table 11).

Table 10: Use of UB SecureWiFiSetUp

Have you used the UB Secure WiFiSetup tool?	Percent
Yes	52%
No	48%

Table 11: Experience Using UB SecureWiFiSetup

Experience	Percent
It worked and was easy to use	82%
It didn't work on my device	16%
I haven't used UB Secure WiFiSetup	3%

127 students who said UBSecureWiFiSetup didn't work for them provided additional feedback. 26 students, or 20%, reported problems connecting via their Android devices. Some sample comment excerpts included:

- *My Android device continually disconnected from the UB Secure network. I continued to use UB Guest as this network always works.*

- *When I tried to set it up on my Android phone, UBSecureWiFiSetup wouldn't work. I couldn't get it to connect on my Linux laptop and couldn't find any directions online for it.*

A number of students said they had to repeatedly re-login to the UB Secure network from their mobile devices. Others reported problems of their passwords not being recognized when trying to connect.

My Virtual Computing Lab

My Virtual Computing Lab allows students to access popular UB-licensed software from anywhere. When students were asked what additional software they'd like to have access to, a total of 488 responded. 43 (9%) asked for AutoCAD and 17 (3%) asked for Adobe Illustrator.

A number of students commented that were not aware that these services were even available, asking for more advertising to increase awareness.

Security Awareness and Practices

Security and privacy continue to be a challenge in the university environment. October 2013 was National Cyber Security Month and UB's information campaign was centered on "UB Has Your Back." Posters, table tents, 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, help to emphasis safe computing practices for UB students.

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, games, etc.) from the Internet. Table 12 shows an increase in the trend of streaming services as the most preferred method, with a continued drop in subscription download services, such as iTunes. The use of peer-to-peer downloading apps has stayed about the same, but still significantly reduced from 2011. These trends show overall safer media use choices by students.

Table 12: Preferred Method for Accessing Media (music, videos, games, etc.) Online

What's your preferred method for accessing media online?	2013	2012	2011
Streaming services (e.g. Stitcher, YouTube, Pandora, Spotify)	76%	72%	56%
Download sites (e.g. iTunes, Amazon, Rhapsody)	12%	15%	24%
I don't access online media	4%	6%	8%
Peer-to-peer download apps (e.g. Shareaza, Bitorrent…)	5%	5%	10%
Other	<1%	<1%	2%

Table 13 shows trends in how students are keeping their systems patched and secure. This year's respondents reported a slight drop in automatically enabling updates, with a slight rise in manually downloading or installing updates. For the first time in three years, installing additional security software saw a small increase. Students seemed more aware of their update methods this year than in the past, and the number of students who don't regularly patch or update fell slightly from 2012.

Table 13: How Students Keep Systems "Patched & Secure"

Patched & Secure Method	2013	2012	2011	2010	2009
Automatic Updates Enabled	62%	69%	73%	73%	72%
Manually Download/Install Updates	32%	29%	27%	24%	24%
Install Additional Security Software	19%	17%	17%	17%	9%
Don't Regularly Patch or Update	5%	6%	5%	6%	4%
Not Sure	4%	6%	6%	7%	5%
Other	<1%	<1%	<1%	N/A	N/A

Learning Resources and Spaces

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.

When asked how often they were accessing the following list of services (Table 14), nearly 85% of students reported using UBmail multiple times a day. UB*learns* and MyUB were close behind with just over 73% and 60% respectively, and nearly 25% of students reported using HUB Student Center multiple times daily as well. Conversely, nearly 60% of students reported never having used Ask a Librarian with just over 42% saying the same for UB's Directory.

Table 14: Frequency Using UB Services

	Multiple times a day	Once a day	Every few days	Once a week	Once a month or less	Never
Ask a Librarian	1%(22)	1%(18)	4%(66)	3%(59)	32%(581)	60%(1097)
Directory (finding people)	2%(27)	1%(25)	6%(117)	9%(161)	40%(722)	42%(766)
HUB Student Center	25%(468)	19%(353)	29%(551)	15%(282)	11%(201)	2%(35)
UB Libraries' Website	8%(147)	6%(110)	19%(356)	16%(292)	31%(568)	20%(367)
MyUB	60%(1143)	18%(346)	13%(248)	5%(103)	2%(45)	1%(15)
UBlearns	73%(1390)	15%(284)	8%(151)	2%(29)	1%(24)	1%(22)
UBmail (powered by Google)	84%(1597)	10%(183)	3%(59)	1%(11)	1%(14)	2%(32)

Over three-quarters of students report being very or somewhat satisfied with HUB Student Center, MyUB, and UB*learns* – which students also said they used several times a day. While dissatisfied responses were relatively low across the board, over 12% of responding students were somewhat to very dissatisfied with HUB Student Center and iprint, and over 11% of students said the same for mobile device support at UB.

