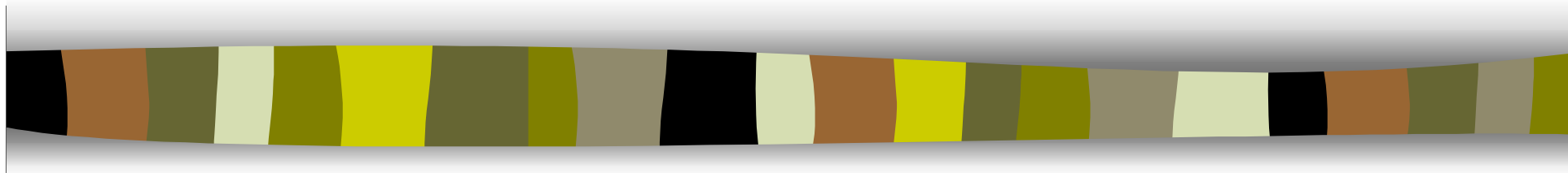


# Electronic Theses and Dissertations



Gail McMillan, Virginia Tech

Digital Library and Archives, University Libraries

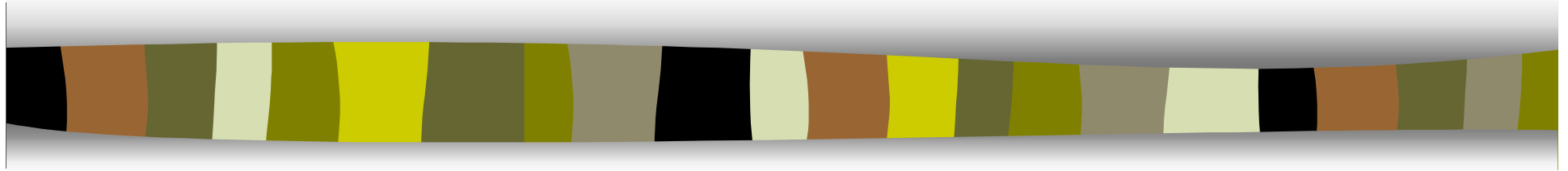
John Hagen, West Virginia University

Acquisitions, Wise Library

Nan Seamans, Virginia Tech

Instruction, University Libraries

# Contemporary Turkish Coffeehouse Design Based on Historic Traditions



**Timur Oral**

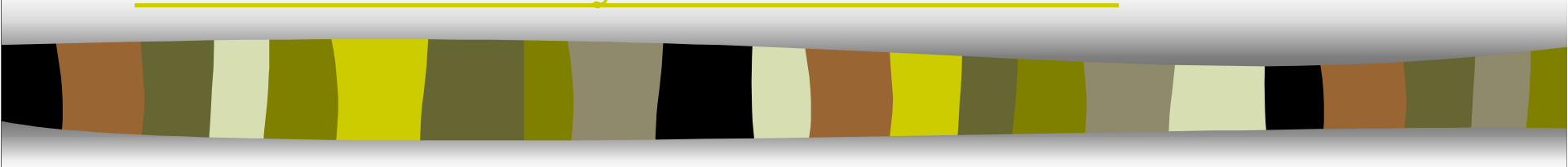
MS, Interior Design

College of Human Resources and Education, VT

April 1997

<http://scholar.lib.vt.edu/theses/available/etd-2227102539751141/>

All the King's Horses:  
Delta Wing Leading-Edge Vortex System  
Undergoing Vortex Breakdown:  
A Contribution to its Characterization and  
Control under Dynamic Conditions



**Norman Schaeffler**

PhD, Engineering Mechanics

College of Engineering, VT

April 1998

<http://scholar.lib.vt.edu/theses/available/etd-32498-21232/>



# The Vision for ETDs

- 400,000 masters and PhD candidates annually exposed to e-publishing
- Faster and better information transfer
  - Empower students to convey richer message through use of multimedia
  - Universities publish their scholarship (timely, too)
- Improve graduate education through more effectively sharing information
- Libraries improve services and resources while saving money and space



# Why digital submission?

- Students gain hands-on experience
  - preparing electronic works
  - using tools to share information effectively
- Scanned documents are costly to store, less effective than original digital documents



