

THE CHILDREN'S MUSEUM

Some of the things that have become most popular in the past eighteen months include a tic-tac-toe program and a Museum developed binary-search number-guessing game called YOGUESS on DTSS, and a whole network of LOGO programs that include a simple visitor/computer conversation, games like a computerized Fanny Dooley (who loves books but can't stand reading . . . do you know why?) and the following game called MADLIBS —

MADLIBS

DO YOU KNOW HOW TO USE MAD LIBS? YES
DO YOU KNOW ABOUT NOUNS, VERBS, ADVERBS, AND ADJECTIVES? YES
O.K. , YOU NOUN-KNOWERS, HERE'S YOUR MAD LIB:
PICK A NUMBER BETWEEN 1 AND 2

*2

NOUN: COMPUTER

A PLACE- THE UNITED STATES

A NUMBER- 5432

A LIQUID- ORANGE JUICE

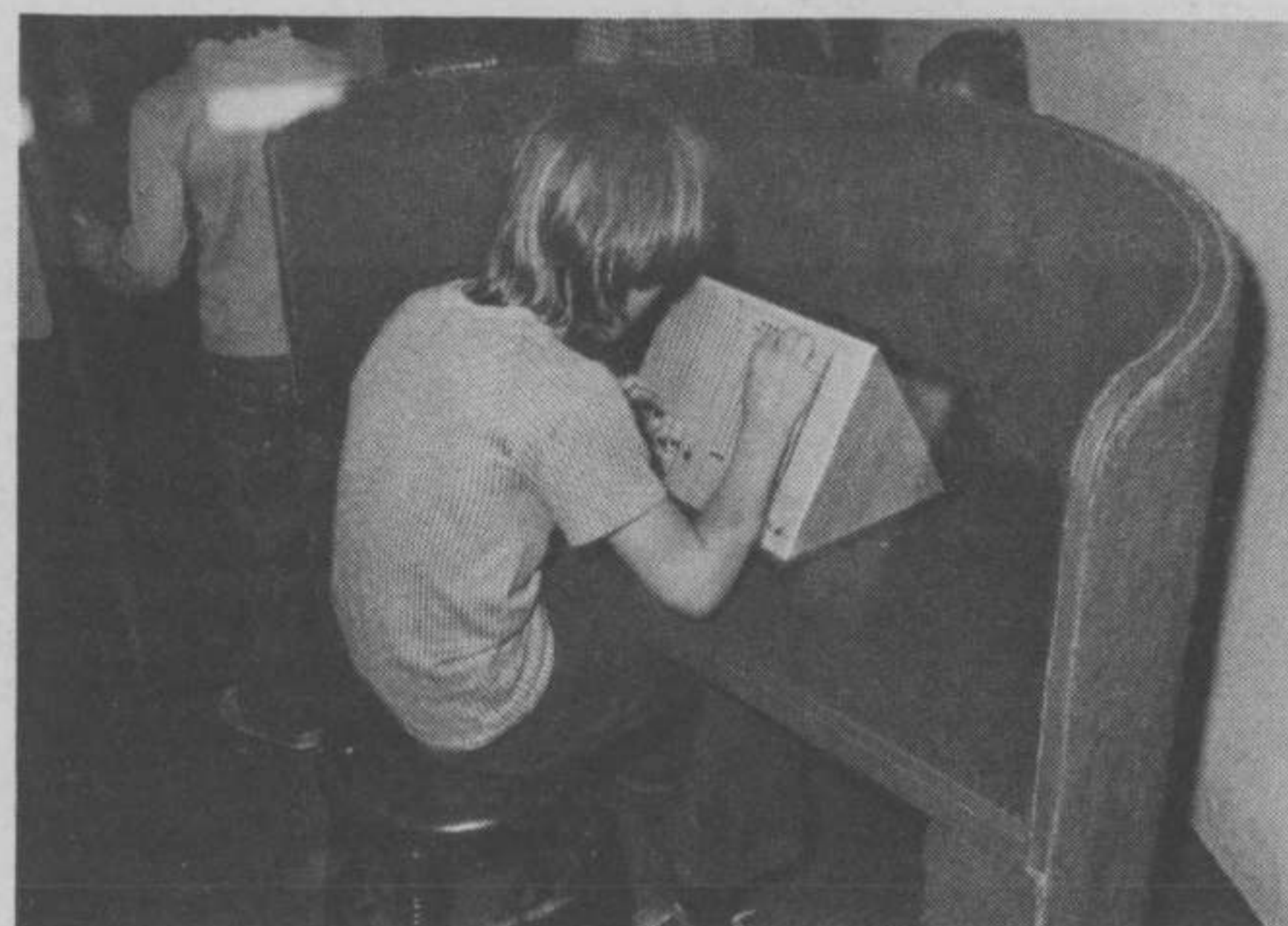
THE TITLE IS A NEW LAW.

