Student Technology Survey Report 2008 - 2009

Office of Information Technology

The report is prepared for the campus community and the Northwest Association of Accreditated Schools response teams. This report summarizes the results of the survey the Office of Information Technology (OIT) conducted in November 2008. It details how OIT will address the concerns students communicated in their responses. Many of the action items are dependent upon funding.

For more information, visit **http://oit.unlv.edu/about_us/survey.html**

UNLV
UNIVERSITY OF NEVADA LAS VEGAS

Sample

On October 2, 2008, UNLV enrolled 27,987 individuals in at least 1 credit hour course. In November 2008, OIT e-mailed the survey to 6,667 randomly selected students. With 775 (12%) respondents, OIT is 99% confident in the results, with a 4.6%, error level (or, 95% confident, 3.5% error level).

OIT extracted records from the Student Information System for all students with an L-number who were enrolled in at least one course at UNLV. The original file contained 28,896 records. OIT merged that data with Rebelmail-use statistics prepared by System Computing Services. A number of student records were duplicates because some L-number records were associated with two street mailing addresses. OIT deleted the second listing for each duplicate. After deleting duplicates, 27,987 remained. Below are details about how OIT selected the sample:

1. Deleted duplicate L-number records from original SIS currently enrolled student export.
2. Created new column in report and insert random numbers using an Excel random number generator script.
3. Sorted by Directory Release first, Random number second.
4. Deleted 269 records where students had marked E,C or N for Directory Release.
5. Resorted by random number, ascending order and selected the first 6,667 listings as the sample set.
6. Resorted data to determine Rebelmail use of the sample set (54% of the sample were considered active users--1,777 accessed Rebelmail directly, 1,641 forward Rebelmail, 195 do both; 35% have activated their accounts but do not use them; 11% have never even activated their Rebelmail accounts)
7. 3,613 actively use Rebelmail and were likely to see the electronic request to take the survey.

Due to the nature of student use of UNLV e-mail, OIT sent postcards to the entire sample population asking them to log in to Rebelmail in order to take the survey. OIT used the "Survey Random Sample Calculator" available at Custominsight.com to determine confidence and error levels.

Sample Summary
6,667 sample
775 respondents
12% response rate
99% confidence
4.6% error

Limitations of the Study

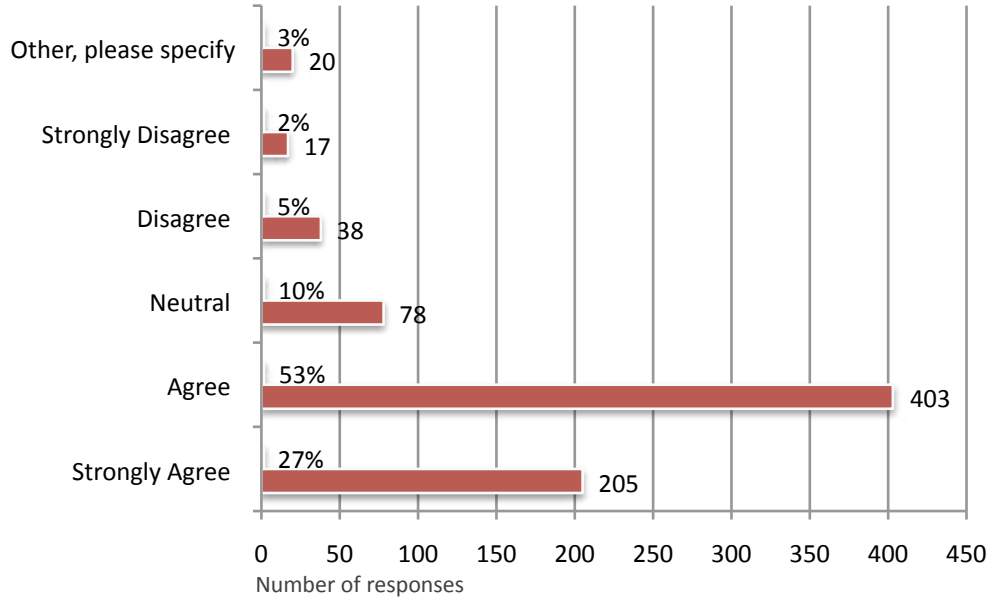
The responses do not fairly represent the opinions of students who do not use Rebelmail, do not forward Rebelmail, or who have never activated their accounts. Those students may also be less aware of technology services, and may be more disgruntled with technology services. Likewise, the responses may overly represent the opinions of those students who are more technically savvy and "connected" to UNLV. OIT made its best effort to solicit opinions of non-Rebelmail users by distributing a customized postcard mailer. We know that this method worked because several students e-mailed the Vice Provost claiming that they were looking for the survey, but could not find it. Evidently, the survey software did not e-mail the survey to all students in the sample set. As a result, some students may have tried to access the survey, but upon not seeing it right away, gave up. OIT fixed the error with the software within a week in order to get the survey to all students in the sample.

