



ETD Implementation and Beyond

The WVU Experience



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



NDLTD Consortium

- ◆ Most members have only implemented preliminary studies or pilot programs
- ◆ Need more academic institutions to require ETD submissions
- ◆ NDLTD vision of globally federated digital library of graduate research



Program Considerations

- ◆ ETD server & software
- ◆ Web information site
- ◆ Administrative policy & task force
- ◆ Public relations
- ◆ Training & information
- ◆ Computer lab assistance
- ◆ Technical support
- ◆ Access to ETDs



Support Necessary for Successful Implementation

- Top level administration
- Graduate School
- University Library
- Faculty
- Students



How to Achieve Support

- Information technology implementation
- Recruit implementation team
- Develop networking
- Educate, promote and publicize
- Engage discussion
- Design careful planning
- Build support infrastructure
- Set reasonable timeline for implementation



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
- ◆ Office of Academic Computing
 - ◆ Database implementation, archiving
- University Libraries
 - ◆ Advising, Web resources, submissions review, cataloging, reference & document delivery services, archiving



WVU IT Strategic Directions

- ◆ Engage Students
- ◆ Empower Faculty
- ◆ Infuse Curriculum
- ◆ Enhance Research Capabilities
- ◆ Fulfill Duty to Serve
- ◆ <http://www.wvu.edu/~cir/plan/empower.pdf>



Engage Students

- ◆ Computing Labs
- ◆ Wireless Networks
- ◆ Computing Resources
- ◆ Multimedia Classrooms
- ◆ Technology Training
- ◆ Electronic Publishing (ETDs)
- ◆ Student Systems
 - Star E-Enrollment
 - Online Faculty Evaluation



Empower Faculty

- ◆ Faculty Access
- ◆ Faculty Training
- ◆ Electronic Classrooms
- ◆ Distance Education Options
- ◆ ITRC
- ◆ Multimedia Facilities
- ◆ Faculty Workstations
- ◆ Academic Support
- ◆ Faculty Grants
- ◆ College Support of Faculty



Infuse Curriculum

- ◆ Computing Resources
- ◆ Curricular Web Services
- ◆ Distance Education
- ◆ Internet & video resources
- ◆ Electronic Information Resources
 - University Libraries
 - Reference
 - Online Full-Text Journals
 - Document Delivery
 - ETDs
 - E-Reserves
 - Special Collections



Enhance Research Capabilities

- ◆ IT Focus
- ◆ Internetworking Initiatives
- ◆ High Performance Computing
- ◆ Visualization
 - VR Immersa-desks & Cave
- ◆ Software Engineering
 - ISR
 - NASA
- ◆ College Support of Faculty



Fulfill Duty to Serve

- Extension Service Activities
 - Local, Statewide, Regional, National, International
- Health Sciences
 - WVU Healthline
 - Consult
 - MDTV
 - Workforce Development Activities
- Economic Development Activities
 - Rapid Technology Transfer
 - WV Human Resource & Economic Development Councils
 - WV Clearinghouse for Workforce Education
 - International Telemedicine Collaboratory
 - Weapons of Mass Destruction Database & Network



ETD Implementation

- ◆ Costs & Benefits



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



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)



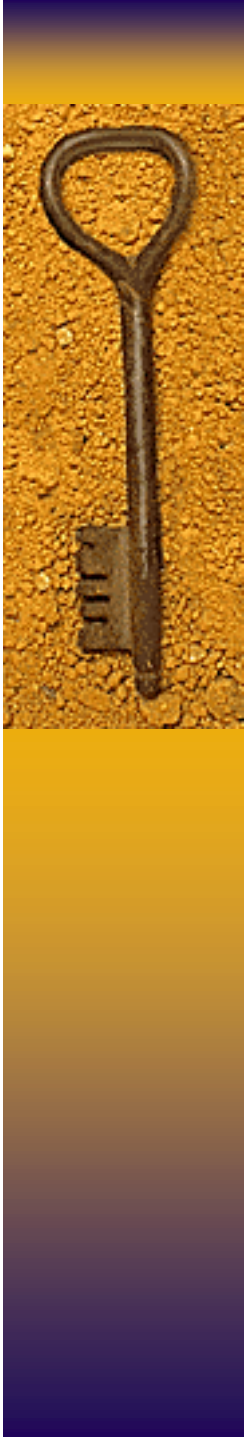
WVU Libraries / Public Services Division

- Reference / Document Delivery:
 - Existing personnel utilized; minimal impact; required initial training, augmented 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



New and Forthcoming ETD Program Features

- ◆ Students Market Research on the Web
 - Dynamic Addenda
 - Hit Counters for Individual ETDs
- ◆ Multimedia Incentives
 - Stipends
- ◆ Automated Approval System
 - Chair & Library
- ◆ Automated Batch Uploads to UMI
- ◆ ETD Thesauri List
- ◆ Web Based Library OPAC
 - Click-able URLs



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



Related IT Developments

- ◆ Oracle / Human Resources Software
- ◆ Internet 2
- ◆ High Performance Connections – vBNS / ATM
- ◆ University Libraries
 - ETDs & other E-Resources
 - WVU ESRA
- ◆ Data Center / Deep Blue & Gold IBM
- ◆ Oracle Academic Initiative
- ◆ Assistive Technology Lab
- ◆ OIT Internship Program
- ◆ Cisco Systems Partnership
- ◆ FBI Forensics Program

WVU ETD Web Site



West Virginia University
Electronic Theses and Dissertations
Transforming graduate education & research





WVU ETD Submission Process

- ◆ Student enrolls in graduating semester, forms committee, designates chair, receives degree completion information
- ◆ Student creates thesis or dissertation
- ◆ Student attends oral defense