Table 15: Level of Satisfaction with Learning Technologies Supported by IT

Level of Support	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	Do Not Use	N/A
CIT Help Desk	24%	22%	23%	3%	1%	19%	8%
Course capture/recordings	18%	23%	23%	4%	2%	21%	10%
HUB Student Center	32%	41%	12%	10%	3%	1%	1%
Library e-books	18%	22%	24%	3%	1%	22%	10%
Library website	16%	30%	24%	3%	1%	12%	6%
Mobile device support	17%	25%	24%	9%	3%	15%	8%
MyUB	46%	39%	10%	4%	1%	1%	1%
Public printing (iprint)	33%	32%	14%	8%	4%	6%	3%
Public workstations	29%	36%	18%	6%	2%	6%	4%
UBclicks	13%	15%	23%	2%	1%	31%	15%
UB*learns*	47%	39%	9%	4%	1%	1%	1%
Virtual Conference (Lync)	10%	12 %	22%	1%	1%	36%	18%
VITEC Solutions computer repair	9%	11%	23%	1%	1%	36%	19%
Wi-Fi access	25%	36%	12%	15%	8%	2%	2%

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 (Table 16). Though over a quarter of students reported not accessing e-books at all (30%), this number has dropped by nearly 5% since 2012. Just over one-third (34%) reported using a laptop to read e-books, up 7% since last year, instead of buying a specific e-reader device.

Table 16: Devices Most Used to Read E-books

Response	Percent
I do not read e-books	30%
Personal Laptop or Notebook	34%
iPad	10%
Amazon Kindle	7%
iPhone or other smartphone	6%
Desktop computer	6%
Android Tablet	5%
Barnes & Noble Nook	3%
Other (please specify)	1%

When reviewing comments for "other," 12 students (1%) responded. Three students reported using Windows tablets or Surface, and two said they used Kobo.

Table 17: Frequency of Informal Learning Spaces and Workstations Used

Among learning spaces, Capen Hall is by far the most popular location, with nearly 25% of responding students using it more than once a week. The Biomedical Education Building (BIOED) was the least used learning space, followed by Diefendorf Hall.

How often do you use?	More than once a week	Once a week	Once a month or less	Never
Lockwood cybrary express stations	21%	20%	27%	32%
Biomedical Education Building (BIOED) learning space	2%	5%	9%	84%
Baldy Hall learning space	5%	8%	15%	73%
Natural Sciences Complex learning space	7%	10%	21%	62%
Diefendorf Hall learning space	4%	5%	10%	82%
Knox Hall learning space	8%	9%	20%	63%
Capen Hall learning space	24%	13%	15%	48%
Lockwood Library learning space	18%	13%	18%	51%

When asked what would make the informal learning spaces more useful or attractive, 50 respondents said they'd like to see more outlets in the study areas. 89 students reported never hearing about the informal learning spaces prior to the survey, but would like more information. Other students commented on how they would like learning spaces to be more comfortable, colorful, quiet and clean. Out of the 514 comments, 98 students asked for more seating that is comfortable in addition to a larger study area, due to frequent congestion. Some sample comment excerpts included:

- *Love the couches in the cybrary.*
- *Please bring back the old Lockwood 420; the body chairs and vibe made relaxation possible on campus.*
- *If there were strict rules regarding noise tolerance because that is the main reason why I have stopped going to the Capen library and other library spaces in general.*
- *Colorful, happy, motivational, comfy and an awakening atmosphere with a newly renovated feel.*
- *They should be better advertised. I am a commuter, so I don't know the campus that well. I didn't even know most of these existed, although I wish I did; they all look pretty cool.*
- *Make more of them in areas that are less congested.*

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." This is where

communications by UBIT comes into play as the UBIT website, flyers, posters and other materials play a large part in informing students about available IT services.

