Electronic Theses & Dissertations

Program Implementation
Issues & Responsibilities
ETD Thesaurus

- www.usetda.org/resources/etd-terms-and-definitions/
ETD Goals

- Students learn about electronic publishing and digital libraries
- Timely technology and knowledge sharing
- Universities unlock the potential of their intellectual property and products
- Improve library services
Program Considerations

- ETD server & software / system
- Digital preservation / backup strategy
- Web information site
- Administrative policy & task force
- Public relations (politics)
- Intellectual property & copyright
- Training & information
- Computer lab assistance
- Technical support
- Access to ETDs
Program Impact

- Administration
- Graduate School
- Office of Information Technology
- Library
- Students
- Faculty
Program Policy

Mandates work best
Program Scale Models

- Single ETD Collection
- Institutional Repository
  - ETDs
  - Plus other digital library collections
Software / System Service Options

- Open Source Repositories
- Commercial Repository Systems / Services
- Home Grown Solutions
Examples of Open Source Repositories

- DuraSpace (MIT/Dspace/Fedora Commons)
- EPrints (University of Southampton)
- Fedora Commons
- Greenstone Digital Library Software (New Zealand)
Examples of Commercial Repository Systems / Services

- CONTENTdm (OCLC)
- Digital Commons (BePress / Elsevier)
- DigiTool (Ex Libris)
- DiscoveryGarden (Islandora / University of Prince Edward Island)
- DSpace Direct (Dspace Cloud)
- Open Repository (BioMed Central)
- SimpleDL
- VITAL (VTLS)
ETD Deposit Interfaces / Repository Systems

- **ETD Administrator** (ProQuest)
- **ETD-db** (NDLTD/Va Tech)
- **ETD Drop** (MetaArchives)
- **OpenETD** (Rutgers University)
- **Vireo** (Texas Digital Library Consortium)
Home Grown Solutions

- Individual Department or Institution
- Regional Consortium
  - OhioLink, Vireo (TDL)
- National Consortia
  - ADT, DATAD, JISC, ISTEC LibLink, Theses Canada, EthOS
ETD & Institutional Repository Program Examples

- Va Tech  [http://etd.vt.edu/](http://etd.vt.edu/)
- Ohio State University  [http://library.osu.edu/about/partners/ohio-state-university-graduate-school/](http://library.osu.edu/about/partners/ohio-state-university-graduate-school/)
- UCLA  [http://www.gdnet.ucla.edu/gasaa/etd/](http://www.gdnet.ucla.edu/gasaa/etd/)
- British Library – EThOS  [http://www.ethos.ac.uk/](http://www.ethos.ac.uk/)
USETDA Resources

- Resources for ETD Professionals
  - Copyright Resources
  - ETD Terms and Definitions
  - ETD & Related Graduate College Resources
  - ETD Association Web Sites
  - ETD Surveys
  - Institutional Repository Software/Services/Systems
  - Preservation Resources
  - Tutorials

- Resources for Students

www.usetda.org/
NDLTD Resources

- NDLTD Web Site & List Serve
  - Implementation Guides, Mentoring Network, Listserv, Conferences, etc.
- Manage ETDs
  - NDLTD’s comprehensive guide to ETD management resources
- Guidance Documents for Lifecycle Management of ETDs
  - Guidance for the long-term curation and preservation of their ETDs
ETD Management Resources

Source: http://www.ndltd.org/resources/manage-etds
ETD Lifecycle Management

Guidance Documents for Lifecycle Management of ETDs

Authors: Daniel Alemneh, Bill Donovan, Martin Halbert, Yan Han, Geneva Henry, Patricia Howe, Gail McMillan, Xiaocan (Lucy) Wang
Editors: Matt Schultz, Nick Krabbenhoft, and Katherine Skinner

19 March 2014
Version 1.0

Source – NDLTD: http://goo.gl/zP419B
ETD Implementation Issues: Case Studies
Team Collaboration

- Office of Academic Affairs and Research
  - Provost & Office of Graduate Education
- ETD Task Force
  - Planning, Policy, Administration, Education, & Technology Issues
- Academic Computing / OIT
  - Student technical support, labs, workshops, Web resources, database implementation, archiving
- University Libraries
  - Student advising (format, copyright, patent), Web resources, submissions review, cataloging, reference & document delivery services, archiving
Costs & Benefits

- Graduate School
- Library
- Office of Information Technology
Education

- ETD Workshops / Consultants
  OIT (technical consultants)
  - 1.0 fte; rotates among 5 consultants existing personnel utilized
  - ETD Document Preparation and Conversion
    - Many students need lack basic word processing and multimedia skills

