CURRENT STATE OF FACULTY-LED ADVISEMENT

Tier-1 universities in the U.S. have dedicated professional staff for advisement. The role of faculty in such institution is best summarized by the following quote of Dr. Cecilia Gaposchkin, Assistant Dean of the Faculty for pre-major advising [2]:

The advising system consists of a host of different resources and people that students will access at different points during their academic careers. The system is decentralized by design. The enormous range of available opportunities means that no single person has mastery of all the possible paths or options. Thus, students won't have a single advisor throughout their entire time at Dartmouth, though at any given time they may rely on the advice of an individual person (faculty member, administrator, peer advisor) to a greater or lesser extent. As a student moves through Dartmouth, the nature of the advice a student needs changes dramatically, and with these changes so do the appropriate advice-networks. Academic advising works best when a student appreciates his or her own role in understanding the questions they have and taking the initiative to seek the advice they need.

In smaller universities faculty have to *c*arry the full-load of advisement. Some faculty do not take this role seriously. One reason is that advising has very rarely been fully integrated into the faculty assessment and reward system, i.e., teacher/scholar/service tenure process, the dilemma of either no assessment/reward system or parallel advising systems of assessment and recognition is one reason for faculty not taking this role very seriously [4].

Most universities have instituted online ERP systems with built-in advisement systems. In some of the smaller universities, these systems have been implemented out-of-the-box. Customization of these systems has been slow as they need consultants and are expensive to implement. Motivating faculty to use the system that is not very intuitive (a system that forces them to navigate multiple screens for basic information) has proved to be difficult. Such implementations have required faculty to keep paper-records, thus making the whole process laborious, tedious and difficult to monitor.

The three major student systems software vendors are Oracle's PeopleSoft, SAP Campus Management, and SunGard's Banner and most universities in the U.S. use one of these three systems. Our campus has adopted the PeopleSoft system. Contrary to "PeopleSoft philosophy" and marketing claims, PeopleSoft Campus Solutions (CS) is about 80% complete, as delivered. In other words, there is a lot missing that has to be customized [3].

This paper presents a web-based system developed by the Computer Information Systems department at a southeastern university in the U.S. The system was designed with two main objectives, one was to provide a one-page view of the students' demographics and academic progress for faculty advisement and the second was to monitor the effectiveness and the quality of faculty advisement by the college administration. This system has been successfully adopted by the entire college of business administration and has met both the objectives set forth.

PEOPLESOFT'S CAMPUS SOLUTION

PeopleSoft Campus Solutions is an expensive solution. Universities such as Stanford, Arizona State and Penn have made the PeopleSoft implementation in their campus a great success through major customizations. Smaller schools, who do not have the technical and financial resources, have implemented the out-of-the-box solution. Such institutions have had limited success with their PeopleSoft implementation. Many units at such universities still use their own spreadsheets for processes that should be handled by the system. Training of users and customization to make the system easier to use are two major issues with the system.

Although PeopleSoft Campus Solution provides a student advisement module, the system is not easy to use. It is a windows-based system that uses a number of navigation links. A faculty advisor is presented a list of the advisees on a page. Each student is hyperlinked to a new page that displays some of the academic information of the student. Although all courses attempted by the student are listed with the semester and the advisor can sort the list on semester, the sorting is not chronological. The fall semesters are listed first, followed by spring and then by summer semesters. This should be an easy fix, because the data for semester is coded as 2141 for spring, 2146 for summer, and 2148 for fall.

Most students in smaller universities receive funds through federal student Aid (Title IV). Students receiving funds under Title IV must complete their degrees within 150 percent of the published program length as measured in credits or forfeit federal aid. On the PeopleSoft system, Title IV satisfactory academic progress is not available for faculty advisement. Monitoring satisfactory academic progress (SAP) is important both for retention and graduation. The PeopleSoft system has "what-if" capabilities and enhanced usability that have not been implemented at our university. The system has a degree audit on a different navigation link which gives out a print-out of seven pages. This audit is useful for clearing students for graduation but using the degree audit for advising a student every semester is cumbersome. .

