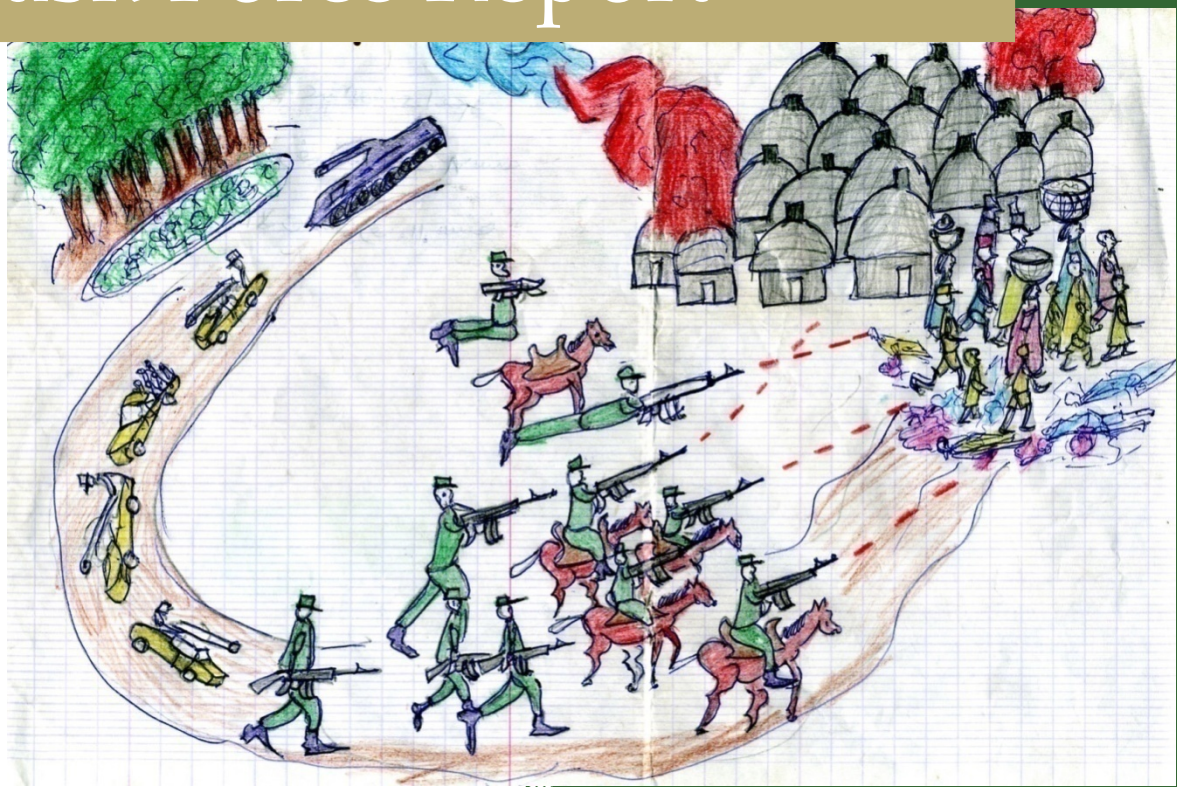## University of South Florida

Fall November 14, 2008

Digital Collections Task Force Report

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Digital Collections & Services Task Force Report

'Strongest memory' drawing by a child survivor of the Darfur genocide. Provided to USF Libraries by Waging Peace

Barbara Lewis

University of South Florida Libraries

11/14/2008

Executive Summary

Libraries, museums, archives, and similar institutions worldwide are digitizing their physical collections and creating born-digital resources, all in an effort to make them accessible to people everywhere. The digitization program at the University of South Florida Tampa Library has been active since the mid 1990s. Today it is expected that, as the Library proceeds with its ARL collections initiatives, the demands on this program will increase dramatically.

In order to meet these new demands, changes are necessary to increase the productivity and capacity of the operations and to improve the accessibility and visibility of the collections. These challenges and their associated risks will be addressed by:

- Establishing and implementing project management and production scheduling practices;
- Providing adequate metadata cataloging resources;
- Evaluating existing projects to understand their research value and, in some cases, making hard decisions regarding their continued use of digitization resources;
- Analyzing the curriculum and the research interests of our on campus users to better target and market digital collections;
- Collaborating with teaching faculty and the C21TE Media Innovations Team to create course specific instructional modules that can be repurposed to general needs;
- Developing programs and methods to better inform and instruct librarians, faculty, and students about our digital collections;
- Investigating new means to increase capacity, such as outsourcing and shift operations;
- Merge DCS departments to achieve higher efficiency;
- Improving existing and developing new channels for digital collections access;
- Documenting procedures, cross-training department staff, and ensuring backup for critical operations; and
- Assessing the quality, usage, and impact on research of our digital collections.

It may be noted that the acquisition of new equipment is not included in the above. Other options exist for increasing the capacity of our digitization operation and these should be fully exhausted before new equipment is purchased, especially in the current budget situation. In addition, new staffing requirements that were not previously projected in the ARL collections initiatives' business plan are limited to an Assistant Digital Collections System Administrator.

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At the request of University of South Florida (USF) Tampa Library Administration, a Digital Collections Task Force was created in August 2008. Team members include Barbara Lewis, chairperson; Richard Bernardy, Digital Collections; Ilene Frank, Reference & Instruction; Brian Falato, Technical Services; and Pete Reehling, Technical Services. The Task Force was given the assignment to review and investigate the current status of USF Libraries' Digital Collections and to develop recommendations for improvement and expansion. The following report is the result of this team's efforts.

I. Current Status of the USF Libraries' Digital Collections

A. Existing Collections in all Digital Asset Management Systems

METADATA QUALITY

For the first 10 years of the digital collections effort at the USF Tampa Library, descriptive metadata was created by paraprofessionals. Only with the migration to CONTENTdm and then DigiTool, Digital Asset Management Systems (DAMS), did traditionally trained (MLS) catalogers become involved.

A number of different descriptive metadata schemas were used over the years in the four systems utilized prior to implementation of DigiTool. These schemas included Simple Dublin Core, Qualified Dublin Core (extended DC-Lib Application Profile), VRA Core 3, and USFLDC (CONTENTdm). For the migration to DigiTool from these systems, the Digital Collections Cataloger designed crosswalks from each schema to MARC. The Digital Collections System Administrator (DCSA) then programmed XSL style sheets to facilitate data conversion from existing systems into DigiTool. All metadata was then programmatically transformed to MARCXML via XSLT, a language for transforming XML documents into other XML documents.

According to Technical Services' cataloging policy, with the deployment of DigiTool, all descriptive metadata attached to digital objects must be in the MARC (XML) format. For certain collections, including all DigiTool deposit module projects, original descriptive metadata are created in an extended Qualified Dublin Core (DC) format. The DC data is then transformed into MARC format and inserted into DigiTool via an externally created tool and a crosswalk/XSLT process.

Most descriptive metadata records attached to digital objects are syntactically correct MARC formatted records. However, because professional catalogers were not involved in the metadata creation, these records may not be of the highest quality in regards to AACR2/LC/OCLC/USF Tampa Library CPC standards. A metadata review of existing digital image collections (Appendix A) indicates that over 3700 hours of cataloger time would be necessary to manually bring the metadata records to a level of quality suitable for the USF Libraries catalog and/or WorldCat.

Some of metadata updates that are of a repetitive nature could be accomplished using global update tools. However, DigiTool's global change service is faulty. This issue was reported by USF to DigiTool technical support over 12 months ago. The incident has been 'in development' since that time. In light of DigiTool's lack of response to this issue, the DCSA recently developed a modest global change software module that can accommodate our basic needs. Use of this tool could significantly reduce the time needed to modify existing item level metadata records.

With that being said, before any such efforts are expended on any of these collections, a determination of the significance of the collection and its value to the research and teaching mission of USF and to the Tampa Library's collection initiatives is necessary. In addition, revisions should only be made to records that are deemed worthy of item-level cataloging.

ACCESS QUALITY

There are numerous access points to digital collections, both at the collection and item level. These exist via the local catalog (Aleph), the library website, WorldCat, and Internet search engines.

- Collection level records in the Aleph. If a collection's items are not included in Aleph, there is a collection level record, or in the case of serials, a serial record. A new policy is to create a collection level record even if there are item records. This process began with the Oral History Program and the collection level record provides users with a access point to the entire collection. A collection or serial record includes the collection's persistent URL or PURL (Figure 1) that points to the collection's Digital Collections webpage (Figure 2).

Figure 1 –Oral History Program Aleph collection level record.

1. Tampa arts and culture oral history project

Published: Tampa, Fla. : University of South Florida Tampa Library, 2006-

🔊)) sound

CLICK HERE TO ACCESS COLLECTION

USF ONLINE RESOURCE (AUDIO)		Available Online

Figure 2 –Oral History Program collection level (title) webpage.

Florida Citrus OHP

Florida Citrus OHP
University of South Florida, Tampa

Terms of Use: *free*, unlimited access

In a collaborative project supported by the USF Libraries Oral History Program and the USF Patel Center for Global Solutions, independent oral historian William Mansfield conducted a series of interviews on the impact of globalization on the Florida citrus industry.

The multimedia resources available for each interview are the complete audio (streaming audio, MPEG-4) and interview transcript (Full-Text Adobe PDF).

There are 20 interviews in this collection..

Browse the collection. (DigiTool)

Search the collection. (DigiTool)

Florida Citrus OHP

- Item level records in Aleph. There are some item level records for digital objects in Aleph. At the present time, these are primarily Oral History Program records (Figure 3) and include a link to the item's PURL. This link directs the user to the item's DigiTool record with immediate access to the digital object(s). In the case of oral history records, this typically consists of an audio file and/or a text file transcript (Figure 4).

Figure 3 –Oral History Program Aleph item level record.

1. Derek Ford
interviewed by Dr. Philip van Beynen.
Author: Ford, Derek (Derek C.)
Published: Tampa, Fla. : University of South Florida Tampa Library, 2008.

sound
CLICK HERE TO ACCESS DIGITAL AUDIO AND TRANSCRIPT

USF ONLINE RESOURCE (AUDIO)		Available Online

Figure 4 –Oral History Program DigiTool digital object record.

Object		Ford, Derek / interviewed by Dr. Philip... - PDF Document ()
		Ford, Derek / interviewed by Dr. Philip... - Audio ()
System number	(OCoLC)234077041	
Creator(s)	Ford, Derek (Derek C.) .	
Title	Ford, Derek / interviewed by Dr. Philip van Beynen	
Imprint, date, etc.	Tampa, Fla. : University of South Florida Tampa Library, 2008.	
Description	1 sound file (116 min.) : digital, MPEG4 file + 1 transcript (digital, PDF file)	
Summary	Dr. Derek Ford, karst science authority and author, begins the interview discussing his childhood in and around the city of Bath, England and the	

- Digital Collection Titles pages. A digital collection title page, as shown above in Figure 2, contains a basic description of the collection, a representative image from the collection which functions as a logo, usage/copyright information as needed, technical information about the digital content in the collection including an item count, and links (PURLs) to browse and search the collection in DigiTool. These pages on the library website provide limited flexibility in regards to content, style, presentation, etc. Briefer versions of the same information and logo image are used

in two places within DigiTool on the Browse Collections pages (Figure 5) and on the Collections page (Figure 6).
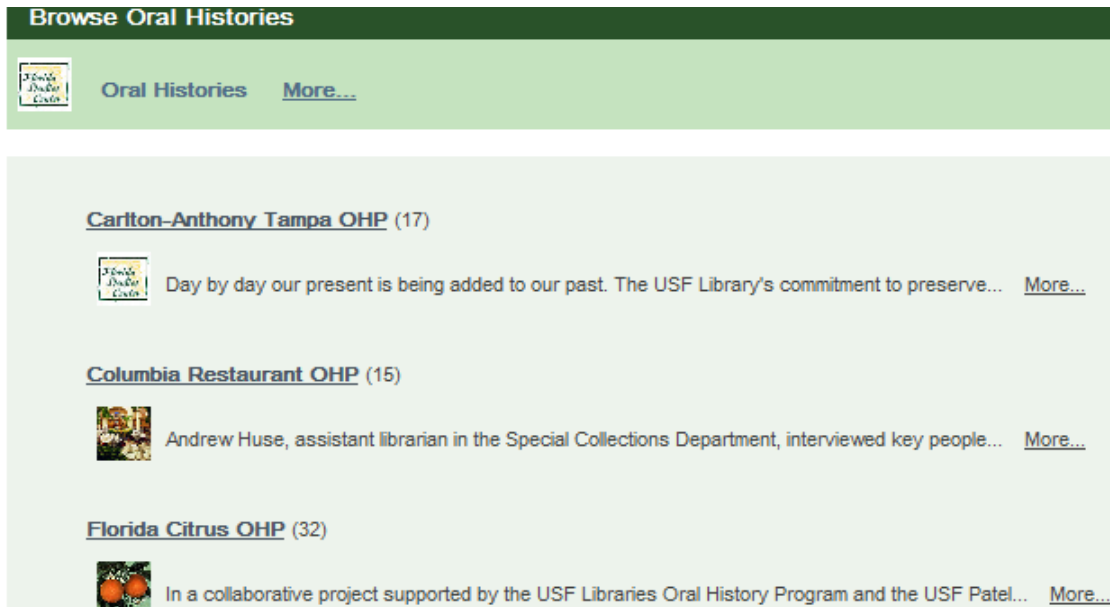
Figure 5 –DigiTool Browse Collection page.