- ETD Graduate Seminars
  Most students now embrace ETDs and exploring new formats
Education – Intellectual Property & Copyright

- Copyright
  - Formal copyright filing, creative commons licensing, related Web distribution in the IR

- Fair Use
  - Appropriate use and citation of 3rd party copyrighted materials
  - Avoiding and detecting plagiarism

- Patent
  - When to restrict or embargo access

- Office of Research
  - Federal, state & campus policies and regulations
Graduate School

♦ ETD Deposit & Review
  ♦ 1.0 fte; existing personnel utilized:
    ♦ Graduate School or Library Staff
    ♦ ETD Program Coordination & Task Force Liaison

♦ Graduate Records Administration
  ♦ 1.0 fte
  ♦ Graduate School
Libraries Technical Services

♦ Cataloging
  ♦ 1.5 fte; existing personnel utilized:
    ♦ Cataloging Librarian, Library Technical Assistant
  ♦ Cost reductions for binding, handling, etc:
    ♦ $6.00/ dissertation unit; Library formally subsidized ½ of cost; savings of at least $1,000 per year.
    ♦ Handling: no book processing labor required
    ♦ Shelving: no additional shelving space required; savings of over 500 linear feet per year.
Libraries
Public Services

♦ Reference / Document Delivery:
  ♦ Existing personnel utilized; minimal impact; required initial training, augmented use of electronic delivery & copy services
  ♦ Finding ETDs
  ♦ Negotiating fair use
Evolution of Collection Maintenance

- Academic Computing (initial in-house IR system 1998)
  - Server and maintenance:
    - 0.3 fte; existing personnel utilized
  - Dell 20 GB hard drive, Windows NT, Cold Fusion
  - Initial database programming setup & archiving routine required
- Daily back-up of new submissions
- Weekly back-ups of entire ETD collection via WVNET’s robot cartridge tape
- Periodically write entire database to CD-ROM
- ETDs sent to ProQuest for electronic and microfilm backup: Academic Computing / University Libraries
Collection Maintenance

- Office of Information Technology (2nd generation in-house IR system 2004)
  - Server implementation and maintenance:
    - 1.0 fte shared; existing personnel utilized
    - X-Terabyte storage space
  - Migration to Oracle platform (1 year)
  - Required database programming & archiving routine (team of 8)
  - Daily back-up of new submissions – parallel server
  - Weekly back-ups of entire ETD collection via robotic cartridge tape
  - Periodically backup to CD-ROM
  - ETDs sent to ProQuest for electronic and microfilm backup: OIT / University Libraries
Migration Spring 2009

- Migration and implementation on commercial based IR system
  - Standards compliance
  - Avoid over-dependency on in-house operation and key personnel
http://wvususcholar.wvu.edu
WVU Open Archives Initiative Protocol for Metadata Harvesting

WVU ETD Database

System Indices Required:
- Record ID Number & Date/Time Stamp of last record update (date of approval)

Provides Metadata to OAI Harvesters & Automated Cataloging Records for MountainLynx

Metadata Compiled via OAICat Software

MARC21-XML Records Derived
Deposit Process

- Completed ETD Submission Packet
- ETD Submission Signature Form
- Submission Fee ($15.00 archiving fee)
  - ProQuest free online submission via ETD Administrator for Master’s Theses or Doctoral Dissertations
  - Fee-based for use of paper forms & manual upload
- Completed UMI Agreement Form
- Printed Copy of Title Page & Abstract
- Copyright Service: $XX (optional)
- Completed Survey of Earned Doctorates
Student Prepares Final Document for Submission

- Office of Information Technology
  - Student technical support and labs
- Software from department, college lab or online conversion
- Purchase software

- Document conversion to approved format (i.e. pdf & multimedia files)
Student Submits ETD Document & Data Online

- Web based submission process
  [http://wvuscholar.wvu.edu/main](http://wvuscholar.wvu.edu/main)
ETD is made available according to student’s Web Distribution choice.

1. World
2. Campus Only
3. Campus Encrypted
4. No Access
   A. Embargo 1 year, then open access
   B. Embargo 1 year, then campus access 4 years
ETD is made available according to student’s Web Distribution choice.

