Creation of an online catalog of dissertations using Access & ASP
From Datatel to web

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Abstract

The Fielding Graduate Institute is a small, private, non-profit graduate education institution that has not joined the NDLTD movement ... yet. To supplement the database (and availability) of its graduates' dissertations through ProQuest's Digital Dissertations product, Fielding has created a publicly accessible catalog (at http:// www.fielding.edu/library/dissertations/) using readily available tools, namely Microsoft Access and Active Server Pages (ASP), extracting the relevant data from the institution's Datatel Colleague-based ERP SYSTEM. This paper describes how the project was carried out, and plans to link from the catalog directly to 'Digital Dissertations' for each dissertation record.

Preface

The Fielding Graduate Institute was founded (as The Fielding Institute) in 1974 to address a largely unmet need in U.S. higher education at the time: to serve mid-career, adult professionals in pursuit of a doctoral degree. Such students often cannot reconcile their obligations to family, job, community, etc. - and the geographic location to which they are thereby bound - with the demands of a "typical" higher education setting of having to travel to a campus and be in a classroom most of the days of the week at preset times, nor do they learn well in such a setting. The learning environment of an instructor as a "professing" figure of authority who lectures to his/her students, usually at least a generation younger, simply does not work well for many students who have gained significant life and professional experiences, and whose average age (at Fielding) is in the mid-forties.

Today, Fielding has nearly 1500 students, 150 faculty members, and 100 staff members, and is accredited by the Western Association of Schools and Colleges (WASC). Fielding's largest academic programs are in Clinical Psychology, Human & Organization Development, Educational Leadership and Change (all leading to doctoral degrees), and Organizational Management/Organization Development (Master's Degrees and Gradu-

ate Certificates). The mode of interaction between faculty and students has been termed "distributed education": they come together in regional cluster groups approx. once a month, meet in larger national Sessions of several hundred attendees several times a year, and interact in an online learning environment ("FELIX" = Fielding Education Link and Information eXchange). The balance of these different interactions varies between the academic programs: the Clinical Psychology program (the only one of this type accredited by the American Psychological Association) has the highest "face-to-face" component, while the Organizational Management/Organization Development programs are conducted almost exclusively online.

Library Services and dissertation dissemination at Fielding Graduate Institute at present

Fielding Library Services

Because it would serve little purpose in serving a clientele distributed across the globe (though heavily concentrated in North America), Fielding has never had a physical library, aside from the collection of original printed dissertations of its graduates. All information resources that are provided to students, faculty and staff are now online[1], in the form of institutional subscriptions to full-text databases, eBooks, e-journals, and, last not least, ProQuest's dissertation databases *Digital Dissertations with full text* (*http://wwwlib.umi.com/dissertations/*) and *Current Research @ Fielding Graduate Institute* (*http://wwwlib.umi.com/cr/fielding/main*), both of which contain full-text dissertations in PDF format going back to 1997. The latter database only contains Fielding dissertations, and is in effect a small subset of the former.

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[1]   To aid students, faculty and staff in obtaining journal articles etc. that are not available online, Fielding has made an arrangement for subsidized document delivery to them with MITS (Michigan Information Transfer Source), a non-profit, cost-recovery, fee-based information service that is part of the University of Michigan Library SYSTEM. More about Fielding's Library Services can be found at *http://www.fielding.edu/about/library.htm*.

Figure 1: Screen snapshot of Current Research @ Fielding Graduate Institute database

Dissertation Dissemination

Like many North American institutions of higher education, Fielding submits its graduates' dissertations[2] to UMI (now part of ProQuest Information and Learning). Fielding has not joined the Networked Digital Library of Theses and Dissertations (NDLTD) movement so far, in large part because of concerns regarding creation of "proper" electronic theses and the concomitant support issues, which the author found affirmed during the ETD 2000 conference:

- A considerable proportion of the student body - all in programs in the social/behavioral sciences, none in technical fields such as engineering - is not very comfortable with the use of personal computing tools beyond basic word processing skills.

- In the distributed education environment, these students cannot easily come to a computer lab to be assisted in the creation of "structurally sound" documents, and the support requirements to do this remotely, given limited resources, appear daunting.

There is, however, a desire to join the NDLTD movement *in principle*, in order to make Fielding's graduates' dissertation available to readers worldwide, including those who cannot or do not want to purchase them via UMI's Dissertation Express service (*http://tls.il.proquest.com/hp/Products/DisExpress.html*) and whose institutions cannot afford access to *ProQuest Digital Dissertations* with full text.[3] This desire would seem consistent with Fielding's institutional vision (*http://www.fielding.edu/about/mission.htm*), which includes "a commitment to social justice and change."

