

## Digital Library and Archives Annual Report Highlighting FY 2011

The core of DLA's mission is to make the library's unique and rare resources available online. DLA has grown considerably from its early beginnings in 1989 as the Scholarly Communications Project and publisher of eJournals. As a partner with other research libraries in the MetaArchive Cooperative since 2004, DLA has had a fully functioning preservation strategy that ensures long-term access to born-digital and digitized information for the library, the university, and others. This report highlights DLA's accomplishments July 1, 2010 – June 30, 2011.

Since mid-March and the arrival of the new Dean of University Libraries, Tyler Walters, DLA is once again on a trajectory that will expand and enrich the university's online resources and library services. This will include adding three new librarians and establishing the university repository to host not only DLA's current information resources but also a wealth of faculty and university research and scholarship. The Search Committee for (3) Digital Repositories and Technologies Development Librarians:

- Gail McMillan, chair
- Curtis Carr (Director, Library Systems)
- Kira Dietz (Archivist)
- David Radcliffe (Prof. English)
- Connie Stovall (RIS)
- Kimberli Weeks (DLA)
- Philip Young (Technical Services)

### SCHOLARSHIP DOMAIN: eLEARNING & UNIVERSITY LIBRARIES

#### Highlights of New Resources

*<http://scholar.lib.vt.edu/collections/>*

- *Putting Knowledge to Work and Letting Information Play: [10<sup>th</sup> Anniversary of the] Center for Digital Discourse and Culture*, Timothy W. Luke and Jeremy Hunsinger, eds.
- Blacksburg High School documentation: FORCON Report, Facility Assessment
- *Invent the Future* (see [http://scholar.lib.vt.edu/collections/university\\_history/](http://scholar.lib.vt.edu/collections/university_history/))

#### EJournals

*<http://scholar.lib.vt.edu/ejournals/>*

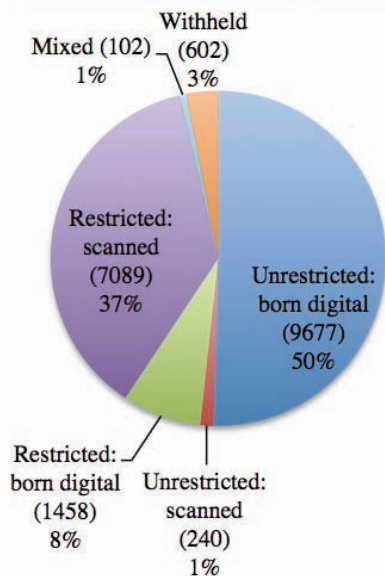
- *International Colloquium on Communication*
- *Journal of Industrial Teacher Education* renamed *Journal of sTEem Teacher Education*.
- Added 453 new articles in 31 issues (11 titles/journals)
- Usage data:

Year	Hits	Pages	HTML files	PDF files	Distinct pages	Unique visitors
2010	4,373,538	2,709,748	2,195,296	470,417	16,070	932,694
2009	3,745,749	1,891,890	1,506,445	362,258	14,573	732,032
2008	3,145,268	1,574,919	1,322,831	234,347	11,812	593,128

**ETDs: Electronic Theses and Dissertations**

<http://scholar.lib.vt.edu/theses/>

**19,168 VT ETDs as of July 1, 2011**



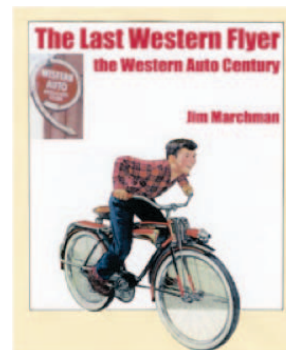
- Decrease in restricted, mixed, and withheld
  - Reflects ongoing assistance to Graduate School by releasing ETDs
  - Permissions sought/received from BTD authors to remove restrictions
- Growth of scanned theses/dissertations ceased. Retrieved >54 boxes of disbound theses/dissertations due to Digital Imaging’s policy changes.
- Usage data:

Year	Distinct pages	Unique visitors
2010	57,066	2,122,991
2009	54,736	1,398,505
2008	48,893	1,168,524

**Faculty Archives**

[http://scholar.lib.vt.edu/faculty\\_archives/](http://scholar.lib.vt.edu/faculty_archives/)