IT WILL BE UNLAWFUL TO OWN A COMPUTER OR CARRY
A CONCEALED COMPUTER WITHOUT HAVING A
COMPUTER LICENSE. THE PENALTY FOR CARRYING A
COMPUTER WILL BE THIRTY DAYS IN
THE UNITED STATES OR A FINE OF 5432 DOLLARS.
THE PENALTY IS DOUBLE IF THE PERSON IS ARRESTED
WHILE UNDER THE INFLUENCE OF ORANGE JUICE
THAT'S ALL

Though it sounds like just a lot of fun, the Children's Museum's involvement with computers is based on some really serious problems. Among them: 1] most people have very inaccurate conceptions of what computers are and what they can do; 2] many people (especially adults) feel an increasing level of dehumanization and fear as an outgrowth of expanded and often insensitive use of computers by government, business, industry, and the educational system; and 3] most of these feelings and conceptions are a direct result of the inaccessibility of computers for "average" people.

To date, over two hundred and fifty thousand people have visited the Museum's computer place. About 60% of them are children under the age of 15; the remainder are adults who often seem to hitch a ride when their children visit the Museum and who can therefore use the Museum as a comfortable, non-threatening source of information for their own needs.

The Children's Museum's Visitor Center is well-known in education circles for its development of exciting, self-directed "beginnings" — experiences designed to turn people on rather than teach them in the formal sense of that word, and its Computer Center is designed for the same sort of activity. "We do not teach programming," 21 year old Bill Mayhew, who withdrew from MIT a year or so ago and now coordinates the development and directions of the Computer Center, remarks. "There are other places that can do that better than we can."



photos courtesy Children's Museum

The people who work in the exhibit space are responsible for its day-to-day operation and for observing what happens in the exhibit, for generating new ideas of things to try, and for helping each idea become a reality. They are college students from schools across the country with work-study programs, usually with no background in computer technology, who come to Boston for three month terms at the Museum. "Having people like that is particularly useful when it comes to things like making the equipment self-running and usable without the need for trained staff intervention and supervision, providing the visitors with the opportunity to use the machinery directly, all by themselves," Bill claims.

