Researhing the Issuing of Student Laptops
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Background
The use of computers effects all aspects of our daily life—on the personal side, on the work side, as members of community organizations and when interacting with business and government agencies. People who do not know how to use personal microcomputers will be at a severe disadvantage.

The concept of providing each student with a personal microcomputer is called “one-on-one computing” (or “1:1”). This can be implemented at the university level, college level, department level or other combination.

Rationale
There are many advantages to students by requiring them to have their own laptop computer:
1. Students can have access to computing resources 24/7 without being dependent on availability of computer workstations in general access labs on campus.
2. Using a computer is only one aspect of personal computing. Knowing how to maintain and manage a computer are also essential skills. These skills cannot not be learned (or taught) outside of the 1:1 environment.
3. Students do not physically have to be on campus to use the computing resources. For commuting students, distance education students, students who are working their way through college, and for students athletes who are on the road to away games, this is a tremendous advantage.
4. 

There are also many advantages to the university and faculty by requiring students to have their own laptops:
1. Instructors can develop curriculum and use teaching techniques which enhance student learning which can only be accomplished when instructors know that each student has his/her own PC.
2. As more and more courses depend on the use of computing, there are not enough computer lab available on campus to meet the growing demand. With 1:1 computing, every classroom becomes a computer classroom. Winona State University has been able to eliminate ¾ of their computer labs since they implemented 1:1 computing.
3. 

Laptop Requirements
Gateway has been UWP’s primary vendor for PC computers. UWP has been pleased with our working relationship with Gateway, so there is no need to seek another vendor.
**Hardware Requirements**

1. Use “convertible” PCs which have the features of both laptop and tablet PCs. The Gateway M285 would probably be the laptop to use.
2. Some departments may find the MacBook to be a better choice instead of a Win-Tel PC.

**Software Requirements**

1. MS Windows XP Professional
2. MS Office
   a. Word
   b. Excel
   c. PowerPoint
   d. Access
3. Web Browser
4. Anti-virus software
5. Stylus-based note taking software. Possibilities include:
   a. MS OneNote
   b. DyKnow Vision

**Infrastructure Requirements**

**UWP LAN & Servers**

1. The impact on the number of Novell licenses is not known at this point in time.
2. The capacity of existing wireless access points will need to be increased.
3. 

**Classrooms**

1. Classrooms will need standard electrical outlets so students can plug-in when they forget to charge their batteries.
2. The computer projects in existing computer class rooms can be used with the instructor’s laptop. Existing projectors can be retrofitted with black boxes to make them wireless projectors so the instructor’s laptop does not need to be tethered.
3. Any existing computer class rooms in which computer projects must be replaced, they probably should be replaced with wireless projectors.
4. Current classrooms (which are not computer classrooms) can become computer classrooms by the addition of wireless computer projectors.
**Other Student Gathering Places on Campus**

Glenview Commons and the University Bookstore are two examples of where students are not allowed to enter with backpacks. Such locations as these may need to provide Technical Support.

**Technical Support**

Technical support would be provided for leased PCs only. The maintenance of student- and faculty-owned PCs are the sole responsibility of the owner.

1. The “10-Minute Rule” would be applied:
   a. The technician would spend a maximum of 10 minutes trying to fix the laptop.
   b. If it is a hardware problem, the hard drive would be removed and placed into a loaner PC while the laptop is sent into Gateway on warranty.
   c. If may include a hard drive problem, the entire laptop is sent into Gateway and a loaner is given to the student.
   d. If it is a software problem, a new image is burned onto the hard drive which the student can pick up an hour later.
   e. The student would be responsible for backing up all their data.

2. Gateway would provide a systems engineer to provide on-site training for the UWP technical staff on hardware repairs. Gateway would also provide in-depth repair manuals. The training would be 3-4 hours in duration. There is no cost for this training.

3. Inventory Requirements:
   a. One loaner unit for every 50 laptops in use.
   b. $500 of spare parts for every 50 laptops in use.

4. Maintenance Tracking Software
   a. If UWP is setup as a Gateway Self-Maintainer, all service incidents will be logged into Gateway’s online tool, which is Siebel. Parts can also be ordered via this system.
   b. UWP can also use their own help-desk tracking system

**Administrative Needs**

1. Any changes in policies or procedures required to make the laptop program possible.

2. PeopleSoft will need to be programmed to access lease fees to student accounts. Plus whatever info needs to be coordinated with the leasing company. Depending on how part-time and short-term students are handled, there will probably need to be a way to track how much individual students pay in lease payments to determine their eligibility to purchase the laptop upon graduation.

