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Project LOCAL

by leroy finkel

Background

Project LOCAL has been around since 1967. It is one of the more successful secondary school consortiums or cooperatives. LOCAL received some national acclaim a few years ago when someone at Westwood High School did a controlled test of second year algebra students and demonstrated that students who learned algebra using flowcharting techniques and computers, increased their scores on an abstract reasoning test by 17.2% and S.A.T. scores by 7.5%. This was first reported in *PTA Magazine* and subsequently reported in *Reader's Digest*. Since that early notoriety, LOCAL has grown and grown and grown. Thanks to Bob Haven and Pam Ellsworth, who submitted the material from which we have prepared what follows.

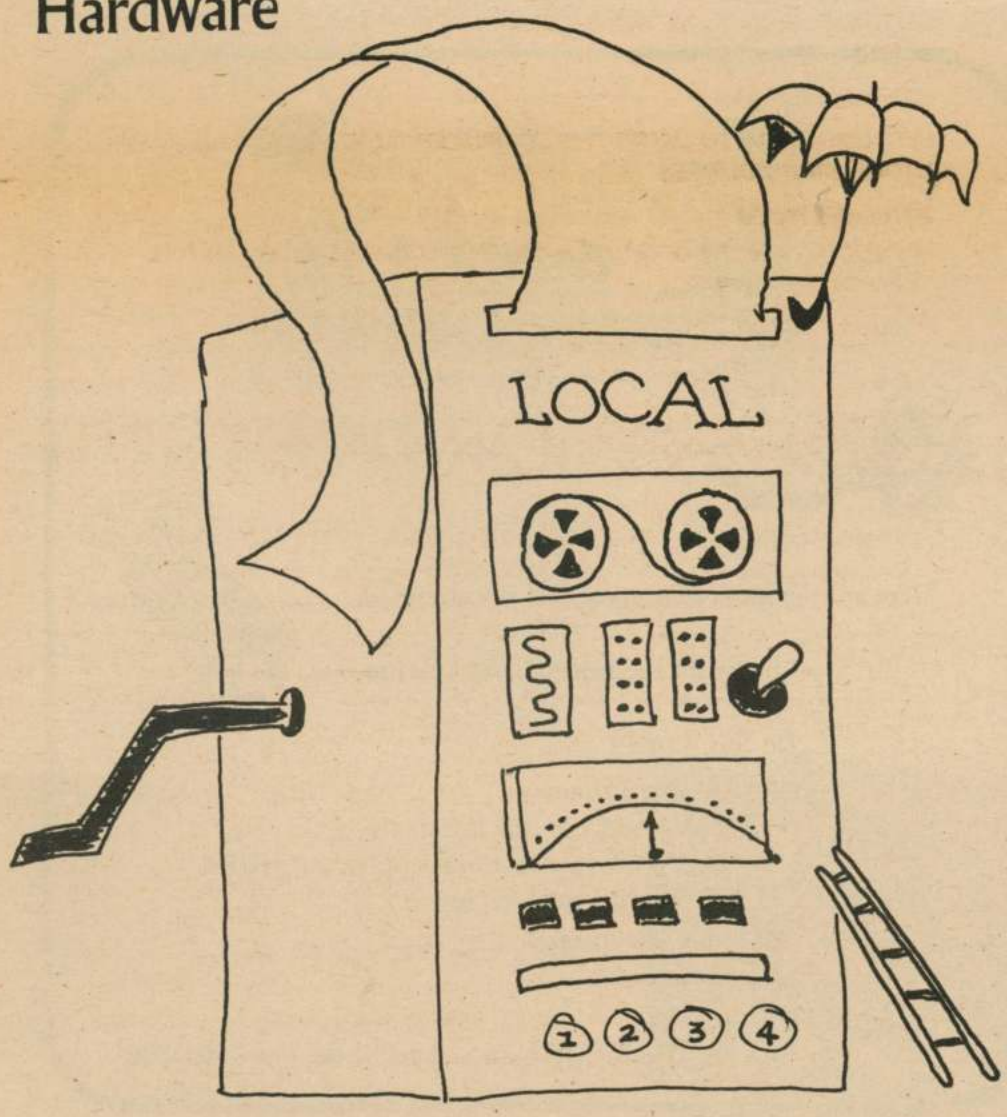
What

Project LOCAL is a non-profit corporation set up to facilitate cooperation in performing the functions necessary to support computer-oriented education. Its membership includes the Towns of Lexington, Natick, Needham, Wellesley and Westwood (Massachusetts), some services are provided also to non-member towns and to individuals.

Who

Policy is set by a Board of Directors consisting of the superintendents of the five member systems. The staff consists of Bob Haven, Director, Pam Ellsworth, Curriculum Specialist, and Kay Olson, Executive Secretary. Teachers are employed as necessary to write resource materials and textbooks and to conduct in-service training and evaluation work. The staff works closely with a School Coordinator in each of the five member systems.

