IT Survey

2011 | Student Information Technology (IT) Experience Survey

Final Report

2011 Student IT Experience Survey
UB IT Policy & Communications
Office of the CIO

IT Survey

Introduction

The fifteenth "Student Information Technology Experience Survey" was made available October 10-23, 2011. Data were collected using Vovici™ software and further analyzed using SPSS™. The instrument contained 36 questions (a significant reduction from previous years) 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. 89% of the self-selected student population "clicked" on the one-time survey link and completed it, resulting in 2,421 total valid unique responses. Only two questions were coded to require a response, providing participants with the opportunity to skip a question if they so 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 1.9 percentage points for most questions answered by the total valid responses.

This report, survey questions and raw frequencies and comments are available at:
http://ubit.buffalo.edu/scoreboard/surveys/.

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 "Grab Bag" of items was donated by UB Micro (the Campus Computing Retail store) to encourage participation in this year's survey.

This report is organized into eight themes:

- Demographics
- Students' choice of hardware, device(s) and OS
- Continued migration to mobile devices
- Security awareness and practices
- Software and application preferences
- IT in Residence Halls and Apartments
- Learning Spaces, and academic technology resources
- Satisfaction with IT services and recommendations

Survey Highlights

- The overall level of satisfaction of IT services rose slightly, and dissatisfaction dropped from the previous survey
- More students are using multiple devices, and increasingly reliant on mobile devices (including laptops) as primary in-class resources

- Adoption of Apple™ devices continues to rise slightly, along with non-Apple mobile tablets and smartphones
- 15% of students are bringing computers from home that are over a year old, the majority are purchased through direct purchase or retail outlets.
- Verizon is the mobile carrier of choice in this region; Android™ and Apple™ OS is nearly evenly used – and when combined represent three-fourths of the OS market in this region
- Students have strong interest in increased mobile apps to access UB services
- 75% of students select security settings to automatically patch and update their personal machine, but students in Residence Halls express some concern regarding security settings that would automatically "push" updates to their devices
- UB is not yet experiencing widespread adoption of any particular E-book reader, with one-third of students reporting use of a laptop to access E-books. Kindle and iPad did have a significant showing at 12%. Many students reported using mobile phone apps to read E-books
- Students responded very positively to the introduction of virtual software through "My Virtual Computing Lab"
- Students continue to express desire for expanded public site and printing services, specifically a color printing option and increased monitoring of campus-wide lab activity
- Some concerns were expressed regarding the recent rollout of the student information system.
- There were increased calls for access to E-books and course capture to assist with "anytime-anywhere" access and to reduce textbook cost
- Students offered a number of helpful suggestions for how to improve "getting started with IT at UB" services. The suggestions were included in the appendix

Demographics

The total number of respondents (N=2,421) was a significant increase over the previous two years effort (Table 1), largely attributed to returning to the practice of offering a participation incentive (the UB Micro "Grab Bag"), and by expanding marketing efforts with distributed IT partners (Figure 1).

### Figure 1: Class Standing of Respondents
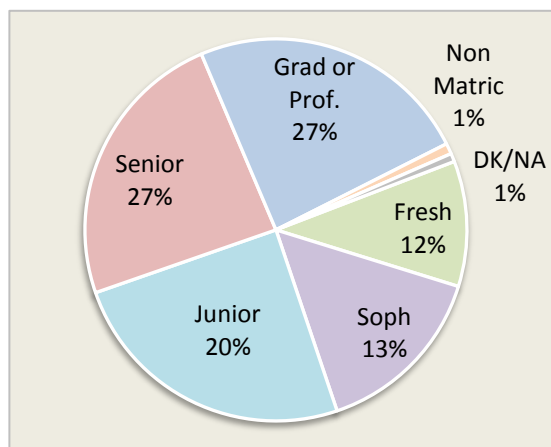
Table 1: Number of Survey Respondents

Year	N
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=2391). This was compared with UB's Institutional Analysis enrollment figures. With minor exception (Arts & Sciences under-represented by 6% and SEAS over-represented by 6%) the survey responses fall within the percentage of confidence when compared with the actual campus population. The responses were also examined over the past two years, which indicate relative consistency across schools over time (Table 2).

Table 2: Survey Participation as Percentage of Enrollment

School	2011 Survey Response Count by School	% 2011 Response (n=2391)	% Valid Campus Population Sample by School		% 2010 Response (n=996)	% 2009 Response (n=838)
Architecture & Planning	45	1.9%	1.9%		1.9%	1.8%
Arts & Sciences	687	28.7%	35% (-6%)		31.8%	30.7%
Dental Medicine	12	.5%	1.6%		3%	.8%
Education	96	4.0%	5.7%		4.7%	4.3%
Engineering & Applied Sciences	491	20.5%	14.6% (+6%)		18.9%	18.2%
Law	72	3.0%	2.3%		2.1%	2.2%
Management	294	12.3%	12.8%		13.8%	14.6%
Medicine & Biomedical Sciences	130	5.4%	6.0%		5.9%	5.6%
Nursing	70	2.9%	3.1%		2.4%	2.3%
Pharmacy & Pharmaceutical Sciences	149	6.2%	4.6%		4.2%	4.6%
Public Health & Health Professions	155	6.5%	4.8%		5.1%	6.9%
Social Work	54	2.3%	1.6%		2.7%	2.4%
Undecided	136	5.7%	5.1%		6.1%	5.6%

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. This survey included several questions that were exposed only to students who live in UB housing to explore the role of residential network support, and how future services may be considered and configured (Figure 2).

Figure 2: Primary Residence at UB (n=2394)
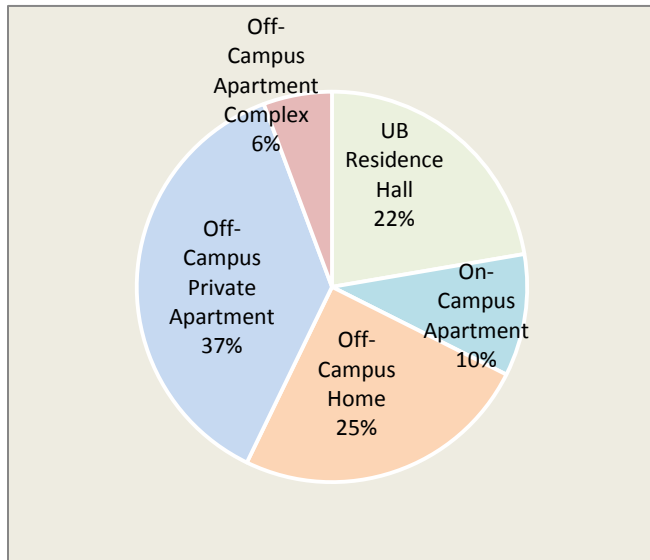
Students' Choice of Hardware, Mobile Device(s) and OS

Student use of laptops continues to rise to an all-time high of over 90% (Figure 3); however, there was little or no difference in the primary usage of laptops by incoming undergraduates compared to the total. Looking at the computers used primarily by school, most schools fall within a few percentage points of the laptop adoption average. Although the Graduate School of Education exhibits a slightly lower laptop adoption rate (83%) this could be readily interpreted as balanced by a slightly higher iPad adoption rate (Table 3).

Figure 3: Comparative Ownership of Laptop and Desktop Computers (2003-2011)
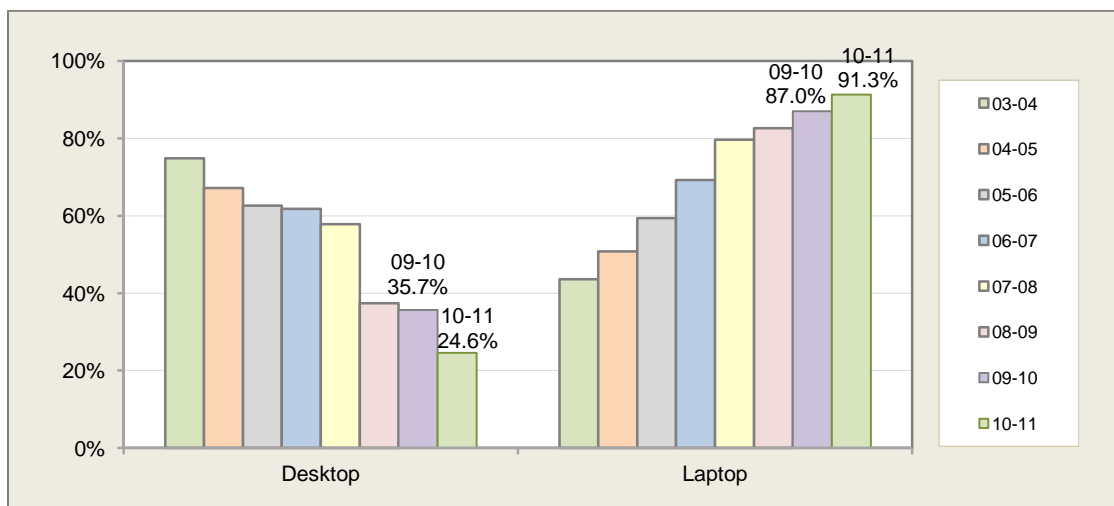
UB's students are tracking very similarly with national trends that suggest that students are arriving on campus with a greater diversity and combination of mobile devices that require access to the campus network and services. Although more students now rely on laptops as their primary computing device, over one-third <u>decline</u> 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 Hardware Students Own vs. Bring to Class
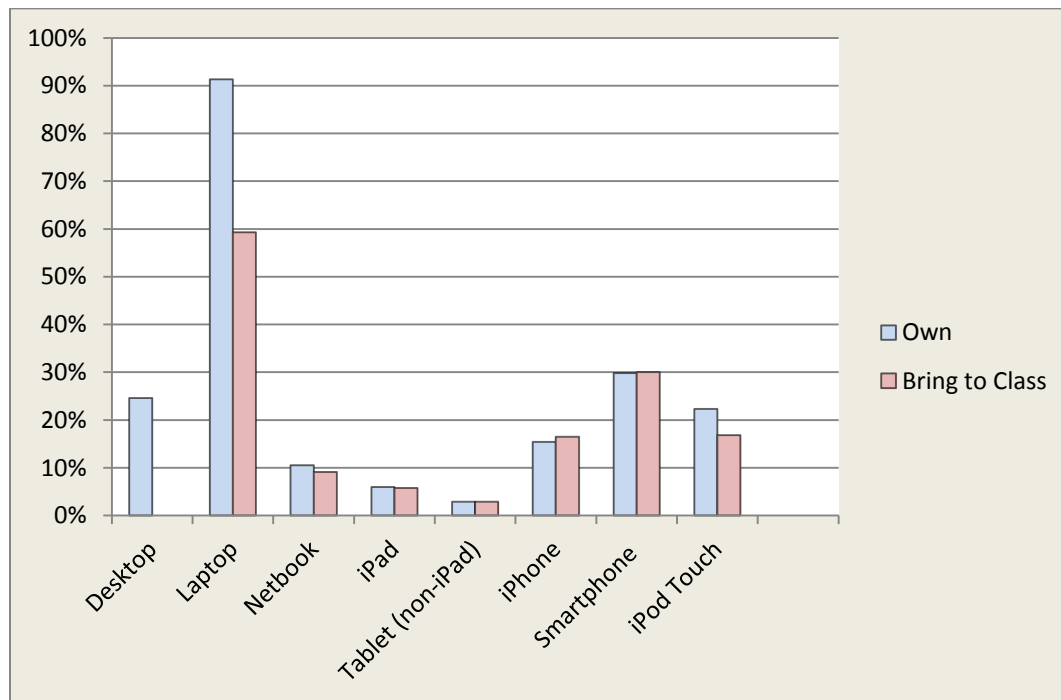
When examined at the school level (Table 3), Law School students report the greatest laptop ownership with over 97%, though no school reports less than 87%. The Dental School reported the greatest density of iPad and iPhone devices, as well as the highest level of smartphones that are <u>not</u> iPhones (although this self-selected sample (n=12) is very small). Education and Nursing also indicate significant use of Apple products.