Limitations
Responses do not reflect opinions of students who do not use or forward Rebelmail.

Overall Impression

Student respondents (80%) generally agree that UNLV provides the technology needed to support their academic needs (see Graph 1).

Graph 1: Overall, the technology provided by UNLV supports my academic needs.



Students rely on easy access to computer labs, and the software and printing services offered by the labs. Of the open-ended comments related to what OIT does well, 27% specifically mention satisfaction with computer lab access and services (see Graph 2). The results indicate the need to ensure all labs are open, available, accessible, and up-to-date.

Students appreciate being able to access course materials online via WebCampus. They like being able to get feedback, communicate with their instructors and classmates, and enjoy the ease-of-access to course resources.

Students also appreciate the speed, reliability and availability of Internet access on wired and wireless (wi-fi) networks.

"Easy" and "ease of use" are phrases most often used in student responses. Students want technology to be easy, fast, and reliable. Convenience is key.

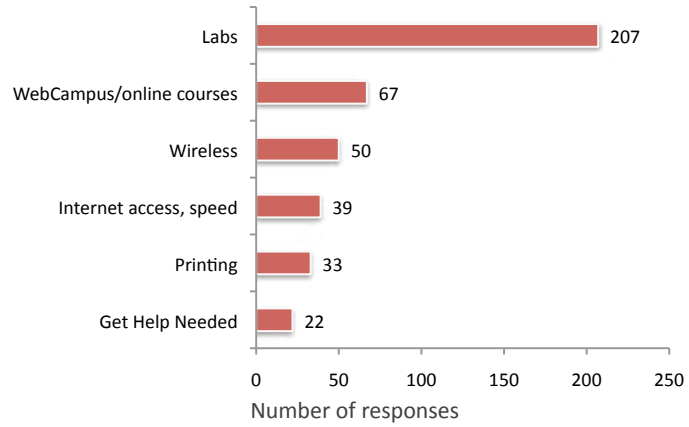
Areas of Improvement

Students value wireless and want more ubiquitous access (see Graph 3). A quarter (25%) of respondents request more wireless locations on campus. Also, while overall satisfaction with lab access, equipment, and software is high, many students want more access to these services. This illustrates the importance of these resources for students, and the need to continue to focus resources on the labs. Of the 85 comments about the help desk, 33 (39%) were positive, 52 (61%) were negative. Complaints about the help desk were related to service, knowledge levels, ability to resolve issues, and ease of contact.

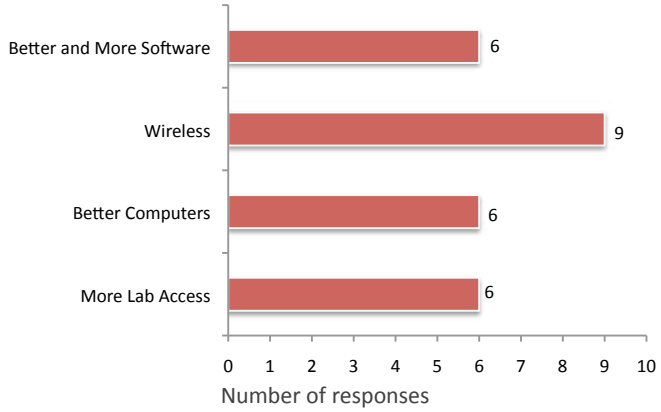
Students request improvements to the online web registration system. UNLV plans to replace the Student Information System, which runs web registration, by October 2010. This is an expensive and time consuming project that is already underway. The new system should be able to handle student requests 24 hours a day, 7 days a week. Also, the new system should have a "shopping cart" feel so that students may easily add courses and plan course schedules in advance. It should also better manage prerequisites.

Students continue to show frustration with the number of login and technology process variations on campus. For example, they are frustrated by the variance between computer lab and library logins and the difference in printing processes. This issue may be addressed by the new integrated student information system. In the meantime, OIT includes several objectives in this report that may produce some relief to students.

Graph 2: Categorization of open-ended responses to question: Earlier you said UNLV technology meets your academic needs. Can you tell us what we're doing really well in that area?*



Graph 3: Categorization of the most popular open-ended responses to question: Earlier you said UNLV technology does not meet your academic needs. Please tell us how campus computing can can better meet your needs.*



*The graphs above do not include complaints and compliments about UNLV's web registration. The content analysis of that data will be conducted by a member of the iNtegrate team.

