

Print to Electronic Media
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Collin County Community College District

Abstract

Collin County Community College District (CCCCD) traditionally mailed three credit and continuing education schedules to all residents of its service area. Dramatic population increases required the college to distribute 270,000 schedules in spring 2000 costing \$120,450. Web versions of the schedule and catalog were available to download; however, the pdfs were difficult to navigate and took considerable disk space and download time.

In summer 2002, CCCCCD piloted a new product that bridges the gap between print and electronic media. In fall 2002, 215,000 schedules were distributed costing \$85,000. In the future, even fewer schedules will be printed and mailed.

In partnership with MultiView, the college now has the schedule and catalog in a searchable database that is downloadable to the desktop. Once downloaded, students search for classes by location, time, and discipline or perform key word searches on course titles or descriptions. Academic Advisors find the searchable schedule saves time and provides more comprehensive information. Students can link back to the college's website for online registration. By working offline and linking as necessary, there will be less demand to increase bandwidth and network capabilities. This application allows the college to save money, increase efficiency and improve service to students.

Introduction to the Organization

Collin County Community College District (CCCCD) currently serves more than 37,000 credit and continuing education students annually on campuses in Frisco, McKinney, and Plano and at other locations throughout the service area. Located in one of the fastest growing counties in the nation, CCCCCD offers more than 100 degree and certificate programs, an Honors Institute, unique learning communities and a service learning program to provide a comprehensive college experience. The college has been recognized nationally for innovation and an exemplary faculty that includes the 2001 National Community College Professor of the Year, four Piper Professors for the State of Texas, and two Fullbright Scholars.

In an effort to address the severe shortage of teachers facing the nation, CCCCCD became the first community college in the country approved to offer alternative teacher certification. Another first in Texas occurred when CCCCCD signed a concurrent admissions agreement with Southern Methodist University (SMU). With the addition of this agreement, the college now has programs with SMU, the University of North Texas, and the University of Texas at Dallas allowing students to enroll simultaneously at the community college and the university and guaranteeing a seamless transfer between the institutions. Among the college's recent accomplishments is the organization of a Student Leadership Academy, the first leadership program of its type at a Texas community college.

On the financial side, the college district received the Certificate of Achievement for Excellence in Financial Reporting from the Government Financial Officers Association of the United States and Canada for the fourth consecutive year. Additionally, Standard & Poors Corporation and Moody's Investors Service, Inc. upgraded CCCCCD to AAA/aaa rating respectively on \$20 million Limited Tax Improvement Bonds, Series 2002. Only 15 such rated

political subdivisions exist among all of the counties, cities, school districts and community colleges in the state of Texas.

Collin County is home to many corporate headquarters and the college has developed numerous partnerships with business to deliver training and education designed to meet industry needs. The CCCCD Continuing Education Division was named one of the first 18 campuses in the nation as a Microsoft IT Academy. This program provides delivery of world-class training in Microsoft networking and developer technologies. CCCCD is also a Cisco Regional Center, Oracle Workforce Development Center, and a Certified Internet Webmaster (CIW) Faculty Institute specializing in security training. CCCCD has been asked to submit an unprecedented, fourth Skills Development Grant application to the Texas Workforce Commission. The newest consortium will include fifteen companies in eight municipalities and is designed to provide targeted training for new and existing employees in the areas of new technology development, computer applications and organizational process.

Finally, the college recently accepted the “Best of the Web” award from the Center for Digital Government and *Converge* magazine for the design, functionality and efficiency of the college’s website. The web-synchronized class schedule and catalog was a key element noted by the awarding organization and will be discussed in more detail in the following pages.

Statement of Problem

The problem at Collin County Community College was threefold. First, the college wanted to provide better communication to the community and to local taxpayers about the benefits of the college and the strength of its programs and services. Second, the cost of printing and mailing class schedules, which had been the primary communication tool used by the

college, had increased each semester and was becoming prohibitive. And third, the existing on-line version of class schedule information was not user friendly or flexible in terms of functionality.

For years, the class schedules were mailed to every resident in the service area. The Public Relations personnel at the college were seeking a more effective communication tool that could be mailed to local taxpayers. Unfortunately, a significant portion of the printing budget was devoted to printing class schedules that contained little, if any information of “PR” value. The goal was to further reduce the numbers of schedules mailed and replace this practice with less costly and more informative community newsletters. However, funding in Texas is based on contact hour enrollment and many academic areas feared that reducing schedule distribution would have a negative impact on enrollment. CCCCD needed a way to transmit information to students effectively that would not be perceived as being detrimental to enrollment.

