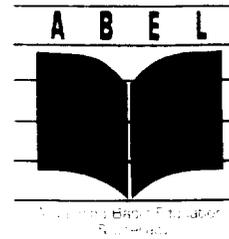


Academy for
Educational
Development

AED



**"Summary Report on
Digital in the K-12 Marketplace"**

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Introduction

Digital Equipment Corporation is pleased to submit this summary of activities and capabilities in the Primary/Secondary School Market to the Academy for Educational Development (AED).

Digital's experience in the K-12 market spans a period of over 30 years, from the success of the low-cost batch and time-sharing systems pioneered by the workhorse PDP-8 ('EDUsystems') in the late 1960s and early 70s, to today's extensive range of sophisticated administrative and curriculum management tools outlined in this paper.

Digital's commitment to the K-12 market worldwide starts with dedicated education sales and marketing specialists in over 144 offices in 70 countries around the world. This commitment to sales and service is backed up by one of the industries most experienced industry marketing teams, and a corporate commitment to helping K-12 school districts exemplified by Digital's Education Investment Review Board and K-12 Committee, described in this report.

As this paper summarizes, Digital's experience and commitment includes working closely with several of the world's largest K-12 districts and consulting organizations.

We hope this report and accompanying documents serves to stimulate ideas for ways Digital Equipment Corporation may serve your specific needs.

TONY DICENZO
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June 1990

Digital and K-12 education - A history of Collaborative effort

Digital's current involvement in K-12 education is based on a long history of collaborative involvement and financial support of efforts designed to pave the way for an enhanced application of computers for teaching and administration.

A complete list of projects would not be possible to present in a summary fashion. Rather, this section describes some of the more innovative and important collaborative efforts between Digital and K-12 education over the years, leading up to the present.

We offer them as examples of ways Digital and AED may eventually work together.

The HUNTINGTON PROJECT

(Late 1970s)

Under the leadership of Dr. Ludwig Braun, the Huntington Project pioneered the development of case studies or 'simulations' of historical events and physical systems using general purposed computers of the era (PDP-11) in an interactive mode. THE work was partially supported by Digital Equipment Corporation, and funding was made available by Digital for the publication, distribution, and subsidized purchase of HUNTINGTON SIMULATION MATERIALS.

PROJECT COFFEE

(French River Education Center, Oxford, Massachusetts, 1980-89)

Project COFFEE (Cooperative Federation for Educational Experiences) is a drop-out prevention/reclamation program which target's 'at risk' secondary school students whose academic history includes grade retention, truancy, high absenteeism, and disruptive behavior. The curriculum components include basic skills, occupational education, group and individual counseling, pre-employment education, daily living skills, experimental learning and computer-assisted instruction.

The program has had an 85% success rate with students and has received numerous distinctions including being twice validated by the U.S. Department of Education's Joint Dissemination review Panel; recipient of the Presidential Citation for Private Sector Initiatives; demonstrator program of the National Diffusion Network; and validation by the Special Education Department of the Massachusetts Department of Education.

Other projects in which Digital is involved at Project COFFEE include the Computer Bus, a mobile computer laboratory which provides training and equipment to schools and agencies serving the

disadvantages in the New England region; Project 50/50, a two-week summer program designed to increase students computer literacy, self esteem, and subsequent enrollment in math, science, and technology courses; YOUNG PARENTS INITIATIVE PROGRAM, a 40-week training program providing basic skills, occupational education, counseling and job placement services for drop outs and pregnant teens.

Digital's support on Project COFFEE has included equipment and cash grants, consulting, and staff training.

