

# When a Computer Joins the Family

By STEVEN DITLEA

**T**ONY CERRETA, a New Rochelle high school teacher with no previous background in computers, uses his \$1,500 Apple II home computer to balance his check book, operate a motion-detecting home burglar alarm, brush up on chess strategy, and to learn to read music. "It's revolutionized my life style," he said.

Toby Csak, 24 years old, of Bayside, Queens, has made peace with the \$2,000 Apple II that her husband, a programmer, bought for his personal computer.

"It took two weeks for me to get to love the machine," she said. "We spend five hours a night in front of it; it's replaced television. We use it to play games while we eat dinner. We haven't been to the movies in a year."

On the other hand, Melvin Lear, a 32-year-old Brooklyn electrician, who bought his \$600 Radio Shack TRS-80 microcomputer on impulse, is frustrated by the limited number of useful programs available to instruct his machine. "As far as I'm concerned," he declared, "it's just an expensive toy."

Programmable computers that are small enough and inexpensive enough to find a place in the home have been on the market for two years now, and although their practicality as a new-generation home appliance has yet to be demonstrated, they are nonetheless well on the way to being domesticated.

"As intelligent hardware to control appliances and the like, home computers are too expensive," said Mike Fischer, who owns a Radio Shack TRS-80 computer. "For instance, a \$60 thermostat can do the work of a \$600 computer in controlling home energy consumption."

But such a use was not what he had in mind when he bought his TRS-80, which, Mr. Fischer said, was worth his initial \$600 investment plus such other

expenditures as a \$400 memory storage system, a \$1,000 typewriter-like printer and a \$400 vocal synthesizer. (The synthesizer allows the computer to imitate human speech. Type in the symbols H, 3, 8, L, 8, ♠, U, and it says "hello" with a Peter Sellers East Indian accent).

"I wanted to educate my family about computers," Mr. Fischer explained, "because of the importance they'll have in everybody's lives."

His 12-year-old daughter Susan recently entered her school's science fair with a talking calculator program written to allow the TRS-80 to communicate with a blind user. His son Jeffrey, 8, likes to play backgammon with the computer. Mr. Fischer's wife, Wilma, uses the computer to keep track of food discount coupons she collects and to do the accounting chores that come with being a P.T.A. treasurer.

Like many home computer owners, Mike Fischer's work involves computers; he is a programmer for the Federal Reserve Bank. Programming at home is his busman's holiday. For fun, he designs computer game programs, several of which he intends to offer commercially to other home computer users.

Having a programmer around the house is most helpful, since a personal computer is just so much hardware without an instruction program ("software") to guide it through an assigned task.

A program must detail every step in the decision-making chain that characterizes a particular application. Programming is something like composing a giant crossword puzzle in pidgin English. Some programs are available in printed form in hobbyist books and magazines, but typing a complex program into a home computer is a tedious exercise.

In theory, you don't have to know anything about programming to put a personal computer to use. Turn the power on, push a few keys on the key-

*Continued on Page C5*

# When a Computer Joins the Family

*Continued From Page C1*

board, switch on a cassette or special disk player, and a prerecorded program can tell the computer what to do. But because the applications programs on cassette or magnetic disk are expensive and hard to find, many home computer owners have had to learn programming to make proper use of their units. The necessity of learning even the English-like programming language, known in the field as BASIC, is a major obstacle to computers becoming mass-market home appliances.

For this reason, many manufacturers have stopped referring to the current generation of microcomputers as "home" computers. There is no accurate count of how many of the 300,000 personal computers sold to date have actually gone into homes rather than offices and factories. Still, if there is a good enough use for it around the house, a consumer will accommodate the computer.

Larry Alcott, a professional toy designer, learned computer programming in his living room on an Apple II microcomputer attached to his television set. Mr. Alcott, the inventor of "Boggle," which is challenging "Scrabble" as the top-selling word game in the United States, used his computer to test the permutations of "Super Boggle," an expanded version of the game to be marketed this fall.

"My kids are much better with the computer than I am," he said, echoing other personal computer users. Mr. Alcott's son Peter, 15, prepares for history tests by answering questions he's programmed into the computer. Another son, Alexander, 12, writes his own programs with a fluent knowledge of BASIC.

"They can program better than I ever will," said their father. "They aren't awed by the computer. To them it's like learning to speak a foreign language."

At 77 years old, Harry Ragozin makes use of an \$800 TRS-80 Level II computer to handicap race horses. Having developed an evaluation system for thoroughbreds since 1948, he decided to employ the computer in a new phase of racing analysis.

"Because of my age I don't trust doing it all in my hand," he said. "I drew up the program with help from my niece, who is a professional programmer, but I make any changes myself. The computer works like a charm.

I only wish the results worked as well as the track."

One reason for the wide-ranging use of personal computers is their easy availability. The TRS-80, best-seller among microcomputers, is offered in more than 7,000 Radio Shack outlets. Nationwide, there are now more than 600 computer stores, a new breed among retailers.

In Manhattan, the Computer Factory (485 Lexington Avenue, inside building arcade) provides computers for home and office, including the Apple II, the Commodore Pet, from \$795; and the Exidy Sorcerer, from \$895). In the basement of Polk's hobby store, 314 Fifth Avenue, Aristocraft specializes in Ohio Scientific computer systems, such as the Challenger IIP, from \$598.

As with any new product of technology, the first generation of personal computers has its share of lemons. According to the owners, manufacturers' and computer shops' service departments are good with technical problems, but design mistakes have crept up in several makers' early production models.

Another complaint is the lack of standardization between manufacturers. Different brands of equipment are often incompatible; one manufacturer's BASIC program may be another's BASIC gibberish.

To pool their knowledge and experience, owners of a particular computer model get together in "users' groups." Joel Rice, who belongs to a 60-member TRS-80 users' group that meets in the Wall Street area, finds it technically invaluable: "It's easy to blow out your computer if you don't know what you're doing."

Tony Cerreta, president of the Apple Computer Users' Group, values his contact with other personal computer owners: "I've met marvelous, astute, erudite people at our meetings."

Though computers are often criticized as a dehumanizing influence, several home computer users report an increase in visits from friends and neighbors. Roger Nichols, who works as a recording engineer for the rock group Steely Dan, bought a \$1,700 Compu-color computer to entertain guests and keep them from disturbing his four other computers.

"Owning a home computer," he observed, "is like being the first on your block with a TV set. You become very popular."

*Steve Ditlea is the author of "A Simple Guide to Home Computers," published by A&W Visual Library.*