In spring of 2000, the college printed 270,000 class schedules and mailed 248,110 copies to residents in its North Texas service area. The cost to print, process and mail the 102-page document was \$120,450.16. Because Collin County is one of the fastest growing in Texas, the number of households receiving the schedule has been growing—along with the cost—with each issue. Many of the schedules that were printed and mailed ended up being discarded along with the rest of the “junk mail” being received every day.

The college realized some cost savings by tightening the contents to the printed schedule and reducing the page count. The college also decided to slightly reduce the number of schedules mailed and replace them with a postcard announcing that the schedule was available at the college’s five campuses and on-line. Unfortunately, the on-line version of the class schedule did

not provide an adequate solution and faculty and staff were still reluctant to discontinue mailing class schedules.

In an attempt to migrate target audiences from print to electronic media, the college added on-line registration and an “on-line” class schedule. The on-line schedule consisted of files that were not interactive, relied on abstract and often illogical course prefixes rather than on more meaningful titles and required the downloading of multiple pdf files. For example, a student interested in the date and time Cisco classes were offered had to know that these courses were listed under the letter “I” for Internetworking rather than under “C” for Cisco or even “N” for networking.

While the Internet provided some relief, end-user bandwidth access constraints mitigated the ability to move away from print. Today, the typical end-user is connected to the Internet with a dial-up modem at speeds of 56k and slower. Unfortunately, the best website in the world can be a frustrating experience through such slow connections and CCCCD’s website was no exception.

Design

The college began with an analysis of costs, a publications audit and a review of their web site. The Public Relations Office (PR) at CCCCD analyzed the number of households in each zip code to determine how many copies were being printed and how they were being distributed. The schedule distribution plan was compared to enrollments by zip codes to determine penetration rates throughout the service area. Budgetary needs for the department fluctuated widely as did the cost of paper and postage so a thorough analysis of current conditions allowed the department to establish cost recovery goals.

A publications audit revealed redundancy in printed materials. Much of the information printed in the class schedule was also printed in the college catalog. College catalog information could also be found in the Student Handbook. And, it was discovered that almost all of the information was also on the college website – if only a student knew where to look.

The PR personnel knew that the website could be used more effectively. They began looking for a web-based solution that would allow better access to schedule information via the college web site. The PR Director discovered MultiView Inc., a company which developed web catalogs for Standards & Poors, Red Roof Inn and Verizon. MultiView, Inc. had an integrated communications solution that leveraged the best of the Internet and the best of the desktop at the same time. Databases distributed through downloads from the Internet were installed on the desktop where they serve as a portals back to the Internet. The desktop application utilized the Internet to obtain constant updates, but allowed the user to operate off-line until they needed to be reconnected. This approach to technology is referred to as a ‘synchronized web application’. MultiView did not have a higher education application, but they were willing to develop a product to the college's specifications in order to gain a new market for their technology.

The PR Director discussed the scope of the project with the Executive Vice President and the President who agreed that it was worth looking into further. With the initial approval, the PR Director and MultiView representative met with the Chief Information Systems Officer, the Director of Administrative Programming, the Registrar and Director of Admissions, and members of their staffs to determine the scope of the project. CCCCDCD was not interested in making any modifications to existing administrative software. Barriers to implementation were removed when it was determined that information could be uploaded as an FTP to MultiView and that little or no “programming” was required by the college. In December 2001, CCCCDCD

Board of Trustees approved a \$30,000 contract with MultiView, Inc. to develop a synchronized web application that would provide a searchable class schedule and catalog. A monthly maintenance fee of \$1,450 for the first year and \$1,625 for the life of the project was also approved.

Decisions had to be made related to how the data would be displayed. CCCCDD decided to allow students and prospective students to search courses by subject area, course number, course title, the time of day the courses were offered (morning, afternoon, or evening) and by location. After further consideration, staff decided to also allow students to search for select programs such as honors courses, learning community courses and web courses. Texas has a common course numbering system and course prefixes do not always correlate well with subject areas or course titles. As a result, some time was devoted to analyzing the logic behind the course prefixes and to making the data more intuitive in terms of how it would be displayed. Each college or university will have to consider idiosyncrasies of their data and the search and display options they prefer.

Existing staff devoted some time to the project, but no additional personnel were required and no capital equipment was purchased. The PR Director continued to spearhead the project until her sudden and unexpected death on May 10th, 2002. She was by far the most knowledgeable person on staff at the college with regard to this project and it was feared that her untimely death would result in a significant delay in implementation. The fact that the Executive Vice President, to whom the PR Director reported, the Assistant Director of PR and the Publications Coordinator were able to keep the project on schedule serves to underscore the ease with which the product can be deployed. The college's contact at MultiView was an invaluable

resource and he should also be given credit for helping staff through a difficult time and keeping the project moving forward.