PROJECT TERC INTERNATIONAL TELECOMMUNICATIONS NETWORK FOR SCIENCE AND MATHEMATICS EDUCATION

Project TERC (Technical Education Research Centers, Inc, Cambridge Massachusetts) is pioneering work in 'Network Science', an approach to teaching science and math that creatively combines technology with hands on experience. During the past two years, over 54,000 students and 1,500 teachers in Project TERC's Star Schools and LabNet projects have actively engage in cooperative investigations with other students around the world using telecommunications. Students and teachers tackle real problems and collect data in areas such as acid rain, water quality, radon, and solar energy. Classes send data via the network to a MicroVAX, provided by Digital Equipment, where the findings are pooled and the combined results sent back to all classes. Through electronic mail, students and teachers discuss and analyze the results with other classes and with professional scientists worldwide. Digital has provided funding for this project in collaboration with the National Science Foundation, The U.S. Department of Education, and the Higher Education Community.

[An article from EDU MAGAZINE describing Project TERC may be found in the appendix of this report.]

Project KITES, Kids Interactive Telecommunications Project by Satellite

Begun in 1989, KITES is a cooperative international telecommunications partnership involving the University of Lowell, Digital, VideoStar Connections, Inc, PanAmStar, and several public educational institutions.

Eighth graders in the greater Lowell Mass area are participating in 90-minute interactive video links with peers at the Nebenius Realschule in Karlsrue, West Germany, to exchange views on environmental science issues.

Digital supports Project KITE with funding, consulting, and the use of its worldwide Digital Video Network (DVN) located in Bedford Mass. other resource contributors include VideoStar Connections, PanAmSat, the German Bundespost, and television professionals in Boston and Palo Alto, California.

Merrimac Education Center

Since 1987, Digital has provided funding and support to the Merrimac Education Center, a consulting and research organization located in Chelmsford, Massachusetts, dedicated to developing high-quality services that facilitate school efforts to bring about educational improvement. MEC's strategic focus is on identifying the changing needs and trends of school systems, both small and large, and offering programs and services that support a customized, integrated response to identified needs.

Among their many initiatives is a project called the School Superintendents Network. This project, involving a consortium between MEC, Digital, the Massachusetts Department of Education/ Bureau of Technologies, and 14 Massachusetts superintendents, is designed to pilot and refine networking solutions customized to the primary roles of educational administration and curriculum.

[A packet of information describing MEC and its programs may be found as an appendix to this report]

ALBERTA DISTANCE EDUCATION PROJECT

(1987-1990)

The Alberta (Canada) Distance Education Project is an effort by Alberta Department of Education to ensure program quality for all students through the development and implementation of educational policy, principles, and long-term strategic planning in the province. The immediate priority of the project is being placed on two distance education initiatives that have the potential to guarantee quality education for all students in small, rural, remote communities across Alberta.

The first project, the Distance Learning in Small Schools project, initially involved 13 schools, expanding to 28 schools in 16 jurisdictions by December 1988. The project involved delivering Alberta Correspondence School (ACS) curriculum materials and distance learning/tutor/markets, using a variety of equipment including FAX, telephone, computers, and satellite equipment to do teleconferencing and computer conferencing.

The second project, DISTANCE LEARNING PROJECT NORTH, is involving 12 school jurisdictions in northwestern Alberta Canada. and deals with Computer managed learning. It involves the close cooperation of the private sector, including Digital Equipment Corporation and solutions partner Campus America/Computer Based Training Systems.

[An article describing both projects may be found in the appendix of this document.]

Summary of Digital's current products for K-12 education

Digital Equipment Corporation manufacturers, sells, and services a complete line of computing equipment, ranging from personal computers compatible with the IBM-PC(TM) line of personal computers, to the mainframe class of computers exemplified by the VAX family of computer systems, to a family of high-performance RISC architecture DECsystems.

VAX Family members include:

- * VAX 9000
- * VAX 6000
- * VAX 4000
- * VAX 3800
- * VAX 3000

DECsystem family members include:

- * DECsystem 54xx family of high-performance multi-user RISC computers.
- * DECsystem 3xxx, and 5xxx family of high-performance RISC workstations.

List prices range from \$5,000 to several million, depending upon number of student/administrator seats and configuration.

