PROJECT TRIPLE E UPDATE: A MULTI-INSTITUTION IMPLEMENTATION OF A FACULTY SUPPORT SYSTEM.

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NOTE

ABSTRACT
Project "Triple E" is a cooperative endeavor initiated by The Robinson Group and International Business Machines, involving six community colleges in efforts to "empower" faculty by increasing access to information about, and communication with, students; to increase faculty "efficiency" by automating record keeping; and to enhance faculty "effectiveness" by freeing them from administrative tasks. Participating institutions agreed to facilitate faculty use of technology by implementing "Inform," a network-based, course management tool, operating on an IBM RISC System/6000 workstation. In addition, the institutions promoted the transfer of technology among project institutions, recommended enhancements for the August 1993 and March 1994 releases of the "Inform" system, and participated in the development of industry standards for such faculty support systems. The six participating colleges/institutions were Maricopa County Community College District in Phoenix, Arizona; Monroe Community College in Rochester, New York; Central Piedmont Community College in Charlotte, North Carolina; Atlantic Community College (ACC) in Mays Landing, New Jersey; Dallas County Community College District in Texas; and East Los Angeles College in California. An update of implementation progress at each institution, descriptions of "Inform" technical functions, a review of enhancements for the 1993 and 1994 program versions, and a description of the implementation of "Inform" at ACC are included. (PAA)
Project Triple E Update

A Multi-institution Implementation of a Faculty Support System

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Description of Project Triple E: Empowerment, Efficiency, and Effectiveness

Goals

(1) To "Empower" faculty by increasing access to information about their students and to increase communication with students, thereby enabling faculty to advise students appropriately.

(2) To increase the "Efficiency" of faculty by automating their record keeping in support of instruction and giving them quick access to student records.

(3) To enhance the "Effectiveness" of faculty by freeing faculty from administrative tasks so they may devote more time to instruction.

Project Participants and Description

TRG, in cooperation with IBM, invited seven community colleges to participate in the partnership program based upon the following criteria: (1) a stable administrative computing environment from which to build for the next phase of technology; (2) a strong interest in advancing information technology in support of faculty and students, and (3) a cost conscious orientation that would perceive the advantages of leveraging resources through a partnership program. The participants represent differing types of institutions and locations throughout the country. Based upon the foregoing criteria, the following community colleges have joined the partnership:

The Maricopa Community Colleges
Central Piedmont Community College
East Los Angeles Community College

Monroe Community College
Atlantic Community College
Dallas Community College District

The community colleges agreed to the following: (1) facilitate the use of technology by faculty through implementation of Inform operating on an IBM RISC System/6000 workstation; (2) promote the transfer of technology among institutions by sharing the insights and expertise of involved faculty; (3) play a key role in identifying future enhancements for Inform; and (4) participate in the development of a "Guidelines" document that will set the industry standards for the functionality that should be in a faculty support system.

Maricopa serves as the lead institutional partner, having jointly developed Inform with TRG. Maricopa will serve as a reference site and training center. TRG provides project implementation services, action line support, training, and serves as a clearinghouse for information among the participants, IBM provides select equipment, operating software, maintenance, and support for the term of the contract, as specified in their agreements with TRG and Maricopa. IBM also provides project management and administration, and instructional support expertise. IBM supports the publication of the Guidelines document. The League for Innovation in the Community Colleges is the sponsor of the program and provides a forum for the exchange of project information with other community colleges.
Outcomes

As a result of completing this project, the following benefits are expected to be realized for the participant institutions:

1. Faculty will use computers more frequently and in more creative ways to enrich instruction and instructional support as a result of having identified and eliminated those factors that were barriers to advancing information technology into the instructional area.

2. Faculty will be better trained in the use of computers for the management of instruction resulting in greater faculty productivity.

3. Inform will automate the record keeping functions of faculty resulting in more accurate, comprehensive, and accessible information for faculty in support of instruction.

4. The participating faculty will establish strong working relationships with faculty from the other participant institutions, resulting in the sharing of ideas to improve technology based instruction and instructional management.

5. The participant institutions will maximize their financial investment by receiving a discount greater than would be possible with individual acquisitions.

6. The participant institutions will serve as models for other institutions and will be reviewed as leaders in the application of technology to instruction.

7. Students will be better informed by having access to course assignments, grades, and be able to communicate electronically with faculty throughout the course.
II. Project Triple E: Partner Update

Maricopa County Community College District, Phoenix, Arizona

Since Maricopa jointly developed Inform with TRG, the implementation process at the Maricopa Colleges was different than the other Project Triple E Partners. The following dates represent successful installations.