This paper reports on a very simple advisement system developed in-house that provides all data required by an advisor on one single page and also allows the advisor to enter the gist of the advisement session with the student. The system was developed using ASP.Net with the data stored in an Access database. The database tables were designed to conform with the database tables on the PeopleSoft system so that the application could work on the Oracle database whenever the MIS could provide us read access to the underlying database. Data is downloaded and imported to the Access tables through PeopleSoft queries.

USERS' REQUIREMENTS

The new advisement system had the following objectives:

1. Provide a one-page view of the whole advisement process.
    a. Use the existing data structure adopted by the PeopleSoft system.
    b. Show the degree-audit on the advisement page.
    c. Allow the user to plan for three semesters in advance.
    d. Allow the user to record the gist of all advisement sessions.
    e. Allow the advisor to email from the page.
    f. Allow the advisor to view the records from the RFID attendance system.
2. Provide a control system that would allow the administration to monitor the quality of advisement and the retention and graduation rates.

OVERALL DESCRIPTION OF THE SYSTEM

The one-page advisement page is shown in Figure-1.

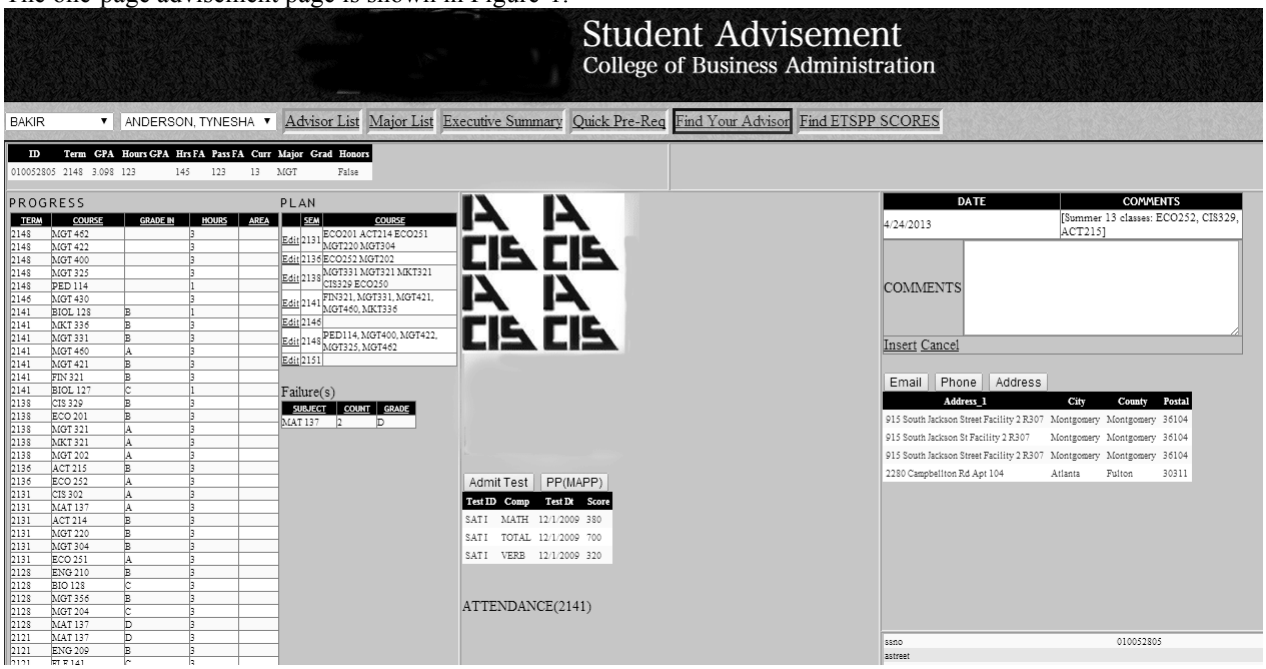

Figure 1: Advisement System

The advisor is presented with a drop-down with a list of all advisors. On selection of an advisor, all advisees of that advisor are displayed on a second drop-down list. The advisor selects the advisee and all information necessary for advisement is presented on the page. The page has 7 modules as described in Table-2 below:

