#ETD2021: Open Scholarship in a Post-Pandemic World 24th International Symposium on ETDs

Nov. 15-18; United Arab Emirates University, VIRTUAL

"Welcome Note and Opening Presentation"

Edward A. Fox, Ph.D., Professor

- fox@vt.edu <u>http://fox.cs.vt.edu</u>
- Dept of Computer Science (& ECE by courtesy)
- Virginia Tech, Blacksburg, VA 24061 USA
- NDLTD: Exec. Director, Chairman of the Board

Outline

- Acknowledgments
- NDLTD
- Opportunities
 - Content, Collection
 - Information Life Cycle, Quality
 - Services
 - Research

Acknowledgments

- Family, mentors, teachers, colleagues, students
- All those working with ETDs
- NDLTD (ndltd.org=theses.org=dissertations.org) Networked Digital Library of Theses and Dissertations
- Members, Board, Committees,
- Working Groups, Task Forces
- ETD 2021 Conference Team
- Presenters, Attendees, Sponsors
- UAEU team

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: stds: 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
- 2003 6th symposium Berlin (NDLTD inc. as int'l non-profit)
- 2004 7th symposium U. Kentucky, USA
- 2005 8th symposium Sydney, Australia

Acknowledgements (3): Mtgs

- 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
- 2012 15th symposium Lima, Peru
- 2013 16th symposium Hong Kong
- 2014 17th symposium Leicester, England
- 2015 18th symposium New Delhi, India
- 2016 19th symposium Lille, France
- 2017 20th symposium Washington, D.C.
- 2018 21st symposium Taipei, Taiwan
- 2019–22nd symposium Porto, Portugal
- 2020–23rd symposium United Arab Emirates

The Networked Digital Library of Theses and Dissertations

www.NDLTD.org

Advocate: **Training Authors Expanding Access** Preserving Knowledge Improving Graduate Education **Enhancing Scholarly Communication** Empowering Students & Universities

Leader of the Worldwide ETD (Electronic Thesis and Dissertation) Initiative

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

NDLTD: Mission

The Networked Digital Library of Theses and Dissertations (NDLTD) is an international organization dedicated to promoting the adoption, creation, use, dissemination, and preservation of electronic theses and dissertations (ETDs). We support electronic publishing and open access to scholarship in order to enhance the sharing of knowledge worldwide. Our website includes resources for university administrators, librarians, faculty, students, and the general public. Topics include how to find, create, and preserve ETDs; how to set up an ETD program; legal and technical questions; and the latest news and research in the ETD community. 8

Journal: J-ETD.org, j-etd@ndltd.org Journal of Electronic Theses and Dissertations

- Open-access. Please support!
- Managing Editor: Charles J. Greenberg
- Executive Editor: Edward A. Fox; Associate Editors : Suzanne Lorraine (Suzie) Allard (USA), Ramesh C. Gaur (India), Charles J. Greenberg (USA), Libio Huaroto (Peru), William A. Ingram (USA), Ana Sofia de Sousa Machado Mota (Portugal), Prashant Pandey (Australia), Ana Pavani (Brazil), Joachim Schöpfel (France), Janette Wright (Australia).

search.ndltd.org



Global ETD Search

Search the 6,186,907 electronic theses and dissertations contained in the NDLTD archive:

Type something to start searching...

Q

advanced search tips 🌱 how to contribute records 🗲

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electronic theses and dissertations metadata