Deliver ETD Submission Packet to University Libraries

- ✓ Completed ETD Submission Signature Form
- ✓ Submission Fee
 - ✓ \$55.00 for Master's Thesis
 - ✓ \$65.00 for Doctoral Dissertation
- ✓ Completed UMI Agreement Form (optional for Research / Project Reports)
- ✓ Printed Copy of Title Page & Abstract
- ✓ Copyright Fee: \$45.00 (optional)
- ✓ Doctorate Only
 - ✓ Completed Survey of Earned Doctorates



Student Prepares Final Document for Submission

- ◆ Office of Information Technology
 - ◆ Student technical support
 - ◆ Workshops
 - ◆ Walk-in Clinics
 - ◆ Web resources



Student Submits ETD Online

- ◆ ETD is made available according to student's Web Distribution choice.
 1. World
 2. Campus Only
 3. Campus Encrypted
 4. No Access



Realities of Digital Publishing

- Student Publishing Concerns
- How have publishers reacted to articles from ETDs?
- University Tenure Systems and Digital Publishing
 - Is digital publishing being recognized for basis of granting tenure and promotion to university faculty?



Web Posting Is Not Prior Publication

- ◆ Role of journal as disseminator and archive for the academic record
- ◆ Role of journal as peer review
- ◆ Redundancy is part of long-term educational process
- ◆ Original TD = Preliminary Work
- ◆ Self-acknowledged archiving
- ◆ Economics will convince publishers to adopt liberal Web policies



Survey results from Virginia Tech 1997 - 1999

◆ Access Status

- 48% World Access
- 33% Campus Only
- 19% No Access

◆ Graduate Student Survey

- 78% limit access on faculty advice
- 13% limit access on publisher advice

◆ Alumni Surveys

- 43% successfully published derivative works
- 100% found no resistance from publishers



“Published” status = peer review

- ◆ Prior publication (i.e. Web distribution) is discipline dependent
 - Physical Sciences: non-restrictive
 - Life Sciences: emphasis on level of access
 - Medical Sciences: emphasis on level of access
 - Social Sciences: emphasis on revision of content
- ◆ Conclusions: Myth and tradition create misperception



ETD Review Process

- ◆ Committee Chair
 - 5 working day approval option
- ◆ Library reviews format
- ◆ Library approves submission upon:
 - Receipt of completed ETD Submission Packet
 - Approval of ETD document format



Library Processing

- ◆ Library sends copies of ETD files and packets to UMI for publication, microfilming or other archival services
- ◆ Library catalogs ETD:
 - MountainLynx
 - OCLC



Library Access to ETDs

- ◆ Citation from the catalog
- ◆ Online Full-text
- ◆ Document delivery services
- ◆ Bell & Howell (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.



ILL ETD Requests

- ◆ Average 2 / month
 - Electronic copy by email
 - Print copy by mail
- ◆ 80% of ILL requests for restricted ETDs used DAI as source reference
 - Considerable delays in UMI processing over 2 past years may contribute to low demand

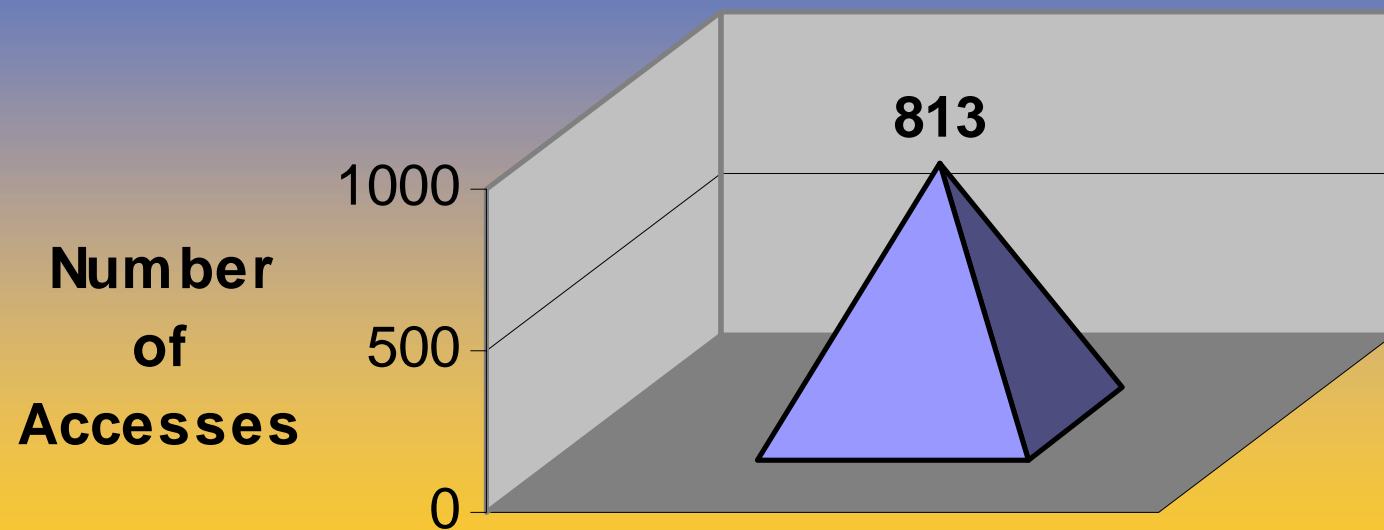


WVU ETD Collection Profile

- Pre-ETD T&D Circulation
- Monthly ETD Accesses
- ETDs Accessed
- Most Popular ETD
- ETD Searches & Browsers
- Total Number of ETDs in Collection
- Web Distribution Types
- ILL Requests for restricted ETDs
- Format Types in Collection
- Number of Submissions per Year