Table-2: Important Modules of the Advisement System

Module1 (Displayed on a GridView)

ID	Term	GPA	Hours GPA	Hrs FA	Pass FA	Curr	Major	Grad	Honors
010052805	2141	3.094	106	129	106	17	MGT		False

- ID
- Last Term (Semester- 2141: semester starting in month 1 of year 2014-Spring 2014)
- Cumulative GPA
- Cumulative Hours attempted for GPA
- Cumulative Hours attempted Financial Aid (includes current semester)
- Cumulative Hours Passed for Financial Aid
- Current hours enrolled
- Major
- Filed for Graduation
- Honor Student

The Satisfactory Academic Progress (SAP) is also displayed indicating whether the student is on probation or under watch.

Module 2 (Displayed on a GridView-User can sort the data on any column)

PROGRESS

TERM	COURSE	GRADE IN	HOURS	AREA
2141	FIN 321		3	6.07
2141	MGT 331		3	5.60
2141	MGT 460		3	
2141	MGT 421		3	
2141	MKT 336		3	
2141	BIOL 128		1	3.51
2141	BIOL 127		1	3.41
2138	CIS 329	B	3	5.10
2138	ECO 201	B	3	5.10
2138	MGT 321	A	3	5.08
2138	MGT 202	A	3	5.20
2138	MKT 321	A	3	5.09
2136	ECO 252	A	3	4.30
2136	ACT 215	B	3	5.50
2131	MAT 137	A	3	3.10
2131	MGT 304	B	3	5.06
2131	MGT 220	B	3	
2131	ECO 251	A	3	4.20
2131	CIS 302	A	3	7.20
2131	ACT 214	B	3	5.40
2128	MGT 204	C	3	5.03
2128	MGT 356	B	3	
2128	MAT 137	D	3	3.10
2128	ENG 210	B	3	
2128	BIO 128	C	3	3.52

Failure(s)

SUBJECT	COUNT	GRADE
ACT 215	1	F
ACT 215	1	W
CIS 205	1	F
CIS 205	1	W
CIS 329	1	F
CIS 329	1	W
CIS 404	1	I
CIS 461	1	I
CMS 205	1	W
ECO 252	1	X
ENG 131	1	F
ENG 210	1	D

- Semester (as coded and allows for chronological sorting)
- Course
- Grade
- Hours
- Area (each major has seven areas: Area I-IV are general study, Area V is Pre-Professional, Area VI is Core Business Courses and Area VII is Major courses). Sorting the data on Area shows the advisor the degree audit and what courses in each area that the student needs to take.

This module also displays the failed (D/I/F/W/X) courses on a separate GridView.

Module 3: Advisors are required to prepare a 3 semester plan for the students and record it in this module.

PLAN

	SEM	COURSE
Edit	2131	ECO201 ACT214 ECO251 MGT220 MGT304
Edit	2136	ECO252 MGT202
Edit	2138	MGT331 MGT321 MKT321 CIS329 ECO250
Edit	2141	FIN321, MGT331, MGT421, MGT460, MKT336
Edit	2146	
Edit	2148	PED114, MGT400, MGT422, MGT325, MGT462
Edit	2151	

Table-2: Important Modules of the Advisement System

Module 4: Advisors can see the email/phone/address of their advisees on a GridView. They can also email their advisees from this page.

Address_1	City	County	Postal
915 South Jackson Street Facility 2 R307	Montgomery		36104
915 South Jackson St Facility 2 R307	Montgomery	USA	36104
915 South Jackson Street Facility 2 R307	Montgomery		36104
2280 Campbellton Rd Apt 104	Atlanta		30311

Module 5: The College has implemented a RFID based attendance system. The number of classes attended by each student for each of the classes is shown on a GridView. This helps in counseling students who miss classes and make poor grades.