Table 1: Help Desk and Web Registration Services Satisfaction Rates

Please rate your SATISFACTION with items listed below.	*Very Satisfied*	*Satisfied*	*Neutral*	*Dissatisfied*	*Very Dissatisfied*	*Never used*	*Response Total*
UNLV's Online Web Registration System	30.82% (221)	48.81% (350)	9.76% (70)	6.42% (46)	3.07% (22)	1.12% (8)	717
Student Help Desk phone support (895-0761)	10.17% (73)	20.61% (148)	22.01% (158)	3.20% (23)	1.25% (9)	42.76% (307)	718
Student Help Desk walk-in help (SU 231)	9.60% (69)	21.28% (153)	18.78% (135)	1.81% (13)	0.83% (6)	47.71% (343)	719

Table 2: Help Desk and Web Registration Action Items

Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Web Registration should be open 24/7; web registration should be more integrated with the course schedule and offerings	Launch the new student information system for all students by October 2010. Increase the time that web registration is available.	• OIT will share these responses with the Student Information System development team, iNtegrate, to consider in the design of the new system.	March 2009	Lori Temple
Students would like to have more knowledgeable and professional interactions with the Student Help Desk	Increase positive open-ended comments about the Student Help Desk by 5%.	• More customer service training and assessment for student technicians. • Increase availability of full-time staff for guidance • Create a knowledgebase for help desk employees to access while on the job so that they may answer questions better. • A survey is sent to student callers at the closure of every fifth help request. This change, implemented in Fall 2008, has allowed management staff to immediately notice and address service-related issues.	Ongoing, starting immediately	Client Services

Network

Students agree (59%) that the wired Internet connection on campus is reliable and meets needs (see Table 3). Satisfaction rates for wireless Internet (wi-fi) service show that nearly 13% of the student respondents do not feel that the wireless network meets their needs. Students want more wireless coverage on campus, as indicated in the responses below. Table 5 on the following page details action items related to the network.

Table 3: Network Satisfaction Rates

Service statement	*Strongly Agree*	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*	*Never Used*	*Response Total*
Speed of campus wired Internet connection meets my needs	25.48% (174)	33.97% (232)	12.74% (87)	5.42% (37)	1.02% (7)	19.33% (132)	683
My wired Internet connection is reliable	24.96% (170)	30.69% (209)	12.63% (86)	4.55% (31)	1.17% (8)	23.20% (158)	681
Campus wireless Internet services meet my needs	14.71% (99)	26.60% (179)	15.30% (103)	11.29% (76)	1.34% (9)	25.41% (171)	673
UNLV should create more wireless (wi-fi) locations	50.15% (342)	17.89% (122)	11.58% (79)	1.17% (8)	.29% (2)	5.72% (39)	682

Open-ended responses to network ratings were provided by 250 students (Table 4). The responses included 48 (19%) positive remarks regarding the general network. Many students requested more wireless access points and improvements to the wireless login system.

Table 4: Network Open-ended Response Analysis

Please describe EXAMPLES of why you rated UNLV's network services the way you did:	*Quantity*	*Notes*
General positive comments on network speed/reliability	48	
General campus Internet speed or responsiveness problems	4	
Residence Hall wired network reliability problems	4	
Wireless account & log in problems	4	
Wireless expansion requests/weak signal by location TOTAL	143	
General Campus	70	
BEH	9	
BSL	8	Mentioned law library
CBC	19	
FDH	6	
GRA	3	
HFA	6	
Residence Halls	9	
TBE	3	
Other	10	WHI=1, MPE=2, TEC=1, SSC=2, CEB=2

Table 5: Network Action Items

Network Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Students call for more wireless access points. Most often cited locations for students were BEH, BSL, CBC, HFA, and Residence Halls	Expand wireless access in the areas called out in employee and student surveys, as funding permits.	• Prepare pricing and plans for full wireless overlay in CBC and FDH. Provide this documentation to OIT Leadership for funding requests. As an interim measure, explore using spare wireless access to provide additional coverage in BEH. • Work with Law School and HFA staff on funding wireless solutions in these locations. • With faculty, explore using TEC room lecterns as locations to mount wireless.	June 2009	David Peers
Wireless login system is difficult to use and not available to guests	Create wireless 'guest' network with no login requirement. Improve the 'agree' and 'strongly agree' response to a combined total of 45% on the statement: Campus wireless Internet services meet my needs.	• OIT staff proposed a guest wireless service with some limitations on speed and services to meet guest needs. • OIT will explore options for streamlining login processes. Improved tools may make it necessary to log in to the network only once per day.	Complete by December 2009	Cam Johnson

E-mail

Overall, the student responses to items concerning the e-mail system were not as negative as anecdotal evidence might suggest. However, many students would clearly like to see UNLV move toward another system.

Given the fact that students were solicited by e-mail, it is not surprising that most reported receiving Rebelmail. Of students who answered the question 92% either retrieved e-mail from their Rebelmail account (50%) or had it forwarded to another account (42%). Only 1% reported that they did not receive UNLV e-mail. The fact that most of the students who participated received Rebelmail may have resulted in a more positive (or less negative) view of Rebelmail than that held by the entire student population.