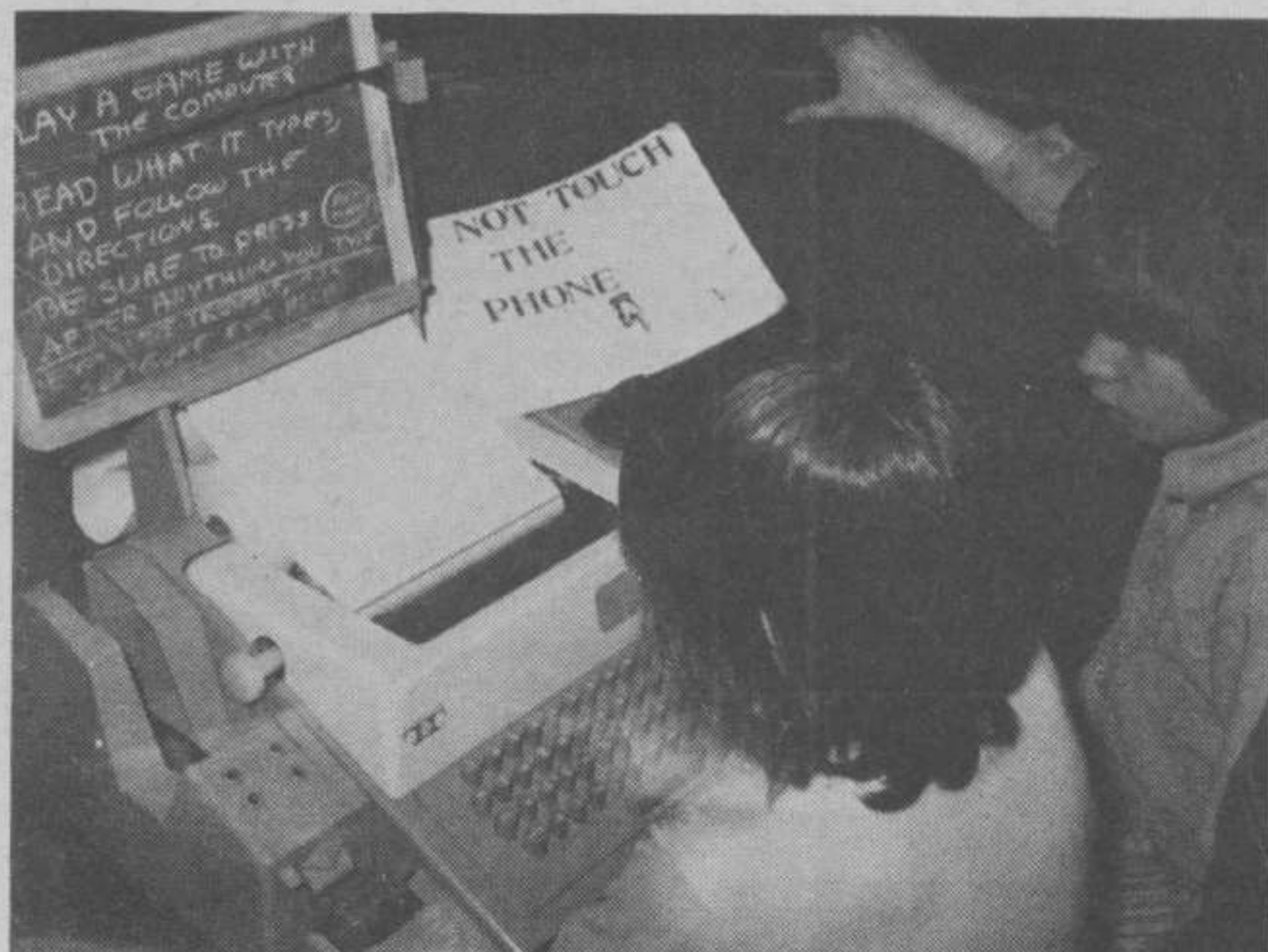
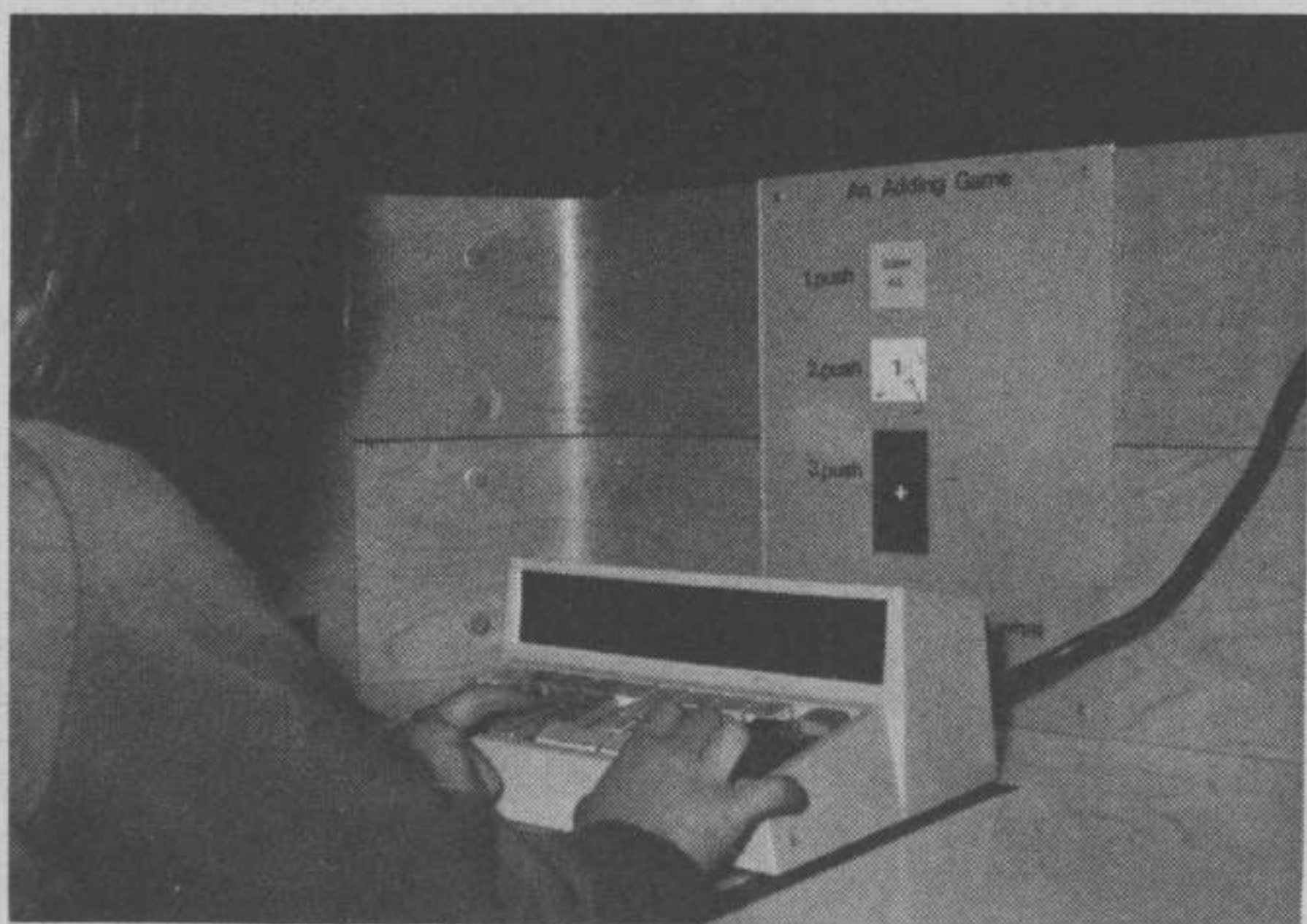
The Computer Center is open to the public during the Museum's normal hours, Tuesday through Friday from 2 to 5 PM, Saturday and Sunday, Boston Public School holidays and vacation days from 10 AM to 5 PM, and Friday nights for free from 6 to 9 PM. (Admission to the Museum at times other than Friday night is \$1.50 for adults and \$0.75 for children 3 through 15; there is no additional charge for use of the computer facility.) School groups from throughout New England come Tuesday through Friday mornings for special introductory programs, and special education groups come on Mondays.