Table 3: Devices Use by School (Check all that Apply) n= 2391

School	% Desktop	% Laptop	% Netbook	% Tablet	% iPad	% iPod Touch	% iPhone	% Smartphone (non-iPhone)	% Do not own
Architecture (45) 1.9%	13.3	88.9	6.7	2.2	4.4	24.4	15.6	26.7	2.2
CAS (687) 28.7%	25.9	90.8	11.6	1.9	7.0	23.0	14.0	31.7	.6
Dental (12) .5%	16.7	91.7	8.3	0.0	16.7	16.7	33.3	41.7	.0
Education (96) 4%	33.3	83.3	24.0	1.0	9.4	13.5	10.4	27.1	.0
Engineering (491) 20.5%	25.5	91.4	10.0	5.1	4.7	23.6	15.3	29.7	.2
Law (72) 3.0%	16.7	97.2	16.7	4.2	2.8	20.8	13.9	26.4	.0
Management (294) 12.3%	27.9	93.2	7.5	3.4	7.1	19.7	22.1	31.0	.7
Med & Bio Sci (130) 5.4%	16.2	94.6	6.9	1.5	7.7	22.3	13.8	33.8	.8
Nursing (70) 2.9%	15.7	92.9	8.6	2.9	11.4	24.3	18.6	25.7	.0
Pharmacy (149) 6.2%	21.5	91.9	13.4	4.0	5.4	21.5	14.8	27.5	.0
SPHHP (155) 6.5%	21.9	87.7	9.0	1.9	1.9	24.5	11.6	25.8	.6
Social Work (54) 2.3%	31.5	94.4	5.6	1.9	3.7	24.1	14.8	31.5	.0
Undecided (136) 5.7%	27.2	91.2	6.6	0.0	3.7	24.3	14.0	28.7	.0

In a related issue, students ranked their most likely source of help when experiencing hardware or device problems:

1. Fix myself, or fixed by a friend
2. Call IT Help Desk on-campus
3. Send back to the manufacturer for repair
4. Go to UBMicro on-campus repair services
5. Go to an off-campus repair center

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

- 79% are Windows
- 19% are Macs
- 1% are Linux variants

This represents a three percentage self-reported increase in Macs from last year. Data from the "Back to School" ResNet analysis indicated that 24% of devices registered on 8/25-26/11 were Macs (Figure 5).

Windows XP 6%
Windows Vista 14%
Mac (Lion) 8%
Mac (Snow Leopard or earlier) 11%
Linux 1%
Don't know 1.5%
Other 0.5%
Windows 7 59%
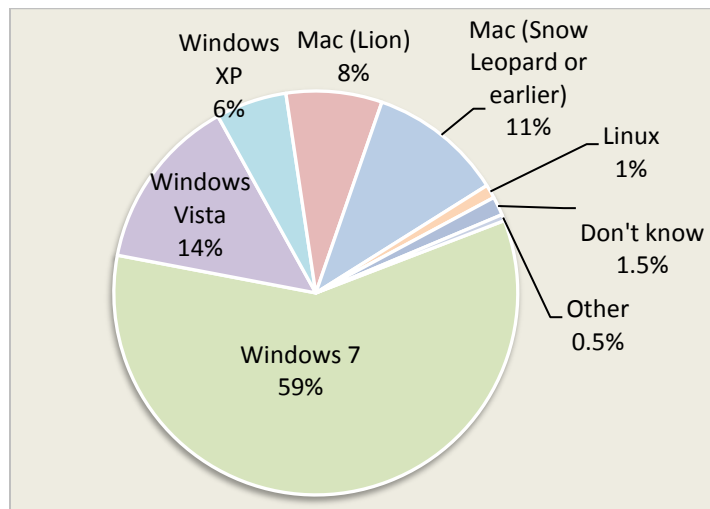
Students seem to be more aware of the 32 vs. 64 Bit version of Windows OS they are using. Last year, nearly 20% were not sure of this detail, but this year only 10% reported not being sure of the version. Use of Vista has again fallen by nearly half (14%) and only 6% remain on Windows XP or an earlier version (Table 4).

In addition to operating systems, students were asked this year if they use any type of machine virtualization software on their primary machine (e.g. VMWare, Parallels, Boot Camp). Only 13% reported such use, with nearly one-third reporting that they were not familiar with virtual computing environments.

Table 4: Comparative Operating Systems from 2009-2011

Operating System	2011	2010	2009
Windows 7 (64 Bit)	38%	26%	
Windows 7 (32 Bit)	11%	15%	13%
Windows 7 (not sure of Bit version)	10%	19%	
Windows Vista	14%	24%	42%
Windows XP or earlier	6%	11%	27%
Mac OS X (Lion) (10.7)	8%	N/A	N/A
Mac OS X (Snow Leopard) 10.6 (or earlier)	11%	10%	5%
Linux or other Unix-based OS	1%	1.6%	1.6%
Don't Know	1.5%	1.2%	1.1%
Other	0.5%	1.3%	1.2%

When asked where students purchased or otherwise acquired their computer, over 60% report using either online vendor sites or a retail outlet; slightly less than one-quarter of the students responding bring a computer from home (Table 5).

Where did you get your computer?	2011
UBMicro	8%
Special UB section of a Dell, Apple, HP (or other) online site	2%
Direct from Dell, Apple, HP (or other non-UB offering)	32%
From a retail outlet (e.g., Best Buy)	31%
Brought a computer from home (LESS than one year old)	6%
Brought a computer from home (MORE than one year old)	15%
Other	6%

Students Continue Mobile Migration

This survey requested details regarding mobile device and service providers, as well as the quality of cellular signal students receive on campus (including Residence Halls and Apartments). Several questions probed how students are connecting with campus instructional and administrative resources through expanded use of mobile devices.

The majority of students use large provider services. Slightly more than 40% of the respondents use **Verizon Wireless**, followed by **AT&T** (29%), **T-Mobile** (15%) and **Sprint Nex-Tel** (9%). Other carriers mentioned include Cricket, Blue, and Virgin Mobile. With the exception of first year graduate students, Verizon is consistently more popular than AT&T – however, the degree of popularity does vary by class standing (Figure 6).

Figure 6: Mobile Device Carrier by Class Standing
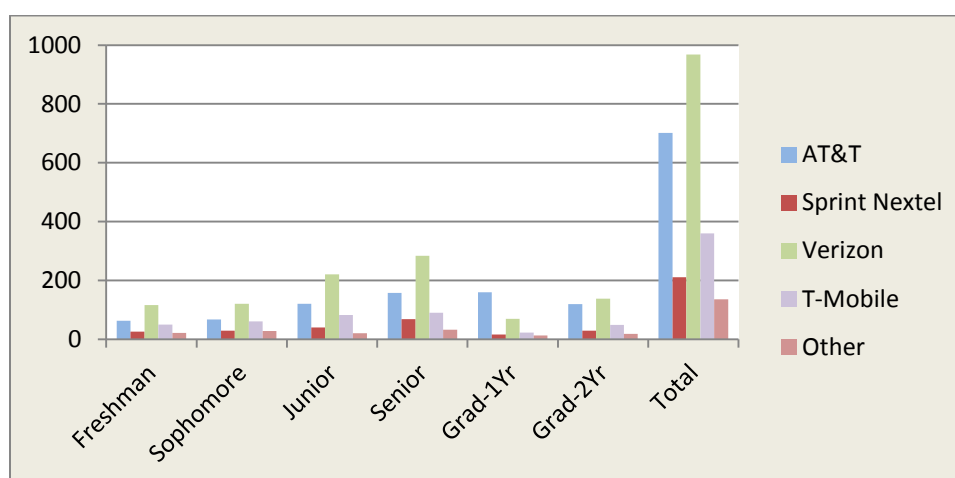
There was nearly a tie between those who use Android OS and iPhone OS. Other carriers included Assurance Wireless, Boost Mobile, Metro PCS, Simple Phone, Straight Talk and Tracfone (Table 6).

