Introduction to NDLTD and Brief History of the ETD Movement

ETD 2013: 16th Int'l Symposium on ETDs Hong Kong: ETDs for Rookies

Edward A. Fox Executive Director, NDLTD, www.ndltd.org

Virginia Tech, Blacksburg, VA 24061 USA fox@vt.edu http://fox.cs.vt.edu/talks/2013¹



Outline

- Acknowledgements
- Digital Libraries
- NDLTD
- Background for Future Work
- Summary

Acknowledgements

- Family, mentors, teachers, students
- All those working with ETDs
- NDLTD, including its Members, Board, and Committees
- ETD 2013 Conference Team
- Sponsors
- Presenters, Attendees

Acknowledgements (2): Mtgs

- 1987 mtg in Ann Arbor: UMI, VT, Arbortext, Softquad
- 1992 mtg in Washington: CNI, CGS, UMI, VT + 10U's
- 1993 mtg in Atlanta: Monticello Electronic Library
- 1994 mtg at VT: std: PDF + SGML + multimedia
- 1996 mtg with funding by SURA and then also by the US Dept. of Education (FIPSE)
- 1997 meetings in UK, Germany, ...
- 1998 1st symposium Memphis (20)
- 1999 2nd symposium Blacksburg (70)
- 2000 3rd symposium St. Petersburg, FL (225)
- 2001 4th symposium Caltech, Pasadena (200)
- 2002 5th symposium BYU, Provo, Utah
 Cont'd …

Acknowledgements (3): Mtgs

- 2003 NDLTD incorporated as int'l non-profit
- 2003 6th symposium Berlin (215 attendees)
- 2004 7th symposium U. Kentucky, USA
- 2005 8th symposium Sydney, Australia
- 2006 9th symposium Quebec City, Canada
- 2007 10th symposium Uppsala, Sweden
- 2008 11th symposium Aberdeen, Scotland
- 2009 12th symposium Pittsburgh, PA, USA
- 2010 13th symposium Austin, TX, USA
- 2011 14th symposium Cape Town, S. Africa
- 2013 15th symposium Lima, Peru

Outline

- Acknowledgements
- Digital Libraries
 - Including ePrints, DSpace, Fedora
 - Including (institutional) repositories
 - Incl. Content/Courseware Management Systems
 - Personal -> Group -> Publisher -> Global
- NDLTD
- Background for Future Work
- Summary

Degree of Structure



Chaotic Organized Structured

Modern Dissemination Methods

- Social media
- WWW (and Web 2.0)
- Digital libraries
 - Global tailored access through services like Scirus
 - Global access through search engines
 - -> Discovery, downloading, citing, re-usable science
- What aids discovery?
 - Title, abstract, categories
 - Figures (image search if separate)
 - Commenting, rating, tagging, recommending

Informal 5S & DL Definitions

DLs are complex systems that

- help satisfy info needs of users (societies)
- provide info services (scenarios)
- organize info in usable ways (structures)
- present info in usable ways (spaces)
- communicate info with users (streams)

DLs Support Many User Roles



Digital Libraries (DLs) -- Objectives

- World Lit.: 24hr / 7day / from desktop
- Ubiquitous
- Integrated "super" information systems
- Usable, Useful
- Higher Quality, Lower Cost
- Education, Knowledge Sharing, Discovery
- Disintermediation -> Collaboration
- Universities Reclaim Property
- Interactive Courseware, Student Works

Why of Global Interest?