Hardware



"The hardware set-up differs from school to school. Six of our schools have DEC Family-of-8 computers with the number of users varying from 6 to 20. The systems are disk-oriented and operate mainly in the BASIC language, although two of them have multi-language capabilities. At this time, the 33 ASR Teletype is the main input/output device used. The Lexington system does have a line printer, DECtapes, and a card reader which they use for both instructional and administrative purposes."

Looking Ahead

Looking ahead somewhat, Project LOCAL hopes to establish its own regional educational computer center sometime in 1974. The plans being considered call for two large mini-computers (if there is such a thing . . .?) capable of serving over 50 stations. One machine would be equipped with: (1) one of the fullest implementations of BASIC available; and (2) for elementary schools, the LOGO language and program control of devices such as "turtles", music boxes, and plotters.

Services

In-service Training for teachers and administrators affords the best means for showing the educational potential of the computer and the ways to realize this potential.

- 18 different courses in several different disciplines cover topics not covered by local university curricula.
- Faculty consists of persons with many years of training and experience in computer-oriented education.
- Tuitions are well below those charged by local colleges.
- Courses are held in locations more convenient than most college campuses.

Document and Computer Program Library provides back-up support for teachers preparing courses and for administrators charting new directions..

- One of the most extensive collections in the U.S.A. of textbooks, reference books teaching units, technical reports, periodicals and computer programs related to computer-oriented education; especially notable for materials directly applicable to real classroom situations.
- Effective retrieval of the right materials made possible by subject indices for individual staff members, monthly "briefs" summarizing the best computer teaching applications in several disciplines and a card catalog organized alphabetically by concept to be taught.
- Convenient access realized by "phone-up" orders for documents and direct delivery to schools.

Costs Per Pupil are reduced to levels usually realized only with very large student bodies (costs to members for individual services are 20 to 55 per cent less than from other Boston-area sources).

- Non-profit status makes all resources available to school systems at cost.
- Low overhead promotes maximum efficiency.
- Bulk purchasing confers the economies of quantity discounts.
- Primary resources (hardware, personnel, libraries) serve a large student population, thereby greatly reducing the unit cost of these expensive items.

Full-time Staff Consultants give the needed helping hand that makes the difference between a mediocre educational computer program and one which really fulfills objectives. It should be emphasized that this type of service is free to consortium members.

- For the neophyte computer user, someone who is always on hand to answer questions and help with those sure-to-arise difficulties, brought on by inexperience, which usually turn out to be minor but which loom so large to one who is just getting started.
- For the experienced computer user, someone who can give stimulating suggestions for new approaches, additional expertise in areas where there are "blind spots", and assistance in analyzing hardware and software difficulties.
- For the department head and administrator, someone to help in analyzing needs, designing computer applications to fulfill needs, determining resource requirements, selecting and acquiring hardware, and implementing the applications designed.
- LOCAL personnel have many years of experience in all phases of computer use in both education and business.

Responsiveness, Quality and Reliability of Services assured by five years of successful experience at providing services to schools engaged in computer-oriented education; that experience includes the following notable accomplishments:

- The number of users of computer facilities in LOCAL schools has increased from eight teachers and 250 students in 1967 to over 100 teachers and 5,000 students in 1972.
- Member schools have added to the scope of their computer use new applications such as drill and practice, simulated laboratories, laboratory support, and clerical support for individualized instruction. Moreover, new subject areas have been added, including chemistry, physics, social studies, biology, and language arts. Four elementary schools have begun to use the computer in teaching.
- Five different evaluation studies of the effects of computer-oriented instruction in student achievement, attitude, and problem-solving skills have been conducted in LOCAL schools. Four of these studies found improvements attributable to computer techniques.
- The LOCAL staff planned and coordinated the installation of five time-sharing systems; the staff has assisted in operating and expanding these installations and has administered time-sharing services to eleven schools outside the LOCAL membership.
- The LOCAL staff conducted studies to determine the feasibility of:
  - *using individual towns' computers as the basis for administrative data processing;*
  - *using one town's computer as the basis for a regional data processing center; and*
  - *using members' computers to fully automate a clerical support system for individualized instruction.*

Reports of these studies are available from the project office.

The LOCAL staff designed and implemented the following computerized systems;

- *an attendance accounting system;*
- *an information retrieval system useful in administration, educational research, and hypothesis-testing in science; and*
- *an automated test scoring and reporting system to support individualized instruction.*

LOCAL has trained over 350 teachers in the Boston area in computer-oriented teaching in math, science, and social studies.

The LOCAL staff has helped to originate and stimulate the growth of area organizations for educators interested in computers, especially BIT (BASIC Information for Teachers) and MEDPA (Massachusetts Educational Data Processing Association).

LOCAL has published eight different books, one of which is a programmed text for teaching computer programming used by schools, hospitals and companies all around the U.S.

LOCAL has received international recognition as one of the most significant projects working in the field of pre-college computer-oriented instruction.

WANTED: More information on networks, schools, groups, whoever, getting together to share a computer resource –