UB offers a variety of software to students, faculty and staff at no cost via download through the UBIT website or My Virtual Computing Lab. The majority of students (42%) reported learning about free software through the UBIT website with 31% hearing about UB-owned software through a friend or classmate (Table 18). However, a significant number of students (19%) reported that were not aware UB offered free software.

Table 18: Channels for Learning about Free Software

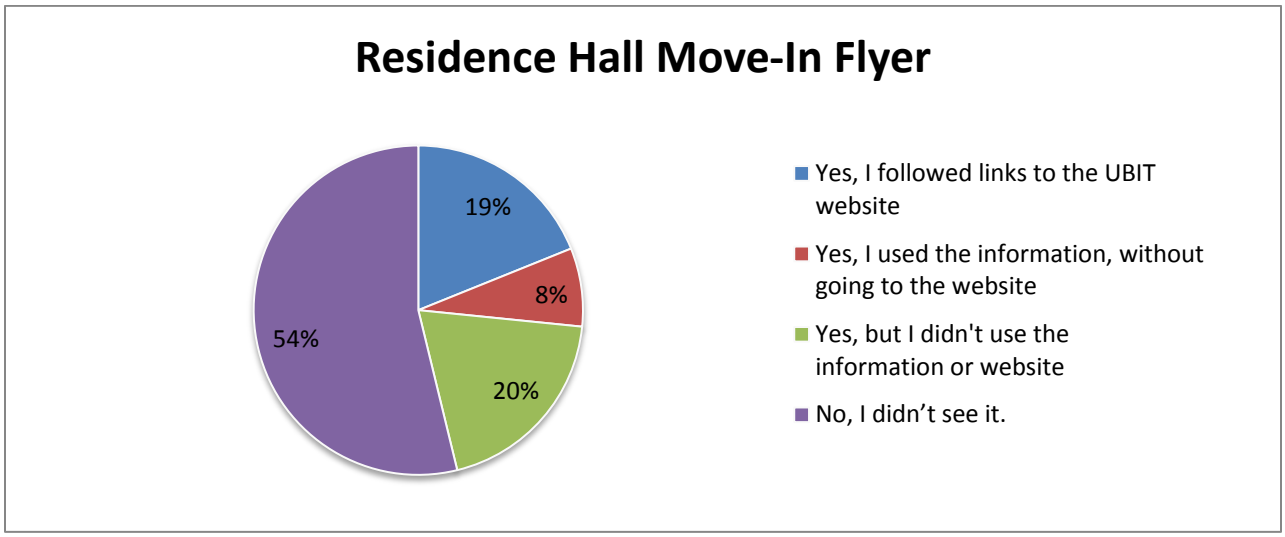
Response	Percent
UBIT website	42%
From a friend or classmate	31%
Orientation session	22%
I didn't know UB offered free software	19%
Stampede bus headliner/poster	16%
From a professor	12%
Flyer on my desk upon on-campus move-in	9%
Flyer from orientation dinner or breakfast	7%
Student planner	8%
Guide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

In this year's survey, UBIT asked students directly about communication pieces that were distributed during summer and fall.

At the beginning of the Fall semester, a flyer with information on UBIT services (getting connected, getting help, getting software, etc.) was left on the desks of over 5,000 students in residence halls and on-campus apartments. Nearly 54% of responding students said they didn't see the flyer, with nearly 20% reporting they saw the flyer, but didn't use the information. Nearly 19% said they saw the flyer and followed links to the UBIT website, with another nearly 8% reporting they used the information without visiting the UBIT website (Table 19).