Of those who reported using Rebelmail 52% reported being "Very Satisfied" or "Satisfied." The remaining 48% were nearly evenly split between neutral and some level of dissatisfaction.

Students were asked their satisfaction with the most prominent free Web-based services. Many of the students had used Gmail (55%), Yahoo Mail (67%), or Hotmail (61%). Of these Gmail and Yahoo were the most highly rated with Gmail beating Yahoo mail, especially in the "Very Satisfied" category. Rebelmail fared worse than any comparison service except for .Mac Mail, which is part of a paid service and used by only a relatively small number of students.

The table below differs from the table produced by the survey tool in that those who reported never having used a service were excluded from the analysis.

Table 6: E-mail Satisfaction Rates

E-mail Client	*Very Satisfied*		*Satisfied*		*Neutral*		*Dissatisfied*		*Very Dissatisfied*		*Total*
Rebelmail	19.7%	(127)	32.3%	(208)	24.1%	(155)	15.2%	(98)	8.7%	(56)	644
Gmail	52.9%	(183)	25.1%	(87)	19.7%	(68)	1.4%	(5)	0.9%	(3)	346
Yahoo Mail	36.4%	(155)	36.4%	(155)	18.3%	(78)	7.3%	(31)	1.6%	(7)	426
Hotmail	26.9%	(105)	32.5%	(127)	25.3%	(99)	11.0%	(43)	4.3%	(17)	391
.Mac Mail	18.9%	(20)	14.2%	(15)	60.4%	(64)	4.7%	(5)	1.9%	(2)	106
ISP Provided	26.3%	(64)	25.5%	(62)	32.9%	(80)	9.5%	(23)	5.8%	(14)	243

Students were asked about the importance of a variety of features or characteristics of e-mail. Security and privacy were rated as the most important characteristic followed by speed and responsiveness and ease of use. Nearly 79% of the respondents rated "ease of use" as "Very important" with security/privacy and speed receiving slightly higher ratings. Spam filtering was rated somewhat lower with about 60% rating it as "Very Important." Specific e-mail features were rated lower than the general characteristics. Of the e-mail features listed, the ability to manage lists was the most highly rate (42% "Very Important"). Other features -- an integrated calendar, meeting schedule, the ability to delegate management of mail and calendar, and the ability to create commands – were seen as considerably less important. These ratings are consistent with the preference for Gmail, which is not feature rich, but is easy to use, fast, and responsive.

There were no open-ended questions specific to e-mail, but a number of open-ended questions elicited responses concerning e-mail. The combined responses were searched for the word "mail" and those items that seemed to concern e-mail were tabulated. The procedure required some judgment. For example, a statement in the help desk category to the effect that users should have the same login for WebCampus, the computer labs, wireless, the library, etc., was not considered to concern e-mail. However a response that complained about receiving a canned answer from the help desk that began, "I frequently have problems with Rebelmail," was counted as a negative response.

Using the above criterion, there were two negative and one positive comments about e-mail in the Web Registration/Help Desk section, two negative comments in the "Please tell us how campus computing can better meet your needs" section, and nine positive and one mixed comment in the "Please tell us what we are doing well" section. The "General Comments" section had eight negative comments about the current e-mail system and five of these were very negative.

Interestingly, the section on Computer Labs/WebCampus generated a higher proportion of complaints about the e-mail system embedded in WebCampus than other sections generated about Rebelmail (although the negative responses were milder). There were 15 negative and one positive comments concerning the WebCampus e-mail system.

Because System Computing Services (SCS) has announced that it plans to cease providing e-mail for students some time in 2010 a change in the e-mail system is inevitable. One option would be to contract with a free e-mail service to provide @unlv.edu (or some variant) addresses to students. The results of the present survey suggest that Gmail would be well received. Regardless of the type of system chosen, it is clear that students value privacy, speed and responsiveness, ease of use and freedom from spam more highly than a list of features. This information will be useful in selecting a new system.

Table 7: E-mail Action Items

E-mail Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Students value security, privacy, and ease of use the most of all e-mail features	Consider these survey results when considering a new e-mail system.	• Ensure results of this survey are included in the proposal that goes forward for the selection of a new e-mail system.	A new e-mail system is expected to be implemented by spring 2010	Don Diener
54% of students receive Rebelmail; this impacts UNLV's ability to reach students in targeted communications	Increase "active" users by 15% in Spring 2009; this will bring the total number of students that UNLV can reach via e-mail to 69%.	• Send a letter to UNLV students who have not activated, logged in, or forwarded their Rebelmail to another account. • Work with UNLV marketing and Client Services to encourage students to use or forward Rebelmail.	Employ techniques by April 2009	Mamie Peers
Students want to see integrated communication systems, i.e. one place for "E-mail" instead of having e-mail in WebCampus and Rebelmail		• Continue working to reduce the number of logins necessary to conduct business on campus through portal technology, including integrating the self-service features of the PeopleSoft SIS into MyUNLV (Don Diener). • Conduct a follow-up survey to assess both the understanding of the available options and the preferences for communication between faculty and students and among students in the same class. Spring 2009 to no later than Fall 2009 (Wonda Yuhasz & Don Diener). • Provide more education about how to better use the e-mail system in WebCampus.	Portal to be publicized in April 2009. PeopleSoft integration -- planning underway; implementation to begin early summer when the consultants with expertise in this area arrive on campus. Other integration possible from now through fall 2009	See names by bullets

