Library & IT administered the EDUCAUSE Center for Applied Research (ECAR) Study of Students and IT for the first time in spring, 2009. The ECAR Study of Undergraduate Students and IT 2009 surveyed first-year and senior students from 4-year institutions as well as students from all class years at community colleges. Approximately 100 schools participated in the ECAR Study of Undergraduate Students and IT in 2009, with responses from 30,616 students at U.S. and Canadian institutions and an additional 773 students from three institutions outside North America. The web-based survey is comprised of approximately 50 questions and takes about 15 minutes to complete.

Library & IT participated in this survey in order to gain understanding of how our students use technology, how our students evaluate their use of technology, the extent to which they use technology in their courses, and their perspectives about how using technology affects their academic experiences. Participation in the ECAR study will help us determine how Bucknell students use and think about IT and in what ways our students are similar to, or differ from student participants in the ECAR study.

Highlights below are from selected questions from the preliminary results sent by ECAR, with the understanding that we not publicize results until the publication of the ECAR Study of Students and IT, expected November 2009. In many cases, I’ve included students’ most popular responses. Please refer to data tables from ECAR preliminary results (sent by Judy Caruso in email dated 8/20/09) for the full breakdown of responses.

**Response rate for Bucknell:**
Senior students= 9.6 % 82 responses/ of 858 students
First-year students = 8.3 % 78 responses/ of 943 students

**Gender:**

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<tbody>
<tr>
<td>BU Seniors</td>
<td>56.8% (N=46) female</td>
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<tr>
<td>BU Seniors</td>
<td>43.2% (N=25) male</td>
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<tr>
<td>Other schools’ Seniors</td>
<td>60.7% female</td>
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<tr>
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<tr>
<td>BU First-years</td>
<td>69.2% (N=54) female</td>
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<tr>
<td>BU First-years</td>
<td>30.8% (N=24) male</td>
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<tr>
<td>Other schools’ First-years</td>
<td>60.9% female</td>
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<tr>
<td>Other schools’ First-years</td>
<td>39.1% male</td>
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Question categories & highlights of selected questions
Note: For purposes of highlighting our preliminary results, I’ve created categories based upon type of question. Please refer to data tables from ECAR preliminary results for the full breakdown of responses.

Selected questions about hardware

- Of students who responded, more than 80% of BU Seniors and more than 60% of BU First-year students DO NOT own desktop computers
- Of responding students who own laptops, more than 40% of seniors own a laptop that is more than 4 years old.
- Of responding first-year students with laptops, more than 75% of them own laptops that are less than 1 year old.

Selected questions related to IT Activities (School, Work, or Recreation)

Question 6: How often do you do the following for school, work, or recreation?
Note: Most popular answer is given below. Please refer to data tables from ECAR preliminary results for break down of responses.

Download web-based music or videos:
BU Seniors: 28.0% (N=23) responded “monthly”
BU First-years: 29.5% (N=23) responded “monthly”
Students - other colleges: 24.2% responded “monthly”

Use the college/university library website:
BU Seniors: 34.1% (N=28) responded “weekly,” over 25% several times/week
BU First-years: 28.2% (N=22) responded “daily,” over 20% weekly
Students--other colleges: 25.3% responded “monthly” over 20% weekly

Spreadsheets/Excel:
BU Seniors: 28.0% (N=23) responded “monthly”
BU First-years: 25.6% (N=20) responded “monthly”
Students--other colleges: 22.8% responded “monthly”

Presentation Software/Powerpoint:
BU Seniors: 48.8% (N=40) responded “monthly”
BU First-years: 35.1% (N=27) responded “monthly”
Students--other colleges: 32.3% responded “monthly”
Graphics software (Photoshop, Flash, etc.)
BU Seniors: 29.3% (N=24) responded “once per quarter or semester”
BU First-years: 26.9% (N=21) responded “never”
Students--other colleges: 26.4% responded “never”

Instant messaging:
BU Seniors: 31.7% (N=26) responded “daily”
BU First-years: 24.4% (N=19) responded “daily”
Students--other colleges: 28.3% responded “daily”

Audio-creation software (Audacity, GarageBand, etc.)
BU Seniors: 59.8% (N=49) responded “never”
BU First-years: 62.8% (N=49) responded “never”
Students--other colleges: 64.3% responded “never”

Video-creation software (MovieMaker, iMovie, etc.)
BU Seniors: 45.1% (N=37) responded “never”
BU First-years: 55.1% (N=43) responded “never”
Students--other colleges: 60.1% responded “never”

Voiceover Internet Protocol (VoIP; Skype, etc.)
BU Seniors 52.4% (N=43) responded “never”
BU First-years 39.7% (N=31) responded “never”; next most popular response for FY students-- “weekly”-16.7% & “several times per week”-16.7%
Students--other colleges: 61.1% responded “never”