Which Operating System do you have on your Smartphone or Tablet?	2011
Android	37%
Apple iPhone or iPad (any generation)	38%
Black Berry	14%
Windows Mobile or Windows Phone	4%
Palm Web	2%
Symbian	1%
Other	4%

Students were asked to identify locations around campus where they are having difficulty receiving a reliable cellular telephone signal. 890 suggestions were received, with nearly a third (287) requesting the reception in Knox Hall be improved. The next three locations most often identified were Capen Hall, the Student Union and Natural Sciences Complex (75 suggestions each). The next tier included Ellicott Complex, Norton, Ellicott Food Court Complex, Bell, Baldy and Lockwood. Some suggestions covered broad areas such as "all of North Campus" or named a variety of locations categorized as "basement, tunnels and walkways"   A detailed analysis has been provided to the teams working on signal quality and service expansion.

Last year, significant interest was expressed in access to UB*learns* via a mobile app. A pilot project was undertaken this past spring, where 265 students reported using iPhones™ (or non-iPhone mobile device on the Sprint™ mobile network) to gain access to their UB*learns* courses. Students who indicated they owned Apple devices were branched to a question probing whether they had participated in the pilot, and the majority of comments were favorable, focusing on themes of ease and convenience. Some sample comment excerpts included:

- *I can leave my laptop at home*
- *Easy to check grades*
- *Good speed – no connection problems*
- *Could upload docs to Dropbox*
- *Could save docs for later from my phone.*

Less favorable comments focused on bandwidth and navigation features:

- *Difficult to watch videos*
- *A little glitchy at times*
- *There are login issues*
- *Multiple, long files don't display properly.*

Students were asked to identify the UB services they access with their mobile device or tablet. UB*learns* was second only to Email in frequency of mobile access (Figure 7).
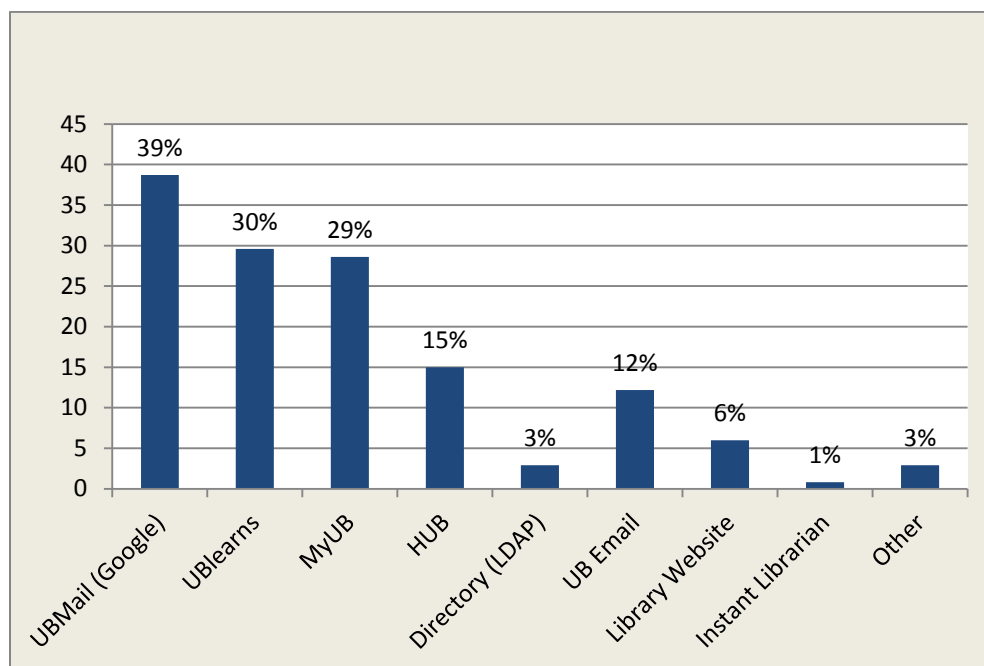
Data was not collected for Mobile Apps or preferred access last year (2010), however, students did rank the websites most often accessed by a smartphone or tablet in 2009:

1. UBMail
2. MyUB
3. UB*learns*
4. UB's Home Page
5. Departmental Website
6. Library Website
7. Student Resource Center Website

Between 2009-2011, Email remains the highest ranked UB service accessed through mobile devices. After that, the priorities clearly shifted as the result of implementation of the UB*learns* Mobile App pilot and introduction of HUB, the new student information services system that students access via MyUB.

When asked about the level of interest in future mobile apps, students selected whether they were *currently using* an app, *interested in* using a specific app, or were non-committal ("*don't know*" or "*does not apply*") (Table 7).

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

App Function	Currently Using	Interested	Don't Know, Does not apply
Search UB's web	23.8%	47.5%	28.7%
Look up UB events	17.8%	55.9%	26.3%
Check my class schedule	28.3%	62.0%	9.7%
Review announcements in MyUB	24.6%	55.3%	20.1%
Use UB*learns*	37.2%	54.4%	8.4%
Read my UBMail	53.8%	40.1%	6.1%
Find information from the Library website	13.2%	50.6%	36.2%
Check shuttle schedules	14.6%	53.8%	31.7%
Look up UB staff, faculty or students	12.9%	51.2%	35.9%
Ask a librarian for help with research	5.4%	45.7%	48.8%

Student also provided details in the comments section for other types of services/information they'd like to see available as mobile apps. These included:

- Departmental calendars
- Food service menus
- MyUB card
- Online Bill Pay

Figure 8: Use of VoIP or "Softphones"
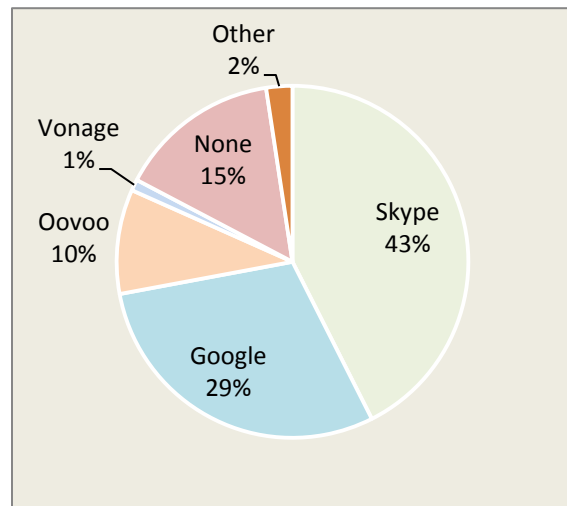
Figure eight illustrates student selection from a list of popular "softphone" or VoIP software (if any). Skype remains the clear choice, followed by Google. Nearly one-quarter (22%) indicated they did not use any VoIP services on their mobile devices (Figure 8).

Security Awareness and Practices

Security and privacy are ongoing challenges in the University environment. UB is fortunate in not having any major security breaches or incidents during the past year, and continues to proactively inform students of security "best practices" and how to protect their data and hardware from malicious attacks. This message was prominently reinforced with last October's "Don't Take the Bait" information campaign launched during National Cyber Security Awareness month. This effort was accompanied by a new website targeted to students with specific "calls to action" for how to identify and seek help in the event of a "phishing event" available at www.computersecurity.buffalo.edu/phish.

Though it's encouraging that students overall continue to be more aware of using secure connections, use of UB_Secure (UB's encrypted WiFi service) has declined over the past year (Table 8). Some clues may be found in the qualitative comments:

- *It drops out*
- *I usually use UB_Guest or UB_Wireless*
- *It's slower than the other wireless options*
- *Doesn't work with some applications (e.g., Putty)*
- *Doesn't work on my phone*
- *Instructions for use were confusing.*

Some students suggested they use UB_Secure selectively for access to iPrint, or choose in general to not use it because they lack wireless in their residence hall, or connect directly via a router.

Table 8: Students who used UB VPN to Connect from Home or from Off-Campus

	Use of UB_Secure		Use of VPN	
	2011	**2010**	**2008**	**2007**
Yes	67%	75%	27%	28%
No	11%	11%	33%	35%
No, or Difficulty with Installation	19%	14%	41%	38%

On average, three-quarters of the students indicated they set their machine to automatically accept updates. Among the very few comments were offered, several pointed to the age of the hardware having difficulty with automatic updates, with many students choosing to manually update. One comment in particular summarized many, *"I manually end processes that are unnecessary and eating up resources. I usually just turn off my antivirus because my laptop is 6 years old and barely can run anything anymore"* (Table 9).

Table 9: How Students Keep Systems "Patched & Secure"

Patched & Secure Method	2011	2010	2009	2008
Automatic Updates Enabled	73%	73%	72%	75%
Manually Download/Install Updates	27%	24%	24%	18%
Install additional Security Software	17%	17%	9%	6%
Don't Regularly Patch or Update	5%	6%	4%	4%
Not Sure	6%	7%	5%	6%
Other	0.7%	N/A	N/A	N/A

Last year (2010) over 75% of students indicated they were aware that it is illegal to use UBIT accounts to download and share copyrighted works. For nearly a decade, formal efforts have been in place to promote good citizenship in use of UB computing resources. This includes raising awareness of proper personal use and conduct, as well copyright violations or other types of illegal content activity. First time violators must successfully complete a UB*learns* course as part of remedial/tutorial efforts, after which stronger discipline measures are employed guided by the circumstances. As part of very broad awareness efforts, the Chief Information Officer distributes a letter to the campus community each semester that reinforces the Higher Education Opportunity Act (HEOA) copyright education requirements.

The underlying longitudinal theme relates each year to some manner to raising (and measuring) awareness of copyright and DMCA issues. This year, the probe was shifted to gain an understanding of students' awareness of legal alternatives (Table 10).

Table 10: Preferred Method for Accessing Media (Music, Videos, Games) Online

Preference	
Download sites (e.g. iTunes, Amazon, Rhapsody)	25%
Streaming Services (e.g. Stitcher, YouTube, Pandora, Spotify)	56%
Peer-to-peer download apps (e.g. Shareaza, Ares, BitTorrent, Kazaa, Bearshare, Limewire)	10%
I don't use any of these services	8%
Other	1.5%

A few students named additional tools such as HTTP DDL, DC++, and Pirate Bay – but most either restated selections from above or indicated that they were refusing to answer the question, or as one student said, "I am invoking my 5th Amendment."