Over 50,000 VAX computers have been installed in education institutions worldwide since 1978.

Digital complements this line of general purpose VAX and RISC computers with a comprehensive family of peripheral products (disks, terminals, printers, etc), local and wide-area networking and communications products, and an extensive line of Digital and third-party developed off-the-shelf application software, to fit virtually any users requirements.

Digital and third-party software designed specifically for the K-12 marketplace include:

Campus America/CBTS Computer-Managed Learning System

This VAX-based system provides comprehensive computer management of individualized curriculum and individualized testing. Offered by Campus America, Inc. of Knoxville Tennessee.

Digital's K-12 Committee and Corporate Contributions effort

As defined earlier in this report, Digital seeks to leverage its resources by acting as a catalyst in key projects around the world, complementing and inviting participation of other companies and agencies.

In addition, Digital's employees, through it's respective boards, facilities, and local offices, participate in many worthwhile projects benefiting K-12 education.

Guiding the effort are Digital's Education Investment Review Board and Corporate Contributions Committee, established by Digital senior management to provide corporate leadership to Digital's efforts to assist K-12 education however possible, on a worldwide basis. Integral to this is a permanent K-12 Committee of senior managers from across the company.

Examples of the projects for 1989-90 have included:

- a Developing an Engineering Teacher training program, designed to help selected employees in developing the skills necessary to become effective K-12 teachers, and providing financial support during the transition.
- o Hosting four of the Christa McAullife Educators, selected by the National FOundation for the Improvement of Teaching, for a 'Day at Digital'.
- o Meeting with representatives of the Carnegie Foundation for the ADVancement of Teaching for a half-day session of trends and issues in Urban education and areas in which corporations can make a difference.
- o Presenting Digital's programs in support of K-12 education at a National Research Council conference on Mathematics Education.
- o Representing Digital in the School-Business Partnership Committee, an advisory board to the Commissioner of the Massachusetts Department of Education.

Digital in the International Education Market

Digital is organized internationally into three geographic divisions, each having dedicated sales, marketing, and service staff. These divisions are as follows:

U.S. Area - Serving the United States.

European Area - Serving the expanded European Community, the Middle East, and Africa.

General International Area - Serving Canada, Japan, the South Pacific, Asia and the Far East, and Latin America and the Caribbean.

Each area is served by an Education Industry Marketing Manager, and dedicated sales and service groups.

Digital serves both the Higher Education and the K-12 market in each of these regions.

Digital's Education Initiative

Sensitive to the financial demands placed on education institutions by a rapidly changing technological environment and changing worldwide economy, Digital is committed to helping educational institutions at all levels and in all countries of the world to purchase and maintain comprehensive, state-of-the art computing facilities.

Key to this is Digital's 'EDUCATION INITIATIVE PROGRAM', a comprehensive program of support designed to substantially bring down the up front and hidden costs of technology.

Digital's EDUCATION INITIATIVE addresses three areas:

- * Purchase of Computing Equipment
- * Equipment Services
- * Faculty, Staff, and Student training.

Included in the EDUCATION INITIATIVE are the following programs.

[Note: Please consult your regional digital sales and service representative for exact details of the programs for your country.]

Campuswide Software License Grant Program

Digital's Campuswide Software License Grant (CSLG) Program provides software licenses for over 120 VAX software products to schools at significant savings. Institutions are offered a campus-wide license. The software may be used for both academic and administrative use. Included are both systems and applications products in a variety of application areas. The CSLG library provides an excellent opportunity to obtain state-of-the-art professional quality software for institution wide use at the lowest possible prices.

Education Software Library

Digital's Education Software Library (ESL) provides telephone support for a subset of the software included in the CSLG program. Institutions set up an on-campus support center and provide a level of call-screening and self-help. Digital backs up this support group with professional software services support from its regional software support centers worldwide.

[A data sheet on the Education Initiative can be found as an appendix to this report.]