

Project Title: Digital Image Search and Distribution System
 Project Category: Strategic Initiative Grant

Principal Investigator: Allison J. Cywin, Visual Resource Curator

Other Participants: Craig Oliveria, and Paula Erenberg

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Total Amount of Funds Requested: \$25,000

Concise project summary (limit 250 words): The Visual Resource Collection of College of Visual and Performing Arts (CVPA) at University of Massachusetts Dartmouth has embraced the digital age by expanding its mission and services to digital production and acquisition of image and multimedia digital resources for campus wide distribution. In the next few years, Visual Resource Collection will increase its services by the establishing a Visual Resource Image Center (VRIC), a virtual and searchable library of images and multimedia content. Its purpose is to foster and to support the use of digital imagery, multimedia and audio content. To do so, VRIC has embarked on a “Five-Phase” digital initiative to acquire and to generate a digital multimedia and image database system. This centralized database system will allow faculty and students to access visual content from their office desktop or remotely from home. This endeavor will create a virtual learning space that provides a new environment for research, scholarship and classroom instruction. In addition this database will complement existing technologies such as WebCT, by enabling faculty to point to specific images reserves without over tasking the WebCT system with image content.

An SIG grant will allow for full implementation of “PHASE 3”: to acquire and to execute a universal digital image search and distribution system campus wide. With this grant we will: (a) acquire *LUNA Insight*, a digital multimedia management application; (b) purchase hardware to support the LUNA application and distribution; (c) train VRC and CITS staff in *LUNA* application; (d) hire support staff to assist with implementation; (e) building indexes, authorities, and descriptive templates; (f) import existing data and images (g) begin the ongoing cataloging process to populate the database with descriptive content and associated digital images; (h) develop a web portal for search, and retrieval of image and multimedia content.

Allison J. Cywin, Curator of Visual Resource Collections

Date

Magali Carrera, Chair of the Department of Art History

Date

Michael D. Taylor, Dean of the College of Visual & Performing Arts

Date

Narrative

1. Visual Resource Digital Initiative: Images and multimedia resources are fundamental to classroom instruction and the learning experience. At UMass Dartmouth the Visual Resource Collection (VRC) of the College of Visual and Performing Arts (CVPA) plays a central role in supporting these pedagogic objectives by insuring that these resources are of the highest quality, and accessible research, instruction and study. Traditionally, VRC has fulfilled this mission through the technology of 35mm slides. Although one may argue 35mm still offers a superior image, the reality is however, 35mm slides are becoming rapidly obsolete. Aware of these technological shifts, VRC has commenced to transform the slide library to digital. During the past two years, VRC has produced approximately 18,000 master image files for faculty and students from a broad base of departments including: Art History, Artisanry, Fine Arts, English, and Anthropology. Yet with all this image content, we lack a search and retrieval system. If image and multimedia content is to be used to its full potential, it must be accessible to users. The best way to achieve this objective is through a digital management system that allows users to search and retrieve content.

Digital Initiative Overview: The VRC has embraced the digital age by expanding its mission and services to digital production and acquisition of image and multimedia digital resources for campus wide distribution. In the next few years, VRC will increase its services by the establishing a Visual Resource Image Center (VRIC). Its purpose is to foster and to support the use of digital imagery, multimedia and audio content. To do so, VRIC has embarked on a five-year digital initiative to acquire and to generate a digital multimedia and image database system. This centralized database system will allow faculty and students to access visual content from their office desktop or remotely from home. This endeavor will create a virtual learning space that provides a new environment for research, scholarship and classroom instruction. In addition this database will complement existing technologies such as WebCT, by enabling faculty to point to specific images reserves without over loading the WebCT system with image content.

VRIC has begun digital transformation comprised of five-phases. Phase 1 and Phase 2 will be completed in June 2006. Below is an outline of VRIC digital initiative.

Phase 1 (FY04-05) Assessed the mission of VRC slide library; evaluate user-base and needs; identified obstacles that prevented adoption of digital technology; explored ways to encourage faculty and students to transition to digital technology; evaluated operations for efficiencies of digital productions, and distribution of digital content.

The following activities are completed.

- Upgraded VRC infrastructure
- Established a local network for VRC
- Acquired 3TB for image and multimedia storage
- Added computer terminals for students and faculty to access the internet and digital images content.
- Acquired two mobile computing carts (includes LCD projectors/computer) for CVPA faculty instructions and student presentations.
- Established an electronic system to deliver digital image content to professors' desktops.