Home	About		
INFORMATION	This system collects metadata records for ETDs from institutions around the world		
Submit your site	and aggregates them into a single collection that can then be used by service providers.		
About	If you wish to search for ETDs, you can use the NDLTD Global ETD Search .		
Admin	Recent Submissions		
	 Étude d'architectures de capteurs RF intégrés au substrat destinés à la mesure diélectrique <i>Mon, 15 Nov 2021 05:35:18 UTC</i> Techno-economic Optimization for Large-Scale Power-to-methane Systems : Techno-economic modeling, design and optimization of a large scale 2.0 TWh/y solar-to-methane plant concept in Australia <i>Mon, 15 Nov 2021 05:34:18 UTC</i> Implementation and comparison of the Aircraft Intent Description Language and pointmass Non-Linear Dynamic Inversion approach to aircraft modelling in Modelica <i>Mon, 15 Nov 2021 05:34:18 UTC</i> Detection of Fat-Water Inversions in MRI Data With Deep Learning Methods <i>Mon, 15 Nov 2021 05:34:18 UTC</i> Extension of Machine Learning Model for Dynamic Risk Analysis <i>Mon, 15 Nov 2021 05:34:18 UTC</i> 		
	Collection Statistics		

Collection	Total
CRANFIELD	22
UCF	6755
UBOLOGNA	0
Arizona State University	9630
Atlanta University Center	4341
Australiasian Digital Theses Program	56698
Ball State University	7597
Bibliothèque interuniversitaire de la Communauté française de Belgique	2430
Boston College	3336
Boston University	21864
Bradford Scholars	9718
Brigham Young University	9191
Brigham Young University Theses	0
Butler University	499
California Institute of Technology	10615
California Polytechnic State University	2352
California State University San Bernardino	4248
Carnegie Mellon University	1313
CCSD theses-EN-ligne, France	45310
Chapman University	102

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University of Hawaii at Manoa Libraries	3370
University of Iowa	6955
University of Kentucky	4964
University of Latvia	255
University of Macau	2890
University of Maine	1483
University of Manitoba Canada	20871
University of Massachusetts Medical School	1225
University of Massachusetts, Amherst	12303
University of Miami	1009
University of Missiouri at St. Louis ETD Archive	119
University of Montana Missoula	696
University of New Orleans	2923
University of North Carolina-Chapel Hill	62
University of North Florida	902
University of North Texas	20141
University of Novi Sad	2140
University of Oregon	2859
University of Oulu	8173
University of Patras	7359
University of Pittsburgh	4221
University of Saskatchewan Library	6015
University of South Flordia	8199
University of Tennessee Libraries	2262
University of Tennessee Libraries	479
University of Texas	16290
University of the Pacific	3684
University of Toronto	7835
University of Vermont	1131
University of Victoria	6886
University of Waterloo Electronic Theses Repository	6361
University of Würzburg	7689
UniZar	14
Ural Federal University	4752
Utah State University	7800
Vanderbilt University Theses	3941
Vidyanidhi Digital Lib. (India)	5491
Virginia Commonwealth University	6265
Virginia Tech Theses and Dissertation	36495
VTechWorks NDLTD ETDs	177
Walden University	8007
Western Kentucky University Theses	3116
Wichita State University	1303
William and Mary	6150
Wirtschaftsuniversität Wien	3395
Worcester Polytechnic Institute	2034
Yale Medical student MD Thesis	122
Tale Medical student MD Thesis	6219070

Spirit of NDLTD

- Assuage fears -> build confidence -> promote sharing
- Help make a **better** (smaller) world
- Win-win-win (everyone can benefit)
- Have **fun** helping others
- Build on **standards**
- ETDs are preservable, popular, expressive -> "better"
- **Doable**, feasible, learnable, affordable, sharable
- Please support NDLTD!

NDLTD Board of Directors

Name	Title	Organization	Country
Sort 🖕	Sort 🖕	Sort 🖕	Sort 🖕
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<u>William A. Ingram</u>	Assistant Dean, University Libraries	<u>Virginia Tech</u>	USA