Implementation

The Director of PR and the MultiView representative began working on details as soon as the contract was approved by the Board of Trustees in December, 2001. Individual meetings were scheduled with administrative programming and graphic design staff to assist with technical issues and aesthetics of the product. Two larger group meetings were held with academic advisors, admissions and registration staff, and academic administrators to solicit feedback on the alpha version. The new product was piloted for summer 2002, less than six months after the contract was signed. Those involved in the initial implementation evaluated the application and determined staff training needs. Administrative Assistants from the academic divisions were briefed on how to use the electronic schedule. For the first time, the college had a relational database of course titles and descriptions that could be searched and segmented in a variety of ways.

Limited modifications in terms of how the data was sorted and displayed were required as a result of feedback from the summer pilot. In August 2002, the fall schedule was made available in a synchronized web format. Over 40,000 copies have been downloaded to date. Users are required to provide their zip codes when they use the electronic schedule for the first time. As an option, users are also asked to provide their e-mail address and to state whether they are a student or a prospective student. The zip code data are cross-referenced to the schedule mailing plan. Approximately 10% of the users are currently providing e-mail addresses that can be used for additional electronic marketing in the future.

Benefits

Prior to implementation of this web-based application, students and prospective students were unable to easily find courses in the college's printed class schedules or catalog. Also students were unable to perform a search of the catalog and class schedule data on the website. Academic advisors spent untold hours assisting students who were looking for specific courses such as web courses, weekend courses, express or short courses etc. Now they can access the on-line (MultiView) schedule from the desktop, receive timely updates to faculty assignments, times and dates of classes and can sort a massive amount of information in seconds. End-users can perform lengthy transactions such as researching course catalogs and schedules off-line where processing speeds are extremely fast. Then, when students are prepared to register, the new synchronized web application serves as a portal to the college's on-line registration system. As such, the new synchronized web application complements the college's regular web site, and serves as a portal to facilitate connectivity when appropriate.

By implementing the new web-based application, the college can provide easy access to residents throughout the service area and can reduce the number of printed schedules that are mailed. The size of the schedule (number of pages) was also reduced because catalog course descriptions are now accessible on-line. In spring 2002, after implementation of the "electronic schedule" CCCC CD mailed 173,793 printed schedules for a cost of approximately \$85,000. This represented a savings of approximately \$37,190 over spring 2000 schedule distribution. The college anticipates printing and mailing fewer and fewer schedules in the coming semesters for still greater savings. Current annual savings are estimated to be over \$100,000 and are expected to increase as more students and prospective students turn to the ease of using the new electronic

tool. Ultimately, the college hopes to save almost a quarter of a million dollars annually in printing and mailing costs.

The new web application provides for a searchable database of class schedules and catalog course descriptions. Students no longer have to know exact course names or numbers but can now search for key words contained in the description. Implementation has been very recent but emails have been received from satisfied students. Users have not expressed any problems utilizing the system. Instructions are provided on-line and multiple test groups were polled to ensure that the site is easy to navigate and accessible.

Finally, the college has been able to develop a new publication that will take the place of printed schedule as a communication tool from the college to the community. The *CCCC Connection*, a four to eight page newsletter, contains articles of community interest and better represents the accomplishments of the community college. Initial feedback on the community newsletter has been extremely positive. The college has been able to reallocate resources to this initiative as a result of their new synchronized web application.

Retrospect

In retrospect, the overall design and implementation of the synchronized web schedule and catalog went extremely well. The timeframe from concept to pilot implementation was only six months. However, there were a few unanticipated outcomes associated with putting the schedule database on the web.

The college discovered inconsistencies in course titles and in some course descriptions. For example, CCCCD has an Interpreter Preparation for the Deaf program. In some course titles “American Sign Language” was spelled out and in others it was abbreviated as “ASL”. This did

not present a problem in the printed schedule, but when searching a database for “sign language” some of the courses did not display. When this issue surfaced, staff in the academic divisions were brought in to discuss the problem and to develop strategies that could actually improve data integrity in the long run.

Finally, Collin County Community College District approached the implementation of a web synchronized schedule and catalog from a public relations perspective. Making this resource available to students and prospective students was good for PR and could save the college money on printing and mailing. In reality, the tool is beneficial to academic advisors, registration staff, recruiters, admissions office personnel and many others on the college staff and in the faculty. In retrospect, other colleges may want to consider project leadership if they decide to implement an on-line schedule. Administrators should consider who on their campus has the capacity and skills to take on a project of this nature and who has the necessary “influence” to keep the project on track.