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Proposal for a Strategic Initiative Fund Grant for a Mobile Computer Lab

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PROPOSAL FOR A STRATEGIC INITIATIVE FUND GRANT FOR A MOBILE COMPUTER LAB

Proponent/School: Ethan Annis, M.L.S., Library

Other Faculty/Staff Participants:

Dr. Judy Halebsky, Assistant Professor, English
Neal Wolfe, Assistant Professor, First Year Experience, Art History
Adolfo Real, Library Staff (Dominican BA, Liberal Studies (2001) & Dominican MS, Education (2006))
Kenneth Fish, Library Staff (Dominican BA Humanities/Social and Cultural Studies Magna Cum Laude (2011))
Maia Kobabe, Library Staff (Dominican BFA Fine Arts, Summa Cum Laude (2011))
Jonathan Glocknitzer, Current Dominican Student, Liberal Studies (Plans to be a teacher)

Title: Mobile Computer Lab and Borrow-a-Laptop from the Library program

Categories: Engaged Learning, Sustainability

Total Amount Requested: $39,158.69

ABSTRACT

With a Strategic Initiative Fund Grant, we will create a Mobile Mac Lab to foster Information Fluency skills across campus and to provide additional much needed computer resources for our community. The purchase of 25 Macbook Pro computers will allow us to create a movable computer lab that can be employed in educational activities both in the library and at any number of locations on campus. The laptops will be housed and charged in a special secure cart, which will be kept in a locked closet with electrical outlets. These computers will be accessible to students, faculty and staff for conferences, special events, group study, presentations, and classes. With the Mobile Mac Lab our campus will have the dynamic, cutting edge resources essential to keep our students abreast of developing library resources and technological advances.

The laptops would offer anyone in the Dominican community the opportunity to use state of the art technology. Unlike desktop computers which are set up permanently, the laptops can be stored when not in use. This allows for a much more flexible use of space. Currently in the library it is not unusual to have every desktop computer occupied but to have unutilized table space, while patrons wait in line or hover near the computers awaiting the departure of a computer user. Occasionally we have the opposite problem, that every desk and table is filled but one or two desktop computers are open. At these times, the choice is to leave the library to find

seating or to sit in front of a computer without using it. The Mobile Mac Lab will go a long way to alleviating both problems without leaving any significant permanent footprint. In fact, the only permanent footprint would be the cart, which would normally be in a locked closet.

The Mobile Mac Lab expands access to technology for everyone and offers more options for usage environments than a desktop computer lab would. It will be an asset for members of our community who do not have access to laptop computers either because they do not own a laptop or do not have one on hand. For example, if a student needed to collaborate on a project with other students while using a computer, working in a lab would disturb everyone else in the lab. With a laptop, the student could go to the group study area in the library to collaborate. Or, a student could work with books in the library stacks, reading and typing notes on the laptop. Working directly among hundreds of books on the subject of a Master's Thesis or Senior Thesis is a qualitatively different experience than bringing a few books at a time to a desktop computer.

The Mobile Mac Lab is a step toward Dominican becoming a greener campus. Laptops use far less power than desktop computers. Additionally, having access to laptops through the Mobile Mac Lab on campus will expand students' commute options. They can choose to walk, ride a bike, or take public transit to campus without lugging a three to seven pound computer with them.

Finally, the librarians have encountered problems with finding an open computer lab in which to teach. With these laptops, librarians would not need a lab. We could teach information fluency skills in any classroom. Also, the Mobile Mac Lab would expand opportunities to provide mini lectures. It is inefficient for a class to come to a lab for a ten-minute presentation. With these laptops, librarians can distribute laptops and give mini lectures without the disruption to the learning environment caused by changing the class location from the regular classroom to the computer lab.

RATIONALE

We live in an information economy. The tools used to access information are usually computers, tablets, or phones but the tools most commonly used for information production are computers. We want our students to be information producers, not just consumers. Learning to use computers is most effectively achieved by using computers.

Currently we do not have enough computers to meet our students' needs. We do not have enough space to set up another computer lab of desktop computers, while still leaving sufficient space for use by non-computer related tasks. In other words, if we set up another computer lab or information commons using desktops, we will do so at the expense of other spaces. Checking out laptops solves this problem.

The Mobile Mac Lab will provide Dominican students with experience working with Macs. Current Dominican student and aspiring public school teacher, Jonathan Glocknitzer, who helped with this proposal, points out that students often emerge from Dominican with little or no experience working on Mac computers. This can be a problem since many school districts use Macs. The Mobile Mac Lab will help solve this problem.

As mentioned above, some students lack their own computers. This solution would give these students greater access to the tools enjoyed by many of their classmates.

At times librarians have difficulties scheduling a computer lab for teaching because demand is so great. Building a new computer lab or the proposed Mobile Mac Lab would solve this problem. The latter would offer far greater flexibility while not diminishing the existing space that is currently used for other purposes. Creating the Mobile Mac Lab would be much less expensive than creating a lab of desktop computers, which would require a special room, air conditioning, and wiring.

Macbooks use much less electricity than our current desktop computers. Furthermore, a room full of desktop computers generates a significant amount of heat which then needs to be cooled with air conditioning, using a great deal of energy. Laptops do not generate so much heat. In short, this lab provides a more sustainable way of using computers than our current computer labs. Furthermore, cradle to grave Macbooks have a much lower environmental impact than the Dell desktops we use. They use recyclable materials such as aluminum and glass. Even the packaging is more environmentally friendly.