# ETDs: Library Goals

- Improve library services
  - Better turn-around time
  - Always available
- Reduce work
  - Catalog from etext
  - Eliminate handling: mailing to UMI, bindery prep, check-out, check-in, reshelving, etc.
- Save space



# Benefits: Increased Access

## ■ Low margin, high use

- Incorporate ETDs with other digital library activities
  - EJournals, EReserve, ImageBase (digital images)
  - Additional equipment, staff may not be necessary
    - <http://scholar.lib.vt.edu/theses/data/setup.html>
- May use VT programs, scripts, etc.
  - <http://scholar.lib.vt.edu/ETD-db/>

## ■ Online vs. circulation of copies

- Access statistics
- Circulation statistics



# Accesses to VT's ETDs

	1997	1998	1999	2000
Total requests	247,537	465,974	1,190,113	1,894,510
Daily requests	685	1,722	3,016	5,176
ETD requests	72,854	244,987	671,981	734,807
Abstract requests	112,633	177,647	217,796	320,273
Hosts served	22,725	28,022	35,593	105,632



# Concerns about ETDs

## ■ Inaccessible ETDs

- Patents pending
- Future publication status

## ■ Broken links

- Quality of work remains
  - Similar to out-of-print articles
  - Media standards

an end to the 'other' in landscape  
architecture: poststructural theory and  
universal design



David Orens

Master of Landscape Architecture

College of Architecture and Urban Planning

April 1997

<http://scholar.lib.vt.edu/theses/available/etd-4220121649751351/>



# Concerns: Archiving

- No paper copies
  - Standard multimedia formats
  - PDF
    - An open source program
    - EJournals, government documents, etc.
  - Frequent backups, multiple locations
  - <http://scholar.lib.vt.edu/theses/archive.html>
- UMI: traditional microfilming
- VTLS: Union catalog of OAI metadata, links
- NDLTD: cooperative, inter-institutional mirroring (not yet)



# What's NDLTD?

Networked Digital Library of Theses and Dissertations

<http://www.ndltd.org>

- An initiative to improve graduate education, increase sharing of knowledge, help universities build their information infrastructure, and extend the value of digital libraries
- A federation of members
  - helping evolve standards
  - Meet at conferences
    - 2002: Brigham Young University, May 30-June 1, 5th International Conference
    - 2001: Cal Tech, March 22-24, 4th International Conference
    - 2000: University of South Florida, 1999: Virginia Tech
  - Sharing information and programs
    - ETD system: submission process: <http://scholar.lib.vt.edu/ETD-db/>
- A recent topic in the news
- Led by a steering committee and working committees



# Challenges to Creating and Sustaining ETD Collections

- Copyright
  - Fair use or permission
  - Authors' rights
- Attitudes about publishing
  - Reclaim university research and scholarship
- Accepted and dependable as paper or microfilm



## Current Status of ETDs

- 110 universities world wide
- Required at: VT, WVU, ETSU, U. No..Tex., UT Austin, NCSU, (LSU spring 2002); U Hong Kong
- 55 US institutions have projects
- 3597 ETDs at VT, 1050 at WVU



# NDLTD: US Universities

Air University, Maxwell AFB  
Baylor University  
Brigham Young University  
California Institute of Technology  
Clemson University  
College of William and Marry  
Concordia University (Illinois)  
East Carolina University  
East Tennessee State University  
Florida Institute of Technology  
Florida International University  
George Washington University  
Louisiana State University  
Marshall University  
Massachusetts Institute of Technology  
Miami University of Ohio  
Michigan Tech  
Mississippi State University  
Montana State University  
Naval Postgraduate School, Monterey, CA  
New Jersey Institute of Technology  
New Mexico Institute of Mining and Technology  
North Carolina State University  
Northwestern University  
Pennsylvania State University  
Regis University  
Rochester Institute of Technology  
Texas A & M University  
University of Central Florida  
University of Colorado, Health Sciences  
University of Florida  
University of Georgia  
University of Hawaii at Manoa  
University of Iowa  
University of Kentucky  
University of Maine  
University of North Orleans  
University of North Texas  
University of Oklahoma  
University of Pittsburgh  
University of Rochester  
University of South Florida  
University of Tennessee, Knoxville  
University of Tennessee, Memphis  
University of Texas at Austin  
University of Virginia  
University of West Florida  
University of Wisconsin, Madison  
Vanderbilt University  
Virginia Commonwealth University  
Virginia Tech  
Wake Forest University  
West Virginia University  
Western Michigan University  
Worcester Polytechnic Institute