Figure 6 –DigiTool Collections page.

- PURLs. The Florida Center for Library Automation (FCLA) has provided PURL services via OCLC's PURL server since soon after FCLA began offering digital

library services. The USF Libraries utilize this service for the creation and maintenance of PURLs.

- Collection level/serial PURLs. A minimum of three standard PURLs are created for each DigiTool collection: to the collection itself, to a browse page, and to a search collection page. Each or all of these PURLs can be entered in catalog records, on webpages, etc.

- Item level PURLs. Depending upon the type of collection, the item level PURL will point directly to the digital object via the DigiTool repository server or to the DigiTool descriptive record for the item. As with collection level PURLs, item PURLs can be entered in catalog records, on webpages, etc.

- USF Libraries home page. The USF Libraries home page features a PURL link, "Digital Special Collections," to DigiTool as one of the ten primary links on the Resources tab.

- DigiTool home page. This is the home page of digital collections as presented by DigiTool. The page provides a standard toolbar, a Simple Search box, a link to an advanced search function, and the Browse Collections section. When DigiTool was first launched, the presentation of its pages was minimally customized to conform to the look of the USF Libraries' website colors and header/footer.

- DigiTool Browse Collections. This section of the DigiTool pages functions as a subject/category access point to our digital collections. The structure is hierarchically organized in that top-level categories may contain other categories or collections. A category link brings up a list of other categories and/or collections under that category. A collection name link brings up browse results for that collection. A collection record also includes a brief description of the collection and a link to a longer description. An item count for each collection appears after collection name links in this section.

- Search Bases. In DigiTool, a search base is a specially configured search query that essentially functions as a standard search limit and permits the searching of individual collections.

- DigiTool Collections page. The Collections link on the DigiTool toolbar brings up the Collections page. It is an out-of-the-box defined page, which can present all of

the 'Search Bases' defined for our digital collections. The very brief description is displayed with a link to the longer description ("more" pop-up window). Accessing a collection from the Collections page takes the user to the Browse Collections form with the collection selected for a simple search.

- Simple Search. The Simple Search box includes a 'Select collection' drop-down, which includes a list of all categories and individual collections.

- Internet Search Engines. Historically search engines spiders, such as the Google spider, have had a difficult time discovering dynamically system-generated 'pages' from tools like DigiTool. Currently, an advanced Google search limited to the DigiTool URL provides a minimal set of results that do not accurately reflect the volume of content available. For example, a Google search "site:kong.lib.usf.edu ohp" does not retrieve any results. OHP stands for Oral Histories Program and the abbreviation is used in the titles of the programs entries in DigiTool. A search for "ohp" in DigiTool returns over 200 results.

- Another obvious DigiTool design flaw, from the perspective of web spiders, is that at the different stages of navigating within DigiTool, the html title of each page is 'DigiTool –' and some other words relating to the page function, such as 'DigiTool – Results – Full.' This is especially true when viewing an individual record in the full view. This discourages retrieval by web spiders because the titles appear as non-unique.

- DigiTool has recently released a service pack that may resolve some of the issues related to web spider visibility to its database content. Preliminary investigation of this service pack indicates that it will replicate the database content on static webpages that are then available to standard search engine spiders. It is assumed that these webpages will automatically redirect the client to the DigiTool object, however, this must be confirmed. While this is not an elegant solution to the problem, it is better than nothing and should be implemented and tested in the near future.

- Special Collections web pages. Digital Collections appears as a menu link on Special Collection web pages. Those links send the user to a digital collections information

page within the library website. This page provides information about the DAMS that we use and menu links to indexes of the Digital Collections Title webpages.

INTEROPERABILITY

The X-Service (X-Server) component of DigiTool provides for high interoperability relative to accessing metadata by external applications. A compact portal software module was originally created by the DCSA for the *State of Water in Monteverde, Costa Rica: A Resource Inventory* digital collection (Figure 7). The portal provides the ability to combine a custom designed 'splash' page for a collection with DigiTool search/results capabilities. This is accomplished without the need for the traditional form submission/page refreshes static web page model. The portal software utilizes a mix of Ajax (Asynchronous JavaScript and XML) and PHP to provide functionality by building upon the X-Service.

Figure 7 –Monteverde Digital Collection portal page.

Further work has been done to standardize the portal software for re-use. It has been used for a second website, the NSS News website. This software can also be used to highlight important digital collections.

Many other interoperability features support the backend/staff side of digital collections production. They will be listed elsewhere in this report.

DIGITAL OBJECT QUALITY

Digital image quality is very high. DCS does not just digitize and place raw images online. A good deal of time is spent perfecting the master images during image processing. This includes tasks such as straightening/de-skewing, regular & inverse cropping, color adjustment, levels adjustment, brightness & contrast adjustment, sharpening, canvas size normalization, and other clean-up work. Note: Some tasks mentioned relate only to page images of textual materials.

It should be noted that only the derivative (web presentation version) images are loaded in the DigiTool repository and available to the public. They are full size and provide the same pixel dimensions as the master image. This is a current administrative policy regarding what to make available to the public. The policy also reflects hardware budgetary considerations.

- Image archival masters, TIFF. TIFF is an adaptable and flexible file format for storing image and is widely used for digital archives because of its ability to store image data in a lossless format. TIFF files are very large in size compared to JPEGs because no compression is used. Most archival masters created by DCS are TIFFs.
- Image collections, JPEG 2000. DCS currently utilizes JPEG 2000 for the web presentation versions of its digital images. JPEG 2000 is an image coding system that uses state-of-the-art compression techniques based on wavelet technology. Its architecture lends itself to a wide range of uses from portable digital cameras through to advanced pre-press, medical imaging and other key sectors. It provides moderate compression and 100% size of the master image.
- Image collections, JPEG. JPEG is a commonly used method of compression for photographic images. The degree of compression can be adjusted, allowing a

selectable tradeoff between storage size and image quality. JPEG typically achieves 10 to 1 compression with little perceptible loss in image quality.

- For a limited number of DCS image collections no archival master (TIFF) images exist. These few digital collections were created prior to availability of disk burners.

- Streaming audio & video, MPEG-4. MPEG-4 is a global multimedia standard for delivering high quality audio/visual streams at lower data rates. It also provides for moderate compression of files, creating smaller file sizes than its predecessors. For the USF Tampa Library's Oral History Program, steps are taken to reduce file sizes/bandwidth usage for OHP content. For example, reduced sampling rates are used and files are converted to mono channel since content is voice only.

- E-Books - The METS schema is a standard for encoding descriptive, administrative, and structural metadata regarding objects within a digital library expressed using the XML schema language of the World Wide Web Consortium. The standard is maintained in the Network Development and MARC Standards Office of the Library of Congress, and is being developed as an initiative of the Digital Library Federation. The METS schema is used by DCS to the organize content of e-book type of digital objects. These digital objects may contain a combination of digital content, such as individual page images, individual articles/segments/etc. in PDF form, or other combinations. METS also provides the ability to enter table of contents data to support improved navigation capabilities in the content viewer.

- Documents - The Adobe PDF format is used to present many relatively smaller-sized content items. Such as items at the individual document or issue level. Some are "born digital" PDFs, others are Image+Text pdfs. Bookmarks and table of contents data is not created in the PDF.

USAGE

As reported to ARL for 2007/08 academic year (July 1, 2007 – June 30, 2008) under the ARL Supplemental Statistics Library Digitization Activities category according to the required criteria[1]:

- Number of times accessed = 1,344,709
- Number of queries conducted = 573,631

These figures represent the usage of content that we had in DigiTool for the entire academic year and the usage of content in two systems (CONTENTdm and Luna Insight) that hosted content for a portion of the academic year. CONTENTdm and Luna Insight were terminated before the end of the 2007/08 academic year.

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[1] ARL criteria: 1 hit/count = 1 object view, i.e. per title, 1 hit = 1 photo viewed, 1 hit = 1 compound object viewed. Item or collection record had to exist in our local OPAC. Content had to exist in our DAMS. Objects we digitized, but are resident in an external partner's system do not count toward ARL statistics.

IMPACT ON RESEARCH

Currently, there are not any methods in place to determine the use of USF Tampa Libraries Digital Collections by scholars, nor on the impact the use may have on research. According to Palmer[2], "[t]he high level of interaction with digital resources has been well documented, but we still have a limited understanding of how these materials impact the conduct of research."

The Oxford Internet Institute (OII) is currently developing a "Toolkit for the Impact of Digitised Resources" which aims to provide a set of approaches and tools to measure and potentially improve the impact of digitization projects. The Toolkit, scheduled to be released in 2009, will identify a mixture of quantitative and qualitative measures including:

Quantitative Measures
- Webometrics
- Analytics
- Log file analysis
- Scientometrics / bibliometrics
- Content analysis of media coverage

Qualitative Measures
- Stakeholder interviews
- Resource surveys
- User feedback analysis
- Focus groups
- Questionnaires

When it is available, DCS should obtain a copy of the Toolkit and evaluate its potential effectiveness. In addition, OCLC recently released a report, *The Impact of Digitizing Special Collections on Teaching and Scholarship. Reflections on a Symposium about Digitization and Humanities*, which should be studied.

Despite our current inability to assess our digital collections impact on research, at least one collection is making strides in the scholarly community. A Google search for "karstportal.org" returned 47 results. Sights providing links to the USF Karst Information Portal (KIP) include, but are not limited to: www.caves.org, the website of the National Speleological Society (NSS); the 11th (2008) volume of Kras I Spelelogia by the University of

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[2] Palmer, Carole. (2005). Scholarly work and the shaping of digital access. *Journal of the American Society for Information Science and Technology*, 56(11), 1143.

Silesia in Poland; pubs.usgs.gov/sir, the U.S. Geological Survey's Scientific Information Reports website; network.speleogenesis.info, the website of Speleogenesis; and the U.S. Cavers bulletin board where the KIP is listed as an "important new information source."

B. Existing Personnel & Roles

Digital Collections and Services has six and one half permanent staff members who operate under two management structures. This structure was adopted to permit efficient utilization of digitization equipment and provide some level of assistance to the digital collections effort.