3. Software to track:
   a. Laptop serial #, configuration, to whom issued, etc.
   b. Service record
Training Requirements

For Students

The laptops would be issued as part of a 1-2 hour training session. Topics would include:
1. Proper use and care
2. How to install software updates & antivirus updates
3. Wireless vs. wired connection to UWP LAN and use of UWP printers
4. Connecting when off-campus
5. Obtaining tech support

For Faculty

A basic workshop would be offered on how to use the features unique to a laptop/notebook/convertible PC and their implications in the classroom:
1. Wireless vs. wired connection to UWP LAN
2. Use of wireless computer projectors
3. Use of “ink enabled” features
   a. for mark-up or annotation of electronic documents
   b. for team projects and peer mark-ups
   c. for teacher mark-ups and grading assignments
4. The use of OneNote as an electronic white board
5. Publishing of OneNote presentations
   a. the “tape recording of presentations”
   b. how to “publish” or “push” the presentations to the students
6. Students using the laptops for test taking
7. Using Desire2Learn with the laptops
8. Using DyKnow Vision
   a. collaborative note taking, student response tools, content replay
   b. to transmit content to student screens for annotation
9. Using DyKnow Monitor
   a. to keep a bird’s eye view of student computers
   b. to block internet browsing
   c. to block distracting applications
   d. to block student screens

Implementation

One or more departments need to be selected to implement a pilot program. The Industrial Studies Department would be a serious candidate with a pilot program begin in the Fall of 2007.
1. Year One
   a. “Hard” Mandate
      i. incoming freshman
      ii. incoming transfers (change of majors)
   b. optional participation or use of existing general access labs
      i. sophomores
      ii. juniors
2. Year Two
   a. “Hard” Mandate
      i. incoming freshman
      ii. sophomores
      iii. incoming transfers (change of majors)
      iv. incoming transfers (from other universities)
   b. optional participation or use of existing general access labs
      i. juniors
      ii. seniors

3. Year Three
   a. “Hard” Mandate
      i. incoming freshman
      ii. sophomores
      iii. juniors
   b. optional participation or use of existing general access labs
      i. seniors

4. Year Four
   a. “Hard” Mandate
      i. all students
   b. optional participation or use of existing general access labs
      i. not applicable

FAQ

1. Can 1:1 computers be desktop or laptop computers?
   - They must be laptops—or more specifically they are “convertibles” which are computers which can serve as both a laptop and tablet PC. Students must be able to bring the laptop to class for note taking, etc.
   - When you open a laptop you expose the built-in keyboard, touchpad pointer, and the screen located in the lid. A pure tablet PC uses a stylus pen and has no keyboard.

2. Should student computers be recommended or required?
   - Mandated purchases are covered under student loan programs whereas recommended ones are not.
   - Educational programs based on required purchases are more successful than recommended purchases because instructors know that all students have a computer and can design the curriculum accordingly.

3. What is the difference between a “soft mandate” and a “hard mandate”?
   - The soft mandate provides the students with a list of hardware and software minimums that student computers must meet. The hard mandate provides a specific list of computers that will be allowed.
   - The hard mandate is less costly in the long run since all computers are the same; therefore, they are easier to set up, configure, and maintain.
4. Should students own or lease the laptop computer?
   - Both are viable options, but leasing tends to be more cost-effective. When the laptop is leased, the university owns the computer; therefore, software licensing falls under the educational rates that are considerably lower than individual personal licenses.

5. How much of a problem is laptop theft?
   - When all students on campus are required to have a laptop, the problem of laptop theft is drastically reduced.
   - The laptop can also be embedded with special software (a BIOS routine) which pings a special server on the internet once a day. When a laptop is lost or stolen, it is listed as such on this special server. Law enforcement can then trace the location of the laptop whenever it is used on the internet.

6. What happens if a laptop is lost or stolen?
   - Within 48 hours it must be reported to the local police department that has jurisdiction.
   - Within 5 business days, it must be reported to the UWP OIT Help Desk. If the tracking software is used, the Help Desk will register the laptop as being lost or stolen so law enforcement can track the laptop the next time it connects to the internet anywhere in the world.
   - With a copy of the police report, the student has a $500 insurance deductible to pay in order to receive a replacement. Without a copy of the police report, the student must pay the entire replacement cost of the laptop.

7. What happens if the laptop is damaged?
   - You bring the laptop to the Tech Support area to be repaired. Depending on the extent of the damage will determine the deductible that the student must pay to have the damage insurance cover the repair.
   - Winona State has a $200 deductible
   - UW-Stout has a $50 incrementing deductible: $50 for the first incident, $100 for second, $150 for the third, etc.

8. Can the customize the laptop beyond the basic configuration; e.g., the student would like to have more RAM or a larger hard drive?
   - this topic needs to be explored yet

9. 

**Miscellaneous**

1. Info to incoming students & parents
a. Recruiting literature
b.

2. Leasing computer arrangements
   a. Compose leasing agreement & terms
   b.

3.

References

2. Iowa State University website:  
   http://www.design.iastate.edu/leaseprogram.php
3. Loras College website:  http://depts.loras.edu/IT/
4. Winona State University website:  http://www.winona.edu/its/Laptop/
5. UW-Stout website:  http://www.uwstout.edu/es/