# NDLTD: International Universities

Alicante University  
Australian National University  
Biblioteca de Catalunya  
Chinese University of Hong Kong  
Chungnam National University (S. Korea)  
City University, London  
Curtin University of Technology (Australia)  
Darmstadt University of Technology  
Freie Universitat Berlin  
Gerhard Mercator Universitat Duisburg  
Griffith University (Australia)  
Gyeongsang National University (Korea)  
Humboldt University, Berlin  
Indian Institute of Technology , Bombay  
Lund University, Sweden  
McGill University, Montreal, Quebec  
Nanyang Technological University (Singapore)  
National Sun Yat-Sen University  
National University of Singapore  
Pontifica Universidade Catlogica do Rio de Janeiro  
Rand Afrikaans University (S. Africa)  
Rhodes University (S. Africa)  
Shanghai Jiao Ton University (China)  
St. Petersburg State Technical U. (Russia)  
Sudanese National Electronic Library  
Universitat Autonomca de Barcelona  
Universitat d'Alacant

Universitat de Barcelona  
Universitat de Girona  
Universitat de Leida  
Universitat Oberta de Catalunya  
University Politecnica de Catalunya  
University Politecnica de Valencia (Spain)  
Universitat Pompeu Fabrra  
Universitat Rovira I Virgini  
Universite Laval (Quebec)  
University of Bergen (Norway)  
University of Antioquia (Medellin, Colombia)  
University of British Columbia  
University of Campinas  
University of Guelph (Ontario)  
University of Hong Kong  
University of Melbourne  
University of Mysore  
University of New South Wales  
University of Pisa  
University of Queensland  
University of Sao Paulo (Brazil)  
University of Syndey  
University of Utrecht  
University of Waterloo  
Uppsala University  
Wilfrid Laurier University

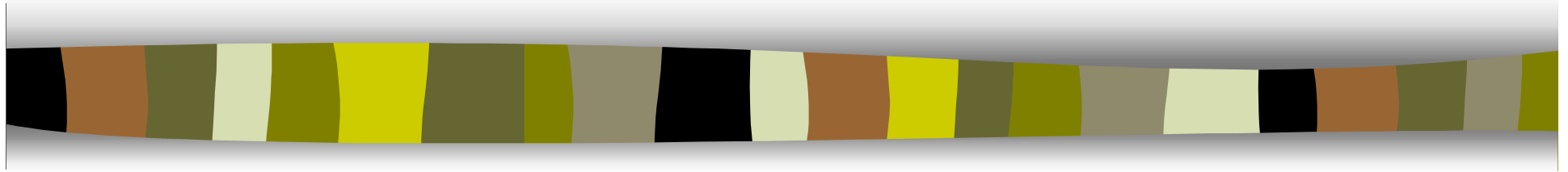


# Lessons from ETDs

- Implementation of new formats slower than expected
  - still text oriented (faculty influence)
  - new graduate students can plan for ETDs
- Requiring institutions slower/few than expected
- If you build it, it will get used.
  - access exceeded expectations
  - disappointing number are inaccessible
- No longer experimental
  - surprising increase in number and diversity of NDLTD institutions
- Remarkable increase in exposure to graduate student research

# ETDs

## Case Studies at WVU and VA Tech



John Hagen, West Virginia University  
Acquisitions, Wise Library



# Electronic Theses & Dissertations

Case studies at  
WVU and  
VA Tech



# WVU Team Collaboration

- ◆ Office of Academic Affairs and Research
  - ◆ Provost, Office of Graduate Education
  - ◆ Decentralized graduate programs
- ◆ ETD Task Force
  - ◆ Planning, Policy, Administration, Education, & Technology Issues
- ◆ Office of Information Technology
  - ◆ Student technical support, labs, workshops, Web resources
- ◆ Academic Computing
  - ◆ Database implementation, archiving
- ◆ University Libraries
  - ◆ Advising, Web resources, submissions review, cataloging, reference & document delivery services, archiving