1. Open Access
2. Campus Access
   - Campus Encrypted
3. No Access
   A. Embargo 1 year, then open access
   B. Embargo 1 year, then campus access 4 years
Policy Conditions

♦ Campus Access
  - Total restriction period up to 5 years
  - MFA Creative Writing theses may have unlimited campus access restriction upon request; encourage eventual open access
ETD Review Process

- Committee Chair may review online
  - 5 working days to approve
- Library reviews format
- Library approves submission upon:
  - Receipt of completed ETD Submission Packet
  - Approval of ETD document format
Library Processing

- Library / OIT sends copies of ETD files and packets to UMI for publication and archival services.
- Library catalogs ETD:
  - MountainLynx
  - OCLC
Library Access to ETDs

- Citation from the MountainLynx WVU Libraries Catalog
  - Links to Online Full-text documents in wvuScholar Institutional Repository

- Direct Search / Browse

- Document delivery services (ILL)
Library Access to Restricted ETDs

- **Campus Only ETDs**
  - Electronic files free via Inter-Library Loan email attachment
  - Print copies for $15.00 via Library Copy Services

- **Campus Encrypted ETDs (phased out)**
  - Available in print format only via ILL

- **Restricted ETDs**
  - Secured from access for patent / proprietary concern
ETD Exemptions

- Master’s Theses: 2 bound copies
  - 2 original committee approval signature sheets
  - Approved ETD Exemption Form
- Doctoral Dissertations: 2 unbound copies
  - 2 original committee approval signature sheets
  - Approved ETD Exemption Form
  - Submission Fee: $XX
  - Completed UMI Agreement Form
  - Printed Copy of Title Page & Abstract
  - Copyright Fee: $XX (optional)
  - Completed Survey of Earned Doctorates
  - Library provides signed Approval Form to student
Web Distribution & Realities of Digital Publishing

Most publishers say:
- “Campus-Only” Web distribution of ETD is acceptable, and will not harm prospects for publishing.

Many publishers say:
- Thesis or dissertation normally considered as a preliminary work, not a magnum opus.
- “Self-acknowledged archiving” via online campus collections enhances the peer review process.

University Intellectual Property Output
- Electronic publishing is beginning to be recognized for basis of granting tenure and promotion to university faculty.
Open Access & Web Distribution Options

Self-Acknowledged Archiving of Research = 2-5 Times Increase in Scholarly Citations
Open Access Model

Research Europe “Institutional repositories: it’s a matter of sticks and carrots”
Benefits of OA IRs

- “For institutions, repositories are a vital tool for keeping track of their researchers’ output. For researchers and the public, they offer rapid and universal access to knowledge generated with public funds. Last but not least, they help authors reach a vastly wider readership.”

- Bernard Rentier – Universite de Liege
Statistical Profile
- Important numbers to track

- Paper Thesis and Dissertation Circulation (Pre-ETD)
- Monthly, Annual & Total ETDs Accesses
- Total Number of ETDs in Collection
- ETD accesses by domain
- Most Popular ETD
- Web Distribution Type
- Format Types in Collection
- Number of Submissions per Year
WVU ETDs are accessed 145,000% more than print documents.
WVU ETD Most Accessed
January 2001 - May 2002

Number of Accesses

Total
Zheng / Mech. & Aero. Engineering

15,000
WVU ETDs Most Accessed
2007

Number of Accesses

Burns: 37,501
Rao: 33,752
Samson: 13,812

History / Engineering / Athletic Training
OA IMPACT FACTOR:
- Over 120,000 cumulative hits 2005 - 2010

**Most Popular WVU ETD 2005 - 2010**

<table>
<thead>
<tr>
<th>Year</th>
<th>Accesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>22,247</td>
</tr>
<tr>
<td>2007</td>
<td>37,501</td>
</tr>
<tr>
<td>2008</td>
<td>57,922</td>
</tr>
<tr>
<td>2009</td>
<td>1,584</td>
</tr>
<tr>
<td>2010</td>
<td>807</td>
</tr>
<tr>
<td>Total</td>
<td>120,061</td>
</tr>
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</table>

Shirley Stewart Burns - History Dissertation

2010 - EPA Issues New Policy on MTR Permits
Web Distribution of WVU ETDs: 1998-2000

- World: 53%
- Campus-Only: 42%
- Patent: 2%
- Campus-Encrypted: 3%

Pie chart showing distribution percentages.
Web Distribution of WVU ETDs: Spring 2010

- World: 77%
- Campus: 18%
- No Access: 5%
Web Distribution of WVU ETDs: 1998 - 2010

- Open Access: 85%
- Campus Access: 15%
- No Access: 0.30%
Benefits of Open Access
Open Access Button

How it works

- The key functions of the Open Access Button are finding free research, making more research available and also advocacy.