Computer Labs

About 75% of respondents use computer labs. Of the 175 open-ended responses dedicated to campus computer labs, 236 categorical comments resulted in the content analysis below. Students suggested improvements for the main library, or the residence halls, which are not managed by OIT Staff. This indicates that students do not differentiate between an "OIT Computer Lab" and the libraries and residence hall labs. Also, many of the responses for open hours and more computers indicated times when some computer labs are still open and had available machines. Development of concise and accessible information will almost certainly reduce confusion and streamline responses to better suit student concerns about OIT computer labs specifically. In Table 8, student satisfaction rates for labs are fairly high; computer lab hours (13%) and ease of logging in (13%) have the highest dissatisfaction ratings. Table 9 shows how OIT will address these concerns.

Categorization of open-ended responses to "Please tell us what we can do to IMPROVE the campus computer labs"

a. Open hours 43
b. Computer account differences 23
c. Available computers 21
   - Mac 3
   - PC 1
   - No specification to type 17
d. Printing accounting 20
e. None/satisfied 20
f. Lab monitor customer service 19
g. Login speed 14
h. Cleanliness 14
i. Lab aesthetics 14
j. Printing functionality/quality 12
k. Machine quality 8
l. More information/support 6
m. Number of labs/location 5
n. Specialty software 4
o. Air quality 3
p. Number of printers 3
q. Storage capacity 2
r. Enforce academic use 2
s. Software updates 2
t. Fewer machine upgrades 1

Table 8: Computer Lab Satisfaction Rates

Please rate your SATISFACTION with the computer lab services listed below:	*Very Satisfied*	*Satisfied*	*Neutral*	*Dissatisfied*	*Very Dissatisfied*	*Don't know*	*Never used*	*Response Total*
Computer quality	36.93% (178)	44.61% (215)	7.47% (36)	4.15% (20)	1.24% (6)	0.21% (1)	5.39% (26)	482
Printer quality	31.04% (149)	38.33% (184)	11.25% (54)	6.04% (29)	1.25% (6)	0.21% (1)	11.88% (57)	480
Ease of logging in	30.56% (147)	39.50% (190)	12.06% (58)	9.77% (47)	2.70% (13)	0.21% (1)	5.20% (25)	481
Ease of printing	32.99% (158)	38.00% (182)	9.81% (47)	4.38% (21)	3.13% (15)	0.42% (2)	11.27% (54)	479
Support provided by lab assistants	27.50% (132)	31.67% (152)	15.42% (74)	3.96% (19)	1.46% (7)	0.83% (4)	19.17% (92)	480
Comfort of chairs and tables	26.40% (127)	41.58% (200)	19.96% (96)	4.16% (20)	2.29% (11)	0.42% (2)	5.20% (25)	481
Cleanliness of labs	31.73% (152)	41.96% (201)	17.75% (85)	1.46% (7)	1.67% (8)	0.42% (2)	5.01% (24)	479
Hours of operation	27.59% (133)	38.38% (185)	14.32% (69)	9.75% (47)	2.90% (14)	1.66% (8)	5.39% (26)	482
Overall	27.25% (130)	52.83% (252)	11.32% (54)	2.73% (13)	0.42% (2)	0.42% (2)	5.03% (24)	477