Three members of the group report to Special Collections and are responsible for digital collections image, document, and audio/visual projects. Three and one half members of the group report to Public Services and are responsible for print reserves and for digitization of electronic reserves, interlibrary loan documents, Pronto documents, and copy services materials. The Public Services staff members also have a small percentage of their time allocated to assisting with digital collections projects. The department also utilizes temporary student assistants (OPS and FWSP) to assist permanent staff with scanning and editing operations.

<u>ROLES</u>

There are a variety of roles undertaken by the various members of DCS. These include:

- System administration
- Workflow design
- Equipment maintenance
- Staff supervision
- Digital photography
- Audio recording and editing
- Audio/video recording and editing
- Image scanning
- Document scanning
- Image editing
- Document OCR and editing
- Quality control

In addition, metadata creation and maintenance is performed external to DCS by USF Libraries Technical Services. There is also some level of project planning, especially at the work breakdown level; however, project management and production scheduling is rudimentary and informal at best. This is mainly due to the inadequate staffing level of the department.

C.   Existing Technology Infrastructure

While there has always been a shortage of human resources in DCS, this hasn't been the case with technology. DCS has always been well supplied with technology to accomplish its mission. Depending on the level of non-permanent staffing available to DCS, there is often more equipment than operators to use them. Most of the equipment has been purchased via external funds, such as, foundation funds and grants or from the 'profits' from contract work. In addition, DCS usually gets strong support from the yearly FCLA grants.

EX LIBRIS' DIGITOOL

Ex Libris' DigiTool is our primary DAMS. In the nearly 13-year existence of the digital collections effort four different DAMS were used (three commercial products and one internally developed application) prior to focusing exclusively on DigiTool. After DigiTool was selected and implemented all digital collection content was migrated from the existing systems, and usage of those other systems was terminated.

DigiTool was chosen because it was a leading DAMS and was fully featured. The strength of the system is its interoperability: the multitude of standards that it supports, the varied workflows supported by its modules, and the general ease in getting content in and out.

REPOSITORY API (SOAP)

This is an important and useful component of our digital collections technology infrastructure. The Application Program Interface (API) provides the programmer with protocols, tools, etc. for building applications. The Simple Object Access Protocol (SOAP) is an XML-based messaging protocol that encodes web service request and response messages before sending them over the network.

For the initial migration to DigiTool, the DCSA created a Java application that served as a loader – creating SOAP/XML formatted messages that contain metadata and paths to content. The software connects to MySQL, the Relational Database Server (RDBS), which contained the metadata database of the internally developed DAMS (OpenDLS). The RDBS also held prepared metadata from other systems from which data was migrated. This approach, in conjunction with the use of XML/XSLT technology, was the primary reason for the rapid initial migration of digital collections and rapid live launch of our digital collections in DigiTool soon after installation. The success of our implementation prompted DigiTool to invite the USF Tampa Library DCSA to speak about our DigiTool implementation at an Ex Libris hosted ALA panel in June 2007 about fast-track implementations. The application continues to be developed and adapted for use in loading content into DigiTool.

REPOSITORY SERVER

The Repository server is a simple OpenURL type of server, which can serve metadata or digital objects directly from the repository. It has the unique ability of being able to serve digital objects prior to the content being made publicly available (i.e. before descriptive metadata is attached).

JPEG2000 SERVER (AWARE)

Since JPEG2000 is not an image format that is natively supported by most current browsers, it is typical for viewing to be facilitated by the use of a plug-in or external application. To avoid requiring the use of a plug-in, DigiTool uses an image server to dynamically serve JPEG2000 images in bitmap format. The JPEG2000 viewer allows users to zoom/pan the image.

A new service is in the planning stage that will build upon the image server and will be developed by the DCSA. The new service will provide the ability to view and download a standard or custom sized image, up to the full-size of the original – in the JPEG format. This new service will be facilitated using Java Servlet technology (Tomcat). A link to the service will be included in each item's descriptive record in DigiTool. The servlet will display a form in which the users can select the parameters (e.g., pixel dimensions) for their derivative image. It will then generate the correct internal URL to display the image via the image server and allow the user to download the derivative image.

X-SERVICE/X-SERVER (URL/XML INTERFACE)

The portal software module searches the digital collection database in DigiTool directly using the X-Service component. The X-server allows the programmer to set up interfaces to external applications that enable search access to DigiTool Collections. It returns results seamlessly without the need for traditional web form submissions and page refreshes.

Deposit/Approver modules

The deposit/approver modules are used extensively to facilitate internal and external partner digital projects. Digital content can be uploaded and described via a standard

web form. An in-process deposit can be saved for future submission. An additional approver workflow can be used if desired. An Extended Dublin Core metadata scheme is used. There is not a built-in process to transform the deposit metadata into other formats (e.g., MARC). An external Java application has been developed by the DCSA to perform this task. With the harvest rules for Dublin Core descriptive metadata turned off, the DC data is retained but not harvested and thus not seen by the public. Only the MARC records are presented to the public.

Web Ingest module

The web ingest module is not used. If ingest procedures are needed the client ingest module is used. The ingest method is used primarily when there is no attached metadata, in which digital content only is batch loaded and descriptive metadata is created later.

Management & collection management module

This web module is not used. The management modules in the client (Meditor) are used.

Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)

According to the Open Archives Initiative's website (www.openarchives.org), " (OAI-PMH) is a low-barrier mechanism for repository interoperability. Data providers are repositories that expose structured metadata via OAI-PMH. Service providers then make OAI-PMH service requests to harvest that metadata. OAI-PMH is a set of six verbs or services that are invoked within HTTP."

This functionality is available within our existing systems so that, when desired, we can register as an OAI-PMH Data Provider and open our digital collections to OAI-PMH Service Providers. Configuring this feature is on the DCSA's current to-do list.

Z39.50

The National Information Standards Organization (NISO) identifies Z39.50 as "a computer protocol that can be implemented on any platform, defines a standard way for two computers to communicate for the purpose of information retrieval. A Z39.50

implementation enables one interface to access multiple systems providing the end-user with nearly transparent access to other systems."

The server module not configured or in use at this time.

<u>**HARDWARE**</u>

DCS has a comprehensive array of digitization equipment to cover the conversion of physical collections of most any type into digital format. A complete list of DCS equipment is provided in Appendix B and the following serves as a summary of that list.

- Studio digital camera system & lights
- Portable digital camera & lights
- Overhead/book scanners (2nd and 3rd generation)
- Wide format scanners
- High-end flat bed scanners (with film bypass and document feed)
- 35MM Film scanners (with single frame, strip, and multiple frame feeders)
- A/V systems
- Microfilm scanner (Not capable of digital collection quality – produces readable digital objects for ILL/document delivery type requests).

<u>**SOFTWARE**</u>

Given a traditionally limited software budget, DCS operates with a varied mix of commercial, open-source, and internally developed software packages to support its operations: digital content creation, preservation, management, and delivery/presentation (digitization, image & A/V processing, metadata conversion/manipulation, content loading, DVD authoring, etc.).

Scanner applications

For core digitization operations, we rely on the native scanning applications provided with the digitization equipment. Generally, these are robust products that often support features unique to the individual equipment.

Image processing

We are strictly a Photoshop operation. We use a number of versions, from the older version 7 up to the latest, CS3. We accomplish most image-processing operations using the image editing software and not within the scanning applications since the image editing software provides more complete control and manipulation functionality.

Optical Character Recognition (OCR)

Optical character recognition software analyzes images and converts them into content that can be manipulated, such as ASCII characters. This enables documents to be scanned and converted into text.

Our current OCR capabilities are functional, but additional funding would upgrade our OCR processing capabilities. We currently rely on a mid-grade commercial product, OmniPage Pro 12. The version that we own is four versions behind the currently available product. We can upgrade our current software for around $100-$300 each depending upon volume discount.

Research has been conducted on batch oriented/server type solutions. The next level of software starts at around $5,000 base cost with possible yearly maintenance/service fees. This solution consists of a software development kit (SDK) from one of the leading OCR engine vendors. At the high-end of OCR software products is commercial software such as that utilized by the UFDC. Cost of these applications start at about $15,000. It is server type software that has multiple OCR engines which each create text from images and then 'vote' on the best quality version. The results on this are still varied.

OCR processing conforms to the standard GIGO rule, garbage in=garbage out. The quality of OCR results depends greatly upon the quality of the digital image and thus, the entire chain of image processing – physical original, digitization equipment, software, operator, etc. – impacts the output. OCR results for modern materials are very good and require little to no final editing, but when older historical materials are processed, the quality falls off dramatically. If 100% letter-for-letter accuracy is desired a great deal of human intervention is needed.

Audio/Visual

DCS uses one of the leading industry standards, Final Cut Studio (Final Cut 5) for video production (non-linear editing). One option for enhancing our capabilities would be to upgrade to Final Cut Studio 2 (Final Cut 6) if we determined that there were new features that would be useful.

SoundForge 7.0 is currently used for audio conversion from analog to digital and for the processing of masters. Various open-source audio tools & utilities are used for batch processing to create derivative versions from the masters (e.g., streaming audio & mp3 for transcribing versions for the Oral History Program).

GarageBand (iLife) is also used for some voice-over work and some special external audio processing in support of Final Cut Pro projects.

DVD authoring

Basic DVD authoring is accomplished using iDVD, which is part of Apple's iLife suite. We also own DVD Studio Pro 4, a 'Studio Professional' level application, as part of the Final Cut Studio suite. For the production of more complex and advanced DVDs, use of Studio Pro 4 is recommended. However, this product has a steep learning curve and sufficient training time would be necessary for key staff to learn to use its advanced features to author DVDs at a quality/feature level higher than we can currently accomplish with iDVD.

PDF creation/editing

In addition to the Image+Text PDF generation capabilities with OmniPage Pro, DCS also uses Adobe Acrobat 8 for PDF creation and editing. Acrobat is primarily used as needed for its unique features that are not available elsewhere, such as adding security that prevents the printing and copying of content to existing PDFs.

Tools & Utilities

Since software applications cannot and do not provide solutions to all process needs, opportunities exists for improvements in efficiency and functionality. In these cases, the DCSA investigates and, where feasible, implements open-source tools & utilities to

incorporate into the production workflow. New tools and utilities, such as the "splash" page application developed for the Monteverde Institute webpage, are also created by the DCSA from scratch using standard software development techniques.

Toolkits

USF Libraries recently became a Digital Library of the Caribbean (dLOC) partner and Mark Greenberg, USF Tampa Library Director of Special and Digital Collections is also a new member of the dLOC Executive Committee. A dLOC toolkit is available and DCS has been given permission to utilize it and incorporate it into our workflow to determine if it can help in our production. The University of Florida Digital Collections (UFDC) dLOC programmer has also promised to take improvement suggestions from us, especially in regards to our use of DigiTool.

D.   Facilities

The additional space gained with the recent move of DCS operations to the Library's 6th floor in rooms LIB 627, LIB 648, and LIB 648A and the upgrades accomplished so far serve as good facilities improvements. However, the existing permanent space has already been fully utilized. Future expansion has been planned for in a section of the remaining available space in LIB 627.

II.   Recommendations for Improvement and Expansion

Before continuing with this section, one caveat is needed. The comments and recommendations below are not meant to admonish or cast blame upon the past and current staff of Digital Collections & Services. This organization, in all of its incarnations, has operated with minimal staff. The volume and quality of our existing digital content and the availability of software, tools, etc. with which we manage that content is evidence of their dedication, initiative, and ingenuity.

A.   Productivity & Capacity

WORKFLOWS

The existing workflows are designed logically and systematically. Each process is divided into tasks that can be individually completed allowing an assembly line operation. In addition, basic processes are flexible so that they can be adapted to new projects. However, the efficient and effective operation of the department is diminished by the lack of project management and production scheduling. This deficiency directly impacts the department's productivity and capacity.