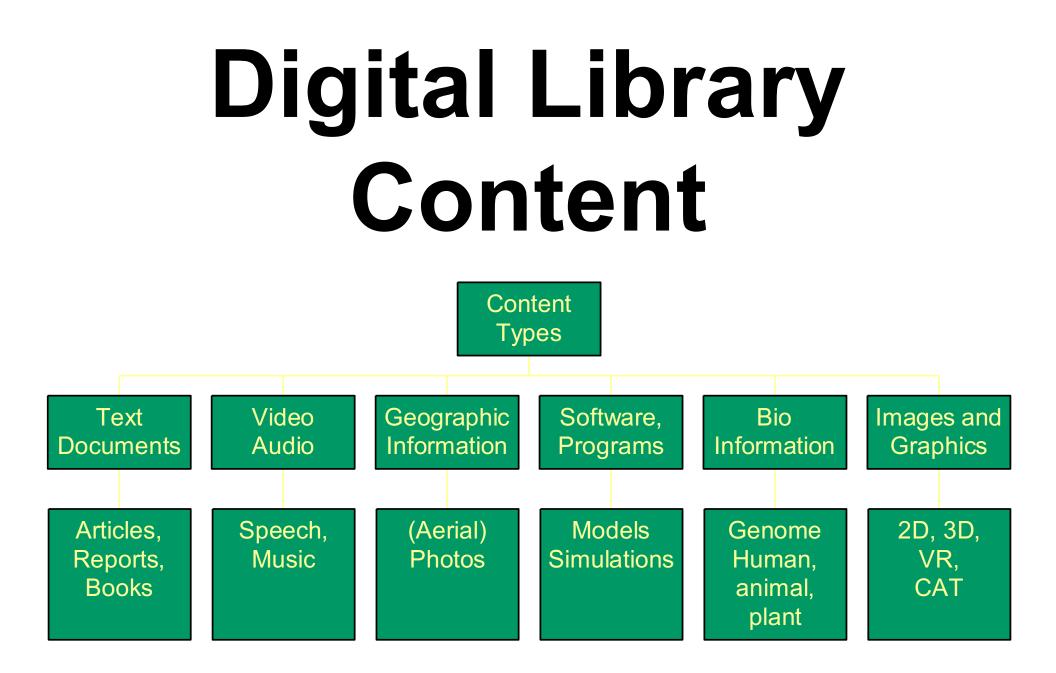
How You Can Participate

- Be a: Member (individual, institution, consortium)
- Join: NDLTD Committees, Working Groups:
 - Awards (Charles Greenberg)
 - Communications (Iryna Kuchma)
 - Conference (Ramesh Gaur)
 - Finance (Austin McLean)
 - Membership (Joachim Schöpfel)
 - Nominating (Janette Wright)
 - Union Catalog (Ana Pavani)
- Be an: Ambassador (local, national, global)
- Meet people 18 November in Regional Meetings

Invitation:

to extend your involvement in the global ETD community

- You are invited to serve as an ambassador for NDLTD,
 - to connect with those back home,
 - sharing about ETD 2021.
- This week:
 - ask questions,
 - share your thoughts, and
 - help make both ETD2021 and the ETD movement a greater success.

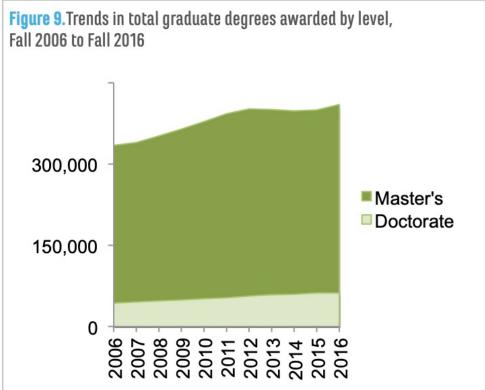


Potential Collection Size

- Fall 2016 U.S. graduate schools: >1.8 million students enrolled in grad certificate, master's, or doctoral programs (https://cgsnet.org/ckfinder/userfiles/file s/CGS_GED16_Report_Final.pdf)
- 2018 US degree holders

Master's 21M, doctoral 4.5M

(https://www.census.gov/library/stories/20 19/02/number-of-people-with-mastersand-phd-degrees-double-since-2000.html