Table 9: Computer Lab Action Items

Computer Labs Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Students want more open hours	Increase hours of operation satisfaction rates from 65.97% to 69% or higher (3.03% increase).	• Generate and display accurate webpage information indicating all open lab hours, holidays, machine specs, installed software, etc. to heighten lab awareness. • Incorporate, as part of lab closing procedures, an indication of other available labs which students may migrate to. Note: many responses indicated a desire to have labs open, when labs are already open.	Beginning of summer 2009	All Computer Facilities Supervisors will be responsible for these actions in their area. Communications team for web interface design & testing
Multiple computer accounts exist on campus. Students would like to have just one account	Improve ease of logging in satisfaction rates from 70.06% to 73%.	• Simplify computer accounts for students on campus. • In lieu of "one account," add NetStorage links to computer desktops in remote locations to improve the ability to transfer files between accounts. • Add bookmark links to other account web pages, such as tux.cs.unlv.edu, for computer science and engineering accounts.	Links to NetStorage to be completed for the start of the summer 2009 sessions	Darrell Lutey or assigned Computer Facilities Supervisor
Students convey concerns regarding lengthy account login speeds	Improve ease of logging in satisfaction rates from 70.06% to 73%.	• Develop "login tweaks guide" to reduce login time. Identify possible tweaks to operating systems, services/daemons, startup applications, and Novell account settings. (Goal: under 15 seconds Novell login; PC-Matthew Buk, Apple-Michael Sy	End of April 2009 and included in summer 2009 installations	Computer Facilities Supervisors
Student want more computers to be available	Indicate where machines are available for immediate student use, as well as how many machines are available at that location.	• Place lab statistics machines, with LCD screens, near the entrance of each open computer lab. The software will indicate the number of available seats in other labs. • For large labs, the lab statistics machine will display which seats are in use and available for log in. • Send e-mails to student regarding holiday closures that include regular hours. • Provide links to public information so students can determine which labs are available from remote locations.	Complete by start of fall 2009	All Computer Facilities Supervisors will be responsible for this action in their area
Students dislike multiple print accounting systems	Improve ease of printing satisfaction rates from 70.99% to 73%.	• Adopt printing style of the libraries to create a more seamless printing environment for students (this includes purchasing hardware and software, modifying user account data and configuring client computers, training staff and advertising).	Start of fall 2009; many of these tasks are already completed, as this project is already underway	Multiple

Computer Labs Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Lab monitor customer service	Improve support provided by lab assistant satisfaction rates from 59.17% to 62%. (2.83% increase)	• Develop Lab Monitor Training Program. • Hold training sessions for new employees at the beginning of each semester, capitalizing on veteran-employee help • Develop a walkthrough of lab features and computer account information (worksheet) to be discussed with students when creating accounts. • Offer the lab suggestions box (already on the desktops of all open lab computers) as a means of soliciting anonymous comments about lab experiences. To be included in account creation worksheet. • Add a "did you speak with a lab monitor" question to the suggestions box, as well as a comments box for more information directly under this question. • Hold verbal mid-semester evaluations with current lab monitors.	Ongoing task, with the completion of procedures and initiation of the training program by start of fall 2009	Darrell Lutey and Computing Lab Supervisors
Students can be more satisfied with computer lab cleanliness	Improve cleanliness of labs satisfaction rates from 73.69% to 75% (1.31% increase).	• Develop and employ weekly scheduled furniture and hardware cleaning. • Schedule recurring floor cleaning with facilities maintenance. • Form student employee teams who will be responsible cleaning the teaching-facility furniture and hardware once a month. • Work with library staff and other ad hoc labs to determine how they maintain this service.	Ongoing task, to be incorporated into regular operations. All method development is to be completed by the end of March 2009	Computer Facilities Supervisors with Campus Computing Services
General information about campus computer labs is not reaching all students	Improve communications such to increase overall satisfaction rates in multiple categories described above.	• Develop ideas in presenting lab information during orientation sessions. • Provide updated information and operational procedures to the IT Help Desks, to be integrated/updated in help desk programs. • Display computer lab information in computer lab login gui. This should be a universal image for all OIT computer facilities, with respect to teaching facilities, hybrid computer labs, and computer labs.	To be formalized by end of June 2009, with recurring semester responsibilities for updates	Computing Lab Supervisors with Communications & Client Services

WebCampus

WebCampus is UNLV's supported course management system. In Table 10, 89% of student respondents have used WebCampus in the last two semesters. 79% are satisfied with the ease of use and 73% are generally satisfied with WebCampus. However, only 57% have used the provided phone support and even less (44%) have used the self-help materials provided. General satisfaction may increase if students request support and receive answers to their questions.

Table 10: WebCampus Use

Have you used WebCampus in the past two semesters?	*Response Percent*
Yes	635 (89%)
No	67 (9%)
I don't know	12 (2%)

In general students provided positive comments about WebCampus. They appreciate online access to course materials and one place to access those materials. Complaints about the system were related to the assignments tool and browser set-up. Respondents also claim that instructors need more training on the tool. Table 13 shows action items related to these concerns.