PROJECT MANAGEMENT

Project management includes developing, implementing, and tracking a plan of action and responding to circumstances that affect that plan. A plan should include the tasks, resources, schedule, and budget to accomplish the project. While existing DCS planning does include the breakdown and sequencing of tasks, it is not apparent that the other components of project management have been addressed. In the future, all digitization projects should follow a standard, but flexible planning and management process that incorporates all aspects of project management.

PRODUCTION SCHEDULING

Projects rarely exist in a vacuum. There will always be multiple digitization projects that must be process simultaneously. The scheduling of DCS operations is currently very informal. A more structured form of production scheduling is needed to ensure

the highest level of productivity, especially if the demands on the department increase as anticipated with the implementation of the ARL collections initiative business plans.

A schedule should include all projects in order of priority so that project managers can easily identify the current status of projects and operations staff can determine which tasks should be worked on next. One option for scheduling is the GANTT chart. The GANTT chart is a bar chart that shows the planned start and end dates of scheduled tasks and task dependencies. This is a simple but effective vehicle for tracking the status of project schedules. In addition to benefiting the efficiency of the department, effective scheduling will enable DCS to adapt quickly to priority changes and to identify the impact of those changes on other projects.

ORGANIZATIONAL STRUCTURE

As indicated above, DCS currently operates under two management structures. While there is a high level of cooperation within the unit, dual chains of command can cause inefficiencies, miscommunications, and ambiguous or conflicting priorities. The two operations were originally joined to take advantage of the effective utilization of digitization hardware and software. Effective utilization of staff resources could be better realized by combining resources under one organization, Special & Digital Collections.

DIGITAL COLLECTIONS SYSTEM ADMINISTRATION

Currently, the DCSA administers the hardware and software used by DCS, creates and maintains software programs and tools to automate manual system processes, and manages the ingest and entry of data into DigiTool. This person also develops project workflows, trains new staff, creates and maintains digital collection webpages, and many other tasks including digital photography.

Clearly, with the current and projected volume of digitization projects, this level of responsibility is too much for one person. The DCSA's skill set should be utilized in the investigation, analysis, development, and implementation of software tools, equipment, and process improvement to increase the productivity and capacity of DCS operations. In addition, for many of the DCSA's tasks there is not a designated backup person, which presents a major risk to the continued operation of DCS.

First, a complete list of the all of the DCSA's responsibilities is needed. This list should then be analyzed to determine which tasks require the DCSA's level of expertise and which can be accomplished by others. Those tasks that others can carry out , should be distributed to other staff, as appropriate and with the necessary training. In addition, mission critical tasks need to be delineated and a backup person identified and trained.

PROCEDURAL, PROCESS, AND TASK LEVEL USER DOCUMENTATION

The availability of user documentation is currently inconsistent. Tasks are identified but, in some cases, step by step instructions to complete the task are nonexistent. Training documentation for the various types of scanning equipment is also necessary. Complete sets of user documentation will aid staff in the performance of their jobs and increase the productivity of the organization.

Sufficient time and staff resources are required to gather, update, complete, and organize a library of user documentation of production/processing procedures, workflows, training materials, etc. This library should consists of text and image based materials and audio/visual resources where appropriate. It should also be available online for ease of access by all employees.

CROSS TRAINING

All permanent staff involved in the capture and creation of digital objects (excluding audio/visual objects) should be cross-trained on the use of all scanning/editing hardware and software. This will enable them (with the help of user documentation) to work on any project as the schedule demands. As a general rule, temporary staff should be utilized for tasks that require the least amount of training (e.g., simple document scanning to non text based pdf files such as those created for interlibrary loan and Pronto) since this group tends to have a high turnover rate.

IMAGE AND DOCUMENT EDITING SOFTWARE

Currently, software for the editing of images and documents (Photoshop, OmniPage Pro, and Adobe Acrobat) is only resident on production equipment. The software is not loaded on the office computers of two staff members who perform these tasks. Installation of this software on these computers would increase the department's

available capacity for these tasks. In addition, a thorough investigation into the impact that upgrades to our existing editing software and the acquisition of new editing software could have on our capacity should be instituted.

<u>OUTSOURCING</u>

When investigating and planning new projects, outsourced services should be considered for the capture and editing of digital objects and for metadata creation, especially in the case of large projects that require quick turn-around and/or equipment which the USF Libraries do not possess. A make vs. buy analysis should be employed to determine the financial implications of each option and enable management to choose the best course of action. This should also be done as early as possible in the process to enable the organization to apply for grants where needed and in the appropriate circumstances.

<u>SHIFT WORK</u>

In a production environment that utilizes expensive equipment, one option to increase capacity is to establish a second shift operation. This ensures that the equipment is used to its maximum potential before costly new acquisitions are made. Since the USF Tampa Library is already open until midnight on most nights, the factors related to keeping the building open should not be an issue. Under the current circumstances in DCS, a second shift is not advisable. However, with the implementation of project management, production scheduling, cross-training and user documentation, establishing a second shift may be an answer to increased capacity demands. This should be studied further before additional equipment is purchased.

B.   Visibility and Accessibility

In order to enhance, not just increase, the visibility of our digital collections we must identify the potential, whether for scholarly research, teaching, or personal use, of each digital collection. In order to "sell" the collections to others, at the least, we must have ideas about how they can be used. When potential usage is determined, we can then begin to identify target audiences for whom specific promotions, workshops, etc. can be developed and at whom those efforts can be directed. In addition, we may discover

existing collections on which, under the current staffing situation, additional effort should not be expended.

CURRICULUM SCAN

The eight USF colleges offer students 219 degree programs and supports that with thousands of classes. As USF librarians well know, it is impossible to adequately reach all of those classes to inform them about library resources. However, a scan of the curriculum should be implemented to aid in identifying classes that can utilize digital collections. Once programs and classes are identified, the teaching faculty could be contacted and suggestions put forth for assignments that meet the course goals and use our digital collections. For example, the Tampa Library's Information Literacy librarian is already working with the Freshmen Composition team to develop an assignment utilizing the Visual History Archive. With an understanding of the potential uses of collections and knowledge about classes being offered, similar efforts could be undertaken. This will especially be true as we develop digital collections in support of our ARL collection initiatives.

RESEARCH SCAN

An effort similar to the curriculum scan is necessary to determine the research interests and needs of our faculty and graduate students. In addition to assisting us in targeting researchers that could benefit from knowledge and use of our existing digital collections, this information will enable us to identify and prioritize new digital collections projects. Only after both scans are completed can we adequately develop digital collections that meet and exceed the needs and expectations of this critical community of users.

INSTRUCTIONAL COLLABORATION

The Media Innovation Team (MIT) in C21TE works with teaching faculty to create studio-quality instructional videos and modules. This service is provided free of charge when the use of the materials are directly tied to a credit-earning course and includes access to C21TE's instructional designers. In the past, the Libraries have not been able to utilize this remarkable on-campus resource without paying a sizeable fee. However, as we identify courses in which one or more of our digital collections can be used and

we engage with the responsible faculty member(s), the opportunity exists to collaborate with the faculty and MIT to develop course-specific instructional materials related to the collection(s). Any materials developed under these circumstances would be available to the Library for general dissemination. In addition, MIT has the ability to create module packages which can be copied and repurposed with new content, thereby providing the Library with template in which to develop multiple digital collections instructional modules.

TRAINING AND PROMOTION

Librarians

Currently, the use of our Digital Collections by USF librarians is limited, in part due to a lack of awareness regarding these collections. When new electronic resources are made available, an email is distributed to librarians announcing and describing the acquisition. Similar emails can and should be distributed announcing new digital collections and significant additions/revisions to existing collections. In addition, presentations and/or workshops to inform them about the availability and potential use of our digital collections should be developed and scheduled with reference and research librarians.

We should also increase the awareness of our digital collections for non-USF librarians. The USF Libraries have significant local materials in our digital collections. Workshops on using these collections should be developed and offered through organizations like the Tampa Bay Library Consortium (TBLC).

Faculty

Like librarians, faculty members cannot use material of which they are not aware and that cannot be easily found. One training option for increasing faculty awareness is to develop and present workshops on using digital collections for research and teaching through the Center for 21st Century Teaching Excellence (C21TE). Workshops such as "Introducing Your Students to Online Primary Sources" or "Using the Visual History Archive" can be provided through this channel. In addition, through the curriculum and research scans, departments and specific faculty members will be identified to whom information about our digital collections should be targeted. Digital Collections

presentations should be made to those departments, perhaps via departmental meetings, and to individual faculty.

Students

Students will benefit from librarians' and professors' increased awareness of our digital collections, but that should not be our only means of introducing these materials to students. As with librarians and faculty, targeted workshops could be developed.

Promotion

In the past, attendance at the Library's ad-hoc instructional sessions has been sporadic at best. This phenomena is not restricted to USF, as librarians at other institutions frequently report similar results. A promotions plan to market workshops and to encourage attendance is critical to the success of these endeavors. Posters/flyers, the Library website, university distribution lists can all be utilized to announce workshops.

Another method employed recently for RefWorks workshops at the USF Tampa Library has shown some success. During library instruction sessions given to individual classes, librarians announced the RefWorks workshops and provided the class members with information about what would be presented and its benefit to them. Some librarians also promoted the workshops at the Reference Desk and during consultations. Anecdotal evidence indicates that this personal approach did increase attendance at the RefWorks sessions. With the cooperation of instruction librarians, a similar approach could be targeted to classes from departments identified in the curriculum scan. This is obviously dependent on providing adequate digital collections training to these librarians.

SCHOLARLY COMMUNICATION

It is not enough to make our digital collections more accessible and to provide internal USF users with information about these resources. As with the Karst Information Portal, the broader research community should be made aware of our collections with high research value. Visibility of KIP was not left up to chance. The USF KIP team, including librarians, have attended subject area conferences and made presentations about KIP. KIP librarians have collaborated on articles in subject area journals (e.g.,

"The Karst Information Portal: An Emerging On-line Collaboratorium" in *Geophysical Research Abstracts*, Vol. 8, , 2006). As we develop and digitize our ARL initiatives' collections, this model of scholarly collaboration with and outreach to researchers should be replicated to ensure the visibility of these important collections.

LIBRARIES' WEBSITE

The USF Libraries' website should be a primary finding and access tool for the resources that the Library holds. However, the only digital collections page that consistently appears in the top 25 report of monthly page visits is the Manatee County Public Library Historic Photograph Collection, averaging 472 hits/month since the beginning of 2008. This may be due to the fact that a link to this page is on the home page of the Manatee County Library's website. The monthly page visits report also reveals that the Digital Collections Titles A-E page (the Digital Special Collections page linked from the Libraries' home page) has been accessed an average of 462 times/month. These statistics begs the question of whether patrons are accessing the Titles page from the Libraries' website or after having come to our website from the Manatee County Library's website. While the size of our collection may not lend itself to highlighting every digital collection page on the Libraries' home page, we can improve the visibility of these valuable resources.

Endeca catalog

According to web statistics, the "USF Libraries Catalog" is accessed an average 17,235 hits/month from January 1 to October 31 in 2008, indicating that the online catalog continues to be one of the primary finding tools for Library resources. Therefore, one area for improvement in the accessibility of our digital collections lies in our online catalog.

A recent search for "oral histories" "Anywhere" through the catalog returned 2,333 results with the *Tampa Arts and Culture Oral History Project* (*TACOHP*) at 57. The results narrowed to 513 when "online" was selected and, fortunately, the *TACOHP* rose to seven. A similar search for "Shoah" returned the *Visual History Archive* on the third page of the USF Libraries Catalog results and on the tenth page of the WorldCat Local results. With the goal of increasing the visibility of our digital resources, we should not

rely on patrons wading through pages of results or selecting online only resources in order to find them.

One solution is to work with FCLA and USF Libraries Technical Services to determine ways to highlight digital collections in catalog search results. For example, a facet of "Primary sources" would help users select these types of materials and differentiate them from items such as *Oral History and the Law* or *Oral History: An Introduction for Students*.