- For more information visit https://www.openaccessbutton.org/
Open Access Success Stories

- The Winnower is an open access online scholarly publishing platform that employs open post-publication peer review

https://thewinnower.com/keywords/arcs2015
## Survey of WVU Multimedia ETDs and Award Winners as of Summer 2009

<table>
<thead>
<tr>
<th>Name</th>
<th>Date Approved</th>
<th>Department</th>
<th>Document Type</th>
<th>File Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams, Holly Winterhalter</td>
<td>05/02/2001</td>
<td>Art</td>
<td>Master's Thesis</td>
<td>pdf &amp; linked pdf enhanced color graphics</td>
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<tr>
<td>Corrosion; Creating Pots, Inviting Intimacy</td>
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<td></td>
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<tr>
<td>Allen, Michael O.</td>
<td>05/20/2004</td>
<td>Music</td>
<td>Dissertation</td>
<td>pdf &amp; linked pdf, mp3</td>
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<tr>
<td>Portfolio of Compositions and Research Project</td>
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<tr>
<td>Artfield, Hilary NDUD Innovative ETD Award Winner 2004</td>
<td>04/30/2003</td>
<td>Technology Education</td>
<td>Dissertation</td>
<td>pdf, html, .sgml</td>
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<tr>
<td>The Future of Electronic Editing: Theory and Practice</td>
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<td>Design Taking Action: A holistic approach to design problem solving applied to disease education</td>
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<tr>
<td>Barnes, Andrew S.</td>
<td>07/24/2009</td>
<td>Journalism</td>
<td>Master's Research Project</td>
<td>pdf, mov (video documentaries)</td>
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<tr>
<td>Humans for Sale: Using Multimedia to Spread Social Awareness of Human Sex Trafficking in Southeast Asia</td>
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<td>The USA Patriot Act And Civil Liberties: The Media's Response</td>
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<tr>
<td>Bernoff, Michael K.</td>
<td>05/07/2004</td>
<td>Plant &amp; Soil Sciences</td>
<td>Dissertation</td>
<td>pdf, PowerPoint, .xls</td>
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<td>Yield, Pest Density, and Tomato Flavor Effects of Companion Planting in Garden-Scale Studies Incorporating Tomato, Basil and Brussels Sprout</td>
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<tr>
<td>Bowman, Amy J.</td>
<td>03/30/2009</td>
<td>Art</td>
<td>Master's Thesis</td>
<td>pdf, mp3</td>
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<td>Barrier Ahead: Sectarian Murals, Public Art and Spatial Contexts in West Belfast, Northern Ireland (1981-2007)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><a href="http://www.Didactic.com">www.Didactic.com</a>: Activating the Didactic, Self-Reflective Fairytale through Hypermedia as a Model for the Art Education Activist</td>
<td></td>
<td></td>
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<tr>
<td>Burns, Shirley Stewart NDUD Innovative Learning through ETDs Award Winner 2009</td>
<td>06/20/2005</td>
<td>History</td>
<td>Dissertation</td>
<td>Notable open access history dissertation subsequently published by WVU Press. See the press release</td>
</tr>
</tbody>
</table>
NDLTD ETD Awards

- **Innovative ETD Award**
  - Recognizes student efforts to transform the genre of the print dissertation through the use of innovative software to create multimedia ETDs.

- **ETD Leadership Award**
  - Recognizes members of the university community whose leadership and vision has helped raise awareness of the benefits of ETDs and whose efforts have improved graduate education and research through the use of ETDs.
Future Directions

- Digital Dissertations / non-traditional formats
Future Directions

- Collaborative writing and sharing processes
  - Authorea
  - Overleaf
- Open access publishing
  - eLIFE
Future Directions

- Let IR RIP
  - Personal repositories, disciplinary repositories, social networks
- Are institutional repositories a dead end?
Future Directions

- CRIS and retirement of repositories?
- RIMS - Research Information Management Systems
  - Converis (Thomson Reuters)
  - DSpace – CRIS
  - PubSweet & INK (CKF)
  - Pure (Elsevier)
  - Symplectic Elements
USETDA 2018
8th Annual Conference on Electronic Theses and Dissertations
"Climbing Ever Higher"

Denver, Colorado
Coming Fall 2018
Organized by the Auraria Library and Brigham Young University

www.usetda.org
Submit a bid to host USETDA 2019 in your city!

♦ For details visit www.usetda.org
Submit a bid to host ETD2019 in your city!

 For details visit

www.ndltd.org
Pre-Conference Workshop
“ETDs for Rookies –
Newcomer’s Session”

Organizer: John H. Hagen

Many thanks to panelists
ETD2017 Symposium –
Washington, DC

John.Hagen@Renaissance-Scholar.com
7 August 2017