Table 11: WebCampus Satisfaction Rates

Please rate your SATISFACTION with WebCampus items listed be	*Very Satisfied*	*Satisfied*	*Neutral*	*Dissatisfied*	*Very Dissatisfied*	*Don't know*	*Never used*	*Response Total*
Ease of use	27.23% (171)	51.59% (324)	10.03% (63)	8.28% (52)	2.39% (15)	0.00% (0)	0.48% (3)	628
Phone Support	7.63% (48)	10.33% (65)	20.83% (131)	1.75% (11)	0.79% (5)	1.59% (10)	57.07% (359)	629
Online Self-help materials	7.03% (44)	17.73% (111)	23.48% (147)	3.83% (24)	1.76% (11)	1.76% (11)	44.41% (278)	626
Overall	23.05% (145)	50.40% (317)	18.28% (115)	5.88% (37)	2.07% (13)	0.16% (1)	0.16% (1)	629

Table 12: Categorization of WebCampus Open-ended Responses

Category	*Quantity*
Positive – General	89 (34%)
Neutral – Training Needed	53 (20%)
Negative – Software (Browser, Java, Assignments, etc.)	85 (32%)
Negative – Content (Files, Videos, Consistency)	14 (5%)
Negative – General	14 (5%)
Negative – Maintenance	5 (2%)
Total	**260**

Table 13: WebCampus Action Items

WebCampus Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Low use of phone support and self-help materials, yet students continue to have issues with computer configurations related to WebCampus use	Reduce the number of negative open-ended comments from 44% to 30%.	• Proactively demonstrate browser set-ups by providing instructions throughout WebCampus and encouraging instructors to add instructions to sections. • Ensure UNLV labs are configured for optimum WebCampus performance. • Evaluate customized pre-configured browsers and explore the use of scripts to test user java settings. • Offer different types of training for faculty and students.	Fall 2009 for implementation of methods	Wonda Yuhasz with the Course Management System Implementation Committee

File Storage

Students prefer to access files related to UNLV business from home. Remote access is very important to students. There is a 7% gap in the percentage of students who prefer to access files from mobile devices and those who actually do. There is also a 13% gap between those students who access files at UNLV and who want to continue to do so. These trends show that files should be accessible from any location where Internet is available, including mobile devices.

- 65% of the student respondents share files both on and off campus.
- 82% of students share their files from a thumb drive.
- Only 32% of the respondents use the netware file storage system to share files.

Students may use thumb drives more often than Novell Netstorage because UNLV limits storage to 100 MBs on the server; a small thumb drive generally supports 2 GB. Also, thumb drives may be easier to access and use.

Due to budget constraints, OIT cannot increase our file storage capabilities and services. So, even though 29% of UNLV students are not aware of file storage services, OIT chooses not to expand education about the services but will, instead, focus on learning more about student understanding and use of Novell Netware.

Table 14: File Storage Action Items

Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Students share files but do not use UNLV's file sharing system, Novell	Get a better understanding of student use and understanding of Novell Netware compared to thumb drives.	• Determine a clear name for the system. • Gather statistics about active accounts on Novell Netware; determine how those users are using the system. • Determine why students do not use the current system and how they might use a better system.	Prepare a plan to gather data in spring 2009 to be used in fall 2009	David Heiser

Technology Ownership & Use

Throughout this document OIT reports on student use of campus technologies, which is summarized below:

- 56% get Rebelmail, either by directly accessing the account or by forwarding Rebelmail messages to a personal account.
- 57% have used the Student Help Desk phone support.
- 52% have used the Student Help Desk walk-in support.
- 75% use computer labs. Although 75% use campus computer labs, 57% of students report using computers at home most of the time, then in campus libraries (10%), at work (9%), on UNLV's wireless network (8%), and in campus computer labs (7%).
- 89% use WebCampus. Of those, 79% are satisfied with its ease-of-use, 10% are dissatisfied; whereas 53% of faculty are satisfied with ease of use and 19% are dissatisfied.

Table 15: Technology Access for Employees and Students

Technology	*Students who have the technology at home*	*Employees who personally own these technologies*
Cell phone	97%	86%
Microsoft Office	90%	52%
High speed Internet (DSL, Cable)	90%	71%
External drive (USB, thumbdrive)	87%	65%
Wireless Internet	80%	58%
Digital audio (iPod, MP3 player)	80%	57%
Windows LAPTOP computer	73%	48%
Windows DESKTOP computer	68%	46%
Digital recorder (TIVO, DVR)	43%	47%
Adobe Creative Suite	38%	23%
Smart phone (Blackberry, iPhone, Palm)	37%	26%
Mac LAPTOP computer	19%	14%
Mac DESKTOP computer	8%	11%
Dial up Internet (modem)	8%	8%
LINUX/UNIX computer	5%	5%

Ownership of Campus Technology

See Table 15 for details about student access to technology. In general, they report having access to more technology than the UNLV employee respondents.

- 97% of students own cell phones; 37% own smart phones.
- 90% have high-speed Internet; 80% have wireless; 8% use dial-up.
- 79% have a Windows laptop; 68% have a Windows desktop; 19% own Mac laptops; 8% own a Mac desktop.

Table 16: Technology Ownership Action Items

Key Issue/Insight	*Method*	*Lead Person*
Students own more laptops than desktops	• Consider student use and ownership of mobile devices when planning physical design of spaces.	All staff
Many students own USB (Thumb, Jump) drives	• When purchasing new computers for labs, consider monitors with USB ports.	All staff

Table 16 shows how OIT will consider these trends in relationship to technology decisions.