Students' Use and Preferences for Software

Students overwhelmingly reported they were *most likely* to obtain academic software through UB's download site (Table 11).

Table 11: Most Likely Method of Obtaining Academic Software

Academic Software Acquisition	
UB Download site	65%
UBMicro (on campus computer store)	13%
UB Bookstore	2%
Direct from vendor with computer purchase	6%
Vender App store (e.g., Apple, HP)	2%
Online (e.g. Amazon, NewEgg, etc.)	8%
Department Store (e.g. Walmart, Target, etc.)	3%
Other	2%

The UB2020 Hardware and Software standards committee continues to monitor the use of various software needs and distribution methods across campus. Firefox remains the Internet browser of choice, followed by a significant increase in use of Google Chrome. Use of Internet Explorer has decreased.

Table 12: Browsers used by Students (Check all that Apply)

Response	2011	2010	2009	2008	2007
Firefox	69%	68%	68%	45%	67%
Internet Explorer	39%	46%	46%	36%	72%
Safari	23%	19%	17%	10%	13%
Google Chrome	52%	37%	21%	6%	N/A
Opera	3%	4%	4%	2%	3%
Other	1.2%	1.2%	2%	2%	2%

This year, a number of email client choices were removed, and the comments reflected that some students continue to use AIM, AOL, Earthlink, Excite, Juno, Roadrunner and Verizon as email clients, but the percentage is too low to merit reporting (Table 13).

Table 13: Preferred Access to Email (Check all that Apply)

Email Client	2011	2010	2009	2008
Gmail (personal – not UB's)	63%	54%	44%	39%
UBmail powered by Google	70%	40%	21%	N/A
UBmail	29%	53%	58%	74%
Mac Mail	4%	3%	3%	3%
Outlook	6%	6%	8%	7%
Thunderbird	4%	5%	5%	6%
Yahoo	33%	33%	30%	36%
Hotmail	18%	22%	18%	26%
Entourage	N/A	.6%	1%	1%
Mulberry	N/A	.5%	1%	3%
Outlook Express	N/A	2%	3%	5%
Pine	N/A	.7%	0%	1%
Other	7%	4%	8%	N/A

Last year (2010) students were asked about how they would use a virtual computing environment, including what operating systems and software titles should be offered. This year, a virtual computing lab pilot was launched and branded *My Virtual Computing Lab* (MyVCL). Students were invited to provide feedback to the pilot team, and the comments supported that this has a highly effective service. Most of the comments were short and simple:

- *Thanks for making VCL available – it rocks!*
- *I have had no problems connecting – good selection, hope you add more software*

Many VCL comments were positive, mixed with suggestions. A large number of students requested that SPSS be added, and this was accomplished within days of the request pattern being identified. The follow-up VCL question this year was to probe the level of interest students have in expansion of this service.

Table 14: VCL vs. Public Site Software Access

Preferred Software Access	Mean
UB software via Public Site Computer	34.22%
UB software via My Virtual Computing Lab	66.26%

Students were required to respond to a question asking them to estimate the percentage of time they would spend in public site labs vs. personal machines, assuming that all software titles currently available on public site computers could be made available via MyVCL (including the ability to save files locally or to university backed-up file space). When comparing the means between the two preferences, students favored MyVCL by a ratio of nearly 2:1.   Although clearly a significant response, the ECAR Research Bulletin *From Learning Commons to Learning Outcomes: Assessing Collaborative Services and Spaces* suggests these data must be cautiously interpreted, as software delivery is a service, while learning and "commons" spaces are more about strategic alignment of services with environment. (Beagle, 9/2011).

Learning Spaces

Students were also required to respond to a question regarding those learning environments. Over the past several years, UB has invested in both *formal* and *informal learning spaces.* To further refine understanding of the types of spaces students preferred, a question was included that provided examples of scheduled learning spaces (e.g. Lockwood 420) or unscheduled, informal spaces (e.g. Knox Hall first floor lobby).

Figure 9: Preferences for Scheduled vs. Unscheduled Learning Spaces

A slight preference was expressed for the scheduled learning spaces (53%) over the informal spaces (47%), but the most frequent ratio of preference expressed (n=367 or 15%) reported an even desire (50/50%) for both types of spaces (Figure 9).

IT in Residence Halls and Apartments

Some questions were branched to only residential students within the survey (n=776) or 32% of the respondents after combining UB Residence Halls with On Campus Apartments.
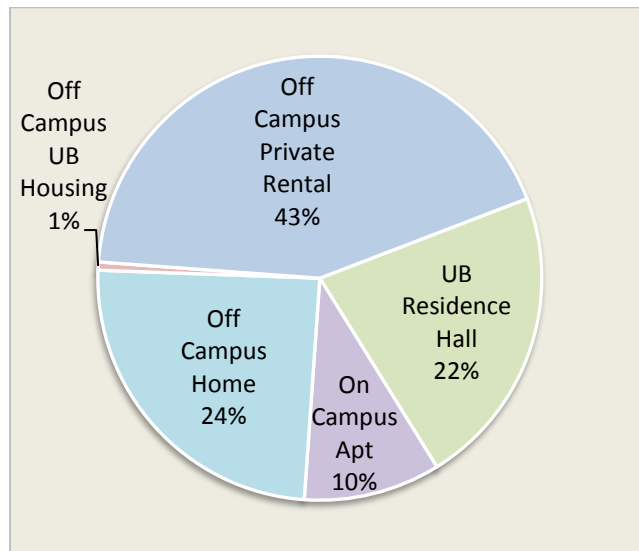
Response	Count	Percent	Response	Count	Percent
Clement	86	9%	Hadley Village	105	11%
Clinton	41	4%	Lehman	30	3%
Creekside Village	23	2%	Porter	63	.6%
Dewey	19	2%	Red Jacket	78	8%
Fargo	64	7%	Richmond	66	7%
Flickinger Court	29	3%	Roosevelt	28	3%
Flint Village	73	8%	South Lake Village	80	8%
Goodyear	47	5%	Spaulding	37	4%
Greiner	48	6%	Wilkeson	38	4%

The first issue probed was the strength and quality of the cell phone signal received within these locations. Students were asked "how many bars" they received on their device (Tables 16, 17).

Signal Strength	Percent
I don't get a signal	1.0%
0-1 bars	10.7%
2-3 bars	45.7%
4-5 bars	40.7%

Table 17: Strength of Cell Phone Signal in Specific Locations (By Count)

Location	No Signal	0-1 Bars	2-3 Bars	4-5 Bars
Clement		2	26	37
Clinton		1	13	5
Creekside Village		2	14	8
Dewey		3	16	9
Fargo		4	19	17
Flickinger Court			7	13
Flint Village	1	7	21	36
Goodyear		3	12	35
Greiner		5	19	22
Hadley Village	1	5	33	37
Lehman		1	13	6
Porter	1	9	31	20
Red Jacket			27	21
Richmond	1	4	10	12
Roosevelt		8	24	4
South Lake Village	1	3	26	11
Spaulding		7	20	10
Wilkeson		6	22	12

Note: blank spaces indicate no report.

Some students correctly point out that a measure of "bars" depends upon the scale the device displays, but it was assumed that students used these choices as a relative guide to report the quality of signal reception within their UB residence.

Few comments were received regarding signal quality, but among them were:

- *My friends with Sprint never get a signal*
- *On random spots in my dorm, the signal dies*
- *4-5 bars most of the time, but no service in half of my room*
- *Fluctuates heavily. Sometimes no signal, other times (near the window) 5 bars.*

Next, students were asked how they received and accessed a wireless signal. Anecdotal evidence suggests that as UB wireless access has expanded, the need for students to personally own and share wireless routers has decreased (Table 18).

Table 18: How Residential Students Receive a Wireless Connection (Check all that Apply)

Response	Count	Percent
UB_Secure	490	20.3%
UB Wireless	449	18.6%
UB Guest	159	6.6%
Personally owned wireless router	95	3.9%
Someone else's router	40	1.7%
Can't get a wireless connection	69	2.9%
I don't need a wireless connection	15	.6%

Some residence hall students clearly have a number of devices attached to the University network. It appears that sophomores, followed by seniors have the most devices accessing services (Table 18)

Table 19: Residence Hall Devices Accessing the Network by Class Standing

Number of Devices	Fresh	Soph	Junior	Senior	Grad year 1	Grad year 2
0-1	41%	34%	44%	38%	40%	49%
2-4	56%	65%	51%	61%	54%	51%
5+	3%	2%	5%	1%	6%	0%
Other	0%	0%	0%	0%	0%	0%
Total Count	214	166	153	165	35	37

Returning to the theme of network security, UB is considering updating systems to assist with virus detection and other network level threats. These tools would require automatically updating computer settings at the individual device level. As previously reported (Table 9) roughly three-quarters of the student population choose automatic updates to keep their computer "patched and secure" at the individual level, but when asked whether they would support similar measures being automatically available through the network, 60% overall report *neutral* to *fully supportive*, 13% are *somewhat unsupportive*, 23% *do not support automatic changes* (Table 20).

Table 20: Automatic Change of Device Settings to Promote Safer Computing

Level of Support	Percent	Fresh	Soph	Junior	Senior	Grad year 1	Grad year 2
Fully Supportive	4%	15%	14%	18%	13%	14%	11%
Somewhat Supportive	15%	22%	26%	28%	23%	26%	24%
Neutral	24%	28%	18%	21%	19%	9%	22%
Somewhat Unsupportive	21%	12%	13%	9%	16%	20%	11%
Do Not Support	13%	20%	25%	22%	26%	26%	22%
Other	23%	4%	5%	3%	3%	6%	11%
Total Count	100%	214	165	153	163	35	37

Of the qualitative concerns expressed, most of the sentiment is represented by the following:

- *As long as it doesn't create barriers to websites or impede on our freedom*
- *Don't know enough to make an informed decision – it depends on what this means*
- *As long as I can continue to manually adjust my settings*
- *I fully disagree with such practices and will take steps to prevent anyone but me from modifying my computer*
- *I'm OK with it, as long as I receive a prompt or some kind of notification.*

It's very positive news that only 15 comments were offered regarding any applications not functioning properly on ResNet (when compared with non-ResNet connections). Of the comments received, the majority were around gaming issues:

- *My Wii does not connect wirelessly*
- *Blackboard is bogging down my iPod, and I don't own a computer*
- *Games for Windows Live*
- *My X-box 360 doesn't work on wireless, and there was no way to sign on to ResNet, so I found an alternate way to get around it by hooking up a router.*

Learning Resources

Although this survey is primarily concerned with the hardware and systems that support Information technology (infrastructure), it is important to understand how this infrastructure supports academic technologies, and the level of satisfaction students report around IT services (Table 21).