Highlights:
• More than 75% of BU Senior respondents and more than 70% of BU first-years responded that they DO USE text messaging daily for school, work, or recreation.
• More than 60% of BU Senior respondents and more than 80% of BU first-year respondents stated that they DO USE social networking websites (Facebook, MySpace, Bebo, LinkedIn) daily for school, work, or recreation.
• More than half of students who responded (BU Seniors and FY students) report that they DO NOT contribute content to wikis (Wikipedia, course wikis), blogs, video websites (YouTube) for school, work, or recreation.
• More than 65% of students who responded (BU Seniors and FY students) report that they DO NOT use online multi-user computer games (World of Warcraft, Everquest, poket, etc.) for school, work, or recreation.
• More than 95% of student respondents (BU Seniors and FY students) report that they DO NOT use online virtual worlds (Second Life, Forterra, etc.) for school, work, or recreation.
• More than 80% of BU Senior respondents and more than 90% of BU first-year respondents report that they DO NOT use social bookmarking/tagging (del.icio.us, etc.) for school, work, or recreation.
• More than 60% of BU Senior respondents and more than 80% of BU first-year respondents report that they DO NOT use podcasts for school, work, or recreation.

Questions about IT skills:

Question 9: What is your skill level for the following?

Note: Most popular answer is given. Please refer to data tables from ECAR preliminary results for break down of responses

Using the college/university library website?
BU Seniors: 45.1% (N=37) responded “very skilled”
BU First-years: 47.7% (N=37) responded “fairly skilled”
Students--other colleges: 43.8% responded “fairly skilled”

Using spreadsheets (Excel, etc.)
BU Seniors: 46.3% (N=38) responded “very skilled”
BU First-years: 46.2% (N=36) responded “fairly skilled”
Students--other colleges: 40.8% responded “fairly skilled”

Using presentation software (PowerPoint, etc.)
BU Seniors: 56.1% (N=46) responded “very skilled”
BU First-years: 43.6% (N=34) responded “very skilled”
Students--other colleges: 41.5% responded “very skilled”

Using graphics software (Photoshop, Flash, etc.)
BU Seniors: 41.5% (N=34) responded “not very skilled”
BU First-years: 28.2% (N=22) responded “fairly skilled” and 28.2% responded “not very skilled”
Students--other colleges: 34.6% responded “not very skilled”

Computer maintenance (software updates, security, etc.)
BU Seniors: 35.4% (N=29) responded “fairly skilled”
BU First-years: 35.1% (N=27) responded “fairly skilled”
Next most popular response for both classes of BU students was “not very skilled”
Students--other colleges: 34.4% responded “fairly skilled”

Using the Internet to effectively and efficiently search for information
BU Seniors: 43.9% (N=36) responded “very skilled”
BU First-years: 55.8% (N=43) responded “very skilled”
Next most popular response for both classes of BU students was “expert”
Students--other colleges: 45.7% responded “very skilled”

Evaluating the reliability and credibility of online sources of information
BU Seniors: 48.8% (N=39) responded “very skilled”, next most popular response was “expert” (26.3%; N=21)
BU First-years: 46.8% (N=36) responded “very skilled”
Students--other colleges: 39.3% responded “very skilled”

Understanding the ethical/legal issues surrounding the access to and use of digital information
BU Seniors: 39.0% (N=32) responded “very skilled”, next most popular response was “fairly skilled” (32.9%; N=27)
BU First-years: 46.8% (N=36) responded “fairly skilled”
Students--other colleges: 34.8% responded “fairly skilled”

Questions about IT usage in courses

Question 8: Which best describes your preference?
Note: Most popular answer is given. Please refer to data tables from ECAR preliminary results for break down of responses.

BU Seniors: 60.5% (N=49) responded “I prefer taking courses that use a moderate level of information technology”
BU First-years: 62.8% (N=49) responded “I prefer taking courses that use a moderate level of information technology”
Students--other colleges: 60.1% responded “I prefer taking courses that use a moderate level of information technology”

