Digicenter Annual Report, 2007-2008

The Digicenter has had a successful first year of operation. Starting in July of 2007, the Digicenter began operations in a temporary location within CTEL, in the basement of the James B. Duke Library. Under the supervision of Dr. Nicholas Schisler, the first task was software training to develop expertise in imaging software. With Computing and Information Services' Cort Haldaman, we completed the Luna Insight server installation. As the primary server administrator for Luna, the Alumni Fellow has the sole responsibility of managing user's collection design and access. With the software installed and configured, some time was spent configuring the Digicenter's scanners.

After some research into the best practices of digital images, we were able to determine the optimum scanning resolution for various media types. In order to maintain a high standard of image quality, we scan using the archival standard uncompressed RAW TIF file format. Derivative image files, which are used the access the images, including thumbnail images, are automatically generated in the Luna software, utilizing the JPEG2000 high resolution compressed format, which allows for a large amount of detail at reduced load times.

Images are regularly backed up locally in the Digicenter on external hard drives, as well as stored on a server with Luna Insight, which also has a robust backup system using Snapshot technology. In the future, some sort of automated backup system should be developed, in lieu of the manual backups, which are preformed now. The Alumni Fellow is investigating this process with the aid of Scott Salzman, Systems Librarian.

To coincide with the established best practices for imaging, several policies were developed in coordination with the Library Digicenter Committee, chaired by Pongracz Sennyey. We started by writing a Mission Statement: The Digicenter enhances the effective integration of digital technologies for innovative learning and teaching, and provide leadership for new forms of scholarly communications. Additionally the Digicenter will digitize unique, rare, or fragile materials and materials important to Furman University.

Additionally, the committee developed a tiered metadata policy, which provides content information that is needed for the description and categorization of media. Also, metadata provides a crucial link between media and education, while enhancing access to information. Properly tagged media is transformed from a normal image into a digital learning object. Each piece of media in the Luna database will have some sort of metadata attached to it. After careful consideration, the Digicenter has adopted the Dublin Core standard of metadata field sets. Our model is flexible, it allows for a base level of metadata, with the option of adding more detailed content-specific information at a later date. Subject matter experts, normally the professor who is contributing to the project, are encouraged to participate in higher tiers of metadata assignation. The more metadata we can associate with an object, the greater chance it will be easily found, and more can be learned. While more metadata is preferred, extensive metadata is not required, and should not prevent the publication and retrieval of an image in the Luna database.

The library committee also produced a collection development policy, which outlines selection criteria, services, and categories that make up a Digicenter project. Selection for digitization of new materials or for other additions to Digicenter collections will be based upon a number of factors including:

- The nature and relevance to teaching and learning
- Copyright and intellectual property considerations
- Available personnel and equipment
- Donor restrictions
- The expected audience for the materials
- The expected uses for the material (e.g. teaching and student learning would have a high priority)
- Costs of acquiring and/or digitizing the materials vs. the expected benefits of having access to the materials
- Alternative collections or modes of access that might be available
- Visibility of the materials or collection including grant or partnership opportunities
- Duplication of existing digitization projects

The goal of incorporating technology into the classroom is paramount, as the ideal project would have a direct link to coursework, and would be used by the professor in class and their students outside of class as a study aid.

Finally, with the help of a lawyer, a copyright policy was drafted. The policy provides an extensive criteria ensuring that projects for the Digicenter are following copyright laws. The majority of the Digicenter's work should fall under fair use, but nevertheless, all materials handled by the Digicenter will be examined for copyright concerns. For materials brought to the Digicenter for digitization or uploading onto Luna collections without copyright and owned by the faculty and/or department(s) the Digicenter encourages the signing of a Creative Commons Non-Commercial Attribution Share-Alike License. This License is a form of sharing digital objects with the larger community of scholarship without losing ownership rights. The sharing of scholarly output with a larger community of scholars is an explicit goal of the Digicenter.

With these policies in place, the Digicenter began assisting the Art Department with their slide digitization. A review of their scanning techniques led to a recommendation of increased scanning resolution. Some assistance with digitization was offered, and an initial batch of slides was digitized, but due to logistical issues, further digitization was not pursued. A metadata schema was developed for the Art Department, and previously digitized slides were provided for inclusion in the Art Department Digital Slide Library. These slides are all fully cataloged with appropriate metadata by the Art Department Alumni Fellow, who continues to digitize slides and facilitates their inclusion in the online catalog. Over the course of the year, the Art Department Alumni Fellow has been able to digitize and assign metadata to around 10,000 art slides. That number continues to grow as thousands more Art Department slides are in the process of being digitized. Art Department faculty members were familiarized with the Luna software, and they plan to begin teaching with it in the fall, as more images are added.