- Glendale Community College
  - Fall 1990
- Mesa Community College
  - Spring 1991
- Phoenix College
  - Fall 1991
- Estrella Mountain Community College
  - Fall 1991
- Rio Salado Community College
  - Spring 1992
- Gateway Community College
  - Fall 1992
- Scottsdale Community College
  - Fall 1992

Monroe Community College, Rochester, New York

- Sage Barriers Analysis
  - 11/08/91
- RISC System/6000 Installed
  - 02/05/92
- Faculty Trained
  - 06/19/92

Central Piedmont Community College, Charlotte, North Carolina

- Sage Barriers Analysis
  - 04/02/92
- RISC System/6000 Installed
  - 05/13/92
- Faculty Trained
  - 05/29/92

Atlantic Community College, Mays Landing, New Jersey

- Sage Barriers Analysis
  - 05/29/92
- RISC System/6000 Installed
  - 07/24/92
- Faculty Trained
  - 08/26/92

Dallas County Community College District (Richland College and Eastfield College), Texas

- Sage Barriers Analysis
  - N/A
- RISC System/6000 Installed
  - 10/07/92
- Faculty Trained
  - 01/13/93

East Los Angeles College, Los Angeles, California

- Sage Barriers Analysis
  - 09/20/92
- RISC System/6000 Installed
  - 09/30/92
- Faculty Trained
  - 12/17/92
III. Description of *Inform*, The Faculty Support System

**Features**

- Is a network-based, course management tool for faculty and students that is interfaced to an institution's student record system.
- Includes an electronic gradebook for faculty to input their customized grading formula, automatically calculate final grades based upon the formula, and report final grades to registrar.
- Enables faculty to automatically retrieve course rosters and other information regarding students.
- Allows faculty to input their course syllabi with view only access by other faculty and students.
- Gives students the opportunity to better monitor their academic progress by accessing course requirements and reviewing their own grades.
- Enables faculty to successfully manage self-paced courses since *Inform* automatically keeps track of each student's progress in the course.
- Enhances communication between students and faculty by providing electronic mail messaging capability, and by enabling faculty to automatically generate progress letters.

**Technical Functions**

- Resides on a file server and is available on Unix.
- Is written in INGRES, a 4GL/relational database.
- Retrieves data from the student record system through a program which loads the data into the database residing on the file server.
- Features menu-driven, pop-up windows for easy access and navigation

**Higher Education Issues**

- Maximizes the expertise of faculty. Many institutions have effectively used technology to improve the productivity of staff and to support research, but often have ignored the needs of faculty to automate their record-keeping and communicate electronically with students. *Inform* brings the benefits of automation to faculty, thus allowing faculty to spend less time on administrative paperwork and more time on the professional work that attracted them to the teaching profession. *Inform* also enables faculty to be well informed regarding their students background and progress so that they can assist students succeed.
- Increases faculty productivity by reducing time required to access student information, calculate and report grades, and contact students.
- Increases communication between students and faculty. *Inform* electronic messaging and progress letters provide students with personalized attention that encourages student involvement and success.
- Helps institutions respond to the needs of students by making it practical to offer flexible self-paced courses. Approximately half of all students in higher education are now part-time students and their number continues to grow. Self-paced courses allow an institution to serve non-traditional students who have commitments that prevent them from taking traditionally structured courses. Without an automated course management system like *Inform*, it often is not practical for faculty to manually keep track of the progress of individual students in self-paced courses because the students are at different stages in the course.
IV. List of Enhancements to TRG-Inform

The following list of enhancements were recommended by the Project Triple E partners.

Enhancements for the August, 1993 Release

- Bulletin board messages

  Allows faculty to create a message and post it to a bulletin board for one or more sections. When students log onto Inform, they are required to select the bulletin messages prior to proceeding to another Inform function. Students may read the message multiple times, print it, or reply to the faculty who sent the message. Bulletins are deleted after specified time as stated by faculty member when the bulletin was created.

- Writer’s-Net on the UNIX platform

  Allows students to electronically submit papers to faculty. Faculty can evaluate the papers, add comments for the students to view, score the papers (scores are posted directly into Inform) and electronically return the papers to students.

- Import scores from external sources

  Allows scores to be imported into Inform and posted to individual student records. A standard input file format will be used.

- Viewing of faculty office hours and information by students

  Allows students to view faculty location, phone number, and office hours via both student applications (the student read-only application and the student interactive access application).

- Export Capability

  Allows faculty to export final grades, withdrawals, reinstatements, and change of open entry course ending dates for use in updating the host registration system.

- Include student ID on printed messages and bulletins

- Add a comment indicator to individual student scores screen

- New activity set report to include grading rules

  TRG is rewriting the activity set report to include custom grading rules in the report. Two reports will now be generated rather than one.

- Add password/pin security to Inform applications

  Allows Inform administrator to turn on or off password, pin, or no security for the administrator,
faculty, grader, and student applications. If security is on, menu options allowing changes to passwords or pins will be available to the users.

- Course Competencies (note: This enhancement was requested by Salt Lake Community College)

  Provides a method to create and maintain a table of course competencies, a table of performance objectives, a table of competency programs, and a table of activity sets that use the competencies and performance objective defined by a competency program. This enhancement will add a new module to Inform.

- Allow administrator to purge/report prior semester students, enrollments, and scores

  Allows the Inform administrator to choose one or more sections to be purged. Each section chosen will be included in a hard copy purge report prior to being removed from the database. Only inactive sections can be purged. An index of all sections included in the report will also be created.

- Allow faculty to create 'blanket' progress letters.