- Jim Marchman, Professor Emeritus, Aerospace and Ocean Engineering. *The Last Western Flyer: The Western Auto Century*
- Susan R. Hunter and Raghu Pasupathy, Industrial and Systems Engineering. *Optimal Sampling Laws for Stochastically Constrained Simulation Optimization on Finite Sets*



**Ann Hertzler**

- Redesigned Hertzler faculty archives to
  - Better highlight her life-long contributions to research, scholarship, and teaching about children’s nutrition
  - Include approximately 200 publications, 250 images, book cover art, and more, including links to Addison for her 340 donated/cataloged books
  - Give it a better look and feel
  - Improve site maintenance and administration with 3-column fluid template CSS and interactive bibliography/timeline
- Financial support from Hertzler endowment (\$4,049) funded George Ashworth (402 hours)



[http://scholar.lib.vt.edu/faculty\\_archives/hertzler/test/](http://scholar.lib.vt.edu/faculty_archives/hertzler/test/)

## FOUNDATION STRATEGIES DOMAIN: INFRASTRUCTURE, SERVICES AND PERSONNEL

Including Operational Efficiencies and Customer Services

### Personnel



Jane Wills, Sung Hee Park (front row)  
Anne Lawrence, Kimberli Weeks, Gail McMillan (back row)

- 3 FTE Director (McMillan), Technical Director (Weeks), Online Editor (Lawrence)
- .75 FTE (wage) Administrative Assistant (Wills)
- .5 FTE Graduate Assistant (Park)
- .75 FTE Systems Administrator in Library Systems Dept.: Paul Mather
- ~1 FTE Undergraduates: George Ashworth, Collin Brittle, Kaavya Giridhar, Radiya Rashid (worked 2331 hours)
- MLS Intern: Tracy Gilmore
- Volunteer: Adowa Adasi

### *Hardware and Software*

#### Backups

- Installed LTO-4 tape library and server to improve mirroring backup strategy, allowing an anticipated three-month daily point-in-time backup of all 6.4 Tb DLA content. Need at least one more 2 Tb server to cope with time required for periodic full backups.

#### EZProxy Passage and Denial Pages

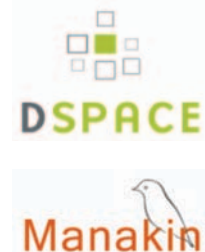
- Modified the Apache server configuration files, added proper linking strategy to all major areas of DLA website so that remote users that request a page from a restricted area will be sent to the library's EZProxy login process, and served their requested page upon proper authorization. This is an important improvement over reinitiating the request.

#### Macintosh Computers

- Purchased, installed hardware, software (including search engines, backups)
- Created and maintained computer and software license inventory
- Created detailed report with file sizes/numbers, server locations, collection procedures, web usage reports for all of major holdings on servers: scholar, lumiere, imagebase, etd, and contentdm.

#### Nascent Digital Repository

- Dell PowerEdge R410 server ordered and installed as the production platform running RHEL 5 and attached to a 9 TB Sun storage array
- DSpace 1.7.1 installed, several test collections batch uploaded.
- Began creating various metadata templates, e.g., publications/books



## Search Engines

- Google Mini more reliable. Google Mini 2 installation on hold due to security issues, repository installation, search committee
- UltraSeek migrated from VMware virtual server software to VirtualBox

## Security

- Vulnerabilities required patching CONTENTdm and audit of DLA's web file system permissions
- Lax permissions eradicated and reCaptcha added to assuage future attacks

## Resources

### Assessment and Measures

- Researched, selected, implemented web log statistics software, AW Stats, and applied it to logs for 2008-2010. [1996-2007 statistics were prepared with Analog.]
- Created >100 configuration files, but continuously refined to improve accuracy, detail

### EJournals

<http://scholar.lib.vt.edu/ejournals/>

- Reformatted 236 articles in 23 issues to meet Section 308 Federal Accessibility Standards.
- Began adding DC and COinS metadata to all new articles and, as time permits, to previously posted articles to facilitate discovery (e.g., Summon and local OpenURL resolver, LibX), improve local web-site management, and enable users to more easily cite references.