# Collection Maintenance

- ◆ WVU Academic Computing
  - ◆ Server and maintenance: (.3 fte; existing personnel utilized)
    - ◆ Dell 20 GB hard drive, Windows NT OS, initial programming, archiving routine
    - ◆ Coordinates with University Libraries for archival microfilming or alternate backup via UMI



# Education

- ◆ WVU Workshops / Consultants:
  - ◆ 1.0 fte; rotates among 4 consultants existing personnel utilized
- ◆ ETD Document Preparation and Conversion
  - ◆ Academic Computing
    - ◆ Many students need lack basic word processing and multimedia skills
- ◆ ETD Program Overview and Submission Process
  - ◆ University Libraries
    - ◆ 1/3 of reviewer's time spent advising, teaching seminars



# University Libraries / Technical Services Division

## ◆ Submissions

- ◆ 1.0 fte; existing personnel utilized): Technical Consultant and occasional backup (equivalent to submission & review by graduate school)

## ◆ Cataloging

- ◆ 1.5 fte; existing personnel utilized:
  - ◆ Cataloging Librarian, Library Technical Assistant
- ◆ Cost reductions for binding, handling, etc:
- ◆ \$6.00/ dissertation unit
- ◆ savings of at least \$1,000 annually
- ◆ Handling: no book processing required (labor intensive)



# WVU Libraries / Public Services Division

- ◆ Reference / Document Delivery:
  - ◆ Existing personnel utilized
  - ◆ Required minimal training, mostly about access to restricted ETDs
  - ◆ Preparation for expanded use of electronic delivery & copy services



# Students

## ◆ Master's Theses:

- ◆ \$55.00 submission fee
  - ◆ UMI submission + \$10 archiving fee
  - ◆ \$45.00 copyright fee optional

## ◆ Doctoral Dissertation:

- ◆ \$65.00 submission
  - ◆ UMI submission + \$10 archiving fee
  - ◆ \$45.00 copyright fee optional



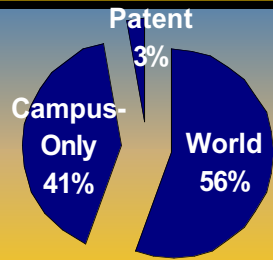
# Web Distribution Options: Student Submits ETD Online

## ◆ WVU Web Distribution Options

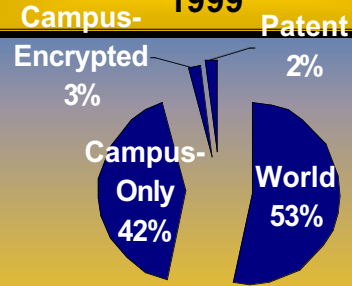
1. World
2. Campus Only
3. Campus Encrypted
4. No Access



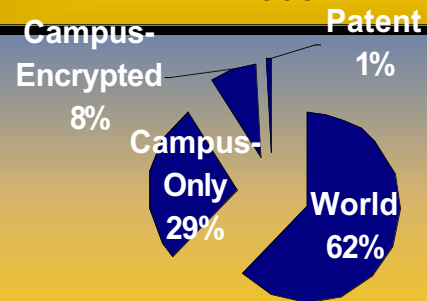
**Web Distribution of WVU ETDs:  
1998**



**Web Distribution of WVU ETDs:  
1999**



**Web Distribution of WVU ETDs:  
2000**





# Library Access to ETDs

- ◆ Citation from the catalog
- ◆ Online Full-text
- ◆ Document delivery services
- ◆ ProQuest (UMI)
- ◆ NDLTD