  Permits the sending of letters to all students in a chosen section(s). The text for the progress letters will be variable for each activity set.

- Allow faculty to view/change comments for archived students

- Remove hard coded orientation date from progress letters

  The current programs takes 2 weeks from a student's start date and uses that as their last date for orientation. This needs to be changed so that faculty can choose the number of weeks to use or an actual date to use when running group or individual progress letters.

**Enhancements for the March, 1994 Release**

- Remove hard coded withdrawal date from progress letters

  The current programs takes 3 weeks prior to the students end date and uses that as their last date for withdrawal. This needs to be changed so that faculty can choose the number of weeks to use or an actual date to use when running group midterm and 3/4 term progress letters.

- Allow faculty to export student scores information into tab or comma delimited file for use in statistical calculations

  Allow faculty to choose one or more sections to export student scores or student final grades. A report of student score distribution and final grade distribution should also be a part of this enhancement.

- Electronic Forum

  Allow students to access forums based on the class they are registered in. Students will read messages on a topic, and can write messages regarding the topic for other students to read.
• Allow individual activities to be easily copied

Provide logic in activity set where faculty can define an activity that will allow the activity to be duplicated X number of times as specified by the user. Will be useful for repetitive activities such as attendance.

• Allow longer activity set names, activity names, and course descriptions for activity sets

Faculty wish to have more room to define their activity sets. This includes longer description fields and a place for course and activity descriptions.

• Show students average of work completed

Will allow students to see the current percent of the points they have earned thus far in a course. Currently, all screens show the raw percentage of points based on all points available in the course.
The following is an excerpt from an article titled, Presidential Leadership in Advancing Technology: A Case Study of Atlantic Community College. The article is based on an interview with Dr. William Orth, President of Atlantic Community College (ACC), located in Mays Landing, New Jersey. This excerpt outlines Dr. Orth's views on the importance of a strong training program for faculty, staff, and administrators, and the steps that he took to ensure that such a program was made available at ACC.

"The implementation of TRG's software coincided with Dr. Orth's realization of the need to improve ACC's training program and facilities. ACC could boast of the amount and quality of its PCs, and its standardized software packages, such as Word Perfect 5.1. While the standardization of software reduced maintenance costs and allowed ACC's information technology staff to be experts with the systems, the lack of initial or continuing training on the systems was resulting in other hidden costs. States Dr. Orth, "ACC's staff was using maybe 5% of the power of the systems. And, this was not because we were stupid or didn't want to do more. The staff was teaching themselves on the systems, while caught up in their daily work. ACC had networked technology systems, electronic scheduler, electronic mail, access to servers -- all very powerful tools, and we were barely using them." Although some at ACC thought otherwise, Dr. Orth was committed to develop a training program. Admits Dr. Orth, "Some people were not happy and would say, The president is going to put $75,000 in training, and what we really need is another full time faculty. I listened to what they had to say, but it was a judgement call. And, in Bill Orth's judgement, it was more important to invest in training."

Dr. Orth researched what other institutions were offering for training centers, and attended technology sessions at the League for Innovation and other conferences. His investigations convinced him of the importance to establish a separate training facility that would be a pleasure for people to visit and take classes. ACC also made training part of the staff's professional responsibilities versus something that was done on the employees' own time. Dr. Orth oversaw the building of a training room which included special carpeting, wallpaper, blinds, new computer desks, and the best personal computers on campus. The room is networked to accommodate training on all systems. Training sessions were limited to five people per class. Dr. Orth anticipates adding to the room personal computers with CD ROM, three laser disks, and two small 13" televisions with VCRs for self-training tapes. Comments Dr. Orth, "We feel that the training center is a place that people look forward to going. In June of '92, this was just a dream - just a strategy. By June of '93, we will have trained over 280 people in a nine hour course that provides an overview of Word Perfect, Lotus, Profs, E-mail, a quick overview of what networking means, and then a look at some of screens in SIS, FRS, HRS, and TRG's Inform and Intouch".

Upon completion of the 'Introduction to ACC Computing', staff and faculty can sign up for advanced courses. Dr. Orth's goal is to devote up to 5% of everyone's time for training, which equates to 9-10 days a year. States Dr. Orth, "My feeling is that we will recover the value of that time, and a lot more in productivity, and from the pride that they are starting to develop in what they know. For example, a women who recently joined the faculty and went through a training session approached me at graduation. She relayed a story of how she was recently showing her husband, who teaches at a nearby University, all that she could do with her computer. She pulled up her students' transcripts, went into the Internet, accessed a FRS screen, and many other functions. Her husband finally asked, 'Can every faculty do this?' And she told him that everyone had the opportunity to learn. He then said, 'I've been there for over 18 years and we can't do anything like this.' When the ACC faculty member finished relaying this story to me, she said, 'I am very proud to be a faculty member at this college.'"

Dr. Orth feels that this type of feedback from users is what technology has got to do for higher education. He is convinced that unless the training is in place, people will not fully utilize the technology. Dr. Orth states, "We have given the staff member a tool for accessing information -- current information -- directly. That's a very powerful tool to give."