- National projects can preserve antiquities and heritage: cultural, historical, linguistic, scholarly
- Knowledge and information are essential to economic and technological growth, education

• DL - a domain for international collaboration

- wherein all can contribute and benefit
- which leverages investment in **networking**
- which provides useful **content** on Internet & WWW
- which will tie nations and peoples together more strongly and through deeper understanding

Digital Library Content



Infrastructu	Information Setiofection		
Repository-Building		Add	Services
<u>Creational</u>	Preservational	Value	
Acquiring Cataloging Crawling (focused) Describing Digitizing Federating Harvesting Purchasing Submitting	Conserving Converting Copying/Replicating Emulating Renewing Translating (format)	Annotating Classifying Clustering Evaluating Extracting Indexing Measuring Publicizing Rating Reviewing (peer) Surveying Translating (language)	Browsing Collaborating Customizing Filtering Providing access Recommending Requesting Searching Visualizing





Students and the Info. Life Cycle

- Learning
 - Respect
- Discovery
 - Excitement
- Documentation and reporting
 - Expression
- Dissemination
 - Fame and Fortune
- Community involvement
 - Service
- Community leadership
 - Compassion

Institutional Repositories - 1

- "Institutional repositories are digital collections that capture and preserve the intellectual output of a single university or a multiple institution community of colleges and universities."
- Crow, R. "Institutional repository checklist and resource guide", SPARC, Washington, D.C., USA
- www.sparc.arl.org/resource/sparc-institutionalrepository-checklist-resource-guide

Institutional Repositories - 2

- "A university-based institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organization and access or distribution."
- Lynch, C.A. In ARL Bimonthly Report 226, pp. 1-7, Feb. 2003, www.arl.org/focus-areas/copyright-ip/ 1229



For More Information (Examples)

- **Magazine**: www.dlib.org
- Books: MIT Press: Arms (1999), Bishop (2003), Borgman (2003, 2010), Licklider (1965)
 - Morgan Kaufmann: Witten... (several), Lesk (2nd edition)
 - M&C: https://sites.google.com/a/morganclaypool.com/ dlibrary/ (4 books: foundations, key aspects, tech., appl.)

Conferences

- ICADL: http://www.icadl.org
- JCDL: http://www.jcdl.org
- TPDL: http://www.tpdl2013.info
- Associations
 - ASIS&T DL SIG: http://www.asis.org/SIG/dl.html
 - IEEE TCDL: http://www.ieee-tcdl.org
- **NSF**: http://www.dlib.org/dlib/july98/07griffin.html
- Labs: Cape Town: http://www.cs.uct.ac.za/research/dll, V₂₂⁻: http://www.dlib.vt.edu, TAMU: www.csdl.tamu.edu/

Outline

- Acknowledgements
- Digital Libraries
- NDLTD
- Background for Future Work
- Summary

NDLTD: www.ndltd.org

- N D Ltd or Noodle TD
- Vision: Every thesis and dissertation in the world is:
 - Devised to take advantage of the most helpful electronic publishing methods
 - Shared globally and easily found
 - Supported by a suite of digital library services to aid authors, researchers, learners, universities
 - Preserved and migrated permanently

ETDs: Library Goals

- Improve library services
 - -Better turn-around time
 - -Always available
- Reduce work
 - -catalog from e-text
 - –eliminate handling: mailing to commercial contractor, bindery prep, check-out, check-in, reshelving, etc.
- Save space

What are we doing?

- Aiding universities to enhance graduate education, publishing, and Intellectual Property Rights efforts
- Helping improve the availability and content of theses and dissertations
- Educating ALL future scholars so they can publish electronically and effectively use digital libraries (i.e., are Information Literate/Fluent, Computational Thinkers, and can be more expressive)

Guiding students

- Assuage fears and concerns
 - Time and effort
 - Ignorance regarding publishers, university presses
 - Luddite faculty views of scholarly communication
- Show immediate and long term benefits
- Motivate to be more expressive
- Guide to help ensure easy long-term preservation

NDLTD Incorporation

- Networked Digital Library of Theses and Dissertations incorporated May 20, 2003 in Virginia, USA
- Charitable and educational purposes (501 c 3)
- Officers (now)
 - Executive Director (Ed Fox, fox@vt.edu)
 - Secretary (Sharon.reeves@rogers.com)
 - Treasurer (Austin.McLean@proquest.com)

Mission

- The Networked Digital Library of Theses and Dissertations (NDLTD) is an international organization that, through leadership and innovation, promotes the adoption, creation, dissemination, use, and preservation of electronic theses and dissertations (ETDs).
- The NDLTD encourages and supports the efforts of institutions of higher education & their communities
- to advance and apply electronic publishing & digital libraries (including repositories), thus enabling them
- to share knowledge more effectively in order
- to unlock the potential benefits worldwide.

