WU Students and Technology: New and Continuing Trends

Michelle Repice and Beth Fisher
The Teaching Center
Session Overview

ECAR Study Objectives and WU Participation

Major Findings:

• Technology Ownership
• Student Perceptions of Technology
• Technology Skills of Students/Instructors
• Benefits of Instructional Technology

Discussion of findings and implications
Study of Undergraduate Students and Information Technology (2004-2011)

WU students participating since 2010
2011 Student Participation

Washington University:
415 first-year and 415 senior students invited
125 students responded (15% response rate)

Nationally:
29,000+ participants from 145 Institutions
## ECAR Study Participants

<table>
<thead>
<tr>
<th></th>
<th>Washington University</th>
<th>Other 4-year Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>43.5%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Female</td>
<td>56.4%</td>
<td>61%</td>
</tr>
<tr>
<td>Full-time student</td>
<td>99.1%</td>
<td>90.1%</td>
</tr>
<tr>
<td>Senior</td>
<td>44.8%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Junior/ Sophomore</td>
<td>---</td>
<td>13.4%</td>
</tr>
<tr>
<td>First-year</td>
<td>55.2%</td>
<td>36.9%</td>
</tr>
<tr>
<td>Age 18-24</td>
<td>100%</td>
<td>83.6%</td>
</tr>
</tbody>
</table>
Majors of WU Participants

- Humanities
- Social Sciences
- Natural Sciences and Math
- Engineering
- Business
- Other/Undecided
- Fine Arts

Chart showing major distribution among WU participants.
Preference for New, Mobile Technology

Ownership of Devices

- Laptops: 96%
- Personal Handheld Device: 53.6%
- Tablets: 12%
- E-book readers: 4.8%
Students’ Self-Perception: Timing of Technology Adoption

Early Adopters - 37%

Mainstream Adopters – 47.5%

Late Adopters or “Laggards” – 15.5%
Regular, In-Class Use of Tech Devices

For Course Activities: 46%

For Non-Course Activities: 29%

Should instructors have the authority to ban device-use in class?

- NO
- YES
- NEUTRAL
### A Barrage of Messages

<table>
<thead>
<tr>
<th></th>
<th>% Students</th>
<th>Median Frequency of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Email</td>
<td>100</td>
<td>Daily</td>
</tr>
<tr>
<td>Text Messaging</td>
<td>99.2</td>
<td>Daily</td>
</tr>
<tr>
<td>Social Networking</td>
<td>98.4</td>
<td>Daily</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>77.5</td>
<td>Several times/week</td>
</tr>
<tr>
<td>Twitter</td>
<td>42.8</td>
<td>Several times/week</td>
</tr>
<tr>
<td>Skype</td>
<td>92.0</td>
<td>Weekly</td>
</tr>
</tbody>
</table>
## Most Widely-Used Technology

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
<th>Frequency</th>
<th>Skill Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating Spreadsheets/Charts</td>
<td>98.4%</td>
<td>Weekly</td>
<td>Fairly Skilled</td>
</tr>
<tr>
<td>Creating Presentations</td>
<td>94.4%</td>
<td>Monthly</td>
<td>Very Skilled</td>
</tr>
<tr>
<td>Creating Graphics</td>
<td>72.0%</td>
<td>Monthly</td>
<td>Not Very Skilled</td>
</tr>
<tr>
<td>Using Library Web site</td>
<td>96.8%</td>
<td>Monthly</td>
<td>Fairly Skilled</td>
</tr>
</tbody>
</table>
## Use of Technology for Spring 2011 Courses

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wikis</td>
<td>44%</td>
</tr>
<tr>
<td>Web-based citation tools</td>
<td>32%</td>
</tr>
<tr>
<td>Podcasts, Videos of Lectures</td>
<td>24.8%</td>
</tr>
<tr>
<td>Facebook, Linked-in, etc.</td>
<td>22.4%</td>
</tr>
<tr>
<td>Clickers</td>
<td>20%</td>
</tr>
<tr>
<td>Blogs</td>
<td>18.4%</td>
</tr>
</tbody>
</table>
Preferred Amount of Technology in Courses

- Preferred amount of technology in courses is shown for two groups:
  - Washington University
  - Other 4-year institutions

The chart shows the percentage of preference for different levels of technology in courses:
- None
- Limited
- Moderate
- Extensive
- Exclusive

Washington University shows a higher preference for moderate technology in courses compared to other 4-year institutions.

The x-axis represents the levels of technology preference, while the y-axis represents the percentage of preference.
Instructor Use of Instructional Technology (IT)

Instructors use technology effectively 47.2%

Instructors provide training for IT used in class

20% No Training
31.2% Some Training

Instructor IT skills adequate 52%
What are the Benefits of Instructional Technology?

• Increased convenience with coursework
• More active engagement in course material
• Preparation for the workplace
• Improves learning
Students’ Perceptions: Benefits of Instructional Technology

- More active involvement
- Improves learning
- Workplace preparation
- Convenience

Legend:
- Agree
- Neutral
- Disagree
Strategies/Recommendations

• Design uses of technology carefully
  • Select tools that have potential to improve learning and engagement
  • Take an incremental approach
  • Integrate technology with other tools
  • Seek any necessary training
• Learn about your students’ technology skills and preferences
  • Provide instruction when needed