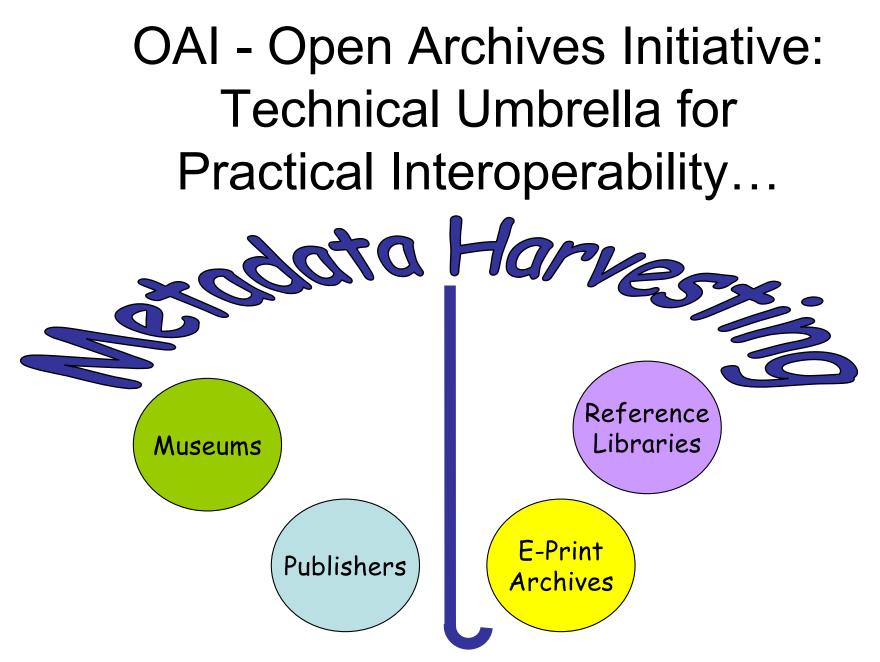


Note: Trends were developed based upon institutions that provided data for all years 2006 to 2016; therefore, the numbers of total degrees awarded do not match data in the tables.

Source: 2016 CGS/GRE Survey of Graduate Enrollment and Degrees

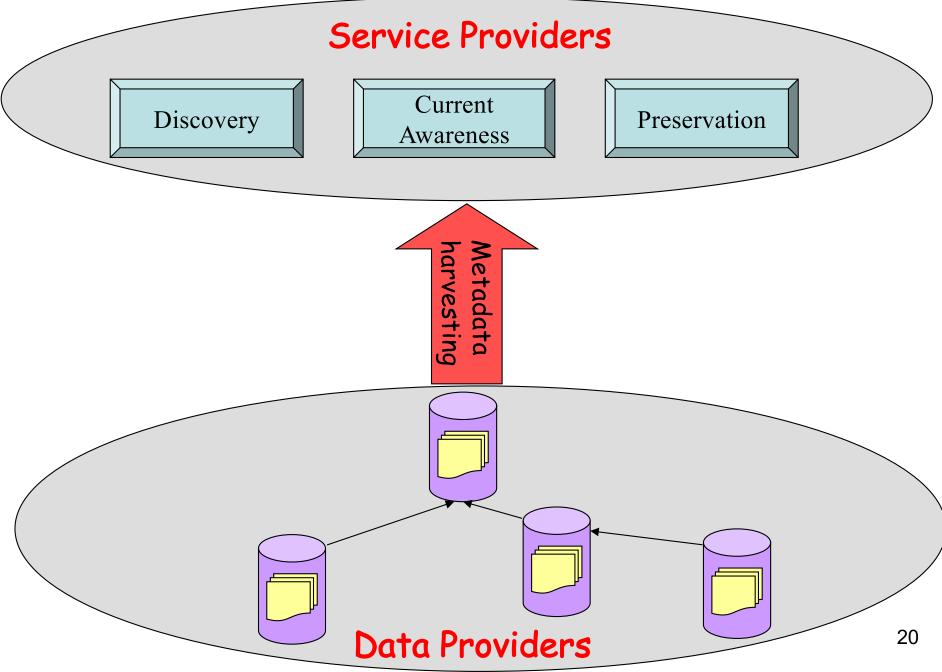
* Guess: 65 million ETDs could exist, with growth of 1M/year, if world count is at least 3X that of US