Technology Information Sources & Learning

Students are most likely to conduct their own web research to learn about technology (see Table 17). They are less likely to attend training on campus and to depend upon campus technology support resources than employees. Online tutorials are attractive to at least 42% of respondents.

Table 17: Likely Sources to Use for Learning about Technology

To get information about technology, how likely are you to...	*Percent Agree/ Strongly Agree*
Conduct your own web research	86%
Consult friends or family	59%
Watch an online tutorial	42%
Consult UNLV's website	34%
Read "What's Happening At UNLV"	30%
Ask a computer lab assistant	28%
Attend training on campus	20%
Call a UNLV help desk	19%
Consult a UNLV brochure	13%
Subscribe to an e-newsletter	11%
Subscribe to an RSS feed	9%
Subscribe to a Listserv	7%

In Graph 4 below, students express interest in learning more about basic computing skills, such as using PowerPoint, formatting files, maintaining computers, and using e-mail. OIT will address these needs by providing a variety of learning and informational opportunities, such as e-mail tips and more on-demand topics via online videos. Students are also interested in learning about emerging technologies and creating websites. Table 18 details action items.

Graph 4: Categories of responses to the open-ended question: "Describe technology information you would be interested in learning about."

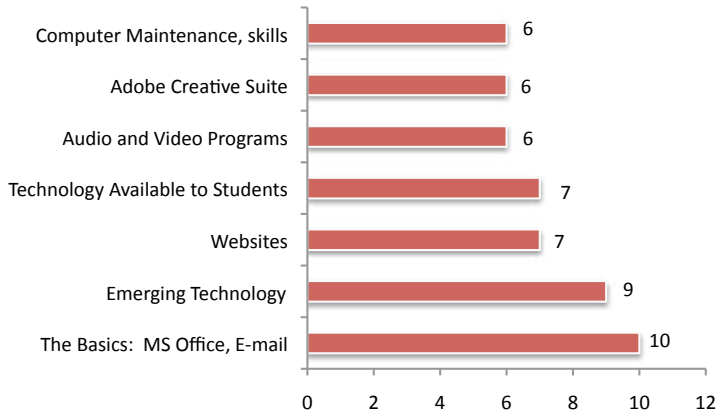


Table 18: Technology Information Resources Action Item

Key Issue/Insight	*Objective*	*Method*	*Time frame*	*Lead Person*
Students want more training, better information, and more self-help options. They request information about creating web pages, computer security, and basic tips	Increase overall satisfaction for many services.	• Create short, focused videos on specific tasks. • Establish knowledge base that can be accessed by users, but updated only by OIT staff. • Provide multiple delivery methods for content and the marketing of it, such as online, tip handouts, and RAVE announcements.	Some videos are already online. Additional videos are created as new products and services are brought online Knowledge base established in 2010	Joe Winton to create web interfaces and systems Client Services provide content
Some OIT web content is difficult to find for users	Make all OIT web content easier to find through search engines and navigation.	• Integrate all OIT web content, including product pages such as Wireless and Clickers. • Re-design OIT site to focus on user tasks.	Redesign and integrate OIT site by end of May 2009	Joe Winton
Students may not be able to find information about free and discounted software and lab software	In usability tests, ensure that students find desired software and lab information 90% of the time.	• Use Drupal to store and display software information, allowing for more flexibility in displaying, searching and sorting information (Joe Winton, April 2009). • Optimize site for search engines, including Google and UNLV Ultraseek (Joe Winton, ongoing). • Establish a process for keeping web current (Client Services & Communications, July 2009).	See bullets	See names by each bullet

General Comments

The "general comments" open-ended question at the end of the survey generated 106 comments from 81 respondents. Table 19 shows the areas and types of comments received.

Table 19: General Comments Summary

Comments about OIT	*Number*		*Positive*	*Neutral*	*Negative*
General Comments	23		21	0	2
Comments about Survey	10		6	3	1
Computer Labs	21		7	10	4
E-mail	10		8	2	0
Wireless	5		1	4	0
WebCampus	4		1	1	2
Student Information System	1		0	1	0
Technology Fee	2		0	1	1
New Needs	9		0	9	0
Total	**85**		**44**	**31**	**10**
Comments Not About OIT	*Number*		*Positive*	*Neutral*	*Negative*
General Comments about UNLV	9		2	5	2
Library	6		1	3	2
Other	6		0	6	0
Total	**21**		**3**	**14**	**4**

The comments were generally positive. Those categorized as neutral were most often requests for more of some service already offered (e.g., longer lab hours, additional software, more wireless). Examples of the types of new services requested included streaming video, ability to access software from home, training on weekends and evenings, combining all systems into one. In some cases the new services requested were services already provided, pointing once again to the need for continued efforts to communicate regularly with the students about OIT services.