Finally, Dominican is by no means a pioneer in proposing a Mobile Mac Lab. Many other universities already do this for the reasons listed above. In the near future, perhaps computer labs consisting of desktop computers will be repurposed. At an institution where a Mobil Computer lab was recently introduced, a room full of hulking computers that was only useful for computer related classes was transformed into a room with round tables and a cart with laptops in the corner. The room was then used for teaching computer related classes, teaching non-computer related classes, and for community events.

PROJECT DESCRIPTION AND LOGICAL FRAMEWORK

The lead proponent of this project, Librarian Ethan Annis, will create a master image containing all the applications, the operating system, and the settings that every Macbook hard drive will contain, on an external hard drive. This image will then be transferred onto each computer's hard drive. This reimaging would be done using OSX Lion Server and a Gigabit Ethernet Switch, to set up a local network. Since this would not be connected to Dominican's network during the transfer, it would not add any traffic to Dominican's network. Ethan brings six years of IT work experience to this project, and has both built numerous images and transferred those images to computers in the past. Jackson Radcliffe of IT has offered to assist with this part of the process.

Using a product called Deep Freeze, the library would insure that the images on the laptops would remain the same regardless of what users downloaded. With Deep Freeze, every time a user boots up a machine the image returns to the state it was in when it was originally loaded onto the computer. The images would also contain MS Office. According to Jackson, we have a site license for Office so this would not add additional expense.

The Mobile Mac Lab cart would be kept in a locked closet. The closet already has electricity but we would hire an electrician to wire an isolated circuit to plug in the cart. (The price of this has been included in the budget.) The cart would also be locked to the floor of the closet with a cable

lock. The doors on the cart itself would also be locked. This would provide extra security. The computers would be checked out using the library circulation system that is already in use. Adolfo Real and Kenneth Fish, both collaborators on this proposal, have already created such a system within the catalog to check out laptops and other AV equipment. We would not even need to adapt this system to use it for the Mobile Mac Lab. All we would need to do is add items to the existing setup. The supervisors of the department, who are all collaborators on this grant, would check out items daily as needed.

The project could be ready to roll out within four weeks or less of receiving funding. The isolated circuit needed to charge the cart and the laptops could be made during one electrician visit. The image could be created and tested within a few days. The transfer of the image would take a few hours.

The computers will all have Apple Care warranties for three years, in case one of the computers develops a problem that our department could not solve in the early years of the Mobile Lab program. The IT department is also enthusiastic about this project, we can get assistance from them in case of computer problems.

ASSESSMENT PLAN

To assess whether the Mobile Mac Lab computers are being used, we will look at circulation statistics of the laptops. The catalog will track this for us automatically. We will also record how often the cart is being borrowed for classes. In addition, we will conduct a survey at the end of the first year to measure satisfaction with the service.

BUDGET

Sources of Funds	
All Prices Include tax	
Strategic Initiative Fund Grant	$39,158.69
Total Sources of Funds	$39,158.69
Uses of Funds	
25 Macbook Pros with 3 years of Apple Care	$34,231.75
30 Licenses for Deep Freeze for three years	$1,175.41
1 Mini DVI to VGA Adapter	$18.55
1 OWC External HD (FW 800)	$303.80
1 Brentford Mobility Cart	$1,952.91
1 Lion Server	$50.00
1 Gigabit Ethernet Switch (16 Port)	$90.00
1 Apple Remote Desktop	$324.42
1 Fee for Electrician	$1,000
Total (including taxes)	$39,158.69

SENSITIVITY ANALYSIS

If we were funded at 75% we would still be able to build the Mobile Lab and lend the computers but we would not have enough computers for the larger classes. At 50% funding, we could again still build the Lab but would have an even harder time serving larger classes. The laptops will be under warranty for three years and could easily be used for five years. After that the library may be able to purchase new laptops.

PROPOSAL DEVELOPMENT RESOURCES

Needs	Benefits of Laptops over Desktops	Proposed Input	Short Term Outcomes	Long Term Outcomes
More computers for student, faculty and staff use, especially when no other computers are available More computer temporary lab space for Librarians for teaching especially when other lab space is unavailable Computers that can be easily carried to spaces where they are needed rather than people or groups moving to places where labs happen to already be A way to teach very short mini library skills classes without students spending much of their class period moving to and from the computer labs	Laptops can stored when not in use A Mobile Laptop lab does not require a special air-conditioned room, which dramatically reduces environmental impact Laptops can be moved into the group study area or upstairs into the shelving areas as needed Laptops use less power than desktop computers Cradle to grave, Mac Laptops have a much lower environmental impacts than most desktops, which helps to make our campus more sustainable	DUofC Strategic Initiative Fund grant of $39,158.69, which would go to: 25 Macbook Pros With 3 year warranties 25 Licenses for Deep Freeze 1 Mini DVI to VGA Adapter 1 Brentford Mobility Cart 1 Electricians Fee 1 Apple Remote Desktop 1 External Hard Drive 1 Lion Server 1 Ethernet 1 Apple Remote Desktop	Increased flexibility of library space Computers would be more available for student use Students who do not own computers would have greater access, helping to bridge the digital divide Commuter students who walk, bike, or take public transportation would have the option of borrowing a laptop instead of carrying one to campus More options for Librarians teaching lab classes Increased Mac familiarity among students, which is especially important for Education students	Continued fostering of information fluency Continued growth of library resources Continued steps towards creating a sustainable library Keeping up with developing technological advances