Using Preservation of Faculty Research as Demo Preservation Use Case for Developing a Digital Preservation Strategy within a Research University

Florida State University Libraries – USA
Plato L. Smith II
psmithii@fsu.edu

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“One interprets one’s own research so that it is useful beyond one’s own disciplinary boundaries and can be integrated into a larger body of knowledge” (Nibert, 2008).
Florida State University

- Carnegie Foundation designation
- Doctoral/Research University
- 40,000 students
- 16 colleges and more than 275 undergraduate, graduate, doctoral, professional and specialist programs
- 2000+ graduate and professional awarded annually
- Located in Tallahassee, Florida

Source: About Florida State  [http://www.fsu.edu/about/](http://www.fsu.edu/about/)
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Conceptual model used for preservation planning of Diatomscapes

- Requested a meeting with scientist
- Expressed interest to promote, publish, & preserve his research data
- Articulated significance & benefits of providing online access and preservation of data stored on CDs in his office
Acquired small sample of images for collection development & preservation planning

Requested copyright permission from scientist to build digital collection from sample

Honored scientist’s request to restrict access to select unpublished images

Began preservation planning and collection development
Preservation Planning - Florida Digital Archive (FDA) & DAITSS

- Contacted FDA Manager in Fall 2008
- Requested permission for demo preservation collection
- FDA granted FSU demo project code for preservation prototype
- FDA provided METS SIP specifications
- Developed Diatomscapes METS SIP

The Open Archival Information System (OAIS) Reference Model

"Developed by UF integrated in their processes with an origin around 2005 and in use since then by UF. Recently rebranded and repurposed for larger consumption and use."

- Open-source SobekCM Online METS metadata creator/editor tool
- Creates OAIS SIP & AIP for FDA
- Used by University of Central (UCF)
- Currently being tested by Florida International University (FIU) and Florida State University (FSU)

FSU began testing 2010-11-04
Preservation Planning (cont.) – Metadata Encoding Transmission Standard (METS) Creation Tool

METS creation data entry
bibliographic information – metadata standards, checksums, & FDA preservation options

Available via [http://ufdc.ufl.edu/software/mets](http://ufdc.ufl.edu/software/mets)

METS creation tool checksums demo
example of Paul Dirac certificate tiff file images
Preservation Action - FDA

• FDA – FSU joined 2009

• Digital preservation strategy

• DAITSS open-source software v.1

• OAIS compliant (METS SIP, AIP)

• Checksum SIP required before AIP

• Requires FDA agreement (free)

Biological Science Diatomscapes I & II collections preserved via FDA (demo collection)

(Note: This collection was the first to be preserved via FDA as part of demo preservation pilot project & was later used to influence senior management for FSU Libraries to join FDA)
Preservation Action (cont.) – FDA

- DAITSS v.2 (production April 2011)
- FDA Appendix A project codes updated to include undergraduate honors (UHT) (May 2011)
- Successfully ingested several UHT SIPS
## Preservation Action (cont.) – MetaArchive

- **MetaArchive – FSU** joined 2004
- **Distributed digital preservation strategy**
- **LOCKSS open-source software**
- **OAIS cognizant (AIP)**
- Requires XML plugins, manifest page, conspectus DB entry
- Requires cooperative agreement (fee)

### BioScience Diatomscapes I & II collections

Biological Science Diatomscapes I & II collections preserved via Auburn, Clemson, FSU, Louisville, University North Texas, and Virginia Tech LOCKSS caches

(Note: This collection was the first FSU collection to be successfully preserved via MetaArchive in 2009)
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<tr>
<th>Type of Scholarship</th>
<th>Purpose</th>
<th>Measures of Performance</th>
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<tbody>
<tr>
<td>Integration</td>
<td>Interpret the use of new knowledge across disciplines.</td>
<td>• Collaborating with colleagues to design and deliver a course course – Spring 2011 CCI guest lecture for DL class</td>
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<tr>
<td>Application</td>
<td>Aid society and professions in addressing problems (i.e. faculty isolation and fragmentation; communication issues; tight resources; faulty reward systems)</td>
<td>• Assuming leadership roles in professional organizations – GL12 SUL DISC presentation 3/11</td>
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<td>Teaching</td>
<td>Study teaching models and practices to achieve optimal learning.</td>
<td>• Mentoring graduate students – DLC graduate assistantships (master/doctoral)</td>
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- Biological Science – Dr. A.K.S.K. Prasad (select archival images)
- FSU Honors in the Major Program
  - 2004 – 2010 undergraduate honors theses (UHT) data
  - 6 yrs, 18 semesters, & over 600 theses (3 of 6yrs completed 5/11)
- Electronic Theses
- Florida Heritage Protocol
- Department of Oceanography Technical Reports
- World Map Collection
- Juvenile Literature Collection
Resource Discovery

FSU OPAC Diatomscapes record

OCLC WorldCat Diatomscapes record
Resource Discovery (cont.)

FSU Libraries DigiTool Diatomscapes record
Presentations

- **2011 Presentation**
  United States Electronic Thesis and Dissertation Association (USETDA), Orlando, FL – 2011/05/20

- **2010 Presentations**
  - 31st Annual IATUL Conference Poster Presentation - Purdue University, Lafayette, IN - Provided and developed as needed abstract, organization, content, images, research questions, methodology, digital collections, preservation strategies, and conclusions. [http://blogs.lib.purdue.edu/iatul2010/program/](http://blogs.lib.purdue.edu/iatul2010/program/) - 2010/06/22
Presentations (cont.)

- **2009 Presentations**
  - 4th OR Conference Poster Presentation – Georgia Tech, Atlanta, GA [https://or09.library.gatech.edu/poster.php](https://or09.library.gatech.edu/poster.php)

- **2008 Presentations**
"I am very pleased that my diatom images are now digitally archived as part of the pilot program for [Florida Digital Archive - FDA] digital preservation. I am honored to be partnering with [FSU Digital Library] and your colleagues [Florida Center for Library Automation - FCLA] on this innovative program. Kindly extend my thanks, on my behalf, to Ms. Motyka and Ms. Caplan for their contributions to the success of this important aspect of our collaboration. I hope it is just the beginning for a long and mutually beneficial partnership between scientists and digital technologists. Thank you again for this exciting news. You made my day". - Dr. A.K.S.K. Prasad, FSU Biological Scientist (courtesy)
Outcomes & Future Plans

- Developed trust and solid working relationship with scientists
- Promoted faculty research which later garnered the attention of faculty colleagues
- Assisted with phase I DEP manual production
- Scientists interested in collaborating on 2 yr BP oil spill project
- Develop, submit, and receive grant funding (i.e. FSU, NSF, IMLS, FRLMG, etc.)
- Procure equipment for scientist (i.e. laptop, new scanner, & microscope)
- Map Boyer’s Model of Scholarship to non-tenured faculty
- Extend project scope & collaborations (i.e. HPC)
• Q & A

• Comments

• Survey solicitation request - Please contact me if interested in taking a 12 questions “Defining Digital Curation Understanding” (currently in FSU IRB committee review as of 2011-05-03)

• Contact information
  ○ Email: psmithii@fsu.edu or plato.smith@gmail.com
  ○ Phone: 1+850.644.3053 (Office)