FINAL REPORT *(Corrected Budget)*
***Ad hoc* TASK FORCE ON ELECTRONIC THESES AND DISSERTATIONS**
ARIZONA STATE UNIVERSITY

Submitted May 9th, 2001

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                           Rob Spindler, University Libraries

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INTRODUCTION

On October 1st 2000 Dean Bernstein of the Graduate College and Dean Schmidt of University Libraries charged Deborah Losse, Graduate College and Rob Spindler, University Libraries with establishing this Task Force to examine the potential for implementing a university program for Electronic Theses and Dissertations (ETDs). The Task Force was specifically asked to collect information about existing programs elsewhere, identify ASU graduate programs that could host pilot programs and prepare a comprehensive white paper that offered recommendations addressing the following issues:

- Advantages and consequences for students faculty and staff
- Limitations and challenges to be overcome
- Comparison and evaluation of existing programs at other institutions
- Technical issues
- Security and legal issues
- Full Consideration of Storage/Archiving and Dissemination Issues
- Relationships with the Virginia Tech program and UMI's Dissertation Abstracts
- Implications for formatting and graduate academic services at Graduate College
- Proposed scope and capability
- Resources and cost issues
- Timeline for pilot project and full implementation

Deans Bernstein and Schmidt and the Task Force chairs solicited names of potential Task Force members from each ASU College and selected departments. The chairs divided them into three subcommittees, and the Task Force chairs, the subcommittee chairs and Kristen Nielsen of the Graduate College populated an executive committee. The following individuals deserve our thanks for serving as resources to the Task Force:

Charles Brownson, *ASU East*
Laurie Goldberg, *Graduate College*
Virginia Hunter, *Graduate College*
Veda Pendleton, *ASU Bookstore*

Al Poskanzer, *Technology Transfer*
Jeremy Rowe, *Information Technology*
Tracy Singer, Graduate College
Nancy Tribbensee, *General Counsel*

The subcommittees met weekly or bi-weekly from January–March 2001 and compiled reports. Their reports are presented as Appendices in a separate volume, and they contain much of the detailed discussion and the rationales behind recommendations.

EXECUTIVE SUMMARY
ETD Task Force
Arizona State University

ADVANTAGES OF ASU's ETD PROGRAM PROPOSAL:

- Worldwide, asynchronous and simultaneous multi-user access to ASU graduate student scholarship.
- Enhanced experiential graduate education re: electronic publication and dissemination.
- Automated submission, approval and cataloging processes, centralized submission of forms and payments.
- Creativity and academic freedom are maximized while risk of loss or corruption is reduced.
- Minimal impact on student/faculty/committee relationship for those submitting PDF products.

DISADVANTAGES OF ASU'S ETD PROGRAM PROPOSAL:

- Some ETDs will be lost due to product corruption and obsolescence over time.
- Significant continuing costs for product maintenance and migration.
- Estimated costs based on short sample and limited experience nationally.
- More impact on student/faculty/committee relationship for those submitting multimedia products.
- Questions remain regarding disability accommodation and ETD accessibility.

RECOMMENDATIONS:

1. ASU should initiate a pilot program with selected university departments and a volunteer from each graduate program starting July 2001, with first pilot ETD submissions due December 2002.

 2. As data is collected during the pilot, implementation of a PDF requirement for text documents will be annually considered . Full implementation, including optional submission of multimedia content, would begin at the latest in 2005.

 3. The ETD Task Force Report should be circulated widely and a request should be made that the Academic Senate provide a motion of support for the report and project.

COST SUMMARY:

Pilot Project (July, 2001-June, 2005):

Pilot Startup Costs (July, 2001)	$ 90,000
Pilot Annual Costs (July, 2001)	$ 52,000/yr.
Pilot Migration Annual Costs (July, 2003-June, 2005)	$ 55,000/yr.
Totals:	$ 90,000 one time
	$ 52,000/yr July, 2001-June, 2005
	$ 55,000/yr. July, 2003-June, 2005

Full Implementation (Start July, 2005):

Annual Costs:	$372,000/year

FULL RECOMMENDATIONS:

1. ASU should initiate a four-year pilot program with selected university departments starting July 2001 with first pilot ETD submissions due December 2002.