Bill's hopes for the future of computers at the Museum hinge on obtaining foundation grants and donations. Right now, the facility costs \$4500 per year to operate and maintain, and there is no money left for trained staff support or new equipment. Bill is very much anxious to explore ways of diverting money from equipment to people . . . "sort of the opposite of what most people seem to be doing nowadays."

A long-awaited and much-haggled-over proposal to the National Science Foundation was recently rejected. "That was a big blow to us, especially since we had been getting estimates of success ranging as high as 95% from people who knew NSF. We think the big reason for the rejection is the econopolitical situation in Washington. We hope to resubmit in June — meanwhile, we have a proposal in to the National Institute of Education, and we're writing a small pilot-project one for the Sloan Foundation. As far as we can tell, no one in North America is doing anything quite like what we're trying, although Seymour Papert's work at the LOGO Project at MIT, Resource One in San Francisco, and several other places are doing pieces of it."

Bill says that the Museum is always interested in helping other people get started, "and in getting help for our own work," and suggests that interested people contact him at the Children's Museum.

The Children's Museum
the Jamaica way
Boston 02130



NICE WORDS ABOUT US

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REVIEWS



AT/L November/December 1972

Brief evaluations of DEC's PDP-8 and Hewlett Packard's 2000 series for educational systems can be found in *THE PEOPLE'S COMPUTER COMPANY*, Vol 1, No. 1, pages 14-15, October 1972.

In *Whole Earth Catalog* fashion, this new newspaper provides straight talk about hardware, software and the computer literature. Experienced bias and imaginative graphics promise interesting reading at a bargain price: \$4 for 5 issues each school year. From: *PEOPLE'S COMPUTER COMPANY*, c/o DYMAX, P.O. Box 310, Menlo Park, CA 94025

Advanced Technology/Libraries is published ten times a year by Becker and Hayes, Inc., Suite 907, 11661 San Vicente Blvd., Los Angeles, Calif. 90049. Subscription rates: U.S. and Canada, \$28/year.

The *People's Computer Company* is a newspaper published 5 times during the school year. It is "about having fun with computers and learning how to use computers and how to buy a minicomputer for yourself or your school and books...and films...and tools of the future." The first issue, published in October, 1972, contains book and film reviews, a description of programs developed by the Huntington Project, computer games, a miniprimer on strings, ways to get the entire school involved in your computer education program, descriptions of hardware, an article about what's wrong with BASIC, ways to repair paper tape, cheap tape winders and writing music in BASIC. As you can see, it's well worth the subscription price of \$4 (reduction on group orders) from *People's Computer Company*, P.O. Box 310, Menlo Park, Calif. 94025.

A bright orange paperback entitled *My Computer Likes Me* (when I speak in BASIC) differs from other manuals or teaching devices in that it is about "people, computers, and a programming language called BASIC." The book is permeated with an attitude about the relationship between people and machines, and it never loses sight of the humanity of the reader. It is full of diagrams and the print varies in size and format to hold the reader's attention. Some of the section titles are "Mistakes," "Sorcerer's Apprentice," and "The Handy-Dandy Super-Versatile For-Next Loop." It introduces files, subscripts, and data bases. There is a brief list of "Books We Like" at the end.

The best features of this book are its exciting, readable format, its suitability for many systems (it mentions as it goes along how your particular system may be different) and its urging of the reader to discover for himself by trial-and-error and experimentation. It is altogether a refreshing experience in a world of stuffy, dull texts.

This book may be ordered from DYMAX, P.O. Box 310, Menlo Park, California 94025 for \$1.19 a copy.

INSTRUCTIONAL TECHNOLOGY February 1973

Girard Associates, Inc.

399 Howard Blvd., Mt. Arlington, N. J. 07856

THE "UNDERGROUND" LOOK OF STARS, CARTOONS AND "MOD" CALLIGRAPHY IS THE SHOWCASE

for the computers-for-fun philosophy of the "People's Computer Company," a tabloid-size newspaper launched last fall by Dymax as a how-to-tool for computer use and minicomputer purchasing. Aimed primarily at teachers of eight-to-18-year-old students, PCC is edited by Bob Albrecht of Dymax on a five-times-yearly basis.

A major plank of the publication is its advocacy of Basic for young programmers, a spin-off of the 1965 Dymax protest against oversophisticated programming for young students which culminated in the firm's organization of The Society To Help Abolish Fortran Teaching (Shaft). Game-type programs included in current issues include advice on what mini they would run on, and changes required for using a different machine. The publication is available for a \$4 subscription from P.O. Box 310, Menlo Park, Calif. 94025.

COMPUTER DECISIONS

published monthly by Hayden Publishing Company, Inc., 50 Essex St. Rochelle Park, NJ 07662.

People's paper: People's Computer publishes this crazy newspaper for folks who are interested in computers and kids. \$4 for five issues. People's Computer Co., Box 310, Menlo Park, CA 94025

DYMAX PUBLISHES BASIC GUIDEBOOK

My Computer Likes Me When I Speak in BASIC is a neat little book published by DYMAX of Menlo Park, Cal. Its purpose is to teach an absolute novice how to use a computer terminal and program in BASIC. It does this in an easy, carefree way and is designed for use as one sits at a terminal.

The book would probably be excellent for a person who has had no kind of experience with a terminal. It won't take him too far, but it will get him started and he will probably have fun! Copies can be obtained for \$1.19 each from DYMAX, PO Box 310, Menlo Park, Cal. 94025.