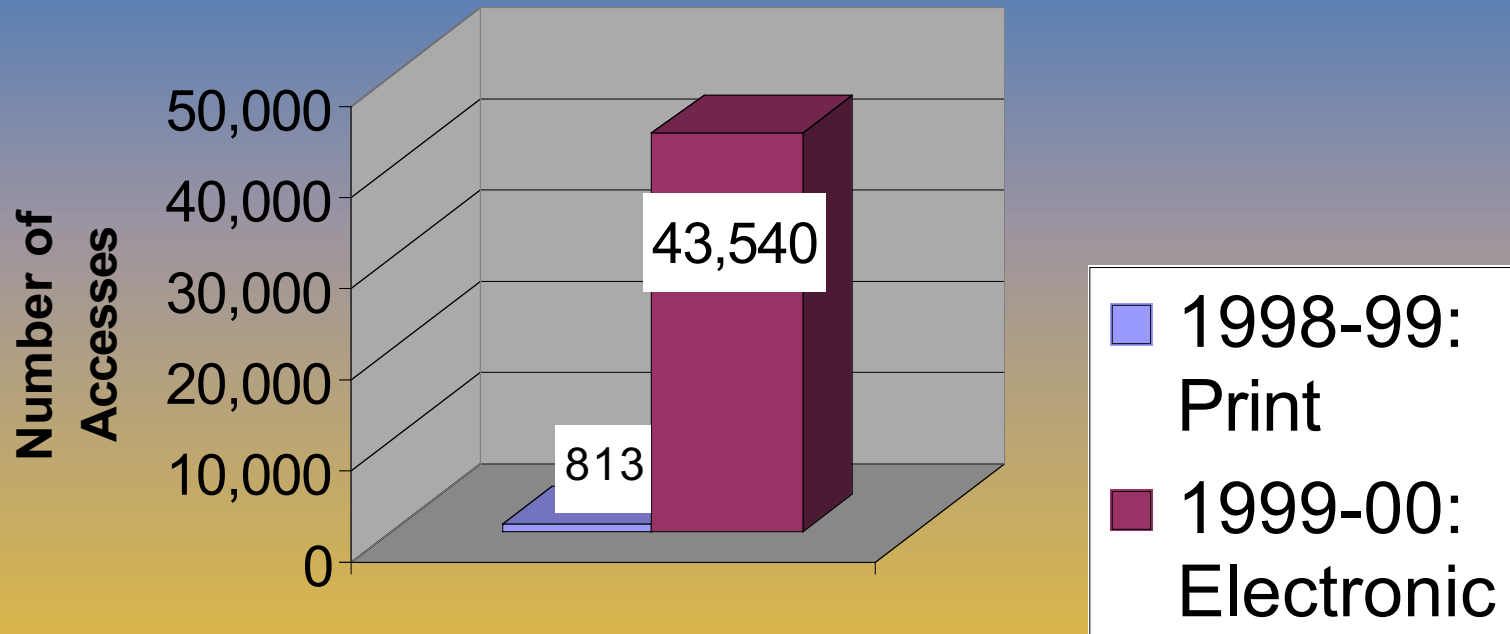


## Library Access to Restricted ETDs

- ◆ Campus Only ETDs
  - Electronic files free via Inter-Library Loan
  - Printed copies for a fee via Library Copy Services
- ◆ Campus Encrypted ETDs
  - Available in print format only.
- ◆ Restricted ETDs
  - Secured until patent / proprietary concern has been resolved.



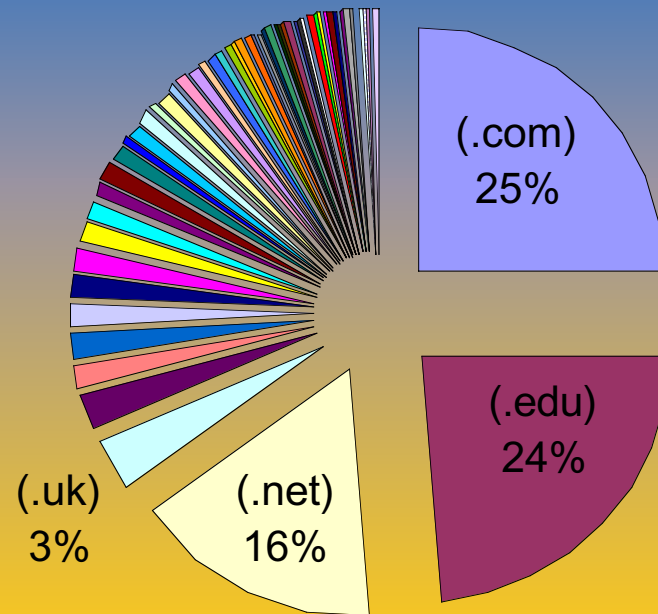
## WVU Print vs. Electronic Thesis & Dissertation Access