Table 21: Level of Satisfaction with Learning Technologies Supported by IT

Level of Support	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	DK/NA
Public Printing (iPrint)	26%	46%	10%	9%	4%	5%
Public Workstations	23%	50%	15%	8%	2%	3%
Laptop Support (e.g. adequate space/power)	18%	32%	22%	12%	5%	10%
Mobile Device Support	13%	28%	28%	12%	5%	15%
UB*learns*	30%	46%	13%	7%	3%	1%
UBclicks	10%	17%	28%	4%	2%	39%
Course Capture/Recording	12%	23%	26%	6%	3%	30%
Library E-books	11%	19%	29%	4%	2%	35%
Library Website	19%	35%	25%	5%	2%	14%

Surprisingly few students declined to respond to the services satisfaction table. The in-chart count only varied by 30 responses across categories, with an average n=2,370. Over three-quarters of students report being very or somewhat satisfied with UB*learns*, public workstations, and iPrint – which are very high volume and high profile services.

There is increasing awareness and interest in E-books to both contain textbook cost and provide enhanced convenience. In order to assist with planning, students were asked which type of device they most used to access E-books. Though nearly half reported not accessing E-books (48%) and one-third (33%) reported using a laptop, it is significant that 356 students reported using an iPad, Kindle or Nook as text readers, particularly since the iPad is the newest device to be introduced to the market (with nearly double the adoption of the longer-available Nook) (Table 22).

Table 22: Devices Most Used to Read E-books (n=2368)

Response	Percent
iPad	5.1%
Amazon Kindle	6.7%
Kobo	.2%
Barnes & Noble Nook	3.2%
Pandigital	.2%
Sony	.4%
Personal Laptop or Notebook	33.3%
I do not read E-books	48.1%
Other (please specify)	2.9%

When reviewing the "other – please specify" comments, 50 students (3%) responded indicated use of a smartphone app to access E-books.

Satisfaction with IT Services and Recommendations

Students have been asked the same question each year (as recommended by the Harvard Business Review in 2007): "Compared to last year, how satisfied are you with IT services?" This response has been analyzed by the current year (Figure 10), longitudinally (Table 23), by class standing (Table 24) and by School (Table 25).

Table 23: Compared to last year how satisfied are you with IT services?

Satisfaction Level	2011	2010	2009	2008
Response Count	2,421	996	816	3,221
Very Satisfied	14.6%	14.4%	17.0%	22.1%
Somewhat Satisfied	46.8%	38.3%	41.4%	39.9%
Neither Satisfied/Dissatisfied	18.6%	13.3%	13.4%	12.1%
Somewhat Dissatisfied	9.2%	10.9%	5.7%	3.8%
Very Dissatisfied	2.7%	5.9%	2.8%	1.5%
I was not a student here last year	8.0%	17.2%	19.9%	20.5%

The overall level of satisfaction has risen over time, with dissatisfaction declining from the previous year. Neutral reporting slightly increased, but overall, students appear satisfied with IT services (Figure 10).

Figure 10: Overall Satisfaction 2008-2011
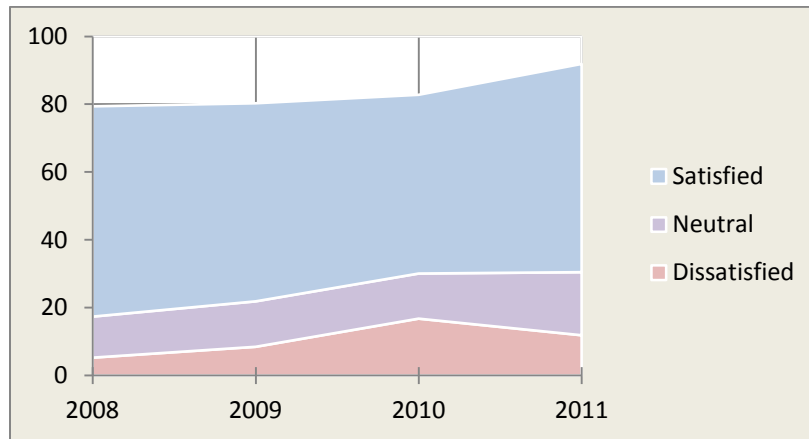
Table 24: Level of IT Service Satisfaction by Class in 2011

Class Standing	Soph	Junior	Senior	Grad
Response Count	309	71	635	357
Very Satisfied	14%	15%	15%	14%
Somewhat Satisfied	50%	42%	49%	51%
Neither Satisfied/Dissatisfied	16%	21%	19%	19%
Somewhat Dissatisfied	7%	7%	11%	10%
Very Dissatisfied	.3%	3%	4%	4%
I was not a student here last year	14%	13%	3%	2%

Given that the question specifically refers to "compared with last year" freshman and transfers self-identified that they were not students the previous year. It appears that the levels of satisfaction have remained relatively stable by class (Table 24).

When satisfaction is examined at the College level (Table 25), the Schools of Social Work, Nursing and Engineering & Applied Sciences registered the greatest level of combined satisfaction at 67% or higher. The School of Dental Medicine tended toward neutral, but there is less confidence in this percentage due to a small sample of students from that College responding to this question (n=9).

School (N) and % 2011 responses	Very Satisfied	Somewhat Satisfied	Neither Satisfied or Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Architecture (33) 1.9%	21.1%	39.3%	9.1%	12.1%	9.1%
CAS (574) 28.7%	13.7%	46.6%	17.0%	12.1%	2.6%
Dental (9) .5%	0%	44.4%	33.3%	11.1%	0%
Education (64) 4%	20.3%	40.6%	18.7%	10.9%	1.5%
Engineering (346) 20.5%	17.6%	49.4%	16.4%	5.2%	3.4%
Law (58) 3.0%	8.6%	43.1%	22.4%	8.6%	5.1%
Management (248) 12.3%	18.5%	43.5%	19.3%	10.4%	1.6%
Med & Biomed Sci (100) 5.4%	10.0%	46.0%	29.0%	9.0%	3.0%
Nursing (52) 2.9%	11.5%	57.6%	15.3%	9.6%	0%
Pharmacy (93) 6.2%	4.3%	59.1%	26.8%	6.4%	1.0%
SPHHP (125) 6.5%	16.8%	48.0%	15.2%	5.6%	4.8%
Social Work (36) 2.3%	13.8%	55.5%	11.1%	5.5%	2.7%
Undecided (90) 5.7%	12.2%	33.3%	22.2%	8.8%	1.1%

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 probe just two major themes:

- Technology Resources to Assist Study and Research Needs
- What would have made it easier for you to get started with IT at UB?

Emerging Theme Analysis based on key words was used to identify service themes. Oftentimes, more than one comment was provided by a respondent regarding different services. The key words were grouped and counted, with findings suggesting the identified themes were largely consistent with those expressed in recent past surveys. Not surprisingly, there was an increase in comments regarding mobile apps, E-books and course capture. Additional comment analysis will be shared with personnel directly responsible for the individual service design and support (Table 26).

Table 26: Technology Resources to Assist Study and Research Needs

Theme Analysis	N	Theme Analysis	N
Printing Services	136	Course/Lectures Recorded	47
Computer Availability	117	Mobile Apps & Support	44
Software Availability	99	E-books	34
Satisfied in General	89	Library System/Website	22
Power Outlet Availability	78	Online Resources	14
Wireless Availability	51	E-Journals	13

Leading with good news, over ninety comments expressed explicit support of UB IT services. Typical comments include:

- *I think UB provides the right amount of technology resources.*
- *Keep up the good work.*
- *I think UB is doing a good job already.*

When examining comments more closely based on major service themes, there was a blend of negative and positive comments, and many students took time to provide thoughtful suggestions. In all cases, these selected comments represent similarly themed responses.

Printing & Public Sites

The majority of comments received referenced public sites, wireless (including cellular signal access) and printing:

- *The ability to print from personal computers and smart phones via WIFI and LAN would be extremely helpful.*
- *Having iPrint available to install on personal devices so documents do not need to be released at printing stations would be great.*
- *A color print option is not available anywhere on campus that I am aware of after three years at UB. There have been many occasions where I've needed color print outs… A color option or area to print color copies would be an amazing addition to UB technologies and resources. I would pay more out of my UB quota per print from color if it were an option.*
- *Need more computers.*
- *Need silent (public site) spaces – too many people are playing games or watching videos everywhere!*
- *We need more printers to increase printing turnaround time.*
- *More printer people to sort print-outs.*
- *More areas with computers around campus (especially in Ellicott).*
- *It would be nice to have more computers available in Capen and Lockwood (3rd floor computing areas etc.). However, I know that the computers are only in high demand at certain times during the day, so I don't know if it is worth it to UB to buy more computers that will only be used during peak weekday hours. It's just irritating to try to get a computer to do work between classes and there are none available. However, maybe public computer usage will decrease as more people*

get iPads and such? In that case, UB doesn't need to waste their money on more computers if pretty soon the demand will drop.