PUNCHLINE

The Newsletter of LACE

La Crosse Area Computers in Education

University of Wisconsin

La Crosse, Wisconsin 54601

Saturday Review of Education

People's Computer Center. "Gotcha!" cries a twelve-year-old as he "shoots down" an enemy spaceship blipping across a computer screen. Another computer plays football and is on the short end of a 35-0 route at the hands of a dignified middle-aged man. My computer plays "guess a number." I guess three-digit combinations; it signals "bagels" if none of the digits are correct, "pico" if a digit is correct but in the wrong place, and "fermi" if a digit is correct and in the right place. I try five times, and it types, "You got it."

Bob Albrecht runs this workshop. It's much like his People's Computer Center in Menlo Park, which, he hopes, will be a prototype for setting up "friendly neighborhood computer centers" everywhere. "We'd like people to think of us as the local bowling alley—a place to come have fun," says Albrecht. What about the schools? Another workshop leader says nearly a million students in grade school and high school are now getting some part of their education from computers. "A computer can respond moment by moment to the fluctuations of a kid's curiosity," he says. "Kids can learn to program computers as early as fourth grade."

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I had reopened doors into ways of learning that I had shut or that had been closed upon me for years.

Bead Game Music. We begin by constructing cardboard wheels with twelve spokes; on each spoke is a red, blue, yellow, or green bead. It's a musical abacus: push some beads out to the rim and you've got a chord. "This is a way of visualizing twelve-tone music so you know what it's going to sound like as you write it," says Peter Lynn Sessions, Zephyros member, a computer scientist and former rock musician. "With the bead game an absolute beginner can learn to compose twentieth-century music."

JANUARY 1973

Sunflower Source. Mike Young, v looks as if he weighs 180 pounds, le onto a cardboard table and jumps and down. It holds firm. The demonstration is Mike's way of advertising the strength of tri-wall—a three-erred, corrugated cardboard. Close a young woman is using an electric to cut out a table top in the shape a dolphin. Someone else carries a new easel. Mike runs a resource center for teachers ("Sunflower Source" that carries tri-wall, toys, and other supplies for schools.) Using tri-wall Mike says, kids can make themselves what they use in their own classroom. "Teachers have got to get the hell of the abstract and into the physical the kids can see." I decide to make three bookcases. That'll take two sheets of tri-wall at \$2.55 a sheet. *Graffiti scrawled on the "I wish" w. "I wish this was 1947 and Pen Sch was in Marshall, Illinois, and I u going to it."*

While I am still cutting up bookshelves, the fair comes to its close. I am reluctant to leave it, and I realize why: I have reopened doors into ways of learning that I had shut or that had been closed upon me years ago.



Direct all SUBSCRIPTION CORRESPONDENCE, orders, changes of address, etc., to Learning, 1255 Portland Place, Boulder, Colorado 80302.

Learning is published nine times a year, during the school year, by Education Today Company, Inc., 550 University Avenue, Palo Alto, California 94301.

RATES: \$1.25 per copy; \$10.00 per year, \$18.00 for two years; \$24.00 for three years in the United States; add \$06 per year for Canada and \$2.00 per year elsewhere.

1 year — \$9
COMPUTERWORLD • Circulation Department • 797 Washington Street • Newton, Mass. 02160

PCC Uses Free-Style Tabloid Format To Jolt Student, Teacher DP Thinking

By Don Leavitt

Of the CW Staff

MENLO PARK, Calif. — In contrast to many slick-paper pedagogical journals, *People's Computer Company* is a free-wheeling, tabloid-size newspaper that could be mistaken for junk mail at first glance.

But the contrast is perhaps more apparent than real. Sprinkled liberally with stars, arrows, fanciful calligraphy and cartoon figures, PCC (vol. 1, no. 2), still has a substance that belies its "underground" appearance.

ance.

The paper was started last fall by Dymax, a teaching and software firm, to help readers learn

Education

how to use computers, and how to buy minicomputers. It also lists books, films and music and "tools of the future," all with some relationship to computers.