Subject Guides

The Subject Guides link is consistently on the top 5 list of links accessed on the USF Libraries' website. However, other than a generic link to Digital Collections in the Education subject guide, links to collections like Amica and Saskia in the Art & Art History and Architecture subject guides, and a link to the Karst Information Portal in the Geology subject guide, our digital collections are not featured or even mentioned in many of these resources. Our Hillsborough County Marriage Records collection is not even included in the Genealogy & Family History subject guide.

Certainly, some subjects do not coincide with the digital collections that we currently hold and we have already acknowledged that the librarians who create these pages do not have a high level of awareness of our digital collections. However, the Florida Slave Narratives would make a fine addition to the Africana Studies and History subject guides, the Sape A. Zylstra Collection of Tampa Architectural Slides could be part of the Architecture subject guide and a link to the Sacred Leaves collection could be added to the Religious Studies subject guide, to name a few.

Consistency

One issue with accessibility to our digital collections is a lack of consistency. The amount of information in DigiTool is not consistent between collections and the organization and description of collections is not consistent between DigiTool and the Libraries' website. For example, each collection in DigiTool provides a link to "more" information. Sometimes more information is provided, other times no additional information is provided, as shown in Figures 7 and 8. "More" information in DigiTool

should be the same as that provided on the collection's digital collection webpage. As Figures 8-10 show, this is not the case.

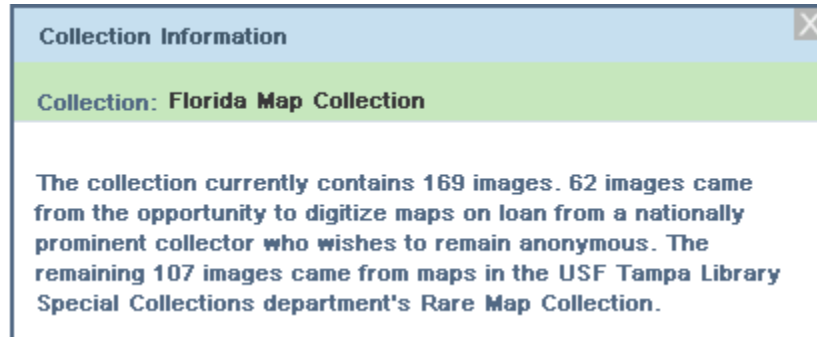Figure 7: Florida Map Collection – DigiTool information

Collection Information

Collection: Florida Map Collection

The collection currently contains 169 images. 62 images came from the opportunity to digitize maps on loan from a nationally prominent collector who wishes to remain anonymous. The remaining 107 images came from maps in the USF Tampa Library Special Collections department's Rare Map Collection.

Figure 8: Rare Map Collection – DigiTool information

Collection Information

Collection: Rare Map Collection

Rare Map Collection

Close

Figure 9: Rare Map Collection – webpage information

Maps

The Rare Maps Collection contains historically significant and unusual maps, primarily of Florida and southeastern North America. These maps chronicle the early exploration and settlement of Florida by Spain, France, Great Britain, and the United States. The collection is comprised of maps by some of the most respected cartographers, including Abraham Ortelius, Willem Blaue, Herman Moll, and Cornelius Wytfliet. Of special interest are George Gauld and Joseph F.W. Des Barres' *A Chart of the Bay and Harbour of Pensacola* (1780) and C. Wiltberger's *Temperance Map* (Lahainaluna, Hawaii, 1843). The collection also includes early printed maps of the Americas dating from the sixteenth century. Other notable maps, frequently bound into natural histories and atlases, may be found in the Rare Books Collection.

Contact Special Collections Librarian Paul Camp for more information.

Figure 10: Digital Collections Rare Map Collection – webpage information

Rare Map Collection

Rare Map Collection
University of South Florida, Tampa

Terms of Use: *free*, unlimited access

This is a collection of rare maps.

The collection contains 23 images.

Browse the collection. (DigiTool)

Search the collection. (DigiTool)
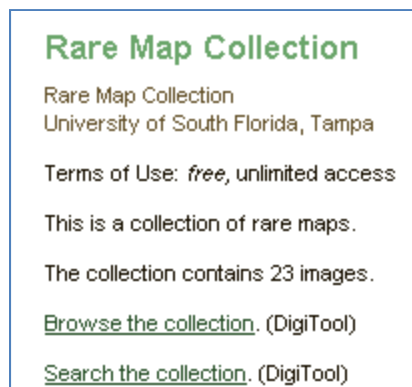
Another issue is the distinction between and the redundancy of webpages for the physical collection and the digital collection and the absence of links between these pages. As shown in Figures 8-10, there are at least three access points for information about our Rare Map Collection. However, the information provided in the three webpages is not consistent. There are no links between the physical collection page and the digital collection page or the DigiTool "more" window nor is there even any mention of the alternate formats of the collection on any of the pages. Not only does this confuse the user, but also the creation and maintenance of these separate bits of information requires staff time that we cannot afford to waste.

Finding collections is also made more difficult by the way in which they are alphabetized in different access systems. For example, if a users is looking for the *Hampton Dunn Collection of Florida Postcards* in the Digital Collections Titles webpages, the Titles F-J page would be a disappointment (Figure 11). In this case, the title is alphabetized under Dunn (Figure 12).

Figure 11: Digital Collections Titles F-J webpage

Digital Collections Titles F-J

- Farber Gravestone Collection
- Florida Library History Project
- Florida Slave Narratives
- La Gaceta newspaper
- Graber Collection of Florida Aerial Photographs
- Hillsborough County Marriage Records
- Hoover Institution Poster Collection
- Japanese Historical Maps

Figure 12: Digital Collections Titles A-E webpage

Digital Collections Titles A-E

- AccuNet/AP Multimedia Archive
- AMICA Library
- Art and Art History Collection (Saskia)
- Association for Mexican Cave Studies Bulletin
- Association for Mexican Cave Studies Membership Activities Letter
- Association for Mexican Cave Studies Newsletter
- Morison Buck Biographies of Hillsborough County Judges
- Burgert Brothers Collection of Tampa Photographs
- Center for Urban Transportation Research Publications [USF]
- Centro Asturiano Membership Records Photograph Collection
- Charting The Nation
- Criggle Collection of Florida Spanish American War Photographs
- Dr. Martin M. Cummings Collection
- Skip Davis Collection of Florida Geology Slides
- Hampton Dunn Photouring Florida Collection
- Hampton Dunn Collection of Florida Postcards
- Early Printed Works
- Estate Collection for Artists with AIDS
- Ex Libris: Journal of the USF Library Associates

Based on the above, there should be one and only one page to describe a collection and that page should be included in our Collections webpages. In order to better inform our patrons, a collections webpage should provide information on each format in which the collection exists and the contact information of the responsible librarian. When a collection exists in digital format, the page should also have search and browse access to the DAMS. Additional access points to these pages should be provided in DigiTool and within the Digital Collections webpages, but redundant instances of the information should be discontinued.

One title should be established for each collection and that title should be used consistently in the catalog, in DigiTool, and on webpages. Each instance of use should be alphabetized according to standard title alphabetizing practices. If it is deemed necessary, additional entries in finding aids such as title indexes could include cross-references.

DigiTool

While DigiTool may be an adequate repository, like Aleph, there are patron accessibility issues. Some of these issues may be related to how we implemented DigiTool and metadata shortcomings. Others may be limitations in the functionality of the tool.

Image downloads. Currently, patrons are not able to view or download digital images except those provided by the DigiTool viewer. The viewer does provide adequate pan and zoom capabilities, but does not provide any capability to download a copy of the image. If the patron uses the browser's image saving function, the result, in most cases, is a 72 pixels/inch jpeg file. There is also potential confusion and frustration for the patron when s/he discovers that the viewer's Save and Send functions only save and send the image's DigiTool record information (Figure 12).

Figure 12: Digitool Viewer Send email

Record number   000007087

Title   Anderson-Frank House, 1898-1901

Description   1 slide : jpeg 35 mm.

Contributor   Zylstra, Sape A., photographer : Miller, Michael J., Kennard, Francis J., architects

Contributor   University of South Florida -- Tampa Campus Library

Identifier.URI   http://kong.lib.usf.edu:1801/webclient/DeliveryManager? application=DIGITOOL-3&owner=resourcediscovery&custom_att_2=simple_viewer&pid=39823

Identifier.URI   http://kong.lib.usf.edu:8881/R/-?func=dbin-jump-full&object_id=39823&current_base=GEN01

Links for Viewing Objects:
_____

http://kong.lib.usf.edu:1801/webclient/DeliveryManager?application=DIGITOOL-3&owner=resourcediscovery&custom_att_2=simple_viewer&

We do have an option through which users can request copies of digital objects. This service is either fee-based or provided for free, especially to USF faculty and departments. As part of this investigation, a cost benefit analysis was undertaken to determine the financial feasibility of this process (Appendix C). Data from the 2007/08 fiscal year revealed that the total cost recovery generated by this process does not adequately compensate for the staff time required to accomplish the process when the patron simply requires a copy of an existing digital object. This process also occupies valuable staff time that could be better utilized with ongoing and future digitization efforts.

As mentioned above (Section 1C, JPEG 1000 Server), direct access to fixed and custom sized copies of existing digital objects can be provided to our patrons. This functionality should be implemented as soon as possible. Not only will it save the Library staff time, easy access to copies of digital images will enhance patron goodwill. In addition, in order to obtain demographic information about the people and organizations who download our digital content, free user account functionality should be added. This would enable us to collect information regarding the users of the material and the potential use of the material (personal, scholarly, commercial), which in turn could enhance our ability to determine the material's impact on research.

Location metadata. In some cases, there isn't any information in the digital objects record about the location of the physical object. This is a metadata issue and was recently highlighted when a patron requested access to a photograph that s/he had found using DigiTool. The photograph is part of the *Centro Asturiano de Tampa Membership Records Photograph Collection*; however, the digital record did not include the book and page number where the physical object could be found. The result was that several hours of librarian time was expended searching for the physical object. Similarly, the records for the *Burgert Brothers Collection of Tampa Photographs* digital objects do not include any finding information related to the physical collection. Although it may not be feasible to collect and enter this data for existing digital collections, metadata for all future digitization projects should include this valuable information.

Empty collections. Some collections are included in the DigiTool "Browse" lists without actually providing access to digital objects. Examples are *Science Fiction & Fantasy*, *Karst Maps*, and *Tampa Cigar Industry and Art Collection*. In these instances, the collections are empty and the collection title is a placeholder for future digital object entries. However, this can be very frustrating for the user. Placeholders should not be used, or some obvious methods of identifying the absence of collection materials should be employed.

Tagging. Currently, as with catalog records, subject headings in DigiTool are defined by catalogers according to standard cataloging practices, rules, etc. Oregon State University (OSU) has recently implemented a process by which users can suggest tags or keywords (Figure 13) for digital objects in OSU's collection. Tags must be approved

by OSU Digital Collections before they are added to an item's metadata, thereby eliminating the possible addition of inappropriate tags. USF Libraries Digital Collections should consider and investigate this method of potentially enhancing accessibility to digital content.

Figure 13 – Oregon State University user-defined tagging.

Image Title	Washing & ironing clothes.
Date	ca. 1942
Description/Notes	Mexican workers washing and ironing clothes.
Subject	Agricultural laborers--Mexican--Oregon
	Agricultural laborers--Housing--Oregon
	Laundry
Object Type	Image
Original Format	Silver gelatin prints
Original Collection	Extension Bulletin Illustrations Photograph Collection (P20)
Item Number	P20:1069
Other Formats	Copy negative.
Restrictions	Permission to use must be obtained from OSU Archives.
Transmission Data	Master scanned with Epson 1640XL scanner at 600 or 800 dpi. Image mani Photoshop ver. 7.0.
Full resolution	fullres\P020_1069.tif
	http://digitalcollections.library.oregonstate.edu/bracero/full/P020_1069.tif

User-defined tags: [   ] Add Tag

- Immigrants
- ironing
- Workers

SiteDirector

 SiteDirector, our content management system, seriously limits the appearance and the functional potential of our webpages. The recent creation of the Monteverde Institute webpage had to be accomplished outside SiteDirector in order to allow users to directly search the digital collection. As we develop online exhibitions (described in the next section) for our digital collections, serious consideration should be given to the tools used in their creation.