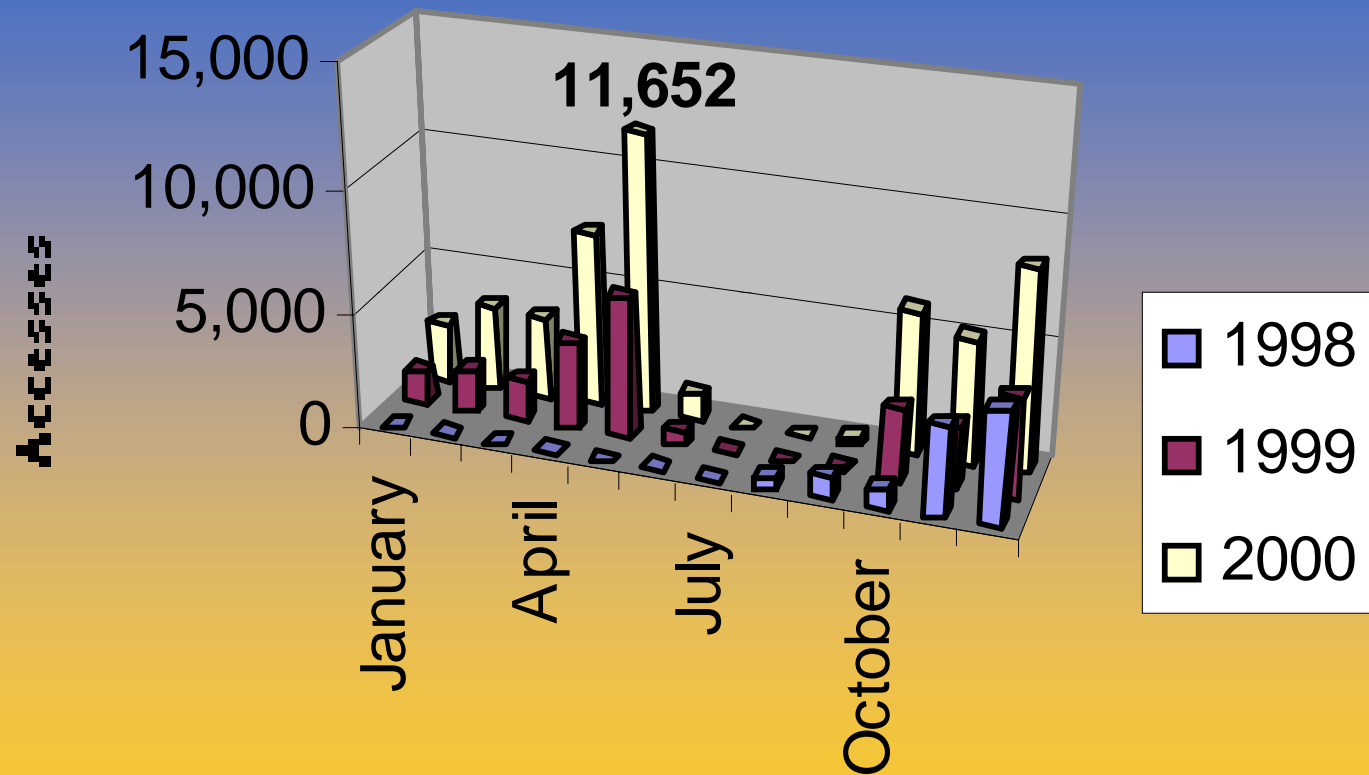


WVU Print TDs Accessed: 1998-99



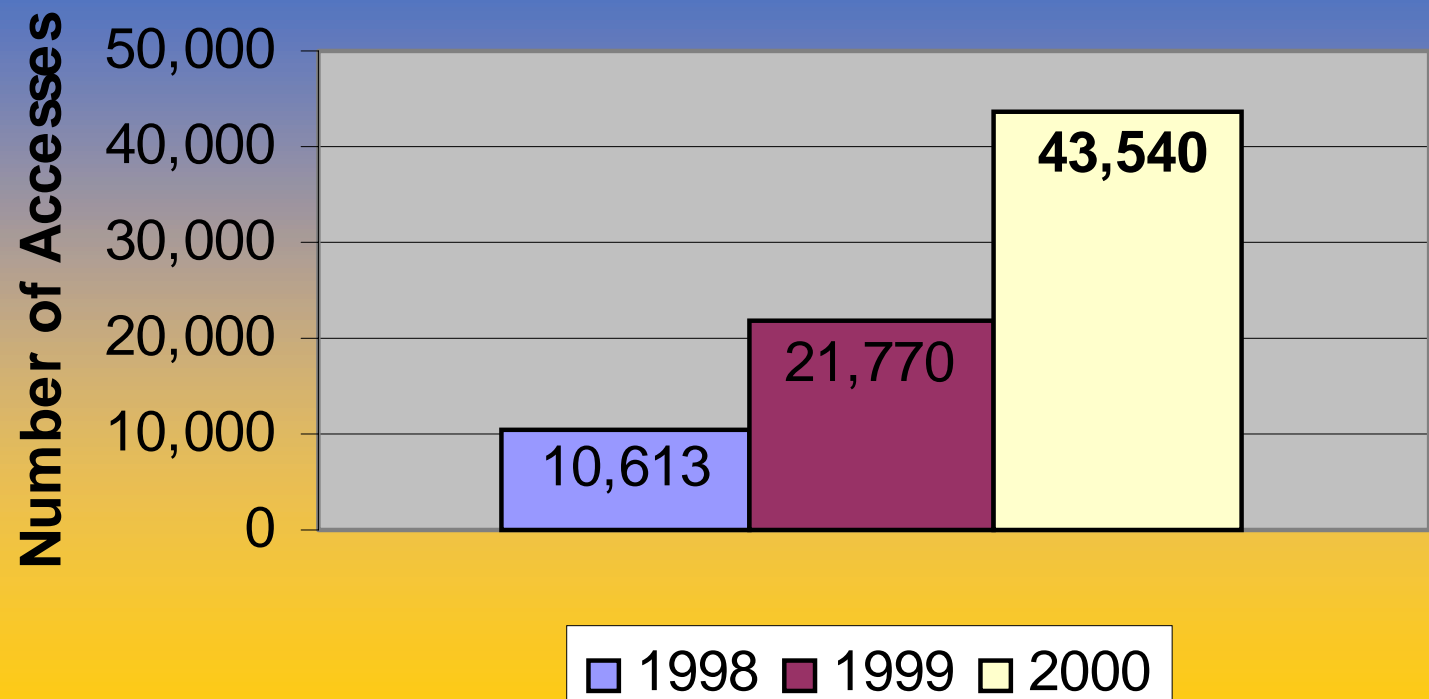


WVU ETD Monthly Accesses



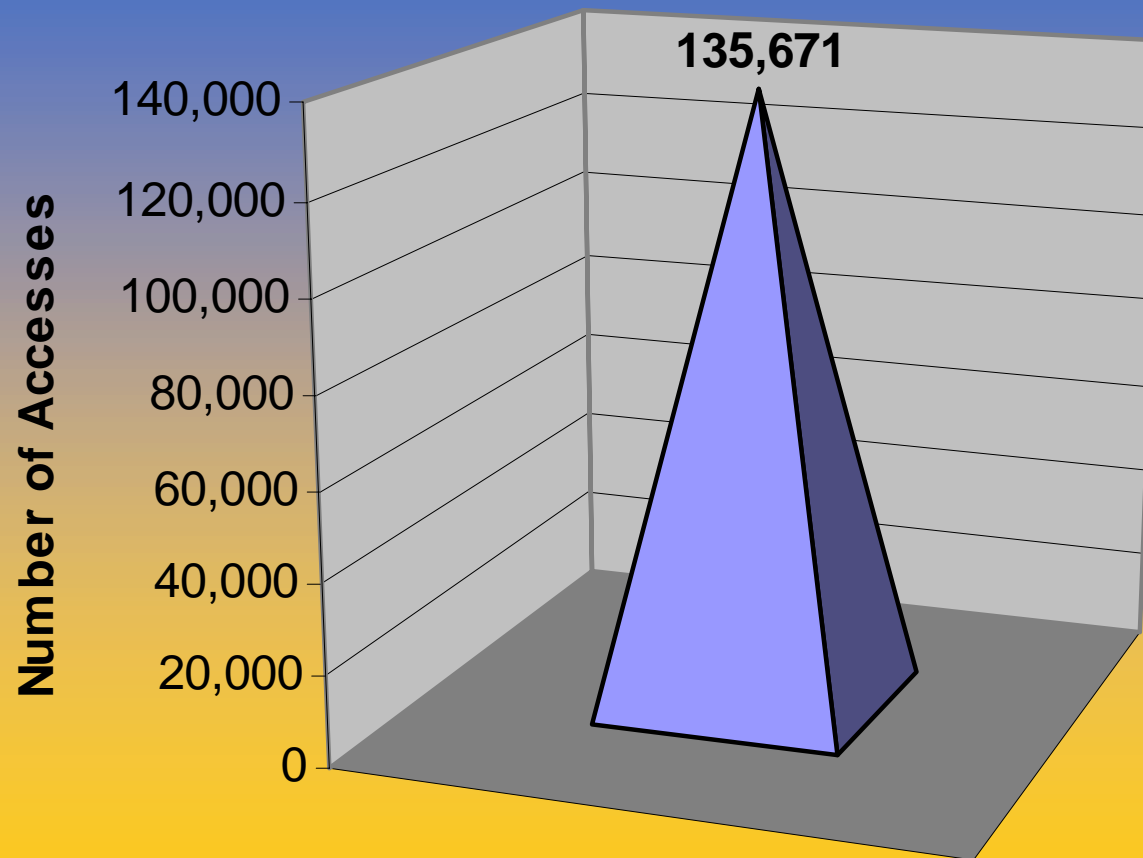


