



# Effective Practice: Faculty Database System: Content Management for Faculty Information

## Submitting Institution:

Duke University

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## Subject Terms:

CMS , Faculty , Web Content Management

## Background/Challenge:

Duke University's dean of arts and sciences commissioned the Faculty Database System (FDS) as an institutional content management system after learning of the tool's initial implementation in the mathematics department. The tool's ability to address several ongoing operational needs involving faculty curriculum vitae (CV) and related staff and graduate student data was matched by its ease of use and syndication capabilities. Specifically, FDS was conceived as a means of providing the following functionalities:

- Single point of entry for faculty CV data
- Up-to-date departmental Web sites
- Templates to standardize display of faculty Web pages
- Easy and secure use by faculty and staff
- Incentives for faculty to update their CV information on a timely basis
- Conduit for faculty access to institutional and external databases (e.g., enterprise directory, PubMed) to use data from reference sources
- Discipline-specific formatting conventions
- Top-down and bottom-up policies and configurations
- Ability to export to different formats and create customized reports
- Streamlining of annual faculty evaluation process
- Syndication of information across departments and the university
- Accommodation of as many hierarchical levels of units as needed
- Archive of data for future use and longitudinal reports

## Practice/Solution:

The idea for providing this suite of functionalities grew out of the experience of the mathematics department. In 1998, at the request of the chair, who sought to provide faculty with an incentive to keep their honors and publications up-to-date on the departmental Web site, a senior systems programmer devised FDS as a means for faculty to submit curriculum vitae information for annual faculty evaluations. The system encouraged faculty to maintain timely, relevant CV information, which in turn was published to the departmental Web site.

In the fall of 2000, during the annual faculty evaluation process, the dean of arts and sciences inquired as to whether the system could be re-engineered to accommodate a multi-layered organization of the scope and heterogeneity of arts and sciences. With the approval of the mathematics department chair, the senior systems programmer was commissioned in June 2001 to re-develop the system to provide the following functionalities across multiple departmental and school hierarchies:

- collect and publish faculty data to the Web
- provide chairs with relevant data for annual evaluations
- provide a conduit for chairs to submit annual faculty evaluations to the dean through a streamlined process

These functionalities, along with a rich array of security, authorization, authentication, customization, and syndication features, were in place by June 2002.

From June 2002 to June 2003, a pilot project ran in approximately a dozen arts and sciences departments representing a range of disciplines. The report of this pilot period, including a technical overview of the system, its architecture, and selected user features, is available at <http://www.aas.duke.edu/faculty/fdspilotreport.pdf>.

The pilot accomplished the following objectives:

- Developed and deployed a reengineered content management system
- Defined the discipline-specific requirements from the broadest departmental base to ensure the design could support them with integrity and security
- Collected information from pilot participants on needed or desired features
- Assessed the project based on pilot participant feedback
- Implemented needed improvements
- Gathered information on the types of training needed
- Developed training materials
- Tracked time and cost
- Created a customized Web template
- Integrated FDS with departmental Web sites
- Entered data
- Offered training and support

The most valuable outcome of the pilot was a better sense of how to manage the documentation, training, and overall deployment of the tool. It was also invaluable to the development of FDS as a highly flexible content management system to have early input from departments on the functional requirements of the system.

With the approval of the provost, FDS was rolled out in June 2003 to 33 departments encompassing the humanities, social sciences, and sciences and including 4,000 faculty, staff, and graduate students. Participation by departments is mandatory based on the dean's directive. FDS integration with the university enterprise directory, Web authorization, and course management systems has greatly streamlined the full deployment.

While FDS is a content management system designed to provide full administrative flexibility at the department level with individual access to personal data for every faculty and staff member and graduate student, the creation, documentation, training, and Web template development have been accomplished through a team sponsored by the dean of arts and sciences. The associate dean of arts and sciences for computing has provided oversight and served as liaison with the project sponsors, especially noting where the development of policy and/or top-down conventions need to be defined.

A project manager acts as liaison among all players, meeting with department chairs and key administrators to introduce the capabilities of FDS and manage the overall rollout. The director of the Web development and programming office (the Cynthia Sulzberger Interactive Learning Lab) has overseen the development of a catalog of standard templates for the display of FDS information on departmental Web sites and documentation to support template customization by departmental technical staff. He is also bringing to bear the support of the Web programming team for the ongoing maintenance and support of the system. The senior systems programmer has been fundamental to the development of this system. Happily, this system has been developed with an open source distribution in mind and will soon be available with accompanying documentation via the [facultydatabase.org](http://facultydatabase.org) domain.

## Benefits:

- Makes it easy for departmental staff and faculty to maintain departmental and personal Web sites.
- Generates more up-to-date and complete sets of information
- Increases departmental leadership's interest in the programmatic content of their Web sites because the tool can implement their ideas
- Decreases the cost for maintaining Web sites over the long run
- Streamlines the Web development process and introduces elements of standardization (in types and definitions of data, if not in colors and design presentation) through templates that display recommended departmental information
- Integrates with enterprise authentication and authorization tools and global databases such as PubMed to leverage other efforts