Table 19 A/B/C/D: Promotional Materials Seen by Students

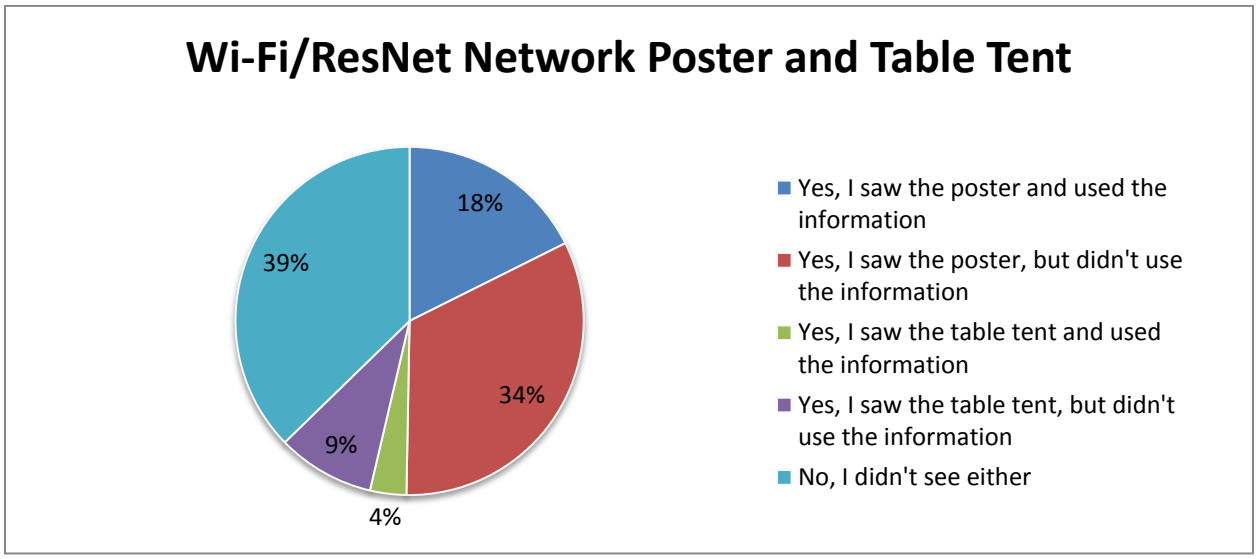
A. Residence Hall Move-In Flyer



To create awareness about UB Secure and UB Gaming Wi-Fi and the benefits of using wired ResNet when available, posters were displayed in residence halls and on-campus apartments in September 2013. Table tent cards were also distributed to public computing sites and on-campus dining locations.

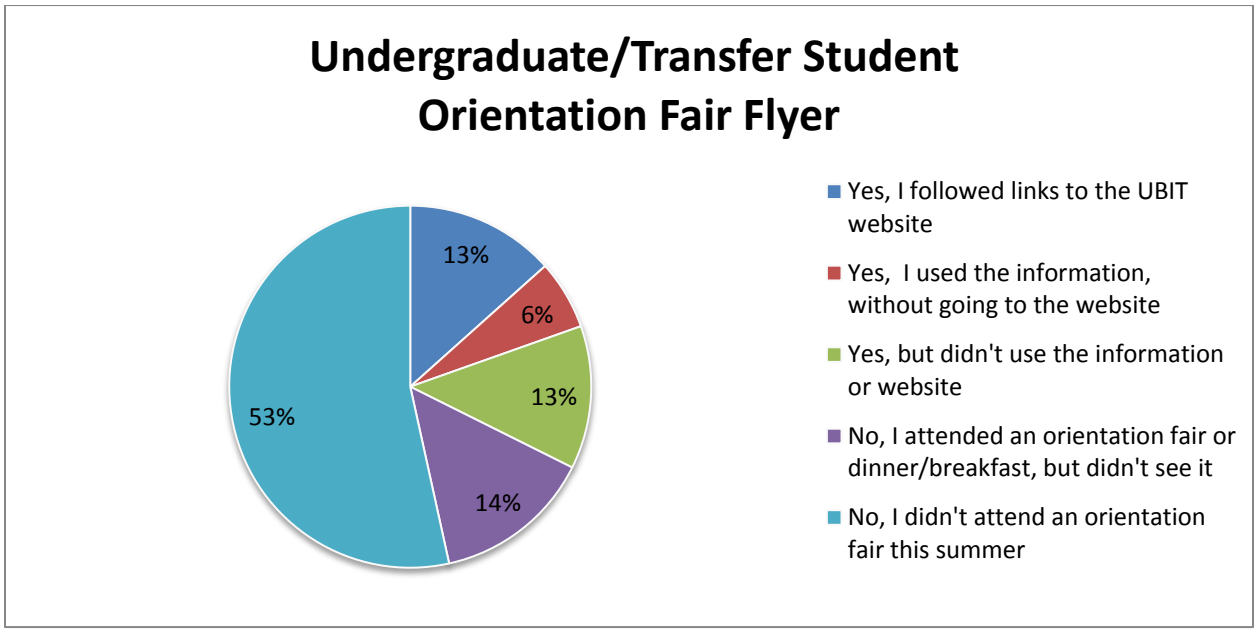
Over 38% of responding students saw the poster and said they used the information, with another nearly 34% of students recalling the poster, even though they didn't use the information/links. Only 9% of students saw the table tents and used the information, with 4% saying they saw the cards, but didn't follow the links or information. A total of 18% students said they didn't see the posters or table tent cards.