How You Can Participate

- Primarily, a volunteer organization
- Local and regional activities
- NDLTD Committees (including):
 - Awards, Communications,
 - Conferences, Membership

Networked Digit	ital Library of Theses and Dissertations - M	licrosoft Internet Explorer	×		
File Edit View Favo	orites Tools Help				
🕞 Back 💌 🎒 🐇	🗙 🖉 🎧 🔎 Search 📌 Favorites 🚱 🛜 🖓				
Address 💰		p://www.nditd.org/serviceproviders/scirus-etd-search	Go Links »		
	C Search 🔹 🖚 🔤 🖓 189 blocked 💎	Check 🔹 🔨 AutoLink 🔹 😸 AutoFill 🛅 Options 🖉	• 🖾 •		
JOIN NDEID	Scirus ETD Seard	ch	<u> </u>		
SUBSCRIBE	-				
	This search service is provi	ided courtesy of Scirus , based on data harvested from the Union Archive hosted by OCLC.			
RELATED LINKS					
ETDS IN THE NEWS	Basic Search				
CONTACT NDLTD	Query :	Search Search			
ADMIN LOGIN					
GO TO OTHER LANGUAGE:	Advanced Search				
Select Language 💌	All of the words	in The complete document			
	AND				
	All of the words	in The complete document 💌			
	AND 🗸				
	All of the words	in The complete document 💌			
	Only show results published betwee				
	Only show results in				
	🗹 All subject areas	Agriculture and Biological Sciences			
	Astronomy	Chemistry and Chemical Engineering			
	Earth and Planetary Sciences	□ Economics, Business and Management av □ Environmental Sciences			
	Languages and Linguistics				
	🗖 Life Sciences	□ Materials Sciences			
	Mathematics				
	Neuroscience	Pharmacology Peychology			
	Social and Behavioral Sciences	□ Sociology			
	Only search in the following collection	ion			
	● ETDs	O The Scholarly Web	×		
Cone					
🖞 start 🔰 🙆	′our i-Hotel Portal 🛛 🖉 Networked Digital 🛛 쳙 fox	🚰 talks 💿 todo - Notepad 💿 IEEE-TCDL - Micro 🐏 20060608ETDopen 🛛 🔂 Dell Media Experi	🕅 🖗 2:46 AM		

Outline

- Acknowledgements
- Digital Libraries
- NDLTD
- Background for Future Work
- Summary

Background for Future Work

- Electronic Publishing
- Computer Literacy/Fluency -> Computational Thinking
- Scholarly Communication
- Open Access
- Institutional Repositories
- Open Archives Initiative (OAI)

The World According to OAI



Metadata Objects (MDOs)

- MARC
- Dublin Core -> ETD-MS
- RDF
- OAI (Open Archives Initiative): PMH, ORE
- Crosswalks, mappings
- Ontologies, Classification systems

OAI – Black Box Perspective



OAI – Repository Perspective



Summary

- Acknowledgements
- Digital Libraries
- NDLTD
- Background for Future Work

Why ETDs? Short Answer

- For Students:
 - Gain knowledge and skills for the Knowledge Society
 - Richer communication (digital information, multimedia, ...)
- For Universities:
 - Easy way to enter the digital library field and benefit thereby ("no brainer" entrée into institutional repositories)
- For the World:
 - Global digital library large, useful, many services
- General:
 - Save time and money
 - Increased visibility for all associated with research results

Questions? Discussion? Recommendations?

Thank You!

fox@vt.edu http://fox.cs.vt.edu