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ABSTRACT

When Valencia Community College (VCC), in Florida, opened in 1967, no one envisioned the extent to which computer technology would permeate every aspect of college operations. In addition to employing advanced computer systems to deliver programs in film technology, health care, manufacturing, and technology transfer, VCC utilizes numerous databases that have changed teaching. learning and management on campus radically. For example, the Valencia Longitudinal Student Tracking and Reporting (VALSTAR) system allows for the analysis of "stop out" patterns, and the calculation of retention rates. VALSTAR's companion system, TRANSTAR (Transfer Student Tracking and Reporting) tracks VCL, and other community college transfer students, and native students at the University of Central Florida (UCF). An interactive video system, CAISYS (College Academic Information System) features an orientation program to current and prospective VCC and UCF students. The VISTAS (Valencia's Information System for Teachers, Administrators, and Staff) mainframe allows staff to access student records, class rolls, and personnel directories via personal computer. The LINCC (Library Information Network for Community Colleges) maintrame computer provides access to library holdings within Florida's 28 community colleges, and at other libraries throughout the state; and to an electronic encyclopedia and the ERIC database. VCC also operates databases with information on instructional personnel, honors students, VCC's mentoring program, and the collège's curriculum. VCC has developed numerous faculty workshops to assist faculty in utilizing the new technologies. (MAB)



Meeting the Challenges of the Information Age:
Doing More with Less

Paul C. Gianini, Jr.

Paper presented at the Annual Computer Conference of the League for Innovation in the Community College (9th, Orlando, FL, October 21-24, 1992).

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LEAGUE OF INNOVATION "Meeting the Challenges of the Information Age: Doing More with Less" October 21, 1992

Good Evening. It is my pleasure to welcome you to Orlando. This conference, *Content & Connection*, will provide an opportunity for all of us to discover new ways to infuse technology into other institutions. Over the next generation, intelligent information technologies will eliminate every industrial-era occupation that centers on complex but routine processing of data. America is entering an era of smart machines working independently of people, and people working in partnership with intelligent tools.

The future of education will be radically changed by the emergence of a global market place and the growing challenge and opportunity of diversity.

The evaluation of advanced technologies for teaching, learning and management will develop new paradigms for education.

Valencia Community College is committed to being in the forefront of technology and education.



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Valencia Community College has changed dramatically over the last 25 years. When the college opened in 1967, no one envisioned the extent to which computer technology would permeate every aspect of college operations. Back then, payroll records were written by hand in a spiral-bound notebook bought at the dime store.

Today Valencia has become a "house" in the "global village." It is exchanging computer-based information with facilities statewide, nationally, and internationally. Advanced technology enables a big college like Valencia to maintain a personal touch. For instance, letters are automatically generated to students letting them know their academic progress at midterm.

Valencia was the first community college in Florida to use a new computerized financial aid system. This system, now employed across the state, lets students learn almost instantly the amount of aid for which they qualify.

With telephone registration, students can skip a trip to campus by registering and paying for classes by telephone in less than four minutes.



Valencia libraries have undergone nothing less than a computer revolution.

Electronic reference databases have replaced old index-card catalogs. Students have electronic access to the holdings at UCF and the Orlando Public Library.

Computer technology also takes Valencia to the forefront of one of the hottest issues in education: accountability. The new VALSTAR (Valencia Longitudinal Student Tracking and Reporting) system tracks student progress and helps answer the question: "How well are we doing?"

VALSTAR

The VALSTAR system is a computer-based longitudinal tracking system developed by the college to enable students to be tracked throughout their career at Valencia. Students are followed semester-by-semester from their first term at the college through graduation. The VALSTAR system provides for detailed analysis of which courses students "stop out" during the college career, and retention rates. VALSTAR research results play a central role in the college's Comprehensive Development Plan.



TRANSTAR

The TRANSTAR system is a companion to VALSTAR and is being developed in cooperation with the University of Central Florida. TRANSTAR is a cohort-based longitudinal tracking system for Valencia's transfer students who enter UCF. Since nearly 90% of Valencia's A.A. graduates attend UCF, TRANSTAR provides a very powerful tool to student performance of transfer students in their upper division study, bachelor's degree graduation rates, transfer retention rates, and course taking patterns. The system tracks Valencia transfers as well as UCF native students (those first time in college freshman who started at UCF and continue into the upper division), and UCF other major feeder community colleges.

CAISYS

The CAISYS (pronounced "cassie") system is an interactive video (IVD) - computer controlled system designed to provide information to current and prospective students about Valencia and the University of Central Florida. The system was developed as part of a \$2.5 million federal cooperation grant to Valencia and UCF. Valencia staff are currently pilot testing the system which will eventually be placed on both the Valencia and UCF campuses, as well as all high



schools in Orange and Osceola counties. CAISYS combines text, computer graphics, video and sound to produce an extremely user friendly information access system that only requires the user to touch the screen to get appropriate information. The system may be thought of as an "orientation system in a box."

VISTAS

VISTAS is a mainframe access system that utilizes the existing telephone system and a personal computer on a professor's desk to provide access to a wealth of information. Professors and staff can directly access student records, class rolls, personnel directory and other information from their own offices. The system is especially useful during student advisement, since a student's past course taking performance is only a few key strokes away.