Digital Special Collections

On the USF Libraries' website home page, a link is provided to "Digital Special Collections." Currently, this link takes the user directly into DigiTool. DigiTool is not the most user-friendly tool and should not be the first impression patrons have of our digital collections. A survey of other library, museum, and archive websites showed that home page links to digital collections typically take the user to an introductory page. Although the specific content varies, these pages may include a simple list of the digital collections with links to collection title pages, description of the organization's digital collections effort, archival and usage guides, links to online exhibits, and contact information (Figures 14and 15).

Figure 14 – Syracuse University Library Digital Projects webpage

Figure 15 –Columbia University Libraries Digital Collections webpage

ONLINE EXHIBITIONS

Many libraries with digital collections are adopting the concept of online exhibits that provide background information, related resources, scholarly essays, and similar types of material to inform and orient their visitors to the topics presented in digital format. We have made advances in that area with the creation of our Digital Collections webpages available via the Libraries' website and the Monteverde Institute @ USF Libraries page; however, these pages only describe the actual collection. These pages should also demonstrate the scholarly merits of the sources we make available and provide access to the continuing research in the topics presented. Other than organizing topics in DigiTool under broad headings like Rare Books and Maps, Global Solutions, and Floridiana or presenting lists of digital collections on the Libraries' website, we should provide our users with themed presentations of related collections.

An excellent example of a themed online presentation of a digital collection is *Documenting the American South* developed and offered by the University Library at UNC-Chapel Hill at http://docsouth.unc.edu/.

> *Documenting the American South* (DocSouth)… provides access to digitized primary materials that offer Southern perspectives on American history and culture. It supplies teachers, students, and researchers at every educational level with a wide array of titles they can use for reference, studying, teaching, and research.

In addition to combining twelve digital collections of texts, photographs, oral histories, and maps into an online resource guide, a scholarly essay about the broad topic of each individual collection is provided as an introduction to the material. The essays also include hypertext links to digital objects that are mentioned in the text. Each collection can be browsed alphabetically, by topic, and by subject. For example, the topics related to "North Carolinians and the Great War" (Figure 16) are *Propaganda Posters*, *The Home Front*, and *The Soldier's Experience*, each of which also has its own introductory essay.

The subject browse utilizes alphabetized LC subject heading access to the digital objects in the collections. In addition, when viewing the record for a digital object, the subject headings in the record are hyperlinked enabling users to retrieve all digital object records in which that subject heading occurs. We do not currently have this functionality in Digitool.

The DocSouth site also provides an author and title index for the collections' text-based materials and oral histories. Also, new additions to the collections are tracked monthly providing the returning researcher with a way to determine easily what has been added to the collection since her/his last visit.

Figure 16: UNC-Chapel Hill themed online exhibit

The Western Waters Digital Library (WWDL) at http://www.westernwater.org/ is another fine example of the online presentation of digital materials. The WWDL is a collaborative regional project created by twelve university libraries from eight western states under auspice of the Greater Western Library Alliance (GWLA) and its mission is to

> … develop and support online digital initiatives that enhance, enlighten and further the knowledge base regarding the water issues in the Western United States. The overall objectives of the consortia projects is to create an online resource center for researchers and other interested patrons, where the widest range of materials related to issues of the Trans-Mississippi region (including Hawaii) is made available. This will include historic materials, published works, bibliographies, audio and video media, online exhibits, related web resources, RSS feeds, and any other resources that are deemed appropriate to the research community's needs and expressed interests.

Like DocSouth, WWDL provides subject heading access to its digital objects. In addition, the site offers lists of suggested readings and external resources (websites) related to the subject matter presented in the collections. The site also provides searching tips for its users.

Obviously, we do not currently have the staff resources of UNC-Chapel Hill or the WWDL consortia. We may never have that level of staffing. However, the concept of thematically presenting our digital materials in ways that benefit researchers, educators, and students should not be lost. As we develop our ARL initiatives' collections, strategic project planning and management should be utilized in determining what is digitized and how it is presented. Partnerships can be developed both on and off campus with scholars and subject matter experts to provide background material, essays, and the like that complement and highlight the research value of the materials. Subject librarians can evaluate our print and media collections and external websites to create lists of related resources for researchers to use with our digital collections.

WEB 2.0 TOOLS

In addition to increasing and enhancing access to our digital collections via the Libraries' website, we should utilize external access points. One potential means to

improve the visibility of these collections is to utilize Web 2.0 technologies and tools. Using the "be where they go" mentality, our digital collections should be obtainable via the search tools our patrons currently use.

Wikipedia

Although many professors tell their students not to use Wikipedia for research, the reality is that the students do use it. In information literacy and library instruction classes, many librarians tell students that it is OK to use Wikipedia, especially for new areas of study, but not to ever cite a Wikipedia article unless their professor allows it. Librarians teach students that the value in Wikipedia lies in its references and external links. Librarians also teach them to verify the information found in Wikipedia and to discover new information by accessing the other, more scholarly, sources found in Wikipedia articles.

A search in Wikipedia for "slave narratives" returns substantial article that defines the topic and lists many resources, both print and electronic. Included in the External Resources list are links to *Born in Slavery: Slave Narratives from the Federal Writers' Project, 1936-1938* on loc.gov, *North American Slave Narratives, Beginnings to 1920* on docsouth.unc.edu, *Slave Narratives* oral history of former U.S. slaves collected in the 1930s by the WPA on virginia.edu, and eTexts of oral history of former U.S. slaves collected in the 1930s by the WPA at Project Gutenberg. Our *Florida Slaves Narratives* would fit nicely into this list.

Use of Wikipedia opens up an entirely new channel for reaching prospective users. In addition to the slave narratives, Wikipedia has articles on *Karst Topography*, *Illuminated Manuscripts*, and a multitude of topics about genocide and mental health. There are also articles about Centro Asturiano de Tampa, Ybor City, and the Columbia Restaurant into which links to our respective digital collections would fit well.

Web search engines

One factor in many web search engines' determination of the relevance of a webpage is the number of links to the page that are found in other webpages. The more links, the higher the potential relevance of the page, and hence it position in the results list. With search engines returning millions of results for simple searches and the tendency of

searchers to not look beyond the first few pages of results, position in the results list is critical to capturing this audience. For example, a recent Google search for "illuminated manuscripts" returned over 7 million results and our Sacred Leaves collection did not appear in the first 10 pages. While we may not have the largest collection of illuminated manuscripts, a great deal of time and effort has been expended in the curation of this collection and it deserves better results.

First and foremost, in order to garner linking from other websites, the presentation of our digital collections must be exemplary. Creation of online exhibits, as described above, will take us a long way in that effort. Second, we need to increase the awareness of our collection webpages in the creators of pages of like and similar topics. As we create high quality online presentations, we should search for and discover similar sites and contact their authors with information about our exhibit.

Another factor in determining the relevance of a webpage by search engines is the page's metadata. A match found in metadata tags, as opposed to the text of the page, increases the relevance of the page. As we create pages, we need to ensure that metadata tags are included which accurately and comprehensively describe the content of the pages. Returning to the illuminated manuscripts example, when the page information is viewed, only two meta tags are identified: keywords = USF Libraries and description = USF Libraries.

Blog newsletter

Blogs provide their creators with the opportunity and means to keep interested parties informed about specific areas of interest. In addition, the use of RSS feeds allows new content to be pushed to subscribers, as in automatic daily feeds of newspapers. At the USF Libraries, blogs (e.g., EdLibReport, STM News, and FMHI Loop) are utilized to enhance the awareness of our patrons regarding new library services, resources, and technology.

A Digital Collections blog should be created and maintained. This blog could feature information about new and existing collections, tips and techniques to help patrons use digital collections, new technologies being utilized for the creation and dissemination of digital content, and ideas for using the collections in the classroom.

Podcasting

Podcasts, both audio and video, have become a new media through which universities, libraries, and similar institutions are reaching out to their constituents. At the USF Tampa Library, we already utilize this medium to present our Oral Histories Program, the Library Guy & Library Gal instructional series, and lecture, music, and poetry events.

Podcasting can also be used as an advertising medium. When each new digital collection is created and launched, a brief podcast should be created. A modest podcast could be created from the collection description, a few representative sample images, or audio/video clips, and, for some text-based collections, a voice over containing a sample reading of the collection. These "commercials" can then be promoted through the Libraries' website News Channel and offered through RSS feeds.

YouTube, Flickr, etc.

Although the actual impact that these types of channels have on scholarly communication has yet to be determined, they are used by many institutions to promote themselves and their products and services and to convey information.

The USF Libraries already have a content rich presence on YouTube and similar websites and a link to the Libraries' website is available on our YouTube profile page. However, the content is not included in our digital collections webpages or in DigiTool. Certainly some of the content may not fall within the scope of digital collections (e.g., *Chronicles of Libraria* and *Using Google Scholar*). However, much of that content does deserve a place in our digital collections (e.g., *Biography of Werner Von Rosenstiel* , *Edgar Chattin Knifemaking*, *Freedom Riders 2006*) whether via DigiTool, the Digital Collections Titles pages, or a product like C-Labs, which library personnel are currently investigating for video content. Also, in order to segregate the Digital Collections materials from other library content, perhaps Digital Collections should have separate YouTube, etc. accounts.

University libraries have begun using Flickr to provide information about and access to their digital collections. Cultural Collections at the University of Newcastle in Australia has a Flickr account used in this way (Figure 17). In addition to the actual images in

their account, their profile provides information about the department, contact information, and a link to their website. University of Florida Digital Collections and Iowa State University Library Special Collections also use Flickr in a similar way.

Figure 17 – Cultural Collections, University of Newcastle on Flickr
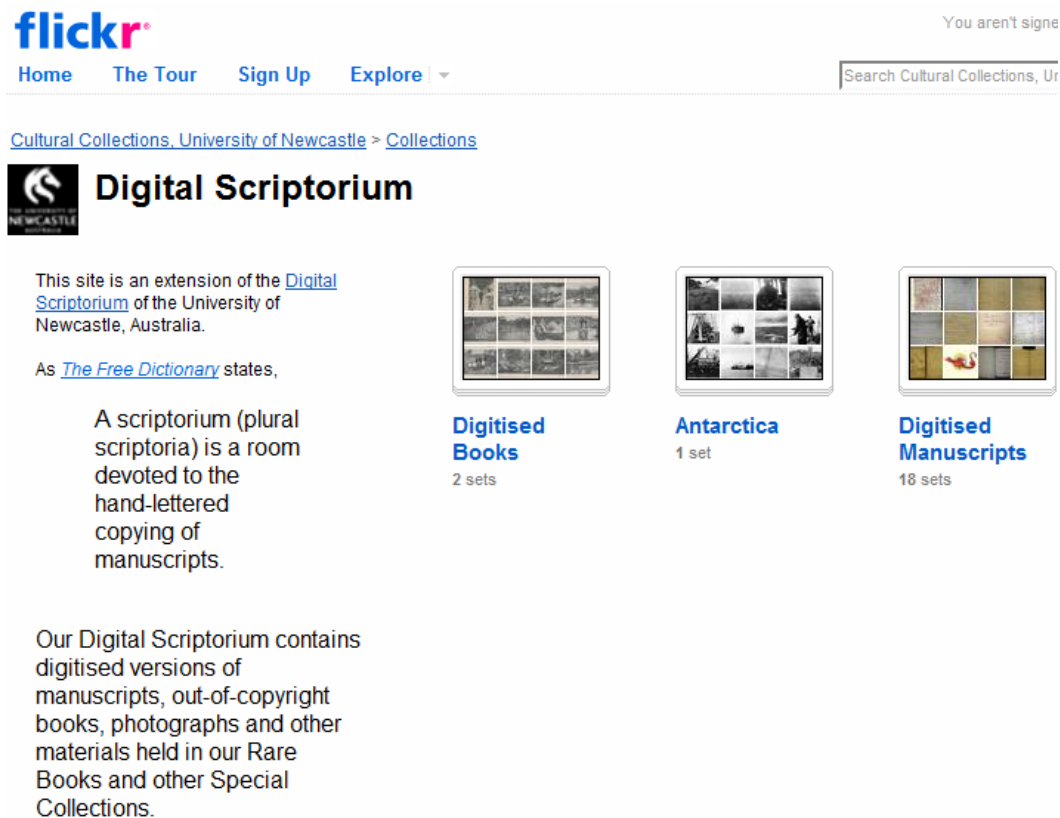
C. Staffing

Additional staffing requirements are necessary to adequately operate and support Digital Collections and Services in several areas. Given the budgetary constraints likely in FY 2008-09, it may be necessary to accomplish staffing through reassignments, retraining, and outsourcing whenever existing personnel skills and knowledge are not amenable to reassignment.