- Extended digital image services to CVPA's satellite facility, Star Store, located in New Bedford, Massachusetts (twenty minutes from main campus and other colleges with UMASSD campus).

Phase 2 (FY05-06): Upgraded VRC's digital lab by purchasing professional scanners; evaluated and implemented national and international standards (International Standards Organization, National International Standards Organization, Library of Congress, and Visual Resource Association) for digital image database system; develop guidelines for digital capture and dissemination of image content. In FY 05-06, VRC received three grants, a total of \$18,000, to implement and complete Phase 2.

Activities outlined below are scheduled for completion June 2006

- Review national and international digital standards for capture and preservation of digital images.
- Establish guidelines for capture and management of digital image content.
- Establish minimum metadata standards including technical, descriptive and administrative.
- Evaluate commercial and open-source digital management systems for campus wide disputation of image content.
- Submit and distribute a report to UMass Dartmouth library, UMass System - Digital Image Group and UMass Digital Image Database

Phase 3 (FY06-07): Acquire and implement a digital multimedia management application and hardware to support application for campus wide distribution of image and multimedia content. For rapid deployment, hire staff to assist in populating the database with descriptive and associate images content.

Activities associated with implementation.

- Acquire digital management system (*LUNA* application)
- Install application and hardware to support application and images.
- Train staff (*LUNA* application)
- Export existing data and images
- Building indexes, authorities, and descriptive templates based on metadata standards develop in Phase 2.
- Begin the ongoing cataloging process to populate the database with descriptive content and associated digital images.

Phase 4 (FY06-08): In coordination of Computing and Information Technology Services (CITS) and CVPA webmaster, the VRC will develop a web portal which will allow faculty and student a direct link to the digital database system. This portal will also be available through the UMass Dartmouth library webpage allowing for wider distribution.

Phase 5 (FY08-10): The final phase is to link Visual Resources Departments across the UMASS system. This will enable faculty and students, from all four campuses, to utilize and share image and multimedia digital content. To this end, we have begun to work in coordination with President's Digital Image Group taskforce under the direction of Kate Harrington. Currently, UMass Digital Image Group Committee is exploring the issue of copyright, the possibility of

licensing a core collection of digital images to be shared system wide and explore ways for eventual sharing of image and multimedia content.

2. Grant Project Proposal

Funding Request: VRIC is about to embark on Phase 3. In support of this endeavor, the College of Visual and Performing Arts (CVPA) and Center of Information Technology Service (CITS) of UMASS Dartmouth (UMASSD) have allocated \$16,700. With their support, VRIC will purchase *LUNA Insight*, a digital management system, train staff in this new application and secure technical support for the first year. In the sequential years, VRIC will assume annual and maintenance cost of \$3,700. Though this is an excellent start, we are still in need of additional funding. To complete this phase, we request SIG grant support of \$25,000 to purchase a server to host the *LUNA* application and to hire staff to assist with the daily operation of VRIC digital and reference services.

Grant Project Summary: In January 2006, a committee comprise of the Charles McNeil, Digital Librarian; Judy Farrar, Archivist; Linda Zeiper, Art Librarian; Dr. Magali Carrera; Dr. Memory Holloway; and Michael Taylor, CVPA Dean, evaluated six commercial and non-commercial digital management systems. In conclusion, although not perfect, the *LUNA Insight* application best suits the needs of our faculty and students. *LUNA Insight* image management system was introduced in 1993, with the support of J. Paul Getty Trust and Eastman Kodak Company. The product was developed to manage and disseminate non-print content. Over the years it has become known for its easy intuitive public-interface. We selected *LUNA* for its usability, its interoperability, its expandability, and its ability to integrate with existing UMASS technologies including, WebCT and Voyager. *LUNA* also addresses future compatibility through its XML Portal system. The product is being used by a number of regional universities including, Rhode Island School of Design, Brown University and perhaps most important, our colleagues at the University of Massachusetts Amherst along with the five colleges; allowing for future collaborations. The results of this initiative will bring fundamental change to how image content is searched, accessed and utilized across all disciplines and learning environments.