**ETDs are accessed  
5,000% more than  
print documents**



## WVU ETD Access by Geographical Domain

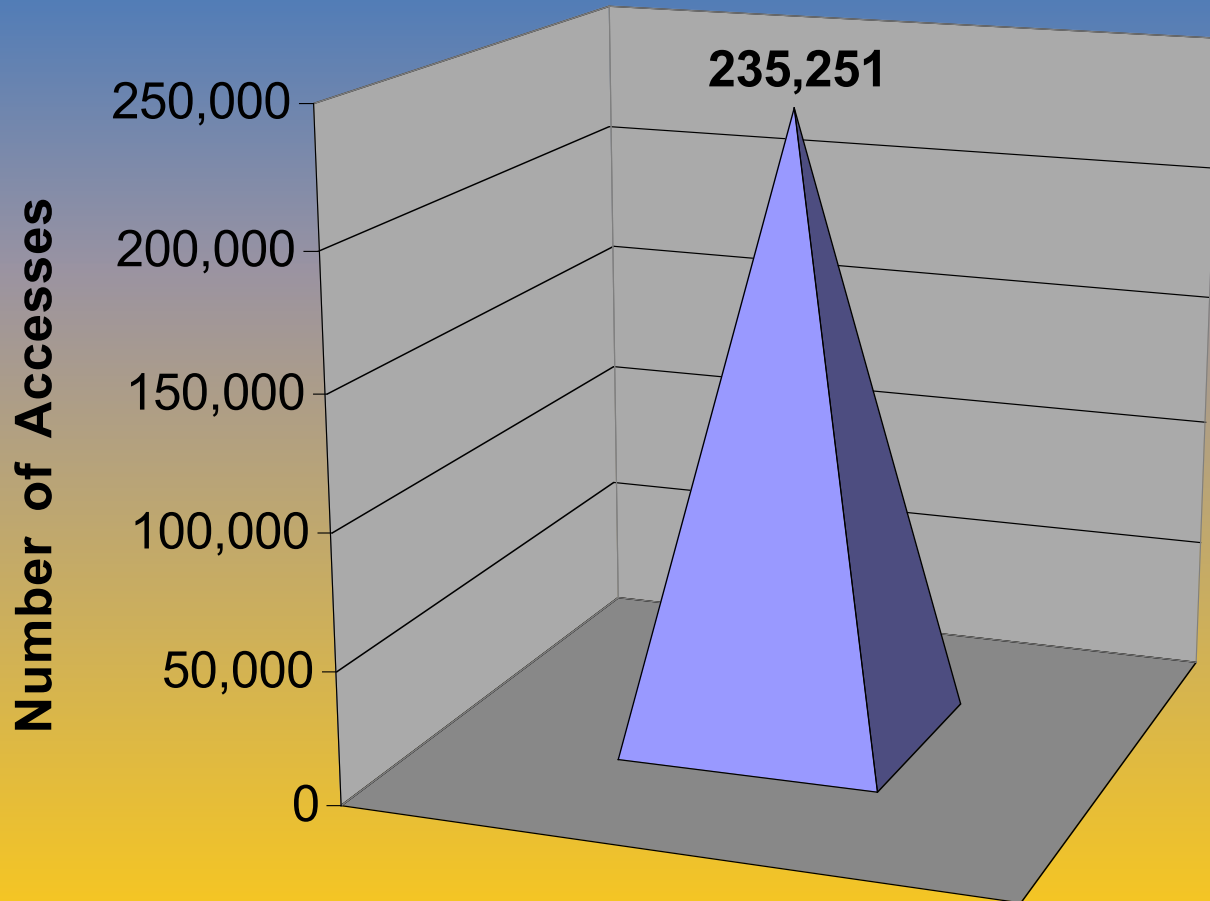


- Commercial (.com)
- Educational (.edu)
- Network (.net)
- United Kingdom (.uk)
- Germany (.de)
- Singapore (.sg)
- Australia (.au)
- Spain (.es)