Overall WVU ETDs Accessed



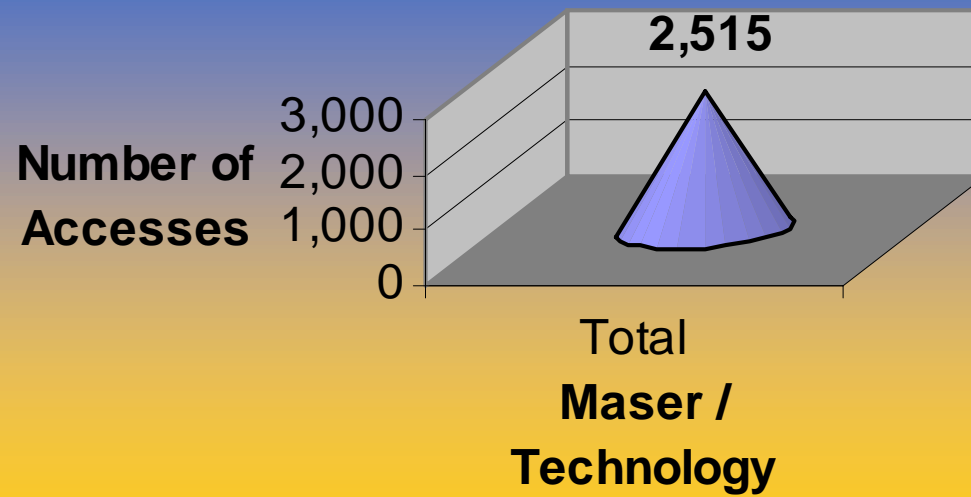


Total WVU ETDs Accessed: 1998 - Present



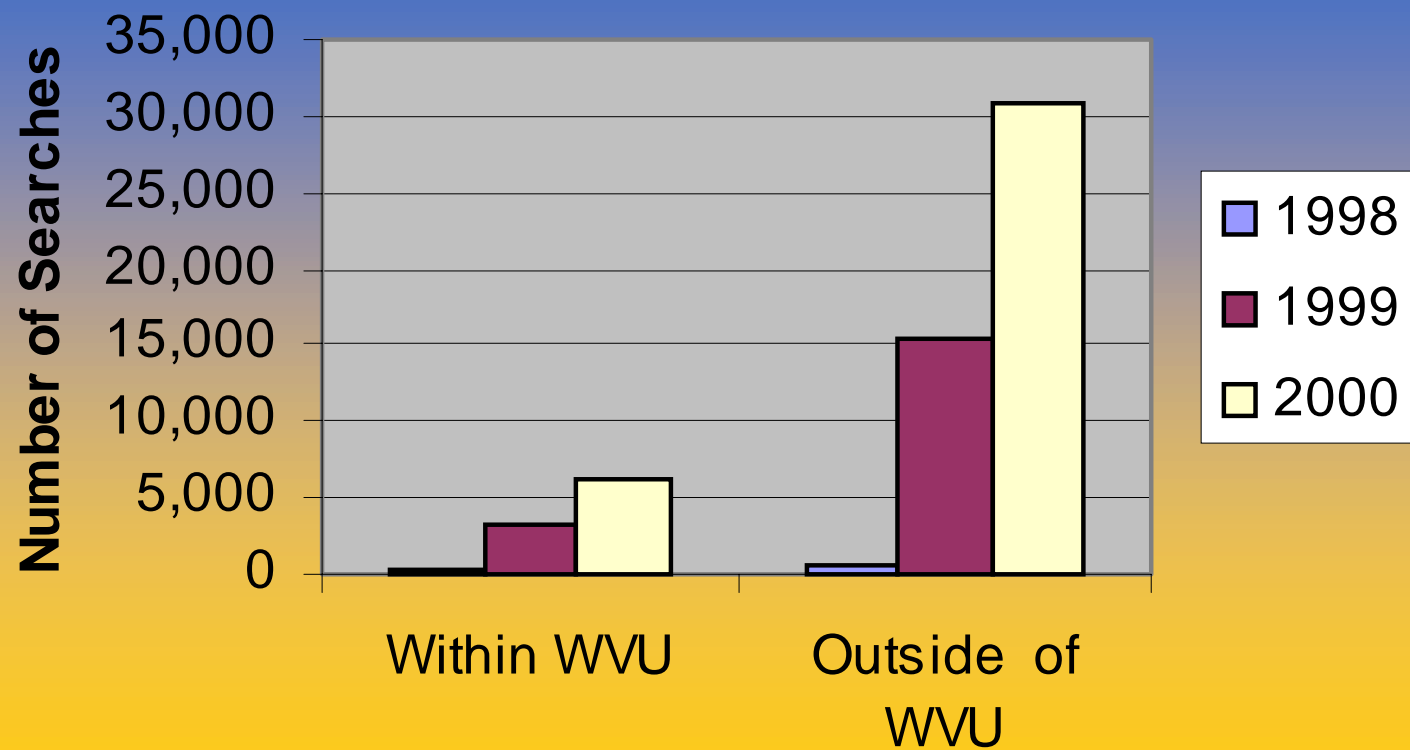


WVU ETD Most Accessed