2. The pilot program should be annually evaluated in terms of the following questions. If acceptable responses to the following questions are secured, ASU should implement a university-wide requirement for ETD submission as soon as possible, but no later than Fall, 2005:

   o Have sufficient funding commitments been secured?
   o Has student, faculty and staff training been effective?
   o Is required software widely available?
   o Do students, faculty and ASU administration support the initiative?
   o Is there a demonstrated increase in use and accessibility of theses and dissertations?
   o Have the review, approval and submission processes been streamlined?

3. The program should require submission of PDF files for principally textual documents and offer the option of submitting multimedia content. A university requirement for submission of PDF text files may be established earlier than the option for submission of multimedia ETD's.

   o The *University Libraries* will make its best efforts to support access to all ETD's submitted in PDF, and *Information Technology* or their designated subcontractor will store and maintain the products through backup and file migration programs.

   o The *University Libraries* will make its best efforts to support access to all ETD's submitted in multimedia formats that meet file format standards to be established by the *Graduate College,* and *Information Technology* or their designated subcontractor will store and maintain the products through a file migration program.

   o **Students will be allowed to submit multimedia ETD's outside the format standards. *Information Technology* will store, but will not maintain and migrate these products. They will be available for downloading from the *University Libraries* catalog system by users who have the required software.**

4. Students should submit their products through a web-based interface that allows data to be electronically extracted and dumped into MARC catalog records. Interface to be developed by *Information Technology* or their designated subcontractor. (see flow chart in Technical Subcommittee Report Addendum B)

   a. Librarians will conduct QC work and upload records to the *University Libraries* catalog.

   b. The interface can also be used by *Graduate College* to ensure all related forms and fees are paid.

   c. Students should identify finite access restrictions at the time of ETD submission in accordance with *Graduate College* policies. They should choose one of the following options presented in the web submission interface:

      i. Unrestricted
      ii. Restricted to ASURITE ID's for one year.
      iii. Fully restricted for two years, subject to approval.

5. *G*raduation fee payment and submission of fees and forms for UMI and copyright registration should be centralized in a single location, possibly at *Student Services*.

6. A *Graduate College Thesis and Dissertation Format Review Committee* should be created to include representation from the *University Libraries* and *Information Technology*.

    a. This *Graduate College Thesis and Dissertation Format Review Committee* should conduct a comprehensive review of format requirements to accommodate ETD's and establish file format standards for multimedia content that will be supported by the *University Libraries* catalog system.

    b. This format review committee should regularly review and revise these standards in light of student and faculty needs, and opportunities for licensing software for the *University Libraries* catalog system and for *Information Technology* migration support.

7. A student ETD submission training program should be established to minimize complications in the final editing and submission processes. This program should be located at the *Center for Learning and Teaching Excellence*.

8. *University Libraries* should create a training program for Technical Services and reference staff to support the new cataloging paradigm and researchers accessing ETD's through the library system.

9. Members of this *ETD Task Force* and the *Graduate College Thesis and Dissertation Format Review Committee* should actively promote this initiative during the pilot phase and seek feedback and/or support from students, faculty and university administrators. Training programs directed at faculty and administrators should also be developed.

10. *Information Technology* should issue Requests for Proposals to determine whether outsourcing submission interface development, storage and migration functions can be handled more efficiently than in-house.

11. ASU should submit ETDs to *University Microforms International* (UMI) and should join the *National Digital Library of Theses and Dissertations* to maximize access and participation.

The following academic units have expressed interest in hosting ETD pilot projects:

Mathematics
Dance
Design
Rhetoric and Composition   *[pending approval]*
Linguistics   *[pending approval]*
Educational Technology

Full participation by all students from these units should result in approximately 70 ETDs submitted each year of the pilot, or slightly less than 10% of the expected annual university-wide output of 700-750 ETDs. Additional requests for participation from an individual or unit will be considered by the appropriate oversight committee in the light of available resources. A volunteer from each graduate program with a thesis requirement will be sought in order to seek data on breadth of application.