The second major project taken on by the Digicenter was for Margaret Caterisano's Costume Design course. Margaret had previously had around 1500 History of Costumes slides digitized by the Help Desk. Some background research discovered that the company who sold the slide set was planning a DVD release of the images. The company was contacted, and the Theatre Arts Department was able to procure a license allowing them to use the images for a few hundred dollars. After receiving the slides on a

DVD, the Digicenter was able to post process them, fixing some of the errors made in digitization. With the help of student workers, metadata from the History of Costumes descriptive supplementary material was added to the Luna database. Additionally, images were categorized by gender and color, with additional descriptions adding on to the previous metadata. This created an interactive database that was fully searchable through any of the item-specific metadata fields. The database was used to create presentations for class, and the students were able to use the images as a jumping-off point for their own designs. Students could also study for tests, which were based on the images. The project increased the accessibility of the images, which previously had to be borrowed from Mrs. Caterisano's office and loaded into a slide projector. Additionally, the metadata was attached directly to the image, where previously it had to be looked up based on the slide's number on a typewriter-produced page. The cumbersome binders that the slides were stored in also became a thing of the past.

Throughout the year, the Digicenter has been working with Furman University Special Collections and Archives to help digitize some of their rare and fragile materials. The first project undertaken for them was the digitization of over 300 photographs depicting the construction of the New Campus of Furman. Following an existing taxonomy provided by Special Collections, student workers were able to virtually recreate their hierarchical structure. After producing high-resolution scans, the images were added to the Luna database, where they were assigned with organizational and descriptive metadata. This provided an interactive database that coincided with the 50th anniversary of the New Campus.

Next, around 2100 negatives and photographs of the Old Main Campus were digitized, again by Digicenter student workers. The negatives were particularly challenging, as they were not mounted, were generally oversized and in various states of preservation. Great care was taken to recreate the original images as best as possible. Here too we were able to construct digitally an existing taxonomy, provided by Special Collections. Some of the metadata for these images was transferred from an existing spreadsheet, and student workers provided additional metadata descriptions. All of these

images were post-processed and added to the Luna database, where they provide a fascinating snapshot of life at Furman between 1851 and 1958, from student groups to since-demolished academic buildings.

After digitizing thousands of photographs, the Digicenter worked with Special Collections to scan a variety of old and rare manuscripts from the Ware Family Collection and a series of letters from the James Clement Furman Papers. The Ware Family Collection features agricultural and crop liens, land deeds, mortgages, bond slips, a list of slaves, a Confederate Loan, and even tuition statements from Furman University in 1867, then a relative bargain at $111. The James Clement Furman Papers provide a fascinating look into the life of Furman's first president, featuring discussion of a number of issues from the early years of Furman's history. All of the letters are written by James Clement Furman, and document his correspondence with a variety of individuals. These manuscripts were placed on the Luna database, allowing greater accessibility, and preventing the damage that can occur when they are handled. Metadata has been assigned to all of these, allowing quick and exact access.

Another type of object scanned for Special Collections were around 100 coins from their World Coin Collection. These coins date back to Roman times, and contain examples of coins from many different cultures, offering coins from a variety of time periods. All of these coins are indexed with extensive metadata, which we were able to transcribe from existing documentation. The coins have already been featured multiple times in classroom lectures. Digitizing the coins allowed us to keep them safely secured while providing an unprecedented level of detail; the coins can be viewed as if they were under a microscope.

After discussing which type of project would get the most use, Special Collections and Archives chose to digitize their collection of course catalogs from the Greenville Women's College at Furman. We scanned every page of all of their catalogs, dating back to 1857 up into the end of the Women's College in 1937. All together, we digitized roughly 5,000 pages from the catalogs. These will be made into a text-

searchable PDF files, recreating the existing catalogs with higher resolution and enhanced usability, all without risking damage to original documents.

The next project undertaken by the Digicenter was the creation of a Luna image database for Dr. David Spear. Dr. Spear provided around 1500 images from his trips abroad. These images are divided into two collections, a Byzantium Image collection and a Medieval History Image collection. Some basic metadata was obtained from filenames and EXIF metadata, which allowed us to capture the date the photos were taken. Dr. Spear later added additional metadata using the Inscribe program. These collections have already been used in several of Dr. Spear's History classes. Additionally, students have accessed the database outside of class on their personal computers.

This year has been a productive one for the Digicenter. We were able to complete many policies covering all aspects of our work, allowing us to concentrate on a several exciting pilot projects. Together, these projects and polices form the foundation for new larger-scale projects to be pursued in the future. Currently, the Digicenter is planning a showcase project to demonstrate our capabilities. We've chosen to focus on New Orleans, and are working with Lloyd Benson, Suresh Muthukrishnan, and Diane Boyd, who are all featuring New Orleans in their courses. We want to create an interactive interface that features cross-disciplinary information in a variety of media related to New Orleans. We will geocode a collection of images of art and architecture, as well as photographs taken by in New Orleans. Through an API, the geocoded images will be viewable in GoogleEarth, thereby providing the images a geographical context that is otherwise difficult to create and understand. Moreover, images will be linked with streaming music, newspaper clippings and with literary texts, creating a rich tapestry of information about the city, its development and its cultural heritage. Finally, the cultural information will be linked with geological and hydrological data, much of it generated with GIS technology, including data about the levees, hurricane Katrina, the geology of the environs, and the Mississippi river.