- Metadata Librarian (see also ARL collection initiatives business plans)
- Digital Librarian / Project Manager (see also ARL collection initiatives business plans)

- Assistant/Backup Digital Collections Systems Administrator

  Digital Collections systems administration is critical to the operation of DCS and the continued availability of our digital collections. The role also requires a high level of training and systems knowledge. Although some DCSA tasks could be distributed to other staff with the necessary skill set (or the ability to learn the skills), the ideal situation will be realized with the assignment of an assistant DCSA.

- Library Specialist/Digitization Support

  At present, it is difficult to estimate the number of FTE required to meet the demand for digitization that will emerge as the ARL collections initiatives are developed. The need may become substantial, perhaps requiring as many as two-three full time employees. These positions will digitize materials for inclusion in the collections as defined by the digital librarian in collaboration with stakeholders.

D.   Assessment

Ongoing assessment of the quality, usage, and impact of our digital collections will provide needed data for the continuous improvement of our production processes and delivery channels. As mentioned above, the OII Toolkit for the Impact of Digitised Resources should be obtained and utilized where feasible. In addition, the Library of Congress funded the development of an application, Digital Image Conformance Evaluation (DICE), that provides assessment targets for digital images and the software to automatically evaluate target vs. image characteristics. This tool should also be further investigated.

III. Implementation Plan

A. Major Actions & Important Milestones

Requirements	Year 0	Year 1 (2009)				Year 2 (2010)			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Digital Librarian/Project Manager position filled	■								
Development of project management standards and practices		■							
Development of production scheduling methods		■							
Analysis and reassignment, as appropriate, of the DCSA's current non-SA duties		■							
Identification of mission critical DCSA duties and development of backup plan		■							
Creation of Digital Collections CD policy and rationalization of existing collections		■							
Metadata Librarian position filled		■	■						
Remediation of existing website and DigiTool accessibility issues		■	■	■					
Identification of potential digital collections users via curriculum and research scan		■	■	■					
Development of first online theme exhibition			■	■					
Initial faculty engagement and development of librarian, faculty, and student workshops				■					
Collaboration on development of first MIT instructional video/module				■	■				

Requirements	Year 0	Year 1 (2009)				Year 2 (2010)			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Evaluation of DigiTool and competitive products					▓	▓	▓		
Conduct comprehensive assessment of work to date and revise strategy as necessary							▓		

B.   Risk Assessment

The success of the ARL collections initiatives are, in part, dependent upon the capacity, productivity, and technologies of Digital Collections and Services. As materials for these collections are acquired that require digitization, the efficient and effective operation of this unit is vital. Although there are risks associated with this effort, those risks are manageable with preventative measures as identified below.

Risk	Risk Level	Mid-Course Correction Potential	Preventative Measures
Significant increase in demand for digitization work.	High	High	Analysis and development of plan for outsourcing options. Analysis and development of plan for two shift operation.
Inadequate funding available to enable the department to meet the expanding need for digitization work.	High	Moderate	Investigation of grant opportunities and proposal submission where applicable. Rationalization of continued effort being spent on non-ARL collections. Prioritization of critical digitization projects.

Risk	Risk Level	Mid-Course Correction Potential	Preventative Measures
Absence of trained backup personnel to administer and maintain digital collections systems.	High	Low	Identification of mission critical SA duties and development of backup plan. Development of detailed documentation of all SA operations. Investigation of potential third-party options.
Low research and teaching interest in digital collections.	Moderate	Moderate	Accurate assessment of collection research value and potential users. Effective presentation, marketing, and promotion of collections.
Fundamental change in digitization and/or DAMS technology requiring investment in new infrastructure.	Low	Moderate	Preparation and maintenance of contingencies to outsource technology requirements wherever economically feasible.

Appendix A - DCTF: Metadata revision/update analysis

22,625 images, not including the Manatee County Public Library historic photograph collection
10 minutes/image average for metadata revisions

(22,625 images x 10 minutes/image) / 60 minutes/hour = 3770 hours

Saskia Art & Art History (3646 records)

Review image metadata, particularly headings, names, places, etc . Do we use existing headings or convert to LCSH and name authorities? Note: Brian recommends using established name authorities for artist and contributor (museum). Need to determine which thesaurus was used for heading, if one was. If Getty, TGM, or the like, then we would recommend using the existing headings. If not, we would probably use the existing, but would need to establish a standard format/syntax, one of the issues being uc/lc variances.

If all we do is update creator and contributor names, the time estimate is maximum 10 minutes / record. If we also update headings, we cannot currently make an complete estimate, but would be at least an additional 10 minutes/record.

Burgert Brothers collection of Tampa photographs (732 records)

The most obvious deficiency in the metadata of this collection is the absence of location information about the physical object. For example, in this collection, the Digitool data does not include the photograph/negative number and therefore makes it very difficult to find the original photo when it is requested. When we own the physical object, finding aid type of information should be included in the metadata. Existing physical descriptions are in questions. Combination of physical and digital objects. This is one of those cases in which we "own" the physical object. Therefore, in Aleph the catalog record 300 field should be for the physical item with a note field describing the digital object/process and an 856 field for the purl.

Regarding the subject headings, for specific streets and buildings depicted in the photographs, a common format/syntax needs to be determined and implemented.

Need to add imprint for catalog records.

Assuming someone can provided a table of physical object location information, adding this data and updating the physical desc., etc. and the subjects headings would require ~15 minutes/record.

Centro Asturiano de Tampa membership records photograph collection (5076 records)

The most obvious deficiency in the metadata of this collection is the absence of location information about the physical object. For example, in this collection, the Digitool data does not include the book/page number and therefore makes it very difficult to find the original photo when it is requested. When we own the physical object, finding aid type of information should be included in the metadata.

Existing physical descriptions are in questions. Combination of physical and digital objects. This is one of those cases in which we "own" the physical object. Therefore, in Aleph the catalog record 300 field should be for the physical item with a note field describing the digital object/process and an 856 field for the purl.

If these are loaded into the catalog, there is also an issue with the imprint, which list Tampa Library as the publisher for the digital object.

Assuming someone can provided a table of physical object location information, adding this data and updating the physical desc., etc. and the subjects headings would require ~5 minutes/record.

Skip Davis collection of Florida geology slides (911 records)

The most obvious deficiency in the metadata of this collection is the absence of location information about the physical object. For example, in this collection, the Digitool data does not include the binder/page number and therefore makes it very difficult to find the original photo when it is requested. When we own the physical object, finding aid type of information should be included in the metadata.

Contributor needs to be reformatted from dash to subfield delimiter

Same issue as above with physical description and imprint.

Assuming someone can provided a table of physical object location information, adding this data and updating the physical desc., etc. and the subjects headings would require ~5 minutes/record.

Hampton Dunn collection of Florida postcards (2697 records)

The most obvious deficiency in the metadata of this collection is the absence of location information about the physical object. For example, in this collection, the Digitool data does not include the binder/page number and therefore makes it very difficult to find the original photo when it is requested. When we own the physical object, finding aid type of information should be included in the metadata.

No imprint.

Same issue as above with physical description. Descriptions need to be of physical work with note on digitized image.

Regarding the subject headings, for specific streets and buildings depicted in the photographs, a common format/syntax needs to be determined and implemented. For subject headings describing particular buildings and streets, a standardized form needs to be used. Back of postcards not digitized, so must check physical item in order to find publisher of postcards. Dates (or at least date ranges) would be a valuable addition to metadata, but this would require research, perhaps soliciting input from members of the public. At least 10 minutes per card will be needed to correct physical description and put subject headings in standardized format. Add another 5 minutes for each if publisher and date range are made available to cataloger.

Criggal Collection of Florida Spanish American War Photographs (37 images)

Usual problem with physical description. Metadata doesn't provide a lot of context for images. Apparently they were taken in Florida during Spanish American war, but the actual locations are often not given.   Would recommend that further research be done before records for these images are placed in OCLC.

Once sufficient information is acquired, cataloging enhancement should take 10-15 minutes per image.

Graber collection of Florida aerial photographs (4784 images)

This collection is in serious need of additional metadata. The physical description says only "1 photograph," so I would have to add that it is black and white and the size. But more urgently in need of correction, the titles seen in a browse list in DigiTool give only an image number. The city and sometimes neighborhood are given but no other identifying information. Year taken can be assumed from image number, but nothing else.

Probably 15 minutes per image would be needed to add the appropriate information and make this presentable for OCLC.

Would recommend at the bare minimum that the title field in DigiTool be changed to something descriptive. 5 minutes per image should be allowed for this.

There is a subject field where title information could be taken. Client name is listed as a contributor, but there is no mention in the metadata that this person was the client. Note field could mention client's name.

Standard note for each item would have company name that took photo and the donors. At least 5 minutes per image for this. Geographic Names Information Server (GNIS) http://geonames.usgs.gov/pls/gnispublic can identify places and give coordinates.

International Independent Showmen's Museum collection (222 images)

Information in the records comes from the donor using the deposit module in DigiTool, and each record says Showmen's staff is responsible for cataloging the images. The data is actually pretty good. There's a description of the picture in the summary, date or date range and subject headings using the Thesaurus for Graphic Materials. One problem is that the actual title uses a generic word, such as "Carnival games" and this is reused for all the images that feature carnival games. The summary for each image serves as the distinguishing factor. This may not be a big problem for the patron using DigiTool. Even though the display in the browse list will have the same name for many images, there is a thumbnail and the metadata for the image is informative. However, this would have to be changed if the records are put into Aleph and OCLC.

The summary could be used as the title for MARC cataloging, but since some are 2 or 3 sentences long, they would have to be edited. The TGM subject headings are already in valid form, but names would have to be checked against the name authority file. Also there is no physical description (300 tag) field), so I'd have to add that they are black

and white and the size. Allow up to 10 minutes for each image. (One thing that does need to be corrected in DigiTool is that the public display shows the delimiter 2 information from the subject heading. The delimiter 2 indicates what thesaurus was used and is needed for cataloging in OCLC. However, seeing "lctgm" after the subject heading is meaningless to patrons. Perhaps Richard can have the delimiter 2 subfield suppressed from display to the public in DigiTool.)

Farid Karam M.D. Lebanon antiquities collection (140 images)

Claudia Dold worked on the descriptions for this when she was a GA, and the metadata is complete. Subject headings used are LCSH and Art and Architecture Thesaurus. If we put individual records for items in our catalog and OCLC, I would have to construct a physical description field, since that is currently lacking. Another thing I see that would need correcting is that in the AAT headings, Claudia used delimiter 2 but typed "(aat)." The parentheses would have to be removed for inclusion in OCLC (although in DigiTool, the display actually looks better with parentheses, so that it doesn't appear to be part of the subject term). The same title is used on different images, but this is not as prevalent as with the Showmen's collections.