B. Wi-Fi/ResNet Network Poster and Table Tent



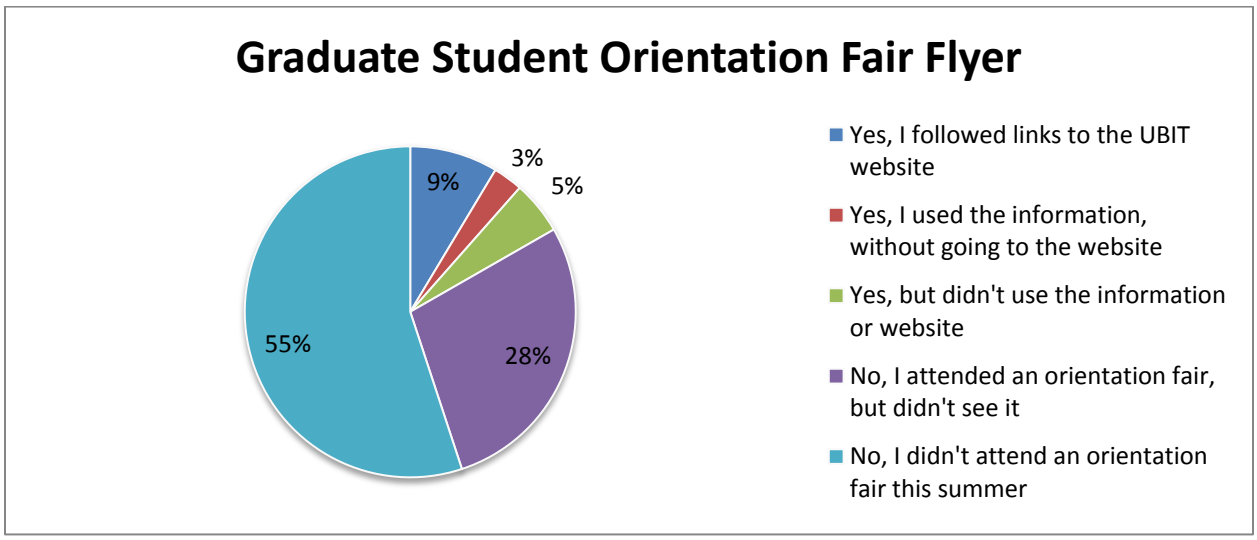
During Summer 2013, flyers were distributed to new undergraduate and transfer students through the CIT Help Desk's information tables at orientation fairs. 54% of responding students didn't attend an orientation fair this summer, but 13% said they saw the flyers and used the information. Nearly 13% said they saw the flyers, but didn't use the information, and 6% said they used information from the flyers without visiting the UBIT website. 14% of responding students who attended fairs didn't see the flyers.

C. Undergraduate/Transfer Student Orientation Fair Flyer



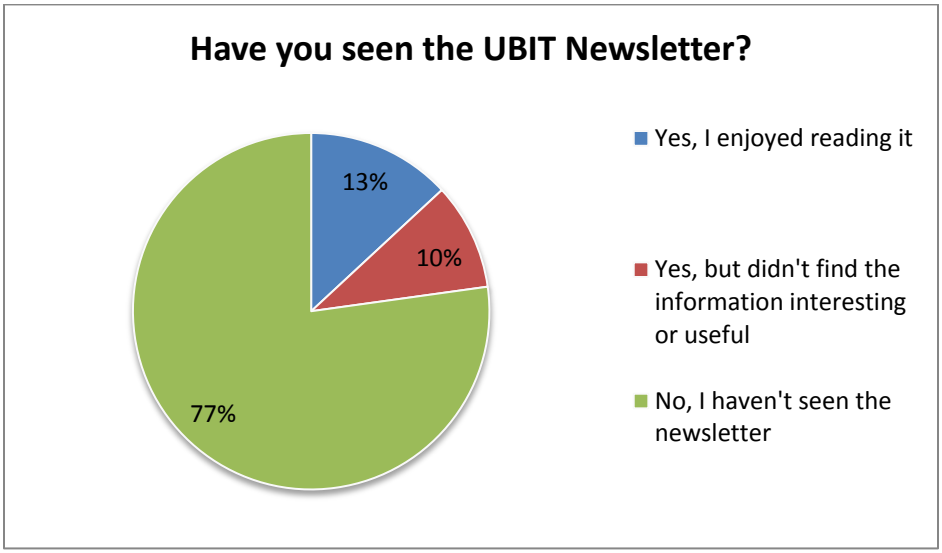
A similar orientation flyer was created and distributed to Graduate students during August 2013. 55% of responding graduate students didn't attend an orientation fair. Conversely to undergraduate/transfer fairs, 28% said the attended an orientation fair, but didn't see the flyers. 9% of graduate student respondents saw the flyers and followed links to the UBIT website with 3% saying they used the information without going to the website. 5% said they saw the flyers, but didn't use the information.