To get a sense of how *LUNA*'s user-interface works; envision a faculty member or student sitting a home or in their office or classroom, with a simple click of the mouse a world of high quality digital multimedia and images are delivered to their finger tips. Students and faculty will open a welcome screen which will prompt them to log-on (designed by the client to allow us to comply copyright restrictions). Once users are logged-on, they are given a screen with three search options. Users may search via a list of special collections that may be organized by academic disciplines, colleges, institutions, libraries and content areas. The search may be restricted to individual collections or across all collections. Users may also search by keyword using a "Google" like search box or advanced search by field designation and by Boolean operators. The search results are presented as a collection of thumbnails which allows the user to view one at a time or select multiple images, audio and video clips. Images may be enlarged and zoomed, without pixilation. One of the few commercial applications with this zoom feature; faculty and students will be able to focus on minuet detail, which otherwise is lost with conventional digital and analog formats. Once users complete their inquiry they may review their selections within the *LUNA* system or export the image content to presentation system.

Phase 3 will begin with the purchase and installation of the *LUNA* software, along with the hardware to support the application and image storage. Last year alone VRIC scanned

approximately 10,000 images for CVPA faculty and students. We do not expect this demand to change in the near future. We anticipated this project will require 75% of VRIC Curator's time. It is, therefore, essential that we hire an assistant to maintain VRIC ongoing digital demands. The assistant will be responsible for daily operations of the digital lab and will insure that the needs of the faculty and students are met. Once the assistant is in place, a series of WebEX and on-site training sessions will be held over a period of five days. Both VRIC curator and IT personnel will attend training. IT will be responsible for the installation of hardware, storage maintenance, routine backups and security protocols. Upon completion, the VRIC curator will build the database structure by creating indexes, authorities, and customize data template. This process will insure accurate data input and efficient workflow. The cataloging process will begin a collection comprised of approximately 1,000 images documenting the history and fine art of photography. This collection was selected, because of its interdisciplinary content. The images have also been digitized with some descriptive content which can be exported immediately to the new system. Phase 3 will conclude with the development of a web portal to the *LUNA* system. VRIC curator, Allison J. Cywin, Craig Oliveria and CVPA webmaster, Paula Erenberg Medeiros will work in unison to develop a web portal for the *LUNA* system. This will set the ground work for the final phases of the initiative which is campus wide and eventually system wide distribution.

3. Project Deliverable

- Installation of software application and hardware (server and expanded image storage)
- Train VRIC and CITS staff in *LUNA* application
- Export existing photographic collection including the descriptive metadata and image files.
- Building indexes, authorities, and data templates based on metadata standards established in Phase 2
- Begin ongoing cataloging process to populate the database with content
- Build a web portal for faculty and students to access the *LUNA* image database

4. Dissemination of Project Results: The goal of the project is to disseminate resources to the entire UMASS campus and eventually the entire UMASS system. For the first time, images and multimedia content may shared across colleges providing a new learning space for research, scholarship and classroom instruction. The digital management system will be made available through VRIC and Library websites. Announcements and press releases will be distributed across campus and the community. A presentation will be given at the faculty lunches series and for the Center for Teaching Excellence at UMASS Dartmouth. The project will be presented at the New England Archivist Conference held at University of New Hampshire in fall 2006.

5. Project Budget:

6. Project Timetable

FY06-07

May-July	Purchased and install <i>LUNA</i> application and server
July-Aug	Hire and train a Digital Assistant
Aug-Sept	Schedule and conduct <i>LUNA</i> training sessions for VRC and CITS personnel
Oct-Dec	Build indexes, authorities and data templates
Jan-June	Catalog photography collection
March-June	Develop web portal for public access

7. Principal Investigator, Participants and Qualifications:

Allison J. Cywin—Principle Investigator --- Visual Resource Curator

- Allison J. Cywin has established similar digital projects at Rhode Island Historical Society. She has extensive knowledge in digital archives gained at Simmons College where she is completing her Masters in Library and Information Science with an emphasis in digital and electronic archives.

Craig Oliveria, CITS/System Administrator and Operations

- Network Systems Specialists for UMass Dartmouth – Heads a team to develop and maintain centralized systems and data center operations based on established standards. The center maintains centralize data storage, maintains and mangers servers including backup, recovery and archiving of University data. Mr. Oliveria maintains VRIC current server.

Paula Erenberg Medeiros, Professional Tech II

- CVPA Webmaster. Her primary responsibility is to design and maintenance the College of Visual and Performing Arts website. In addition she oversees the computer labs at CVPA, Star Store and has worked, in conjunction with VRIC, to provide faculty and students access to digital image content.

Digital Assistant:

- Job Qualifications – Knowledge in Adobe CS application, scanning process and applications.

8. Letters of Support:

- Donna Massano - yes
- Michael Taylor - yes
- Charlie McNeil – yes
- Sarah Teasley - yes
- Craig Oliveria - yes
- Paula Erenberg Medeiros - yes