- *There are only 12 computers total in the Blake center and they are pretty much always occupied, so we need to wait 10 minutes sometimes to get onto a computer. Stop building new buildings, and add some more computers.*
- *Want to know what availability of labs across campus, so I'm aware of when classes are scheduled in a lab.*
- *Locker space for electronics (more specifically, laptops) set up throughout the buildings- like the kind where you put in a quarter to use the space - would be extremely useful.*

Wireless

- *Need more reliable Internet & cell access everywhere on campus.*
- *I wish the WIFI signal could cover all area on campus.*
- *Wireless in the dorms-at least in Roosevelt, the Honors kids need their Internet (in their rooms, so they can concentrate)*
- *Better mobile phone connections to the WIFI. If I turn my phone off, I have to log back into the WIFI – which is really annoying.*
- *I wish the UB_Secure wireless signal in Flint apartments was more reliable; it hangs up frequently and I'm forced to close the connection and try again.*

Software

- *The (MyVCL) virtual desktop has greatly improved my ability get work done. It is the best thing to happen in my time here*
- *Easier access to the s drive (uploading option) from offsite computer would be nice.*
- *Free Statistics software for data analysis such as Sigmaplot and Graphpad prism.*
- *Some imaging software for analyzing data after experiments such as Photoshop*
- *Anti-virus, and the current edition of Microsoft Office*
- *Qualitative data analysis software*
- *Adobe Illustrator*
- *Visual Studio*
- *Free MATLAB on personal computers*
- *Offer more software such as Adobe ILLUSTRATOR, Adobe INDESIGN, Rhinoceros, Autocad,vectorworks, and more GIS software on both UB public worksites and "virtual computing lab"*
- *Provide a login domain at iTunes in the virtual computing lab for people who don't want iTunes to know their credit card number yet want to access free academic podcasts on iTunes.*
- *Stock ALL public workstations with essential programs (i.e. Microsoft Office, DC++, MatLab, Maple)*
- *iPhone apps and more software (like SAS) to download*
- *some econometrics tools like eviews, sas and matlab*
- *Software like Minitab in public sites*
- *Fix the virtualization issue with Open Office (any OpenOffice program crashes after 10 minutes of use)*
- *More software such as Adobe Creative Suite, Quark Express, GIS programs, Audio and Video editors*

Mobile

In addition to the connectivity issues, these comments captured the majority sentiment on mobile computing:

- *Need to access all the features of MyUB and Bb via mobile!*
- *Mobile apps for UBlearns on ALL CARRIERS and mobile OS's*
- *Need a laptop loan program*

HUB (30 Comments)

As a new service, the student information system was still in the process of being refined at the launch of this survey. Many students proactively offered comments regarding difficulty with navigation and system slowness.

- *The HUB is getting better but it isn't the greatest either.*
- *I found HUB annoying initially, but now I have come to get used to it*
- *HUB crashes a lot*
- *Make HUB easier to navigate, I have a hard time finding available classes.*

E-books and E-journals (50 Comments)
- *More Library E-book support.*
- *Need e-books of textbooks but also the hardcover versions.*
- *Make the entire library accessible as e-books and PDF.*
- *For e-books, there shouldn't be a limit of how many people are using it at one time or for how long, so when a student tries to read an article when they could, it's available for them.*
- *Need more full text articles on the library website.*
- *Easier access to online journals.*
- *Can you provide an E-reader loan program?*
- *improved E-book support (authentic E-books, not flash websites)*

Course/Lecture Capture (58 Comments)

- Mobile access to streamed/downloaded lectures
- Two dimensional view of digital access courses (a view of the speaker and the screen at the same time).

Learning Spaces

- Need silent study computer areas and more lounges to study on campus - not just library
- Providing more space for students to sit and study for a bit. Not exactly a library, just a place you don't have to reserve in order to study whether it's yourself or with a group
- Group study areas with a white board, wireless access, projector, and outlets
- Forget technology, you just need dedicated quiet spaces along with the means of people effectively using the available computers at UB
- Most of my technology needs require advanced engineering software, which often require stronger computing power. I find resources for these very limited. Luckily I have a laptop which

can handle majority of these programs. However, using the laptop requires an outlet, which is very difficult to find in a nice study area. I'm usually in a very noisy/open area, where everyone is talking on the phone and the area smells like food. Most of the labs available to us are usually jam packed, as well as other decent study spaces

- Scheduled learning spaces with Smart Boards - I'd suggest approx. 30 student classrooms get Smart Boards
- Need reliable, small computing clusters with scanners, and opportunity to work on high level

Tutorials/ Workshops/ Library websites

- Need information on how to use technology such as Excel, Photoshop, or Access – software that is in greater demand in the work-field. Nothing detailed, just a basic, how to use workshop or something of that nature.
- Online tutors would be great
- Library search information sessions
- It's hard to find things on the Library website
- The library search function really needs connection/cross-referencing with a site like Amazon, via ISBN. In that way, students would be assured they are accessing the correct resources without having to physically search the stacks.

Research

- Easy to use research tools--made in such a way that it does not require an entire class period to go over the specifics of finding articles and other resources.
- UB's technology resource seem sufficient to my research needs. I am more concerned that our undergraduate courses do require us to utilize these technologies.
- Need more trained support to help write research papers.

Table 27: What would have made it easier for you to get started with IT at UB?

Theme Analysis	N	Theme Analysis	N
More/Clearer Information	44	One-on-One Assistance	15
Better Advertising/Promotion	24	Public Sites	11
Email/Handbook/Guidebook	24	More/Better Software	8
Online Tutorials	22	More Convenience	7
Training/Workshops	19	Help Services	6
Orientation	19	Miscellaneous	38

Getting Started with IT at UB

The second qualitative question focused on how students "get started" with IT at UB, to help ascertain how incoming students may be better served in the future. Many students also interpreted the

question more broadly, offering comments regarding current service improvement needs. A total of 244 relevant comments were received, clustered into themes (Table 27). A complete table of the comments and categorizations (with duplicate information only removed) is listed in the appendix.

More or Clearer Information

- *A better guide as to how to use the services, along with updates when things change.*
- *Easier website navigation.*
- *Educating students on how to access IT workers*
- *I feel there should be a more organized page with options, training, and descriptions.*

Better Advertising and Promotion

- *I didn't really even know that there was an IT department that was involved in things like IT support for people's personal computers and such. Maybe give out a small informational thing during orientation?*
- *If there had been more of a formal understanding or email rather than just having to search the UB website.*
- *A comprehensive site to know about all the resources available. Most of us are not making use of many things because we don't know about them.*
- *Something which made me aware of the specific services offered at UB.*

Informational Email/Handbook/Guidebook

- *A pamphlet from IT that explained what I can do with my laptop's internet and other current uses.*
- *A single email detailing all of the most-used services by students.*
- *If there was a brochure with the most common need-to-knows given out during orientation*

Online Tutorials

- *Online chat or service like what the library has*
- *A short tutorial on how to use IT*
- *Maybe an instructional video?*
- *A website with step by step instructions, but not all on one page… like slide by slide in big letters. It makes things feel less overwhelming.*
- *Maybe a video clip, or more user friendly than UBlearns*

Training/Workshops

- *An introduction for incoming graduate students who are new to UB. I did not know how to use iPrint or that there was downloadable software.*
- *Have a teacher go through it with me and show me how to use it and show me where everything is.*
- *Maybe a required course for incoming freshmen*

Training at Orientation

- *A hands-on session during orientation week, covering the facilities/resources UB offers and how students can exploit them for max benefit.*
- *an informative discussion at orientation or going to the library during orientation at scheduled times to do it ourselves*
- *Hearing about it more at orientation, I didn't know about the services they offered until some people I met at bio boot camp told me about it.*

One-on-One Assistance

- *Educating students on how to access IT workers.*
- *I prefer to discuss technical problems in person rather than over the phone. Also, basic information, ie. office location/hours/number (by appointment?), could be more accessible.*
- *The IT people for UB came around the dorms in the first week of school –(it might have been helpful) if they left a (phone) number or business card if we had future problems*

The remaining issues listed in Table 27 were largely addressed in the earlier analysis regarding general satisfaction of IT services.

Acknowledgements

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Appendix

A table summarizes the categories of suggestions followed by the frequency of the grouping. (Table 28).

Table 28: "What would have made it easier for you to get started with IT at UB?"

General Types of Student Responses	Categories of Student Suggestions
Suggestions for Promoting IT at UB	• better advertising/promotion (24) • informational email / handout / guidebook (24) • training (seminar / workshop) (19) • training at orientation (19) • training online (tutorial / video) (22)
Unsatisfactory Services	• **customer service** needs improvement (2) • **help services** need improvement (6) • **HUB** needs improvement (4) • **Internet** needs improvement (5) • **iprint** needs improvement (3) • **public computing sites** need improvement (11) • **SLogin Needs Improvement** (6) • **UB email services** need improvement (2) • **wireless Internet** needs improvement (6)
Desire for Clarity & Convenience	• less complication / more convenience (7) • more/better equipment (2) • more convenient hours / location (7) • more info / clearer info (44) • offer better/more software (8) • one-on-one assistance (15) • online help-chat (3)

Below is the raw data from students (sic) regarding their comments and suggestion to the second qualitative question (Table 29).

Table 29: Raw Comments (SIC) "What…easier for you to get started with IT at UB?"