- ◆ 65% Domestic
- ◆ 35% Foreign

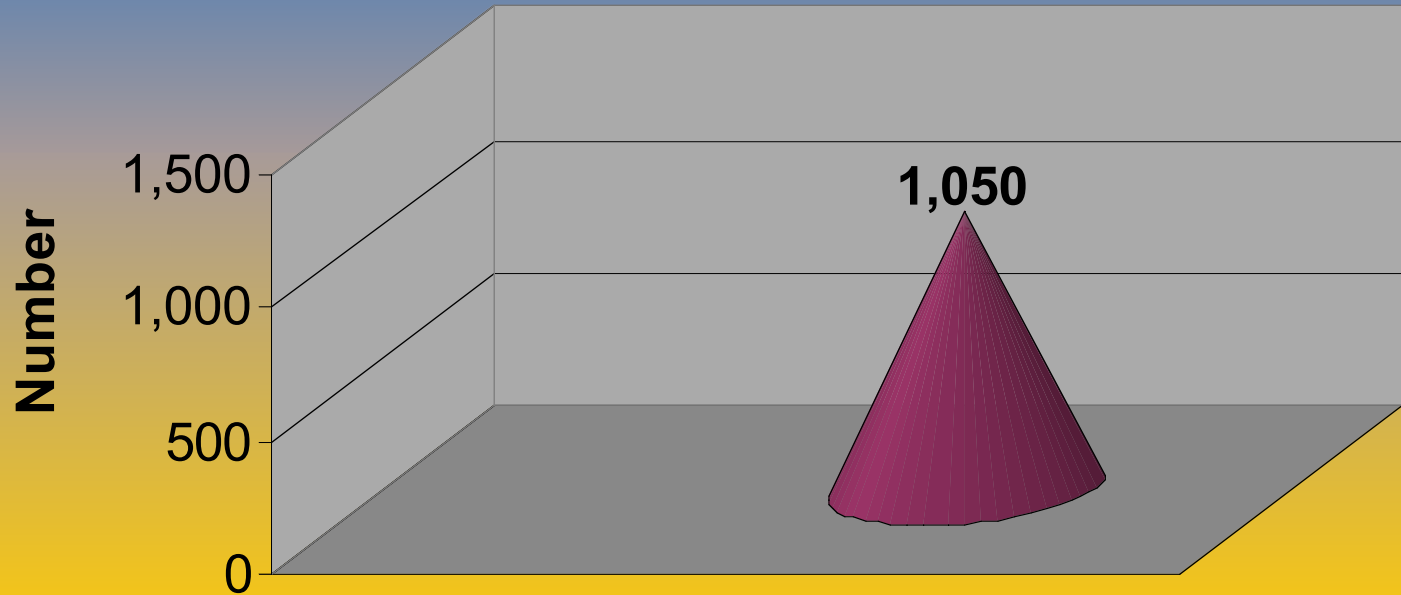


## Total WVU ETDs Accesses: 1998 - Present



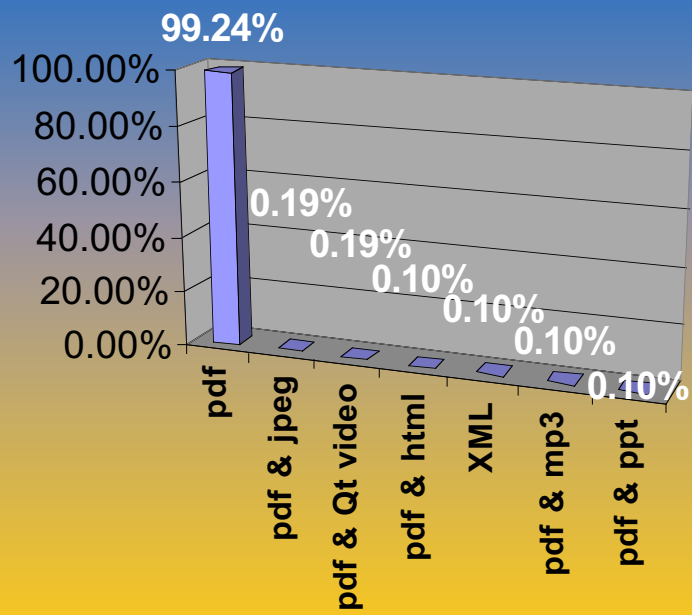


## Total WVU ETDs as of Summer 2001





## WVU ETD Format Types as of Summer 2001





# New and Forthcoming ETD Program Features

- ◆ Students Market Research on the Web
  - Dynamic Addenda
  - Hit Counters for Individual ETDs
  - Automatic Citation Generation
- ◆ Multimedia Incentives
  - Stipends
- ◆ Automated Approval System
  - Library & Committee Chair
- ◆ Automated Batch Uploads to UMI
- ◆ Web Based Library OPAC
  - Click-able URL access to ETD Collection
- ◆ Union Catalog of ETDs Worldwide



# Positive Outcomes from Implementation

- ◆ Heightened sense of awareness on campus of the profound effects of information technology
- ◆ Rapid Technology Transfer:
  - ◆ Transforming West Virginia's economy
  - ◆ Providing research access to the world



# **ETDs as prior publications: What the publishers say**

**Nan Seamans  
Instruction, University Libraries  
Virginia Tech**

# **ETDs as prior publications: What the publishers say**

**Nan Seamans**

**November 1, 2001**

**Charleston Conference**



# Why this matters...

- Deterrent to all electronic publishing?
- Deterrent to a new form of scholarly communication?
- Misinformation?
- Attempts to hold down costs?
- Information sharing?
- Make people think about it?

# Dalton's study

- Done in 1999, reported at ETD 2000
- Results are available at <http://lumiere.lib.vt.edu/surveys/>
- 200 scientific journals – small response
- 94% had policy on prior publication
- 68% did NOT have a policy that specifically referred to electronic pubs

Dalton – ...begin to build a picture of where opinion was leading with respect to widely disseminated ETDs and their status as ‘publications.’

# Seamans' study

- Science & Technology Studies (STS) graduate program at Virginia Tech
- Where they publish
  - 133 Journal titles
  - 18 academic presses
  - 9 commercial presses

# Contacts

- What I ended up with
  - 121 Journal titles