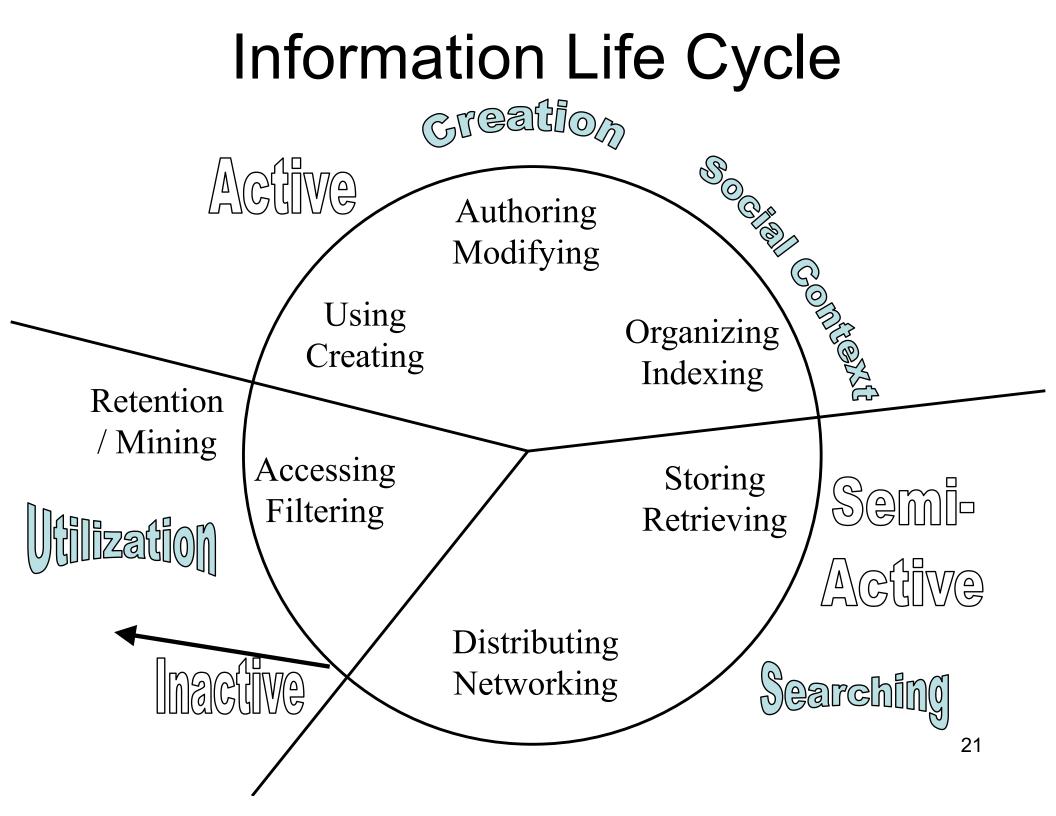
(<u>https://ourworldindata.org/tertiary-education#share-of-the-population-with-</u>₁₈) tertiary-education)