What would have made it easier for you to get started with IT at UB?	Categories of Student Suggestions
A comprehensive site to know about all the resources available. Most of us are not making use of many things because we donno them	better advertising/promotion
Exploring more and realizing how much is really on campus for your needs and help	better advertising/promotion
have more knowledge of them.	better advertising/promotion
Hearing about it more at orientation, I didn't know about the services they offered until some people I met at bio boot camp told me about it.	better advertising/promotion
I didn't really even know that there was an IT department that was involved in things like IT support for people's personal computers and such. Maybe give out a small informational thing during orientation?	better advertising/promotion
I don't even know what it is so maybe a brochure at least in every room or an email to check out	better advertising/promotion
I feel there should be a more organized page with options, training, and descriptions. Perhaps there is but I am not aware of it.	better advertising/promotion
I was fairly uninformed about UBIT's services, so I feel that if students are more informed about UBIT's services then they will all have an easier time.	better advertising/promotion
If i knew about it	better advertising/promotion
If there had been more of a formal understanding or email rather than just having to search the UB website. I was never told how to log into the computers or internet.	better advertising/promotion
Just knowing more information about it, getting the info out there to the public	better advertising/promotion
Knowing more about what is available and how to access things. I found out a lot from other students.	better advertising/promotion
Knowing about it at first	better advertising/promotion
make it more known	better advertising/promotion
make sure it's one of the first few things that students know about and emphasize it. when i first started at UB i was unaware of all of the software and utilities that I was able to access by being a student.	better advertising/promotion
maybe more on site promotion in campus	better advertising/promotion
More advertising	better advertising/promotion
more advertising via kyosks	better advertising/promotion
More knowledge about what IT does and what they can do for students	better advertising/promotion
more knowledge of the program	better advertising/promotion
more notice	better advertising/promotion
Something to learn how to print off of my laptop here at UB. Is this available? If so it's not advertised and it would be great to not have to wait for a computer to print off of in the Cybrary	better advertising/promotion

Something to let me know what options were available. Advice on equipment, how to set up the optimal computer for school. How to set up the mobile device to be connected to ublearns.	better advertising/promotion
Something which made me aware of the specific services offered at UB.	better advertising/promotion
Better workers that want to be there	customer service needs improvement
Cheaper prices and less of a wait time.	customer service needs improvement
24 hour help line	help services need improvement
a help icon at the corner or something	help services need improvement
A number posted easily on the HUB Center	help services need improvement
Information desk	help services need improvement
more CIT helpdesk, more table and chair so that we can comfortably use our laptops	help services need improvement
online help	help services need improvement
A review packet outlining the resources. Having the HUB actually work.	HUB needs improvement
If the HUB was not invented	HUB needs improvement
More user-friendly HUB student center. It is very confusing to use and the links in it are not at all proper	HUB needs improvement
UB it system has been pretty much easy, but UB HUB has been a problem to many since its introduction.	HUB needs improvement
wifi	improve wireless internet
wifi availability in governors. no need to spend money on an inconvenient ethernet cable	improve wireless internet
Wireless	improve wireless internet
Wireless in Governor's	improve wireless internet
wireless signal	improve wireless internet
a guidebook explaining its uses	informational email / handout / guidebook
A pamphlet from IT that explained what I can do with my laptop's internet and other current uses.	informational email / handout / guidebook
A pamphlet with all the resources in north campus	informational email / handout / guidebook
A review packet outlining the resources. Having the HUB actually work.	informational email / handout / guidebook
A single email detailing all of the most-used services by students.	informational email / handout / guidebook
An e-mail explaining the systems	informational email / handout / guidebook
An email from IT on my UBmail	informational email / handout / guidebook
AN email prior to arrival showing the steps to connecting to UB wireless on laptop and smart phones.	informational email / handout / guidebook
An email with links explaining the different services offered.	informational email / handout / guidebook
An information packet when I was accepted to the school.	informational email / handout /

	guidebook
An IT "handout" or informational brochure included in every student's mailbox and email upon their first year at UB.	informational email / handout / guidebook
An orientation which gives you a fair bit of idea of things that are available. And also a document stating the same	informational email / handout / guidebook
Contact e-mail from IT ensuring students had necessary equipment - like a checklist, could be an automated e-mail	informational email / handout / guidebook
Email information.	informational email / handout / guidebook
email with a link and directions	informational email / handout / guidebook
emails	informational email / handout / guidebook
flyers and more reliable information	informational email / handout / guidebook
I don't even know what it is so maybe a brochure at least in every room or an email to check out	informational email / handout / guidebook
If I was told about it during orientation or if I received an email.	informational email / handout / guidebook
If there was a brochure with the most common need-to-knows given out during orientation	informational email / handout / guidebook
IT handbook	informational email / handout / guidebook
Maybe a pamphlet that explained all the different resources that IT at UB has to offer.	informational email / handout / guidebook
more information given to us automatically	informational email / handout / guidebook
Send me some information or give a particular website about it.	informational email / handout / guidebook
Better internet connection. Instructions on how to connect to wireless internet for the first time. I had trouble my first day due to saying it was a work network.	internet needs improvement
If the internet wasn't so confusing to connect to and you didn't have to type in a password everytime you wanted to access to ub wireless from the same laptop	internet needs improvement
Internet connection	internet needs improvement
It took a while to get my internet going properly.	internet needs improvement
Quicker internet service. Too late compared with my home country	internet needs improvement
Having software that allows you to print from your laptop, and actually works.	iprint needs improvement
iPrint never works, and never has worked, for any of my devices on any version of Windows. It also took me a few tries (and I'm sure other students don't know to) log in to UBFS as it usually requires the 'AD\' domain prefix to log in.	iprint needs improvement
Quite satisfied with everything, with the exception of Printing/Releasing jobs from personal machines.	iprint needs improvement
Access to the UBit systems two weeks before the actual college starts	less complication / more convenience
If there was a FAQ page with most commonly asked questions and a suggestion page.	less complication / more convenience

More streamlined sources of information, that is, not having a cloud server, a shared drive, a personal drive, and constant email links.	less complication / more convenience
more user-friendly version of myUB	less complication / more convenience
My experience with IT in general would be easier if there was more support for syncing services in google apps from your UB account, (e.g. google outlook sync, google calender and contact sync with iOS, etc.)I understand there are authentication issues, but it's probably still possible somehow.	less complication / more convenience
Signing up for classes is a cumbersome, setup. Checking for openings in a class is annoying and very repetitive. It would be nice if it automatically updated.	less complication / more convenience
The websites are completely laden with icons and menus; it is a complete and utter overload just to open any given page. Navigation is a nightmare, and it actually resulted in my having to take an incomplete in a course because I couldn't figure out where to find the course work and had trouble getting in touch with the professor! I think it would be worth whatever effort it takes to make things simpler and more user-friendly. If there is a significant reason why everything is laid out the way it is, then we need to be trained before we're expected to use it effectively.	less complication / more convenience
A human being available by phone to ask questions 24 hours a day, or at least until 8pm. I work from 9-5 and must have a 45min commute each way.	more convenient hours / location
A location closer to the computing center	more convenient hours / location
A South Campus location	more convenient hours / location
An initial tutorial with a real person. I had difficulty knowing what to ask on the website when I had problems. As well, IT could be made more available during evenings and weekends.	more convenient hours / location
An office in Ellicott for computing help	more convenient hours / location
CIT help desk in more places other than just Lockwood.	more convenient hours / location
I prefer to discuss technical problems in person rather than over the phone. Also, basic information, ie. office location/hours/number (by appointment?), could be more accessible.	more convenient hours / location
a better guide as to how to use the services, along with updates when things change	more info / clearer info
a clear introduction to the HUB (at the time i was trying to figure it out, the guide was not available)	more info / clearer info
A description of how to sign in when you arrived on campus, because I had a few difficulties initially getting the wireless net to work, as did my room-mate.	more info / clearer info
A simple list of all free software that the UB site has available to all students such as the Microsoft Office package.	more info / clearer info
An easy list of instructions	more info / clearer info
Better Directions	more info / clearer info
better explanation of the networks	more info / clearer info
better layout	more info / clearer info
Directions for UB secure set up	more info / clearer info

don't change the system that often	more info / clearer info
Easier instructions	more info / clearer info
Easier website navigation.	more info / clearer info
Easily accessible information.	more info / clearer info
educating students on how to access IT workers	more info / clearer info
I feel there should be a more organized page with options, training, and descriptions. Perhaps there is but I am not aware of it.	more info / clearer info
I had a bit of a hard time with getting the computer security stuff going. and I wish I had learned earlier that I could save files to a personal drive.	more info / clearer info
I liked that we had a presentation about it during orientation but maybe professors should review it more.	more info / clearer info
If there was wifi in my building already and if setting up UB secure and our UBIT names was more straightforward.	more info / clearer info
Instructions more clear.	more info / clearer info
iPrint never works, and never has worked, for any of my devices on any version of Windows. It also took me a few tries (and I'm sure other students don't know to) log in to UBFS as it usually requires the 'AD\' domain prefix to log in.	more info / clearer info
knowing about the downloads available for word as soon as i received my login information	more info / clearer info
Knowing exactly what problems I have that I can go consult them	more info / clearer info
login information and the website itself	more info / clearer info
Maybe a video clip, or more user friendlier UB learns	more info / clearer info
More info concerning printing using a campus computer.	more info / clearer info
more information	more info / clearer info
more information posted	more info / clearer info
Offering current information on the IT website for iPrint access from personal computers	more info / clearer info
Overview on how to use MyUB	more info / clearer info
Probably a guideline provided online.	more info / clearer info
Some introduction to the services which students are available to utilize in a brief summary in one place rather than disbursed all over the website	more info / clearer info
Something to let me know what options were available. Advice on equipment, how to set up the optimal computer for school. How to set up the mobile device to be connected to ublearns.	more info / clearer info
The start was very smooth. I find no need to strive to make it easier to get started with IT at UB. Although i do not know about a lot of offerings available such as UB Clicks.	more info / clearer info
UBIT needs more basic explanation and information for the people who are not familiar with computer and internet. I would suggest UBIT to have better and simpler login system.	more info / clearer info
Website	more info / clearer info
Having an up to date laptop	more/better equipment

more CIT helpdesk, more table and chair so that we can comfortably use our laptops	more/better equipment
a free repair store	GENERAL COMMENT
a free x box	GENERAL COMMENT
An overview targeted at my program.	GENERAL COMMENT
CIT	GENERAL COMMENT
Discounts!	GENERAL COMMENT
Do not understand the question. Get started with what?	GENERAL COMMENT
Don't know	GENERAL COMMENT
Everything here is fine with IT, except that the computers in Jacobs 214 always have problem	GENERAL COMMENT
Everything was pretty simple	GENERAL COMMENT
Ha, probably if I made it more of a priority.	GENERAL COMMENT
I am much comfortable as I am provided with very good services	GENERAL COMMENT
I DO NOT KNOW	GENERAL COMMENT
I do satisfied with UB IT services, but I think there is a need for more public site in the libraries to facilitate students work on them and remove the long lines.	GENERAL COMMENT
I don't even know what IT is	GENERAL COMMENT
i don't have any suggestions	GENERAL COMMENT
I don't really know what IT is	GENERAL COMMENT
I don't remember, it was 6 years ago that I got started with IT. I don't remember it being difficult.	GENERAL COMMENT
I find it user friendly	GENERAL COMMENT
I found getting started easy once I found my way onto the website	GENERAL COMMENT
I got started easily . The process is very clear	GENERAL COMMENT
I got started just fine! Thank you :)	GENERAL COMMENT
I had no problem with it.	GENERAL COMMENT
I have no idea what that is.	GENERAL COMMENT
I have not had to deal with UB IT so far.	GENERAL COMMENT
I satisfy with IT at UB.	GENERAL COMMENT
I thought it was relatively easy	GENERAL COMMENT
Nothing special.	GENERAL COMMENT
Nothing that I really know of, it was all self explanatory and relatively easy.	GENERAL COMMENT
nothing the it people for UB came around the dorms in the first week of school I guess they could have left a number or business card if we have future problems	GENERAL COMMENT
Nothing, everything is very convenient.	GENERAL COMMENT
Nothing, I had a good experience.	GENERAL COMMENT
Nothing, I saw the packet when I moved in and am aware of many of the services, just not all.	GENERAL COMMENT
Previous experience with UB's online system, it is different from SUNY Brockport.	GENERAL COMMENT