TIMELINE:

July-December, 2001:

- Pilot project funding secured.
- *Graduate College* and *Center for Learning and Teaching Excellence* staff hired.
- *Graduate College Thesis and Dissertation Format Standards Committee* membership expanded.
- RFP's for web submission form development, product storage and migration created and distributed by *Information Technology*.
- Pilot program departments and other department volunteers committed.

January-June, 2002:

- Format standards for ETD's developed, vetted and implemented by *Graduate College*.
- Pilot training program developed by *Center for Learning and Teaching Excellence*.
- Web submission form created and tested by *Information Technology* or *Library Instruction, Systems and Technology*.
- Adobe Acrobat software purchased and installed at all appropriate sites.
- *ETD Task Force* members and *Thesis and Dissertation Format Review Committee* participate in student, staff and faculty forums to disseminate information about the ETD pilot program.

July-December, 2002:

- Departmental pilot programs implemented.
- Training programs implemented by *Center for Learning and Teaching Excellence*.
- First submissions accepted for December, 2002 graduation.

January-March, 2003:

- December submission process evaluated.
- Pilot Program adjustments identified and completed.
- Consider implementation of PDF requirement beginning Fall, 2003

March-December, 2003:

- Submissions accepted for May, August and December graduations.
- Hire Technology Support Analyst (July), test and implement needed migrations.

January-March, 2004:

- 2003 Submission process evaluated
- Pilot Program adjustments identified and completed.
- Consider implementation of PDF requirement beginning Fall, 2004

March-December, 2004

- Submissions accepted for May, August and December graduations.
- Test and implement needed migrations.

January-March, 2005

- 2004 Submission process evaluated
- Pilot Program adjustments identified and completed.
- Implement university-wide PDF requirement and multimedia option for fall, 2005.

April-December, 2005:

- Submissions accepted for May, August and December graduations.
- Test and implement needed migrations
- Complete final evaluative report for pilot program.

COST DETAIL:

These cost estimates were developed by *Information Technology* and *Library Instruction, Systems and Technology* based upon costs of existing projects creating and retaining similar electronic content. They were revised from the Technical Subcommittee Reports numbers based on new costing information subsequently received and expansion of the pilot program. They will be further revised based upon results of RFPs and ETD pilot project experience. Continuing costs for full program implementation must accommodate more than five times the number of pilot project ETDs (ca. 750 rather than 140 ETDs per year).

Pilot Project:

50% Graduate Assistant Format Advisor, Graduate College	$ 17,000/year
Training Materials and Support, Ctr. for Learning and Teaching Excellence:	
50% Graduate Assistant Instructional Designer	$ 17,000/year
Printing/Support Materials	$ 3,000/year
Electronic Submission Interface Development	$ 30,000
ETD Storage (startup purchase model):	
AFS Space/Hardware	$ 60,000
Systems Administration/File Maintenance	$ 15,000/year
ETD Migration (starting July, 2003)	
Technology Support Analyst Salary:	$ 45,000/year
Libraries/IT Software Licenses:	$ 10,000/year

Pilot Startup Costs (July, 2001)   **$90,000**

Pilot Annual Costs (July, 2001-June, 2005)   **$52,000/yr.**

Pilot Migration Annual Costs (July, 2003-June, 2005)   **$55,000/yr.**

Continuing Costs (begin no later than July, 2005):

50% Graduate Assistant Format Advisor, Graduate College	$ 17,000/year
Training Materials and Support, Ctr. for Learning and Teaching Excellence:	
50% Graduate Assistant Instructional Designer	$ 17,000/year
Printing/Support Materials	$ 3,000/year
ETD Storage (purchase model):	
AFS Space/Hardware	$ 175,000/year
Systems Administration/File Maintenence	$ 125,000/year
ETD Migration (starting July, 2003)	
Technology Support Analyst Salary:	$ 45,000/year
Libraries/IT Software Licenses:	$ 10,000/year
Total ETD Program Annual Costs:	**$ 392,000/year**

Continuing Costs need to be adjusted to show cumulative expenses. RPS 6/24/2002