Perhaps just adding a couple of words to the title could make these distinct. I'd have to review realia cataloging procedures, since I haven't worked in this area, so allow for up to 10 minutes per item.

Manatee County Public Library historic photograph collection (19,699)

USF hosts the digital collection, but Manatee County PL holds the actual images and has been doing the cataloging for the several years this project has been going on. Richard said Special Collections gave MCPL people training in how to enter the data at the beginning of the project, but the staff turnover at Manatee has meant the data has varied in quality. With the number of images involved (and the collection is still growing), plus the fact that we are only serving as a host for the digital collection and do not own the physical photographs, we probably wouldn't be making changes to the metadata.

It's serviceable as it is, but if we ever did put individual records in our catalog and OCLC, we would spend 10 minutes per image adding a physical description field, checking names against authority files, and making names of streets and places follow the prescribed pattern in LCSH.

Charles Ringling Family papers (159 images)

This digital collection is misnamed because it is actually 159 images rather than textual material. The images are a sampling of the larger collection available at the Jane Bancroft Cook Library used by New College and USF Sarasota. The collection-level record gives an estimated date range of 1890-1939, but there are no dates on any of the individual records for items. There are lots of images of clothing, presumably worn by Ringling family, but no context is given in the metadata for the images.

Physical descriptions and some subject headings would need to be reworked. 10-15 minutes per image.

Robertson and Fresh collection of Tampa photographs (2884)

Metadata includes dates where available and identifies buildings in the pictures. Headings for the buildings use address in parentheses, but LCSH format would use city instead. Headings for people would need to be checked, and the physical description field corrected. No mention of negative number for the photograph or where the physical photo is located in Special Collections.

Probably 10 minutes per image.

Archibald Slaymaker glass plate negative collection (53 images)

The big question in this collection is why we are showcasing photos of a county in Virginia. Perhaps there's some historic value in looking at photos from glass plate negatives. Physical description and dates are lacking, as are any more precise locations than Albemarle County.

At least 10 minutes per image if we wanted to do any more with this.

Stokes collection of Florida Plant Railway photographs (90 images)

Title for each begins with "Views along the route of the Plant System of Railways" or "Views along the route of the Sanford and St. Petersburg Railroad," followed by a more specific title for the image. This may have been on the captions of the original photos, but isn't that helpful for browsing. In addition to the title, the physical description would have to be reworked, and some subject headings. Names of lakes or rivers have

apparently changed, so we have headings such as "Lake Butler (Lake Tarpon)" or "San Marino River (Anclote River)." Only one name should be used, with an explanation in the metadata that the name was different at the time picture was taken. There are no dates on the individual records, but the collection home page says the 1890s.

10-15 minutes for each.

Earl R. Jacobs III collection of Francis G. Wagner's St. Petersburg photographs (946 images)

Physical description needs to be revised. Headings for streets and buildings needs to be standardized. Decade given for some, no date at all for others. Some titles given could be shortened. Example: "Aerial view: 4th Street and 1st Avenue North, looking northeast; Pennflora Cafeteria, West Coast Title Building (on 4th Street) and Williams Park in center; many cars and house roofs; part of waterfront visible." The descriptions of the buildings and other things in the photo could be moved to the summary, and the title shortened to "Aerial view: 4th Street and 1st Avenue North, looking northeast." The summary in the records currently duplicates the title.

10-15 minutes per image.

Wehman collection of Florida Spanish American War photographs (29 images)

29 images. Same year given as date for all (1898), but this is presumably accurate since the pictures are of troops before they left for Cuba. Physical description needs to be revised and subject headings standardized.

10 minutes per image.

Sape A. Zylstra collection of Tampa architectural slides (219 images)

Physical description only needs "jpeg" removed. Architecture terms could be checked against Art and Architecture Thesaurus and building names standardized.

10 minutes per image.

Appendix B – Digital Collections & Imaging - Digitization equipment

Studio Digital Camera System (49MPixel/7,000x7,000 Pixel Array)
Phase One PowerPhase (Scan back)
SN#: AK002052
USF Decal: 495000226533
Interface: SCSI

Phase One AR1 (lens filter)

Hasselblad 501CM (Medium format camera)
SN#: 10SS22316
USF Decal: 495000226534

Carl Zeiss Planar CB f/2.8 80 mm Hasselblad Lens (primary lens)
SN#: 818866630
USF Decal: 495000231709

Carl Zeiss Distagon CFI f/4 50 mm Hasselblad Lens (secondary lens)
SN#: 8853483
USF Decal: 495000226534 (Part of original camera kit)

Hasselblad Magnifying Hood 4x4DPS

Industria FotoTechnica Super Repro (copy stand)
Base: 35 1/2" x 27"
Camera mount adjusts from 6.5" to 42.5" in height

Videssence (Lighting)
USF Decal 495000234762
USF Decal 495000234761
File#: E225709
#K110-255BX
2 Lamps-55Watt T-5 Twin Tube
120volts, 50-60 Hz
Mfg. Date 12/02
Bulbs: OSRAM DULUX L (2 Florescent twin bulbs)

55W/12-950 (Italy)
Warranty expired/No service contract.

Portable digital camera system (14MPixel)
Kodak Professional DCS Pro SLR/n Digital Camera
SN#: PSLRN-21642
Service Code: 7540
USF Decal: 495000239570

Nikon IF Aspherical Macro (1:2) Lens
AF Nikkor 24-85mm 1:2.8-4 D

Tiffen 72mm UV Protector (Filter)

SanDisk Ultra II 512MB Compact Flash

ImageMate CF (CF Card Reader/USB)
Model: SDDR-91
PN: 20-90-00091
SN#: 122293

NCI Lighting (2x Work Lights)
Mode: W2T130NCI
Bulbs: Triple dual Cooper R10 FML-67W 64/4P

Tripod, level, measure, and drop cloth.

Kodak Color Separation Guide and Gray Scale (small) Q-13
cat 152 7654

Overhead scanner (fixed 300dpi resolution)
Bookeye
Model: BE2-SCL-N2 (Germany)
SN# 00300538DCD3
USF Decal: 495000236624
Interface: Cat 5 Ethernet (100Mb/s)
110-120V, 2.3A, 60Hz

Lighting: (built-in) 2 bulbs: OSRAM DULUX L 55W/21-840 (Italy)

Herga (Foot pedal)
6254-CT

250V AC/6A

Warranty expired/Service contract Image One

Overhead scanner (fixed 300dpi resolution)
CopiBook
Model:

No service contract.

Flatbed (Commercial/Professional) W/Transparency Adapter
Microtek ScanMaker 9800XL with TMA 1600
Type: MRS-3200A3
SN#: W4C36B01339
USF Decal 495000241726
Interface: SCSI, USB2, Firewire 400
AC 100-240V, 47-63Hz, 1.25A Max.

TMA1600 (Transparency adapter)
SN#: W4C15A00175
12V/1.0A, 5V/0.2A

Warranty expired/No service contract.

Flatbed (Commercial/Professional) W/Film bypass drawer
Microtek ArtixScan 2500F
Type: MRS-2500DLF
SN#: S43F300989
USF Decal: 495000243290
Interface: SCSI, USB2, Firewire 400
100-240V, 1.2A, 47-63Hz

Warranty expired/No service contract.

Flatbed (Commercial/Professional [bitonal/grayscale only]) W/Document Feeder
Bell & Howell
2000D FB
Ricoh Image Scanner IS450DE
SN#: P13 20400026

USF Decal: None
Interface: SCSI
120V, 2A, 120W, 60Hz

Warranty expired/Service contract - Image One Contract #: 003886
(813-888-8288/1-800-956-9000)

Wide Format Scanner (40")
Contex (Ideal) FSC 6040 Chroma Wide Fomat Color Scanner
Model: FB67A (Denmark)
SN#: 00684
USF Decal: 495000230734
Interface: SCSI
100-120V/220-240V, 2.5-2.0A/1.3-1.2A, 50-60Hz

Warranty expired/Service contract - Image One Contract #: 003998

Wide Format Scanner (50")
Model: FA67A
SN#: 00355
USF Decal: None (Donated via the Library Development office)
Interface: SCSI
100-120V/220-240V, 2.5-2.0A/1.3-1.2A, 50-60Hz

Warranty expired/No service contract.

35MM Film Scanner (4000dpi optical resolution)
Nikon Super Coolscan 5000 ED Film Scanner
SN#: 208608
USF Decal: 495000239794
Interface: USB2
100-240V, 0.3-0.2A, 50/60Hz

Nikon SF-210 (Mounted slide adapter)
SN#: 203861
5V/0.7A

Nikon SA-21 (Film strip adapter)
SN#: 351554

5V/0.2A, 15.5V/08.A

Nikon MA-21 Slide Mount Adapter

Warranty expired/No service contract.

35MM Film Scanner (4000dpi optical resolution)
Nikon Super Coolscan 5000 ED Film Scanner
SN#: 208609
USF Decal: 495000239795
Interface: USB2
100-240V, 0.3-0.2A, 50/60A

Nikon SF-210
SN#: 202055
5V/0.7A

Nikon MA-21 Slide Mount Adapter

Warranty expired/No service contract.

35MM Film Scanner (4000dpi optical resolution)
Nikon Super Coolscan 5000 ED Film Scanner
SN#: 205470
USF Decal: 495000239512
Interface: USB2
100-240V, 0.3-0.2A, 50/60A

Nikon SF-210
SN#: 203866
5V/0.7A

Nikon MA-21 Slide Mount Adapter

Warranty expired/No service contract

Microfilm scanner (Copy services/Not archival digitization quality)
Canon Microfilm Scanner 400
Roll/Fiche Carrier 200

USF Decal: 495000234668

Zoom Lens EZ 01 X9.5-16
MA2-1612. MA2-1613.

Warranty expired/Service contract - Image One Contract #: 003809

Appendix C – Digital Collections Image Request Cost Benefit Analysis

1. Ginny Gates-Fowler receives request and forwards the info to Richard for review and John or Joyce for billing. Ginny also maintains a paper trail of the image requests and invoices.

   Time = 15 min.   Cost = $3.35

2. Richard Bernardy reviews request to determine if the image is already in digital format or needs to be scanned. Richard also enters the request into his tracking database.

   Determine item format
   Time = 15 min.   Cost = $12.10

   Scanning
   Time = 30 min.   Cost = $12.10

3. David Pullen/Other Special Collections Staff – Archival Work/Metadata Creation

4. Billing Process - John Katsifis (Banner & FAST) or Joyce Sadler (Dept Transfer):

   Banner
   Time = 15 min.   Cost = $3.37

   FAST
   Time = 30 min.   Cost = $6.74

   Department Transfer
   Time = 30 min.   Cost = $10.14

5. John Katsifis mails out the Banner or FAST invoice to the customer (next day).
   or
   Jim Gray emails transfer request to USF General Accounting.

   Banner or Fast
   Time = 15 min.   Cost = $3.37

USF General Accounting
Jim: Time = 15 min.   Cost = $9.82

6. Joyce Sadler confirms bill payment.

    Time = 15 min.   Cost = $5.07

7. Richard Bernardy mails out/delivers requested content and finishes populating his
    tracking database.

    Time = 15 min.   Cost = $12.10

Minimum Time = 90 minutes/request
Minimum Cost = $39.36/request

Digital Collections Image Request Summary for FY2007-08				
	# of Requests	Minimum Staff Hours to Complete	Minimum Overhead Cost to Complete	Cost Recovered
Invoice	11	16.5	$432.96	$1,385.00
Free*	46	34.5	$1,276.30	$0.00
TOTAL	57	51.0	$1,709.26	$1,385.00

* Free image requests include steps 1, 2, & 7.