Figure 2: ProQuest Digital Dissertations with full text database

Creation of web-based catalog of Fielding dissertations

Source and preparation of the data

Because the Fielding Graduate Institute never had a physical library, it never deployed a traditional online public access catalog (OPAC). The metadata about its students' dissertation was, and continues to be, stored primarily in the institution's ERP SYSTEM, which utilizes the software Datatel Colleague (*http://www.datatel.com*). It is stored here effectively as one (of many) **attributes of the student**, more specifically, of the student's dissertation committee.
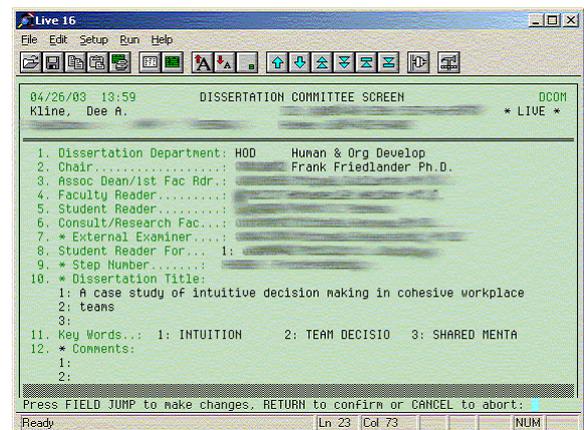

Figure 3: Sample record for a dissertation from Datatel (confidential data intentionally obscured).

A script that automatically runs nightly extracts data needed for the web-based catalog of Fielding dissertations from several tables of *Datatel*, and stores it in a comma-separated values (CSV) file: author's first and last name, academic program abbreviation (e.g., HOD for Human & Organization Development), degree awarded (e.g., Ph.D.), month/year degree awarded, and dissertation title.[4]

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2   With plans to also do that for Master's Theses in the near future.
3   As of early May 2003, Fielding unfortunately no longer allows for the borrowing of dissertations via Interlibrary Loan, due to budgetary contraints.

Using a Microsoft Access macro, the CSV file is then imported into a Microsoft Access database; extraneous data is removed to make the file as compact as possible; data types are changed (to assure that, for example, the text string "01/00" - of which only the year is used and converted to four digits, i.e., 2000 - is sorted as a numeric field); and indexes are added.

Figure 4: Microsoft Access macro for generating database "behind" web-based catalog of Fielding dissertations

This database is then uploaded (using FTP) to the Fielding Graduate Institute WWW server once a month.

ASP-based web page generates web-based catalog

Microsoft Active Server Pages (ASP) coding, which is shown in the Appendix, generates the web page that presents the web-based dissertation catalog's input form, as well as the output of the query, at *http://www.fielding.edu/library/dissertations/*.

Figure 5: Section of web-based dissertation catalog input screen, with sample search for "cohes" in the dissertation title

Figure 6: Section of web-based dissertation catalog output screen, with results of sample search for "cohes" in the dissertation title

Reasons for the creation of the web-based catalog of dissertations, and the selection of tools to create it

The decision to create Fielding's web-based catalog of dissertations was driven by several goals:

- To allow anyone with WWW-access to get basic information about the dissertations written at Fielding (and how they may be obtained).
- To allow for querying by a data element that is simply not captured in *Digital Dissertations with full text* and *Current Research @ Fielding Graduate Institute* at all: in which academic program a dissertation was written.
- To provide Fielding students, faculty, and staff with basic information about Fielding dissertations months earlier than usually available in *Digital Dissertations with full text* and *Current Research @ Fielding Graduate Institute*, which can only show dissertations once they have been submitted to and then processed by UMI.

The choice of Microsoft Access and ASP was determined simply by the fact that an ASP-capable web server was already in place, and Microsoft Access already had been purchased for other purposes, thus requiring no additional expenses for hardware or software.

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4   The "key words" assigned to the dissertation by the author are also stored, but not included in the web-based catalog, because this assignment was not done for over half of the dissertations, and the keywords are not selected from a controlled vocabulary.

Future goal: integration of the Fielding-created web-based dissertations catalog with *Current Research @ Fielding Graduate Institute*

At present, the web-based dissertations catalog at *http://www.fielding.edu/library/dissertations/* and UMI's *Current Research @ Fielding Graduate Institute* complement one another for Fielding users, with the former allowing for queries by academic program and being updated earlier, and the latter offering dissertations' abstracts, full text (going back to 1997), and UMI subject headings. However, there is no connection between the two resources; they have to be searched independently from one another. Fielding's goal is to create hyperlinks[5] from its web-based dissertations catalog to *Current Research @ Fielding Graduate Institute* for each dissertation that is represented in both SYSTEMs. This hyperlink would appear with each record of the output screen, a sample of which is shown (displaying five records) in Figure 6. The common element between the two SYSTEMs would be UMI's publication number, e.g., "9962162" in the example in Figure 7.

Figure 7: Partial sample record from UMI's *Current Research @ Fielding Graduate Institute* database.

UMI has already graciously agreed to provide a data file that will allow Fielding to merge these publication numbers into its own database of Fielding dissertations. That will allow for the generation of hyperlinks like, for example, http://wwwlib.umi.com/cr/fielding/fullcit?p9962162, which would link directly to the record shown in Figure 7.

Appendix

The ASP markup (as of May 1, 2003) to generate the web page at *http://www.fielding.edu/library/dissertations/* can be viewed at *http://www.fielding.edu/library/presentations/Dissertations.asp.pdf*.

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5   Displayed at least when the catalog is viewed by a Fielding user who has been authenticated as such by logging into FELIX, and is therefore known to be entitled to access to Fielding's institutional subscription to Current Research @ Fielding Graduate Institute. Since most of Fielding's users (students and faculty) access its online resources remotely, the hyperlinks are routed through an EZproxy (*http://www.usefulutilities.com/*) server.