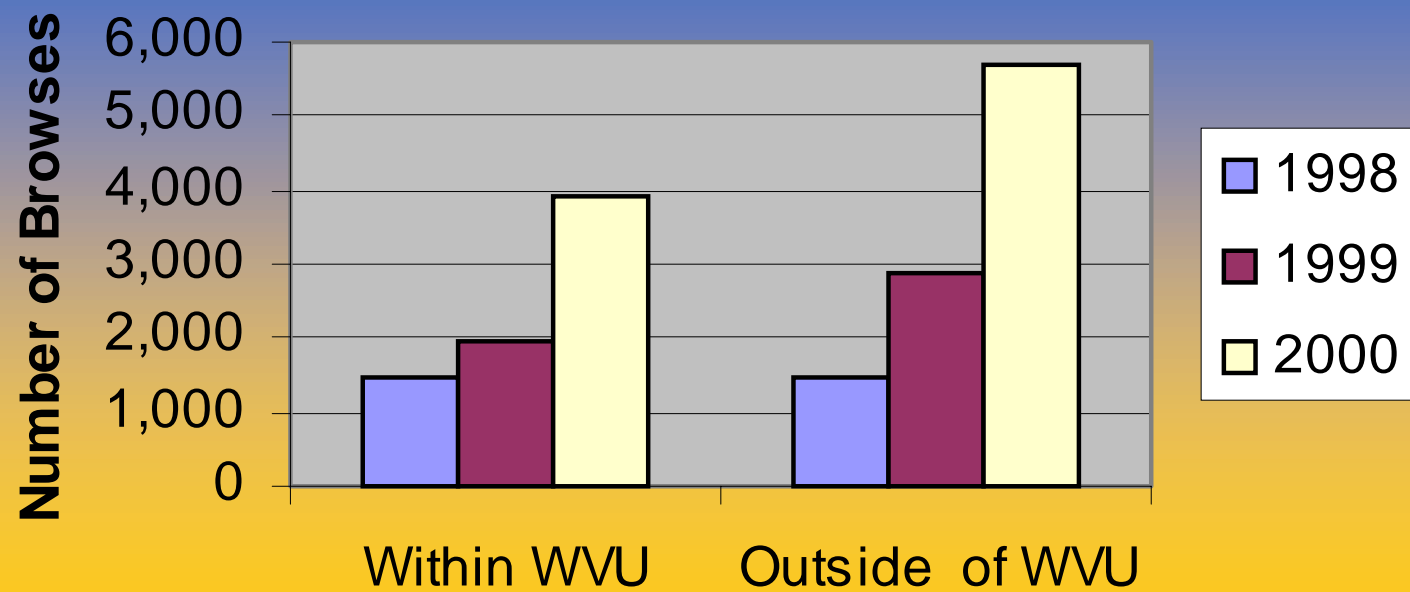


WVU ETDs Searched



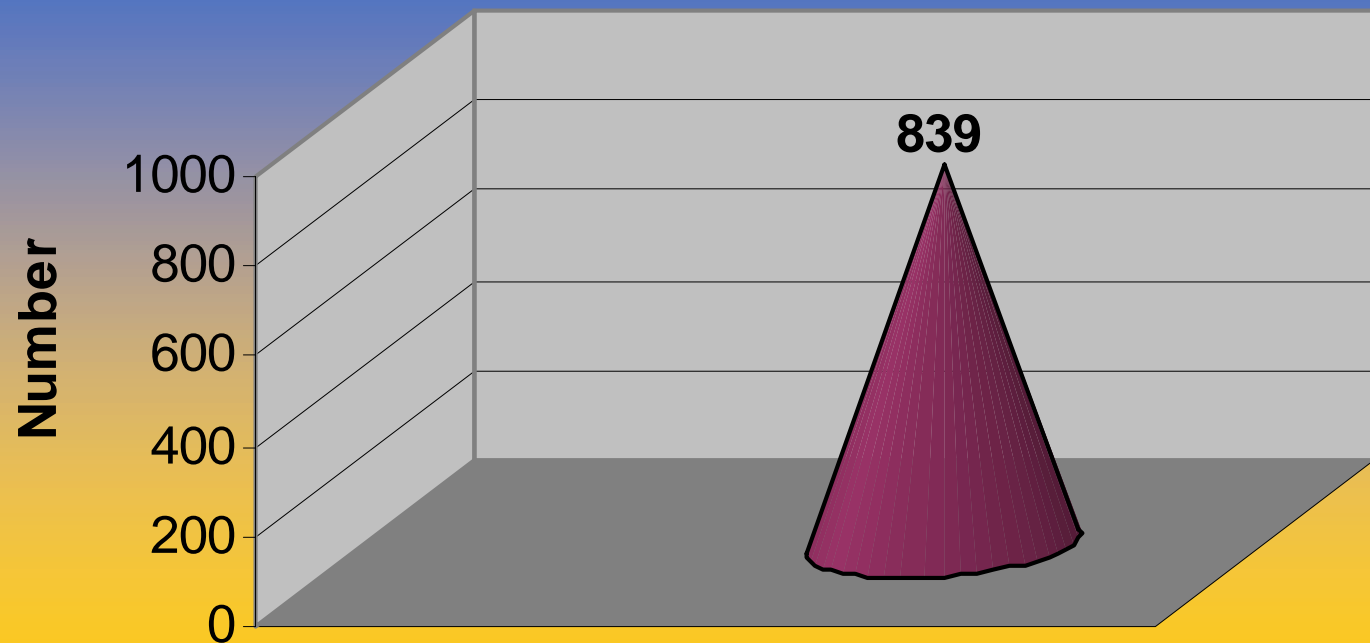


WVU ETDs Browsed



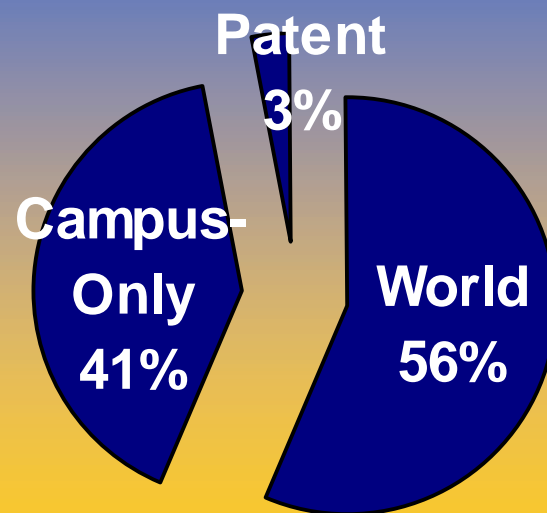


Total WVU ETDs as of March 2001