Highlights:
• More than 70% of BU Senior respondents and BU first-year respondents report that they DID USE spreadsheets for course(s) during semester/quarter surveyed.
• More than 85% of BU Senior respondents and more than 90% of BU first-year respondents report that they DID USE the college/university library website for courses during semester/quarter surveyed.
• More than 90% of BU Senior respondents and more than 60% of BU first-year respondents report that they DID USE presentation software (PowerPoint) for courses during semester/quarter surveyed.
• More than 80% of BU respondents (seniors and first-years) reported that they DID NOT use Instant Messaging for any of their courses during semester/quarter surveyed.
• More than 80% of BU Senior respondents and more than 70% of BU first-year respondents reported that they DID NOT use social networking websites for any of their courses during semester/quarter surveyed.
• More than 90% of BU Senior respondents and BU first-year respondents reported that they DID NOT use audio-creation software (Audacity, GarageBand, etc.) Podcasts, or E-portfolios for any of their courses during quarter/semester surveyed.
• More than 90% of BU Senior respondents and more than 85% of BU first-year respondents reported that they DID NOT use graphic software (Photoshop, Flash, etc.) for any of their courses during semester/quarter surveyed.
• More than 80% of BU Senior respondents, and more than 90% of BU first-year respondents DID NOT use video-creation software (MovieMaker, iMovie, etc) for any of their courses during quarter/semester surveyed.
• More than 80% of BU Senior respondents and BU first-year respondents stated that they DID NOT use wikis or blogs for any of their courses during semester/quarter surveyed.
• Nearly 90% of BU student respondents (both classes) reported that they DID NOT use simulations or educational games during semester/quarter surveyed.
• 100% of BU respondents (both classes) DID NOT use online virtual worlds (e.g. Second Life, Forterra, etc.) in their courses during semester/quarter surveyed.
• More than 70% of BU respondents (both classes) DID NOT use programming languages (C++, Java, etc.) or discipline-specific technologies (Mathematica, AutoCad) in their courses during semester/quarter surveyed.
• These figures are consistent with responses of students from all institutions.

Questions about instructors’ use of IT in courses
Note: Most popular answer is given. Please refer to data tables from ECAR preliminary results for break down of responses.

Question 11a: How many of your instructors use IT effectively in courses?
BU Seniors: 29.3% (N=24) responded “most”; next most popular response was “almost all” 26.8% (N=22)
BU First-years: 41.0% (N=32) responded “most”; next most popular response was “about half” 17.9% (N=14)
Students--other colleges: 25.4% responded “most”; next most popular response was “some” 25.3%

Question 11b: How many of your instructors provide students with adequate training for the IT the instructor uses in his/her course?
BU Seniors: 25.6% (N=21) responded “most”; next most popular response was “some”; 20.7% (N=17)
BU First-years: 35.9% (N=28) responded “some”; next most popular response was “most”; 20.5% (N=16)
Students--other colleges: 28.1% responded “some”; next most popular response was “most” 20.4%

Question 11c: How many of your instructors have adequate IT skills for carrying out course instruction?
BU Seniors: 42.7% (N=35) responded “Most”
BU First-years: 37.2% (N=29) responded “Most”; next most popular response was “some”; 17.9% (N=14)
Students--other colleges: 27.9% responded “most”; next most popular response was “some” 25.8%
Questions about use of Course Management Systems

Highlights:

- Over 90% of BU Senior respondents and over 85% of BU first-year respondents stated YES, that they’ve taken a course using a learning management system.
- Over 80% of BU Senior respondents and BU first-year respondents stated that they used the learning management system for a course during quarter/semester surveyed.
- Over 45% of BU Senior and BU first-year student respondents described their skill level with course management system as “very skilled”
- Over 60% of BU Senior and BU first-year respondents described their overall experience using course/learning management systems as “Positive”

Questions about perceptions related to IT usage in courses

Question 17a: What is your opinion about the following statement? I get more actively involved in courses that use IT.

BU Seniors: 52.4% (N=43) responded “neutral”
BU First-years: 47.4% (N=37) responded “neutral”
Students--other colleges: 45.7% responded “neutral”

Next most popular response for BU students as well as students from other institutions was “agree”

Question 17b: What is your opinion of the following statement? The use of IT in my courses improves my learning.

BU Seniors: 43.9% (N=36) responded “agree” (next most popular response “neutral”) 
BU First-years: 50.0% (N=39) responded “agree”, next most popular response ”neutral” 
Students--other colleges: 40.9% responded “agree”, next most popular response “neutral”

Question 17d: What is your opinion about the following statement? By the time I graduate, the IT I have used in my courses will have adequately prepared me for the workplace.

BU Seniors: 43.9% (N=36) responded “agree”
BU First-years: 59.7% (N=46) responded “agree”
Students--other colleges: 38.9% responded “neutral”, 37.1% responded “agree”

Question 17e: What is your opinion of the following statement? My institution’s IT services are always available when I need them for my coursework.