D. Graduate Student Orientation Fair Flyer



When asked about the UBIT Newsletter, which is published online during Fall and Spring semesters, 77% of students said they've never seen it. 14% said they saw the newsletter and enjoyed reading it while 10% said they saw it, but didn't find the information useful or interesting.

E. UBIT Newsletter



When asked what IT topics would make the newsletter more interesting or useful, 40 students responded. Five asked for more information and regular updates about the software UB provides to the students. 17 respondents didn't have suggestions for improvement or any interest in reading an IT newsletter. Some sample comment excerpts included:

- *How To's: Use Excel.*
- *The new software UB is providing and about all the better ways the UB secure connection can work. Would love to know about all the new, free and interesting educational and entertaining (music/games) sites.*
- *I'm really into new technology, so it would be great to read about things like the XBOX1, PS4, galaxy gear, and galaxy round to name a few.*
- *On demand technologies for students and courses that students need to take for meeting the modern challenges and why.*

Students Following UB on Facebook

UBIT messages are commonly featured on UB Facebook pages, so we asked which presences students were currently using. The official University at Buffalo Facebook page is most viewed with 6% of respondent students following the page. The UB Student Experience Facebook page is viewed by 3% of students and the "Class of" Facebook pages all averaged around or just over 1%. Under "other" responses, students mentioned following UB pages such as Academies, Study Abroad and UB Rugby (Table 20).

Table 20: UB Facebook Page Use

Response	Percent
University at Buffalo (official)	6%
UB Student Experience	3%
UB Class of 2014	1%
UB Class of 2015	2%
UB Class of 2016	1%
UB Class of 2017	1%
Other	1%

Technology and University Life

When students were asked about their preferred learning environments, an overwhelming 63% said they preferred courses with some online components. This is in line with the findings of Educause Center for Analysis and Research (ECAR)'s 2013 Study of Undergraduate Students and Information Technology. Just 5% of students liked courses that were completely online and only 19% preferred courses that had no online components. 13% of students had no preference (Table 21).

Table 21: Preferred Learning Environments

Response	Percent
Courses with no online components	19%
Courses with some online components	63%
Courses that are completely online	5%
No preference	13%

Students were presented with a number of statements about technology and asked to what extent they agreed or disagreed with each statement (Table 22).

Educause Center for Analysis and Research (ECAR)'s 2013 Study of Undergraduate Students and Information Technology found that "Students value their privacy, and using technology to connect with them has its limits." When asked if technology made them feel connected to other students, just over 21% said they neither agreed nor disagreed, with the greatest number (37%) saying they agreed with that statement.

28% of students said that "Technology better prepares me for future educational plans." However, just because the technology is available doesn't mean they won't attend an in-person course: an overwhelming 31% said they strongly disagree with the statement, "I skip classes when materials from course lectures are available online."

According to the Educause Center for Analysis and Research (ECAR)'s 2013 Study of Undergraduate Students and Information Technology, "Students are ready to use their mobile devices more for academics, and they look to institutions and instructors for opportunities and encouragement to do so." When asked if they agree with the statement, "The use of mobile devices in class can enhance learning," over 52% agreed or strongly agreed with nearly 20% disagreeing or strongly disagreeing.

Over 71% of students agreed or strongly agreed with the statement "Technology helps me achieve my academic outcomes."