But more than anything else, "editor" Bob Albrecht ex-

plained, PCC is a newspaper about having fun with computers. They needn't be, and shouldn't be, objects of fear, especially to the eight- to 18-year-old students, and their teachers, to whom PCC is primarily addressed.

PCC and Dymax generally advocate the use of Basic for the youngsters and several game-type programs are in the current issue. The authors indicate what mini the programs run on and, in some cases, what changes would be required to put it on a different machine.

As long ago as 1965, Dymax organized a group to protest oversophisticated programming for schoolagers, and the Society to Help Abolish Fortran Teaching (Shaft) is still active. A major portion of the current issue is, however, devoted to a serious if somewhat rambling "polemic" explaining what author Marc LeBrun sees as flaws in Basic, both as an educational tool per se and as an example of "computer science."

Detailed Pricing

Continuing a presentation started in the first issue, on the Huntington Project funded by the National Science Foundation and conducted at State University of New York at Stony Brook, PCC provides a detailed price list of the simulation programs and related manuals, now being distributed by DEC.

The editors also provide a page of terminal terminology, distinguishing between hardwired, single-user "dial-up," and multiple-user "multiplexed" terminals. But they also illustrate a storage cabinet from Sears which they use for paper-tape storage, and they describe (tongue-in-cheek) how a movie projector reel can be used as a paper tape winder.

Mixed in with such patent nonsense, PCC notes that in the next few issues space will be given to discussions of how to write bid specifications for minicomputer systems for classroom use. The editors intend to describe some of their own experiences in this area, but they are seeking contributions from others.

They are interested in both hardware and software specifications, and expect to identify equipment or programs by name if that is deemed appropriate.

Dymax will publish PCC five times a year, and it is available on a \$4 subscription, from P.O. Box 310, 94025.

Media Mix is published monthly, October-May. One-year subscription is \$5, two years \$9.

THE W. E. S. BULLETIN

Published by Watman Educational Services,

P.O. Box 457, Henniker, N.H. 03242

Issued - Monthly September Thru June

Individual copies - \$1.25

Year Subscription - \$5.00



EDPRESS

A Review of Products - Materials

"My Computer Understands Me", Dymax, P.O. Box 310, Menlo Park, California, 94025, 60 pp., \$1.19. Schools that offer courses for students in programming will be interested in this highly understandable instructional booklet. The booklet instructs students in the use of the programming language called BASIC. For those schools interested in relevant materials "My Computer Understands Me" has the added advantage of instructing students in BASIC through the medium of population problems. A good buy.

DATAMATION

DATAMATION is circulated without charge by name and title to certain qualified individuals who are employed by companies involved with automatic information handling equipment. Available to others by subscription at the rate of \$18 annually in the U.S. and Canada. Reduced rate for qualified students. Foreign subscriptions are available for \$12.50 or for the equivalent of \$30 U.S. in most West European currencies. Sole agent for all subscriptions outside the U.S.A. and Canada is J. B. Tratsart, Ltd. 154 A Greenford Road, Harrow, Middlesex HA13QT, England.

COMPUTER ACCESS

The Computer Freaks Are Coming...

There have always been high school and college students with an all absorbing interest in cars or electronics or model planes and rockets. Now a new breed of teenager is making a hesitant entrance on the stage - the computer freak. Playing around with computers is almost a cult in certain university engineering schools and in some computer equipped professions.

With schools using computers more and even teaching basic computer courses the computer freaks are bound to emerge. An article in the December 7 1972 issue of *Rolling Stone* gives some practical tips on plugging into the educational computer scene.

MEDIA MIX

145 BRENTWOOD DR.
PALATINE, IL 60067

Dymax, mentioned in the RS article, calls itself a "People's Computer Center" and includes among its services a newsletter "about having fun with computers, learning how to use computers, how to buy a minicomputer for yourself or your school, and books and films and tools of the future." They also have an informal workbook, *My Computer Likes Me*, that teaches BASIC -- an easy-to-learn, general purpose, education-oriented computer language.

