Chapter 43
Electronic Theses and Dissertations (ETDs)

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ABSTRACT

Electronic theses and dissertations (ETDs) have been a recent addition to the library's online access system, or digital project. This chapter traces the history of dissertations, from their printed form and issuance in microform by various agencies. It examines the changes in textual content and its presentation from the pre-digital to digitized documents, and the relation to software developed for music and other fields. It then examines the evolution of audio and video formats for the accompanying materials, particularly in the performing arts, and the content of these materials. It concludes with issues in ETDs management and ensuring long-term access and preservation, such as digital quality and copyright.

INTRODUCTION

Academic libraries around the world are seeking to take advantage of the powerful forces that transform higher education, including new and rapidly changing technologies, an abundance of digital (mostly open access) resources in a myriad of formats, and changing practices in how scholars communicate and disseminate their research and creative work.

Theses and dissertations, the monograph-length essays required for graduate degrees from institutions of higher education, have evolved with the technology. Electronic Theses and Dissertations (ETDs) constitute the primary contributions to a community of research (Ramirez et al., 2014). The term "Electronic Theses and Dissertations" (ETD) is used primarily to differentiate between analog theses and dissertations (paper, microfilm) and their digital counterparts (digital objects). Since 1998, academic institutions increasingly publish theses and dissertations that are born digital.

BACKGROUND

As forms of scholarship evolve, so do users' and creators' expectations. Theses and dissertations represent part of the historical record of graduate education at the institution. Those produced prior to the advent of the photocopier were created by the use of carbon paper. However, often in the domain of music, the need for accompanying material required the student to attach a separate sheet with the musical notation to each copy. Students attached photographs and illustrations, predominantly black and white, in much the same manner.

The first electronic theses and dissertations (ETD) project was launched in 1987 by a business company and a long-term vendor of theses and dissertations for academic libraries, University Microfilms International (UMI), by converting its large collection of dissertations on microfiches and microfilms going back to 1939 into electronic form. The first non-profit ETD hosted by a university was launched ten years later, in 1997, at Virginia Tech, which made electronic submission of theses and dissertations through its ETD system a requirement for the university's graduating students (Ramirez et al., 2014). Virginia Tech University, along with representatives from UMI and the American Council of Graduate Schools, was one of the founders of the Coalition for Networked Information's joint project, with the goal to collaboratively develop collections of ETDs. In 1995 this resulted in creation of the Networked Digital Library of Theses and Dissertations (Fox et al., 1997).

Since the late 1990s, an increasing number of academic institutions have mandated the electronic submission of theses and dissertations. Today, textual dissertations need only be in a word processing file and converted to a more permanent and unchangeable file format to become Electronic Theses and Dissertations (ETDs). The current digital submissions of ETDs experienced significant increased usage of graphics or multi-media contents.

During the analog age examples of handwritten music had to be glued into the dissertation, with the typescript below it; this included attaching the original music on the carbon copies. With the introduction of musical software (Finale, Sibelius) or imaging software, writers could place these materials inline inside the dissertation. A move to an all-digital means of providing electronic theses and dissertations is accelerating their discovery and facilitating their use, value, and impact in research.

Accompanying Materials

Rebecca Lubas (2009) and Cedar C. Middleton, Jason W. Dean, and Mary A. Gilbertson (2015) present adequate processes for the cataloging and metadata creation of homogenous textual dissertations. However, dissertations increasingly have accompanying materials, most prevalent in music and the performing arts: these have included audio tapes, compact discs, or video recordings of recitals, concerts, and lectures. Traditionally, these audio tapes, either in reel-to-reel or audio cassette format, or videocassettes, in various configurations, were difficult to preserve. Equipment also went out of date, as certain formats became dominant. Beta and U-Matic declined into more limited use as VHS became the standard for videocassettes. Discs, either CDs or DVDs, became the norm during the 1990s.

Since the introduction of ETDs, illustrations have become predominantly color, particularly in the arts and sciences. In addition to increased usage of graphics, those in biological and chemical fields include video demonstrations of their experiments, or may draw the elements and the design of molecules. Today, these are all submitted as streaming audio files or audio visual files and integrated seamlessly with the original ETDs.

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