Quite satisfied with everything, with the exception of Printing/Releasing jobs from personal machines.	GENERAL COMMENT
right now is pretty ok.	GENERAL COMMENT
'sall good.	GENERAL COMMENT
Since I commute from Rochester and currently attend part-time, my IT experience and interface would probably be different if I were closer to campus or spent more time on campus. However, I have figured many things out as I go along.	GENERAL COMMENT
Taking out the library workbook requirement. People who need the information or don't get it will ask for help, People who don't need are wasting their time.	GENERAL COMMENT
The current condition is good	GENERAL COMMENT
The emails I received when I got accepted and was detailed about everything	GENERAL COMMENT
The start was very smooth. I find no need to strive to make it easier to get started with IT at UB. Although i do not know about a lot of offerings available such as UB Clicks.	GENERAL COMMENT
UB it system has been pretty much easy, but UB HUB has been a problem to many since its introduction.	GENERAL COMMENT
UBIT website provides some useful information that students can use to set up their computer before they come to UB.	GENERAL COMMENT
Well...I don't use it much...so, give me something to have provided. (granted, my needs are more low tech)	GENERAL COMMENT
What is IT?	GENERAL COMMENT
yes	GENERAL COMMENT
Your website is not very easy to navigate and some explanations lack details. Last semester I had several issues where online information was OUTDATED!	GENERAL COMMENT
A specific software instead of website that once you log in, you can access anything. (like UBmail, UBlearns, Student center, etc.)	offer better/more software
Civil engineering design software for personal laptops	offer better/more software
Greater support and standardization of Free software as opposed to the adoption of proprietary products (e.g. official publications should be in an open document format, as opposed to Microsoft's .docx)	offer better/more software
Installation of software related to projects like ns2 etc. would have been better	offer better/more software
more apps	offer better/more software
More free software =P	offer better/more software
More free software	offer better/more software
software for downloading doesn't apply to my laptop	offer better/more software
A better and more efficient IT help service center would have made my transition to the use of IT in UB easier.	one-on-one assistance
a direct contact	one-on-one assistance
A human being available by phone to ask questions 24 hours a day, or at least until 8pm. I work from 9-5 and must have a 45min commute each way.	one-on-one assistance

a introduction in meeting to staff or knowing at less were it was at first	one-on-one assistance
An initial tutorial with a real person. I had difficulty knowing what to ask on the website when I had problems. As well, IT could be made more available during evenings and weekends.	one-on-one assistance
An IT station near residence halls during move-in to help set up,& give out information about IT	one-on-one assistance
educating students on how to access IT workers	one-on-one assistance
having a friend show me	one-on-one assistance
Help on move in day	one-on-one assistance
I had an issue using resnet that the people walking around on the first couple of days couldn't resolve. The CIT Help Desk did resolve the problem though.	one-on-one assistance
I prefer to discuss technical problems in person rather than over the phone. Also, basic information, ie. office location/hours/number (by appointment?), could be more accessible.	one-on-one assistance
if they actually contacted me about my password over the summer.	one-on-one assistance
More hands-on help with getting laptops connected to the internet.	one-on-one assistance
nothing the it people for ub came around the dorms in the first week of school i guess they could have left a number or business card if we have future problems	one-on-one assistance
someone show me around	one-on-one assistance
a special website to chat online with help	online help-chat
Online Chat	online help-chat
online chat or service like what the library has	online help-chat
Everything here is fine with IT, except that the computers in jacob's 214 always have problem	public computing sites need improvement
Express computers outside Lockwood and Capen	public computing sites need improvement
I do satisfied with UB IT services, but I think there is a need for more public site in the libraries to facilitate students work on them and remove the long lines.	public computing sites need improvement
More Computers	public computing sites need improvement
more computers	public computing sites need improvement
more computers	public computing sites need improvement
more workstations and maybe electronic registration to use them. My undergraduate university was technologically more advanced than UB.	public computing sites need improvement
public computer station	public computing sites need improvement
public computers	public computing sites need improvement
Public Computers	public computing sites need improvement
UB public computer system	public computing sites need improvement
Decrease the log in time.	Login Needs Improvement

directly log-in	Login Needs Improvement
less passwords and id's required for everything	Login Needs Improvement
login information and the website itself	Login Needs Improvement
not to enter my password and username type in so many times	Login Needs Improvement
UBIT needs more basic explanation and information for the people who are not familiar with computer and internet. I would suggest UBIT to have better and simpler login system.	Login Needs Improvement
A nice course on what is offered would have been great. We learned about iprint but I was unaware of the other services that UBIT offered. My only experience with them was when I bought Windows Office for Mac.	training (seminar / workshop)
A seminar on how to use it.	training (seminar / workshop)
a summer course orientation course	training (seminar / workshop)
an intro course or learning session as it has been about 10 years since using it all.	training (seminar / workshop)
An introduction for incoming graduate students who are incoming to UB. I did not know how to iprint or that there was down-loadable software.	training (seminar / workshop)
An introductory course.	training (seminar / workshop)
An orientation to set up accounts and demo some areas.	training (seminar / workshop)
An orientation to their services.	training (seminar / workshop)
An orientation which gives you a fair bit of idea of things that are available. And also a document stating the same	training (seminar / workshop)
brief orientation	training (seminar / workshop)
going to a workshop to learn more about it	training (seminar / workshop)
have a teacher go through it with me and show me how to use it and show me where everything is	training (seminar / workshop)
introduction	training (seminar / workshop)
IT orientation program	training (seminar / workshop)
Maybe a required course to take for incoming freshman	training (seminar / workshop)
more workshops	training (seminar / workshop)
Scheduled classes	training (seminar / workshop)
some sort of orientation	training (seminar / workshop)
To start UBit with the help of school	training (seminar / workshop)
A detailed session on CIT at orientation	training at orientation
A hands-on session during orientation week, covering the facilities/resources UB offers and how students can exploit them for max benefit.	training at orientation
an informative discussion at orientation or going to the library during orientation at scheduled times to do it ourselves	training at orientation
An introduction at orientation	training at orientation
Doing it as a class or a group at orientation. I did it all by myself at home which was difficult and unclear to exactly what had to be done.	training at orientation
have an introduction at orientation or during an intro class	training at orientation

Hearing about it more at orientation, I didn't know about the services they offered until some people I met at bio boot camp told me about it.	training at orientation
How-to during orientation	training at orientation
I didn't really even know that there was an IT department that was involved in things like IT support for people's personal computers and such. Maybe give out a small informational thing during orientation?	training at orientation
If i have had a detailed information session during the orientation.	training at orientation
If I was told about it during orientation or if I received an email.	training at orientation
If it was explained as a workshop at freshmen orientation.	training at orientation
If the IT people had stayed longer on opening day and explained UB's IT services.	training at orientation
Information at orientation.	training at orientation
IT presentation at orientation	training at orientation
more information during orientation, and or, the first couple weeks of school	training at orientation
Orientation at Freshman Orientation	training at orientation
Representative at orientation to explain all of the services and locations for public access.	training at orientation
some sort of information when i first came to school regarding the it services	training at orientation
A online tutorial regarding the same.	training online (tutorial / video)
A short tutorial on how to use IT	training online (tutorial / video)
A technology tutorial in the style of alcahol.edu, helping us with compters as well as teaching us how to use the HUB site	training online (tutorial / video)
a tutorial	training online (tutorial / video)
A tutorial of the services	training online (tutorial / video)
A tutorial on how it works prior to arriving at school.	training online (tutorial / video)
A tutorial...kinda forced to figure things out on our own, it kinda sucked to be honest.	training online (tutorial / video)
A walk through on how to use it.	training online (tutorial / video)
A website with step by step instructions. but not all on one page, like slide by slide in big letters. it makes things feel less overwhelming.	training online (tutorial / video)
an online tutorial, quick webinar in one of the freshman classes	training online (tutorial / video)
Demo video	training online (tutorial / video)
have some online video about using certain software	training online (tutorial / video)
I feel there should be a more organized page with options, training, and descriptions. Perhaps there is but I am not aware of it.	training online (tutorial / video)
If their was a tutorial	training online (tutorial / video)
Many demos and sample worksheets on how to use it.	training online (tutorial / video)
Maybe a tutorial	training online (tutorial / video)
Maybe a video clip, or more user friendlier ub learn	training online (tutorial / video)
online tutorial	training online (tutorial / video)
Probably if there was someone to help me. Maybe an instructional video?	training online (tutorial / video)
tutorial	training online (tutorial / video)

video tutorial	training online (tutorial / video)
client-side client	UB email services need improvement
I don't like that it's in Gmail	UB email services need improvement
Better internet connection. Instructions on how to connect to wireless internet for the first time. I had trouble my first day due to saying it was a work network.	wireless internet needs improvement
Building a stronger wireless signal can access anywhere.	wireless internet needs improvement
If the internet wasn't so confusing to connect to and you didn't have to type in a password everytime you wanted to acces ub wireless from the same laptop	wireless internet needs improvement
If there was wifi in my building already and if setting up UB secure and our UBIT names was more straightforward.	wireless internet needs improvement
Setting up my wireless connection in my dorm room was difficult.	wireless internet needs improvement
the wi-fi network	wireless internet needs improvement