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#### *Ejournal Back Issues Updated*

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Complete journals w/ metatags and COinS	3
Issues w/ COinS	172
Issues w/ metatags and COinS	92
Index pages w/ metatags and COinS	142
Article pages w/metatags	938
Total pages w/ metatags	1080

### ETDs: Electronic Theses and Dissertations

<http://scholar.lib.vt.edu/theses/>

- First major rewrite of the ETD-db software in 10 years required technical personnel learning new programming language (Ruby) and framework (Rails), deployment tools (Phusion Passenger), versioning tools (RVM, Git), and databases (SQLite), etc.; analyzing each field of the Banner API and the Middleware API, comparing them to proposed ETDdb 2.0 database requirements, and submitting official request to IT for access to the HR data.
- GA Park began programming ETD-db 2.0 to (1) upgrade software, (2) improve functionality (e.g., timed removal of access restrictions, administration, security), (3) tap into existing online information (e.g., Banner, Plan of Study), (4) enhance access (e.g., search by any data element).
- At the request of the Graduate School, assisted Digital Imaging's implementation of VTLS's VITAL software for ETD repository that would continue personalized services from the Library
  - Offered technical help facilitating understanding of current ETD database and workflow
  - Provided a copy of ETDs and metadata along with periodic updates

### News Online

<http://scholar.lib.vt.edu/NewsOnline/>

- 342,884 Web pages received programmatically generated basic metadata
- Met with University News staff to plan and implement transfer >5 years old <http://www.vtnews.vt.edu/articles/> to DLA

**VT ImageBase**

*<http://imagebase.lib.vt.edu>*

- 12,787 updated request-permission-statements for railroad images, at request of N&W
- Software patch enabled metadata changes, but still can't add new images
- Highlights from patrons' requests:



ht148, Cadet Inspection



ht119, Machine Shop

Requested for VT History Display in the New Visitors Center



LHPORT0168, Fullen's Mill

Requested for Holston, Clinch & Powell River Atlas by the Virginia Canals & Navigation Society



wrs033, Draper's Meadow

Requested for Blacksburg Museum Fundraising Brochure and Video

## *Collections*

### **April 16, 2007 Archives of the University Libraries**

<http://scholar.lib.vt.edu/prevail/>

- Added 1887 items—totaling 8171 jpeg2s and 511 compound objects
  - New additions included 2010 exhibit and memorial day events, 2007 library reception for parents of Partahi Mamora Halomoan Lumbantoruan (Mora, student library worker)
- DLA staff worked with Tamara Kennelly, University Archivist; Steve Tatum, Art/Arch Visual Resources Curator; Jenny Mitchell, Archives Assistant; to rip, convert, describe and evaluate permissions from CDs and DVDs to derive web-available multimedia.

AVI	15	MP3	22	WAV	18
MOV	4	MP4	15	PPT	1
- Refined custom queries and controlled vocabulary
- Collected browser-side usage data after adding code for Google Analytics. CDM's default tool, Webalizer, does not work on Solaris.
- CONTENTdm is stuck at 5.2 on Solaris. To upgrade to ver. 6, must migrate to Linux server.

### **ASERL Civil War project**

<http://www.american-south.org/>

- Worked with Special Collections staff to contribute 274 images with metadata

### **Culinary History**

<http://scholar.lib.vt.edu/CulinaryHistory/>

- Announced six programs: and prepared fliers.
- Helped revive *Virginia Culinary Thymes*, created online versions of last two issues.

### **Employee of the Week**

<http://scholar.lib.vt.edu/vtpubs/empweek/>

- 31 new employee profiles captured and archived.

### **IAWA Biographical Database**

[http://lumiere.lib.vt.edu/iawa\\_db/](http://lumiere.lib.vt.edu/iawa_db/)

- Adowa Adasi, volunteer, researched, analyzed, input data
- 763 records evaluated and approved for public access
- 2415 women in architecture in the database

### **MetaArchive Cooperative**

Continued participation in distributed digital preservation network

- Ingested 35.5 Mb 1901 Glomerata from Auburn onto the now-retired Capricorn server
- Ingested >2 Tb from Folger Shakespeare Library, plus ~85 Gb from Georgia Tech and Hull University, into the Iron Systems cache
- Added 69 Gb from Virginia Tech: April 16 archives, rare books, ETD-db (software)

*This has been an extraordinary year for DLA. Many may look in from the outside and think we were only recently empowered to transition from a digital library and archive to modern-day institutional repository because of changes and charges from outside our department such as the wonderful support provided by our new dean. In reality, however, we have been working hard to move in this direction for a long time. This was the year of finally being able to see the parsings of our staff's unending dedication, research, planning, and many, many hours of hard work. Our continued efforts on this path will put us in a position to be harvested by the modern-day semantic web services, institutional repositories, and various web discovery tools. KDW*