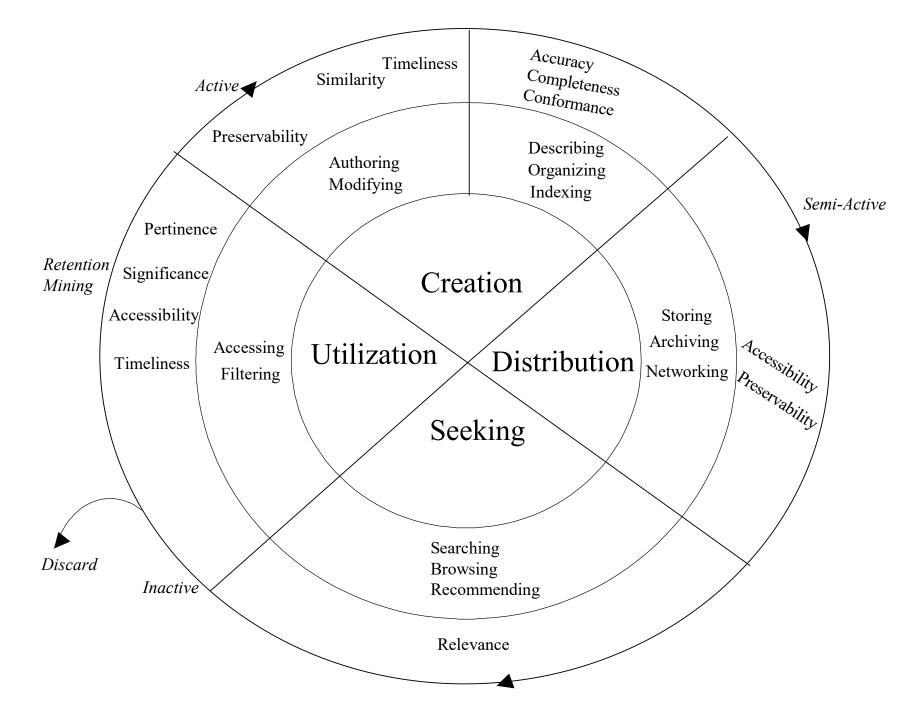
...that can be exploited by different communities

The World According to OAI





Quality and the Information Life Cycle



Supporting Services across the Lifecycle

Infrastructu	Information Setisfaction			
Repositor	y-Building	Add	Satisfaction 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	Browsing ← Collaborating Customizing Filtering Providing access Recommending ← Requesting Searching ← Visualizing	

Related Funded Grants

- IMLS LG-37-19-0078-19: Opening Books and the National Corpus of Graduate Research. 2019-2022. PI: William A. Ingram Co-PIs: Edward A. Fox and Jian Wu
- Indo-US S&T Forum: Open Digital Libraries and Interoperability Workshop, 2003, PI Fox; Co-chairs: Shalini Urs, Mohammad Zubair, N. Balakrishnan
- 3. NSF IIS-0086227: Open Archives: Distributed services for physicists and graduate students (OAD): 2001-2004; PD Fox; German DFG PI E. Hilf
- 4. UNESCO: International Guide for the Creation of Electronic Theses and Dissertations: 12/28/2000-3/31/2002. PD (project director) E. Fox
- 5. SOLINET (Southeastern Library Network, USA): Networked Digital Library of Theses and Dissertations: 2000. PD (project director) Fox
- NSF IIS-0090153 (427963): US-Korea Joint Workshop on Digital Libraries: Removing Barriers to International Collaboration on Research and Education through Digital Libraries, 8/1/2000-9/30/2002. PD Fox, co-PIs R.L. Larsen, R. W. Moore
- U.S. Dept. of Education, FIPSE Program P116B61190: Improving Graduate Education with a National Digital Library of Theses and Dissertations: ¹/₂996-99; PIs Fox, J. Eaton, G. McMillan; support by SURA, Microsoft, Adobe

Opening Graduate Research IMLS; 2019-2022; PI: William Ingram

- Early work: 2019-2021
 - Collecting: 500K +
 - English, Arabic Large universities, HBCUs, HSIs
 - Analyzing: parsing references for database
 - Extracting: tables, figures, definitions, references
 - Scanned ETDs -> improved metadata
 - Classification into ProQuest categories
 - Segmenting: chapters
- Goals: Pilot services + Software for universities, regions, nations

http://fox.cs.vt.edu/talks/2021/20211116 FoxETD2021opening.pptx

> Questions? Discussion? Recommendations?

Chat with an NDLTD Board or Committee member! Thank You! <u>fox@vt.edu</u> <u>fox@ndltd.org</u> <u>j-etd@ndltd.org</u>

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