ATTENDANCE(2141)

ID	COURSE	#DAYS
010052805	FIN.321.01.2141	2
010052805	FIN.321.02.2141	17
010052805	MGT.331.01.2141	1
010052805	MGT.331.02.2141	10
010052805	MGT.421.01.2141	19
010052805	MGT.460.01.2141	18
010052805	MKT.336.01.2141	8

Module 6: The gist of all advisements can be recorded in the database. A simple interface is provided for data entry.

DATE	COMMENTS
4/24/2013	[Summer 13 classes: ECO252, CIS329, ACT215]

COMMENTS

Insert Cancel

Module 7: Reports (Generated using Crystal Reports)
1. Advise list per department
2. Advise list per advisor
3. Advisement report for a selected period through an Executive Information System.

On request of the faculty, an additional module for checking the pre-requisites for courses was also added to the system. This was an easy implementation since the data was already available in the database. The page for this application displays all the courses on a drop-down list and on selection of a course, all students that have not met the pre-requisites are displayed along with the deficient courses.

DESIGN AND IMPLEMENTATION ISSUES

The system was designed using ASP.Net. The database was implemented in Access. The table structure matched the structure of the database used by the PeopleSoft system, making future migration to live Oracle tables easier. Reports were designed using Crystal Reports and integrated with the ASP.Net application. Security, through user authentication, was built into the system. The data is updated daily during the advisement period and during the 1st week of the semester. Thereafter it is updated every 2-weeks or whenever deemed necessary. We have a pending request with the MIS to provide read-access to the Oracle database, but they have been reluctant to do that.
A simple data structure is shown in Figure-2 below.

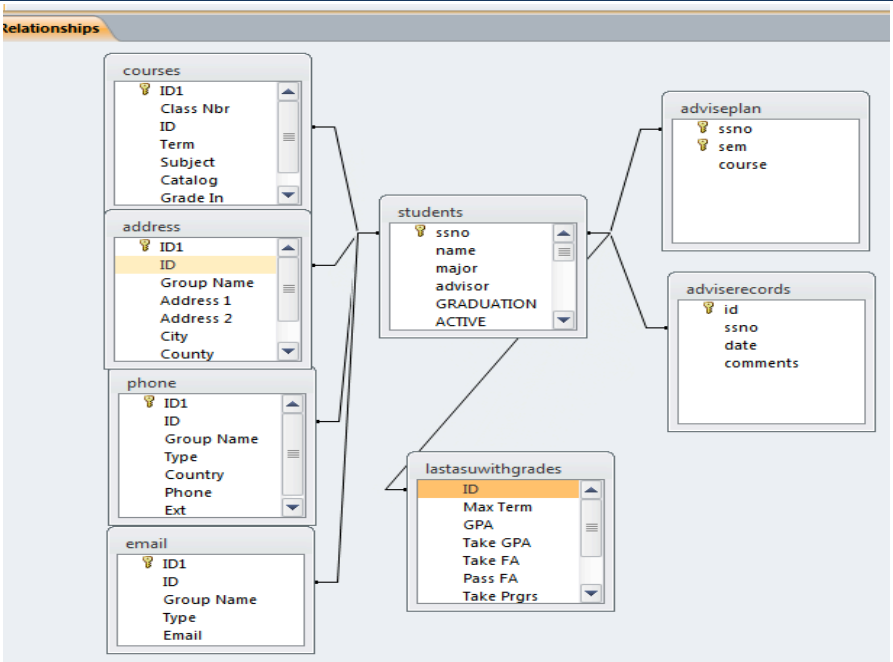

Figure 2: Data Structure for the Advisement System

CONCLUSIONS

Given that "the quality of academic advising is the single most powerful predictor of satisfaction with the campus environment," it is disturbing to note that college student's rank advising so unfavorably [8]. Student satisfaction with faculty advising is very polarized, tending to rate this kind of interaction very favorably or very poorly [8]. One reason is that the faculty are neither trained nor assessed for the quality of their advisement. This paper describes an attempt to closely involve faculty with student advisement through a web-based advisement system. The system has worked remarkably well with high-level of satisfaction reported both by the students and the faculty.

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