Table 22: 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	23% (429)	36% (675)	25% (472)	9% (160)	5% (96)	2% (43)
By the time I graduate, the technology I have used in my courses will have adequately prepared me for the workplace	18% (342)	44% (809)	25% (465)	7% (135)	3% (48)	3% (60)
I skip classes when materials from course lectures are available online	9% (174)	20% (374)	19% (351)	18% (330)	31% (578)	3% (51)
When I entered college, I was adequately prepared to use technology needed in my courses	26% (485)	42% (774)	19% (343)	10% (190)	2% (43)	1% (22)
Technology makes me feel more connected to what's going on at the university	27% (500)	42% (777)	21% (381)	6% (114)	3% (54)	2% (28)
Technology better prepares me for future educational plans (i.e. transferring to another degree program, getting into graduate school)	28% (525)	43% (789)	21% (383)	4% (78)	2% (33)	3% (50)
Technology makes me feel connected to other students	26% (475)	37% (691)	21% (398)	9% (169)	5% (97)	2% (30)
Technology makes me feel connected to professors	23% (435)	43% (794)	19% (349)	9% (158)	5% (94)	2% (32)
Technology helps me achieve my academic outcomes	27% (501)	45% (825)	20% (361)	5% (92)	2% (40)	2% (31)
The use of mobile devices in class can enhance learning	21% (389)	32% (589)	25% (464)	13% (233)	7% (132)	3% (48)
I am more likely to get involved in a campus activity when made aware of it through technology	26% (490)	38% (711)	24% (440)	6% (116)	3% (57)	2% (40)
Technology makes my education more affordable	21% (385)	26% (475)	30% (556)	10% (176)	9% (160)	5% (101)

Qualitative Responses- Suggestions and Critical Feedback

In order to reduce the overall instrument length and time required to complete this year's survey, the qualitative questions were reduced to cover just three major themes:

- What types of new, better or "cutting-edge" technologies would benefit your university experience?
- What would have made it easier for you to get started with IT at UB?
- Tell us ONE thing that your instructors can do with technology to better facilitate or support your academic success.

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. After coding each response into five different categories (Table 23), each category was counted and reflected below. The major themes identified were largely consistent with those expressed in past surveys.

Table 23: Technology Resources to Assist Study and Research Needs (n= 1,924)

Theme analysis	Count
Availability of Technology (i.e. software, computers, power outlet)	92
Technology Resources (i.e. recorded lectures, e-books, e-journals, iPrint)	222
Connectivity Issues (Need for better/stronger connection; better wireless internet availability and connection on campus, etc.)	294
Miscellaneous	115
Satisfied in General; positive	28

The majority of the comments were requesting more technology and resources available to students. Some of the major themes regarding these two categories are reflected in the comments below:

- *Lectures should be recorded and put on UBlearns so students can watch the lectures in video format many times to understand the materials that they did not understand properly in class.*
- *More chargers should be available at school for phones or laptops, or charging stations.*
- *Wi-Fi should be available on the bus.*
- *I am still discovering more resources offered within Information Technology at UB. It would be great if there was a HUB app for Android or an app for UBlearns on Android. A UBlearns app would definitely be helpful for studying since my professors use it frequently.*
- *Better, faster, and more reliable Wi-Fi.*
- *Printing from tablets to library printers. Better wireless network. It is really unreliable in many parts of the university.*

- *E-textbooks made available from the university.*
- *I think North Campus needs more computers in public sites. When it's busy, it's hard to find a computer to print out stuff.*

Some comments reflecting satisfaction with the services IT at UB provides:

- *I think what UBIT is doing is commendable enough.*
- *I am satisfied with current facilities.*
- *I'm pretty satisfied with the technology the school has to offer.*

Improving Technologies at UB

Three common suggestions emerged as to what cutting edge technologies students would like to see. A number of students complained of inconsistent Wi-Fi coverage across campus. Others suggested updating UB's building access system to an RFID system. Additionally, students requested an expansion of charging stations across campus.