LINCC

Run from a mainframe computer, the system links all 28 of Florida's community college libraries to create a state-of-the-art electronic card catalog system. Linco not only locates titles quickly and easily, but tells the student on which campus the book is located. When a book is not located at Valencia, Linco tells where else



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it may be in the state, including the entire state university system as well as other state community colleges. More than just a card catalog, LINCO also provides access to an electronic encyclopedia and the ERIC data base.

CURRICULUM DATABASE

Valencia's curriculum database contains all courses and course descriptions as well as review status, pre- and co-requisites. The database make revisions of the college catalog much more quickly and painlessly than the old paper-based system. The database is updated after each curriculum change and is thus always current and available to provide the latest course information even though the college catalog becomes outdated well before it is replaced by the next edition.

INSTRUCTIONAL PERSONNEL DATABASE

The instructional personnel database contains credentialing information for all faculty, full- and part-time who teach at the college. Reports available from this database each term ensure that properly credentialed faculty are assigned to the current courses. The system can combine data from other institutional databases, including the master schedule of courses and the payroll database to provide custom reports for use by department chairs and others, as needed.



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HONORS STUDENT DATABASE

Valencia's nationally recognized Honors Program maintains an extensive database on all Honors students. The database contains detailed information of 700 or so honors students each term, and enables efficient monitoring of student progress toward an honors degree or certificate.

MENTORING DATABASE

Valencia's mentoring program for high-risk students has led to a dramatic improvement in retention rates for those students in the program. The database matches potential faculty mentors with prospective students.

ELECTRONIC TRANSCRIPTS

Valencia developed the capacity to sent and receive transcripts via electronic transmission through the Florida Information Resource Network. Electronic transcripts greatly increase the speed and transcript transmission and evaluation.

UCF-VALENCIA LINKAGE

A unique linkage of the Valencia and the UCF student databases has been developed that enable appropriate faculty and staff to actually pull up student records from the neighboring institution. This greatly increases the accuracy and



case of advising transfer and/or transient students.

INSTRUCTIONAL COMPUTING

Valencia maintains extensive instructional computing capability on the campuses. These facilities include provisions for student use of IBM-compatible and Macintosh computers, local area networks, desktop publishing, CAD, and a highly successful computer training program for disabled individuals.

FACULTY TRAINING

Numerous faculty workshops have been developed and offered to assist Valencia faculty in effectively utilizing technologies to improve their ability to teach a wide variety of topics to their students. These programs have included a "Technology Fair" for all faculty during the fall opening day's activities, workshops for students and faculty in utilizing the various computer-based databases housed in the learning resource centers, and small group training in utilizing technologies like graphing calculators and projects. Individualized training has been provided in utilizing the VISTAS data as well as group sessions on using network-based software to assist in the teaching of composition.



ENTERTAINMENT

In 1989 Valencia established The Institute for Entertainment Technologies. Joining an already established theater entertainment technology program, Valencia inaugurated the film production technology program with assistance from both Disney/MGM and Universal Studios. Currently Valencia Community College students are employed as technicians in major areas of film production.

HEALTH CARE

Valencia has joined with ORMC and developed five imaging programs to train medical personnel in the latest imaging technology.

SOLAR Student On-Line Advisement and Articulation System

SOLAR, a Student On-Line Advisement and Articulation System, was developed as a part of The Florida Career Information Delivery System FCIDS by the State Board of Community Colleges. The SOLAR file contains information detailing the requirements a student must consider when planning to transfer from a community colleges to a state university.

As of 1992 the data from the on-line Florida Resource Information Network



(FIRN) is available to all state universities and community colleges through MICRO-SOLAR.

MICRO-SOLAR, an IBM PC version is easily accessible and user friendly. Students, along with counselors and faculty, can readily obtain requirements necessary to consider when planning to transfer from a community college to a state university. The information includes classes to be taken at the community college and applied toward graduation from the university. The community college enters equivalent prerequisite courses required for a particular major. The university then checks the data and codes it so that a student can immediately determine if the course is required or recommended for admission to a particular major.

In addition to specific majors, ALL university counseling manuals are in MICRO-SOLAr and all information is updated yearly.

MANUFACTURING

Valencia serves as the lead institution for Central Florida's Manufacturing
Technology Transfer Center. Florida's manufacturers need help now more than



ever as defense contracts are reduced.

Many of the smaller companies in the defense supplier base are reorganizing to seek commercial business and are emerging as world-class competitors in Florida's growing manufacturing export community. They are updating their manufacturing processes using world-class quality standards; installing new design capabilities for rapid prototyping and product development; and installing electronic data interchange capabilities to enable them to network with the larger companies as preferred suppliers.

These concepts, along with Computer Integrated Manufacturing, are taught in Valencia's "teaching factory," which emphasizes the need for strong academic skills as well as technical job skills that can be demonstrated by our students to their prospective employers. In 1990 our Computer Integrated College Manufacturing program won the U.S. Secretary of Education award for the most outstanding technical training program in the Southwest.

Valencia's technology transfer team also works with manufacturers to help them incorporate state-of-the-art methods into manufacturing. These technology transfer and on-site training activities contribute to economic development within



our region. As you will appreciate, the application of new technologies in industry requires the education and training of the workforce to achieve true manufacturing productivity gains.