  - 18 academic presses
  - 9 commercial presses
- Aggregation
  - 160 from STS
  - 148 identified
  - 141 were sent an e-mail

- Response rate
  - 46 surveys responses – 31%
  - 36 e-mail responses – 24%
  - Total response rate... – 55%
  
- “ENTERPRISE” – journal, a press, or a publishing company

# Responses

- Majority
  - were editors
  - were not-for-profit enterprises
  - had some kind of policy on *prior publication* and simultaneous submission
- Subject matter of the publications varied

- Majority did NOT have a policy that referred to work that may have been made electronically accessible on the Web
- Why no policy?
  - Manuscripts are handled on an individual basis; existing policy applied to web-based publications by implication; editorial policy had not yet been set
- 15 people (18%) said that ETDs would constitute *prior publication*
- 1 person – absolutely not...

# Comments from the survey

- New issue
- Too long
- Proportion
- Revisions
- Market
- Condensed, contextualized
- Peer review
- Exposure
- Remove or restrict

# General comments

- Copyright
- Time, audience
- Chapters
- UMI, Harvard
- Better paper
- Virginia Tech response...

# E-mails

- Taylor & Francis – definitive versions
- Referred back to publishers
- “A bit of a tricky issue this...”
- Different format

# Publishers, pro & con

- **Sage** – “Please note that we do indeed consider posted electronic theses and dissertations to be previously published material and would not accept them as original publications.”
- **Elsevier** – “...stated emphatically that [Elsevier] encourages its authors to link their articles in Elsevier journals to their personal web sites and authorizes their departments to provide such links.”

# Conclusions

- DERIVED
- Virginia Tech's alumni survey
- Keep surveying
- Seek opportunities to continue this discussion

# This does matter...

- Perceptions
  - Deterrent to all electronic publishing
  - Deterrent to a new form of scholarly communication
- Misinformation
- Looking ahead - holding down costs
- Information sharing, making YOU think about it