1. **Improved Wi-Fi coverage on campus**
    - *Wi-Fi connection in Creekside Village is unstable, especially on the second floor. It would be fantastic if the Wi-Fi was stable.*
    - *Realistically, I'd just be happier with quicker, more consistent Wi-Fi.*
    - *Improved Wi-Fi especially around UB Downtown campus. Wi-Fi on the UB Stampede bus would be a really cool thing.*
2. **Update to an RFID system**
    - *RFID swiping for doors and buses.*
    - *RFID tags inside UB Cards so there is no need for us to scan our card when getting on the bus.*
    - *RFID access instead of card swipe for residence buildings.*
3. **More charging stations**
    - *More charging stations for students.*

- *Can't think of any off the top of my head, but I LOVE the charging stations around campus. I'd like to see more of those.*

- *I would like to see charging stations for phones/computers, etc. around campus - something similar to what I've seen in airports possibly?*

Instructor Use of Technology

Students were asked what instructors could do with technology to improve their learning experience. The largest percentage of suggestions simply requested professors reply to emails in a timely manner and use it to remind them of upcoming assignments. Students also were unhappy with the wide range of clickers used. A number of students disliked any use of clickers, but many also enjoy their usage in class, stating that it made them more engaged. A common solution put forward was having the school choose one universal clicker to use at UB for all of their classes. Many students also found that their professors simply didn't know how to use the technology already available (Wolf Visualizer, UB*learns*) and recommended more training for instructors.

1. **Email usage by professor**

    - *Actually have professors respond to their emails.*

    - *Be more comfortable and responsive with email.*

2. **Clicker standardization**

    - *A universal clicker. It's ridiculous how much you have to pay for each kind, especially when every professor likes a different one.*

    - *The whole university should use the same clicker.*

    - *Standardize the clicker system.*

3. **Technology training for instructors**

    - *Learn how to use it. Many of my professors have the visualizer on, but write on the whiteboard instead (with dried out markers that no one can read) & they ALWAYS have problems using clicker.*

    - *Actually use / receive training on it. Too many faculty seem a bit taken back by what is fairly simple technology. As a result, they often lean on tech services (we are blessed to have our own, the folks in Law IT do a fine job), but get hindered with the slightest glitch.*

    - *Some older instructors do not incorporate a visual outline of their notes into their lectures (such as PowerPoint) because some of them simply don't know how to use it.*

- *Train them with Blackboard (aka UBlearns). Some professors are "ready" for it, some don't. It's been there since before 2005, and now is 2013 for goodness sake!*

Getting Started with IT at UB

Students were also asked about their experience getting started with IT at UB, in order to improve how new students are informed. Many students interpreted the question more broadly, offering comments regarding current improvement needs. The three themes below represent the majority of the comments that were received.

1. **Connecting to the Internet at UB**

    - *Still have trouble with my Android phone- Samsung Galaxy Nexus. It's easy to use with an iPod Touch and laptop.*
    - *Better support for UBSecureWiFiSetup and iprint for Windows 8.1.*
    - *My phone sometimes cannot get access to UB Secure Wi-Fi, even though the signal is full.*
    - *Having a flyer in each of the rooms on move-in day explaining how to connect to the different service.*

2. **Accessing UBmail**

    - *Instructions for connecting UBmail to my phone that were easier to find.*
    - *Clearer directions on how to set up email on iPad/iPhone. Mine still doesn't work.*
    - *I wish that I could get my Droid to set UBmail as my mail instead of having to search the web every time I want to check an e-mail.*
    - *Wish UBmail was easier to set up. Maybe even through UB app with alerts.*
    - *I couldn't set up an UBIT account until I attended the international orientation. It would be better for future international freshman if they can set an UBIT account earlier.*

3. **More information on how to use all of UBIT's services**

    - *An orientation with graduate students.*
    - *It would have been easier for me as an online student if I had been able to have contact with UBIT a week prior to the beginning of the semester and they could have walked me through various procedures. Maybe an intro to IT for graduate students.*
    - *Help desk people don't know what they are doing. Some IT staff aren't very good with technology.*

- *A short video tour on UBIT homepage which will show new students what resources are available to them.*
- *Step by step instructions on an easy to find site. The UBIT website is hard to navigate at times.*
- *Incorporating knowledge of the availability of these resources during orientation would have helped.*
- *Having a session during the first couple of days when the freshmen get here having a session about connecting and free software.*

To read additional unedited comments on getting started with IT at UB, please visit the UBIT website.

Acknowledgements

This UB IT Policy and Communication report was made possible with significant help from the Office of the CIO collaborators: distributed IT directors and staff, University Libraries, University Communications, and the UB Office of University Life and Services.