MICROGRAPHICS News & Views is published twenty-two times each year by Becker and Hayes, Inc. Editorial and subscription inquiries should be sent to MICROGRAPHICS News & Views, 11661 San Vicente Blvd., Suite 907, L.A., Calif., 90049. Telephone (213) 820-2683. Subscriptions: U.S. and Canada - General Subscriber (\$75/year), Government or Educational Institution Subscriber (\$60/year). Foreign Subscriber - add \$15 to foregoing rates for airmail. A People's Computer Center, offering computer time to the public for \$2 per hour, is opening this month in Menlo Park, California. The system is dedicated solely to the instructional and recreational use of computers and will include: an 8K DEC EduSystem 20 computer with two terminals; a Tektronix programmable calculator, several four-function calculators; and other equipment. The Center will initially be slanted towards youngsters and will feature games that "teach math and are fun." Dymax, Inc., an educational consulting firm, will run the Center.

A similar project for community involvement with new technologies is underway at Evergreen State College in Olympia, Washington. Evergreen allows patrons to borrow videotapes, portapak video cameras, microfilm, microfilm readers, audio cassettes, movie films and projectors. And, next year they plan to circulate *computer terminals*.

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People's Computers

Learning, MARCH 1973

Though touted as superservants designed to relieve us of mental drudgery, computers interact with most of us only as adamant bill collectors. Two organizations in California's San Mateo County, however, are working to make computers more accessible.

The phrase "Dymax Computer Center" conjures up visions of crew-cut men in white lab coats, banks of cathode ray tubes and all the other appurtenances of a futuristic educational technology. In reality, Dymax, or the "People's Computer Center," is more like an "our gang" clubhouse, circa 2001. It's a big, cluttered warehouse, full of posters, electronic circuitry, frayed program punch tapes—and kids.

For all the informalities, Dymax is seriously concerned with the educational uses of computers. Says Bob Albrecht, director of the center: "Dymax was established because too many people are teaching computers to control kids. We want to teach kids to control computers." Drill and practice in a conventional computer-assisted-instruction sense is anathema to the people at Dymax. Instead, they concentrate on developing elementary programming skills in kids as young as 12. The children then use the Dymax terminals for problem solving and for playing games from warfare to economics.

Computer time at Dymax costs about two dollars an hour, less than a tenth of the cost of commercial computer outfits.

A growing number of adults are playing computer games at Dymax along with the kids, renting the terminals in much the same manner as you rent a tennis court or a pool table. Albrecht feels that this kind of recreational use of computers will become a major leisure activity in the next ten years. He is working on plans for a coin-operated computer terminal that may show up in the not-too-distant future right alongside the village pinball machine.

FOR THE PEOPLE

A People's Computer Center, offering time for \$2 an hour, opens this month in Menlo Park, Calif. Open to the public, it's dedicated solely to the recreational and educational use of computers, and will have an 8K DEC EduSystem 20 with two terminals. There'll also be a Tektronix programmable calculator, several four-function calculators, and various gear on temporary loan from time to time. Plans are to rent calculators. The neighborhood, near Stanford Univ., is loaded with coin-operated Space War games in bars, stores and at the San Jose airport. But the PCC, slanted initially to youngsters, will have games that teach math and are fun. There'll also be a 6-week course for kids on Games Computers Play. It's all being run by Dymax Inc., educational consulting outfit that soon begins publishing its own newspaper for teachers.

PEOPLE'S COMPUTER COMPANY

A new concept of computing is spreading, namely, bringing real, live, interactive computing to the masses. Helping this revolutionary idea to spread, i.e., using computers for people and not against them, are Bob Albrecht and Leroy Finkel of the People's Computer Company.

PCC, an open computer workshop in Menlo Park, California, has kids (and adults) in it nearly 24 hours a day, 7 days a week "playing" games with a DIGITAL EduSystem 20. Number games, guessing games, simulations, moon landings, king of Sumeria, and all kinds of mind-expanding games are on tap at PCC. Or, best of all is when kids decide to write their own games—the enthusiasm has to be seen to be believed!!

PCC also puts out a contemporary newsletter called, appropriately enough, "People's Computer Company." Subscriptions are \$4 (check or money order) for 5 issues to:

Bob Albrecht
DYNAMX
P. O. Box 310
Menlo Park, California 94025

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