BU Seniors: 47.6% (N=39) responded “agree”
BU First-years: 54.5% (N=42) responded “agree”
Students--other colleges: 42.3% responded “agree”
*Question 17f: What is your opinion of the following statement? I skip classes when materials from course lectures are available online.
BU Seniors: 47.6% (N=39) responded “strongly disagree”, 31.7% “disagree”
BU First-years: 57.7% (N=45) responded “strongly disagree”, 23.1% “disagree”
Students--other colleges: 33.6% responded “strongly disagree”, 30.9% “disagree”

Question 19a: I like to learn through: Text-based conversations over e-mail, IM, and text messaging.
BU Seniors: 54.9% (N=45) responded “No”
BU First-years: 44.9% (N=35) responded “No”
Students--other colleges: 42.9% responded “Yes”; and 42.3% “No”

Question 19b: I like to learn through: Programs I can control, such as video games, simulations, etc.
BU Seniors: 46.9% responded “Yes”
BU First-years: 42.3% responded “Yes”
Students--other colleges: 48.7% responded “Yes”

Question 19c: I like to learn through: Contributing to websites, blogs, wikis, etc.
BU Seniors: 49.4% (N=40) responded “No”
BU First-years: 57.7% (N=45) responded “No”
Students--other colleges: 45.3% responded “No”

Question 19d: I like to learn through: Running Internet searches
BU Seniors: 80.2% (N=65) responded “Yes”
BU First-years: 73.1% (N=57) responded “Yes”
Students--other colleges: 79.3% responded “Yes”

Question 19e: I like to learn through: Creating or listening to podcasts or webcasts
BU Seniors: 63.0% (N=51) responded “No”
BU First-years: 56.4% (N=44) responded “No”
Students--other colleges: 43.7% responded “No”

Notification preference in an emergency:
BU Seniors: 57.3% (N=47) responded “text message”
BU First-years: 61.5% (N=48) responded “text message”
Students--other colleges: 56.1% responded “text message”

Note: Most popular answer is given. Please refer to data tables from ECAR preliminary results for break down of responses.

Questions about internet-capable handheld devices:

- Of students who responded to questions about handheld devices, 47.6% (N=39) of Seniors and 50.0% (N=39) of first-year students responded YES, that they own a
handheld device capable of accessing the Internet (examples—iPhone, Treo, Blackberry, etc.)

- Of students who responded, over 70% of seniors and first-year students use social networking websites (Facebook, MySpace, Bebo, etc.) from their handheld devices.
- Of students who responded, over 75% of seniors and first-year students check information such as news, weather, sports, specific facts, etc. from their handheld devices.
- Of students who responded, over 80% of seniors and over 70% of first-year students use their handheld device for email.
- Of students who responded, over 65% of seniors and over 50% of first-years students use maps (e.g. find places, get directions, or plan routes) from their handheld devices.
- The majority of students (both classes) who responded DO NOT IM, Twitter, read or contribute to blogs, conduct personal business like banking or shopping, use internet photo sites, watch mobile TV, download/stream music or watch videos online, or download/play games online from their handheld devices.
- Bucknell senior and first-year respondents stated that they would be most likely to use email from their handheld devices. Over 50% of first-year students who responded stated that WOULD be likely to access learning management system (Blackboard, WebCT, etc.) from their handheld devices, if it were available. 60% of seniors who responded stated that they WOULD NOT be likely to access the learning management system from handheld devices, if it were available.
- The majority of students (both classes) who responded WOULD NOT be likely to use their handheld device to access information from student administrative services (official grades, registration); library services; campus information (news, events, map, directory, etc.); payment for things on campus (e.g. vending machines, food services); download/stream course lectures/podcasts, or use as clickers for courses.

**Question 30a:** What is your opinion about the following statement? While I’m in class, I regularly use my cell phone or handheld Internet device for course activities (texting, Internet access, etc.)

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<tr>
<th>Group</th>
<th>Percentage</th>
<th>Response</th>
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<tr>
<td>BU Seniors:</td>
<td>65.0% (N=52)</td>
<td>“strongly disagree”</td>
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<tr>
<td>BU First-years:</td>
<td>51.3% (N=40)</td>
<td>“strongly disagree”</td>
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<tr>
<td>Students--other colleges:</td>
<td>46.0%</td>
<td>“strongly disagree”; 29.8% “disagree”</td>
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**Question 30b:** What is your opinion about the following statement? While I’m in class, I regularly use my cell phone or handheld Internet device for non-course activities (texting, Internet access, playing games, etc.)

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<th>Group</th>
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<td>BU First-years:</td>
<td>40.3%</td>
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<tr>
<td>Students--other colleges:</td>
<td>31.9%</td>
<td>“strongly disagree”; 21.8% “agree”</td>
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</table>
Question 30c: What is your opinion about the following statement? Instructors should have the authority to forbid the use of cell phones and handheld Internet devices during class time.

BU Seniors: 42.5% “strongly agree”; 21.3% “agree”
BU First-years: 39.7% “agree”; 21.8% “strongly agree”
Students--other colleges: 24.8% “agree”; 24.5% “strongly agree”