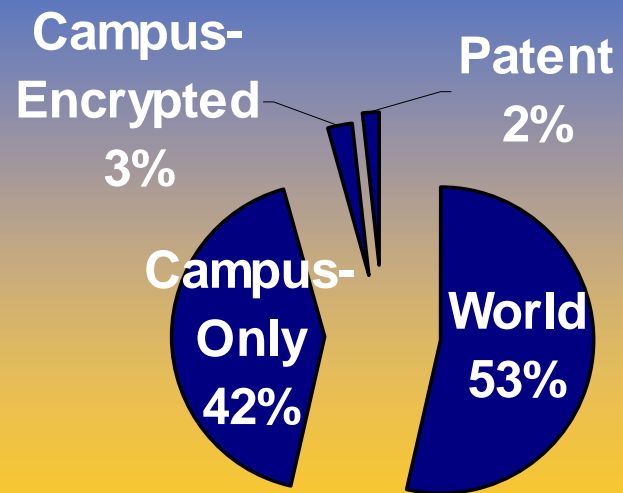


Web Distribution of WVU ETDs: 1998



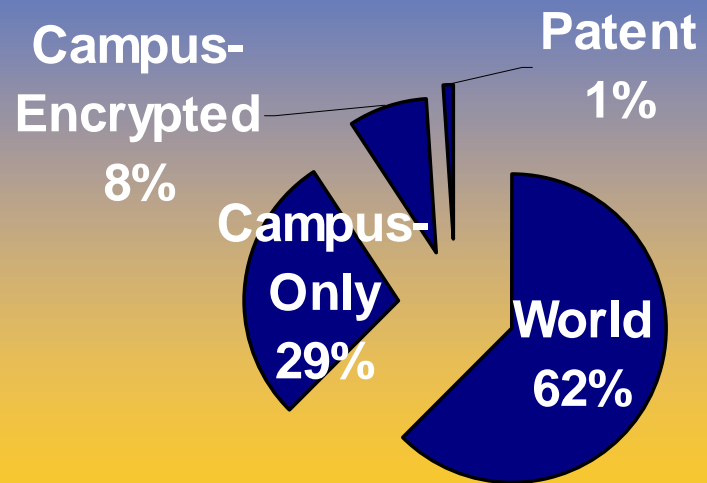


Web Distribution of WVU ETDs: 1999





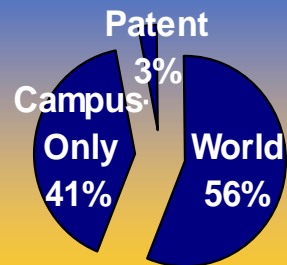
Web Distribution of WVU ETDs: 2000





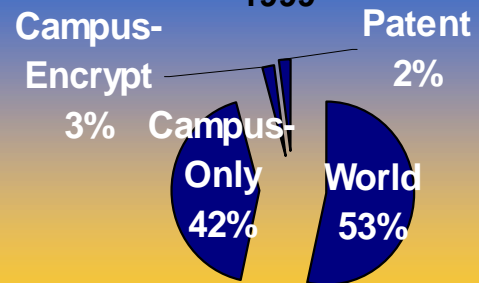
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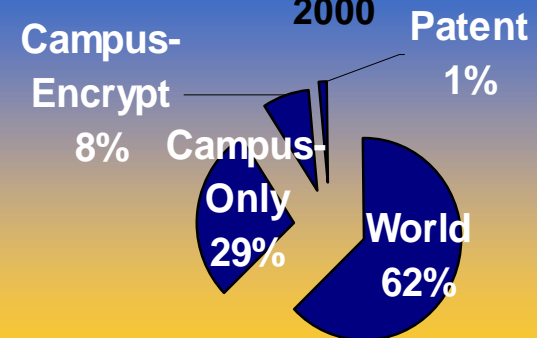
Web Distribution of WVU ETDs:

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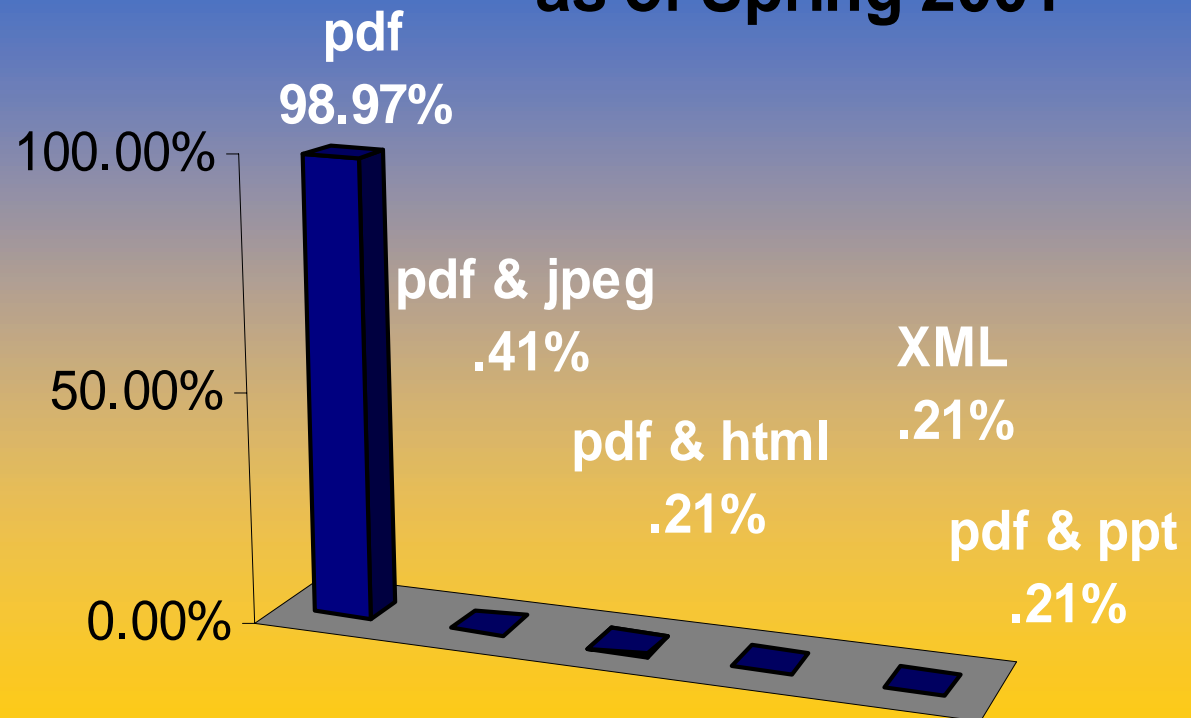
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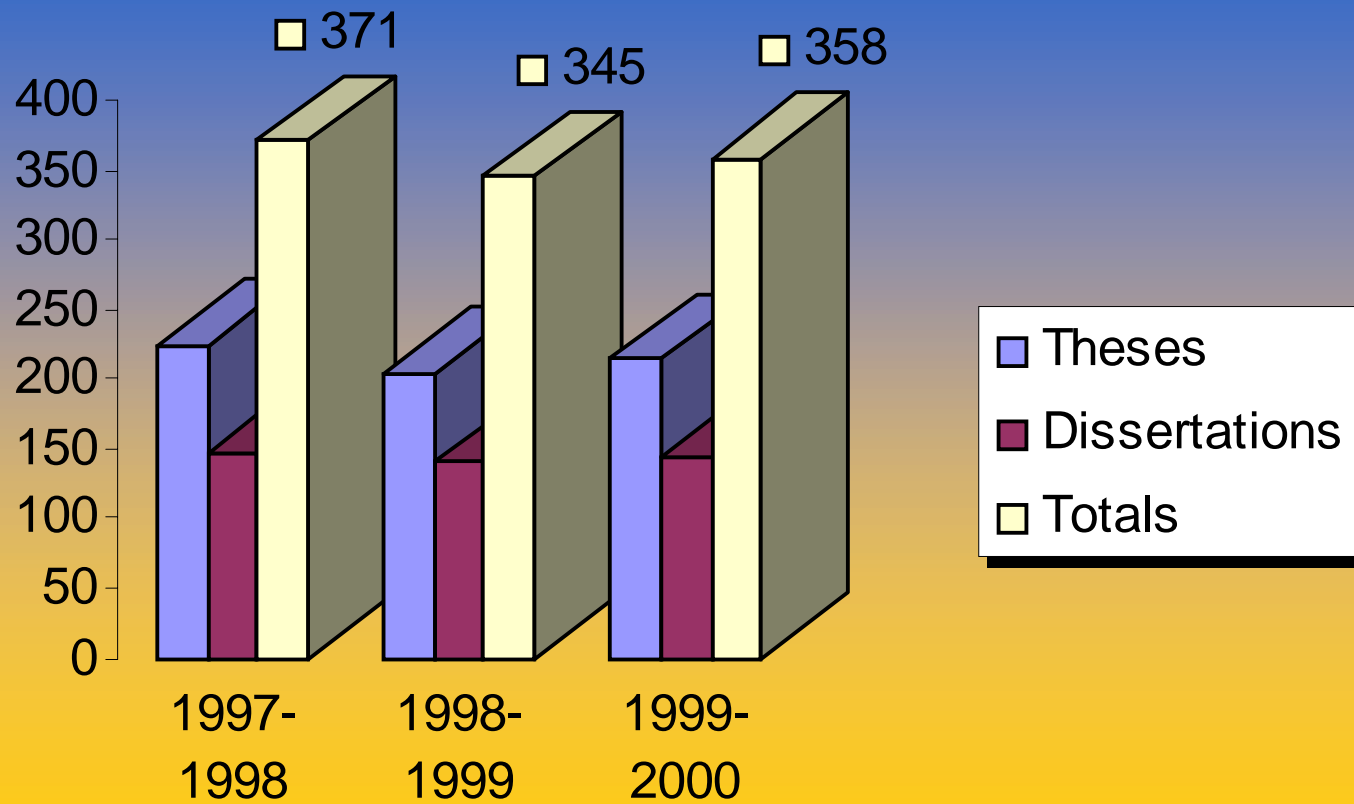


WVU ETD Format Types as of Spring 2001



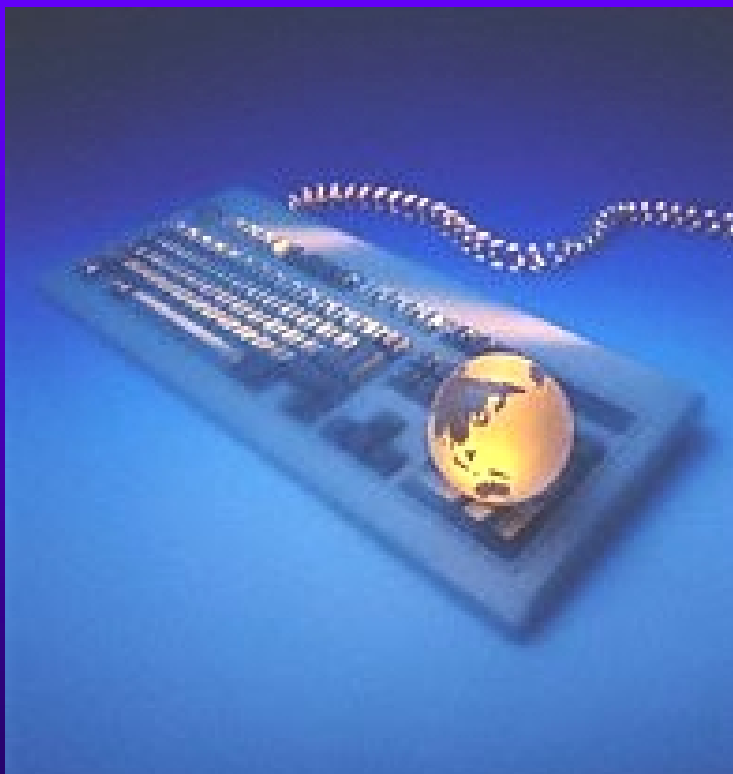


WVU ETD Submissions



WVU Electronic Theses and Dissertations

<http://www.wvu.edu/~thesis/>



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