

What Will A Personal Computer Do For Me?

What an auto does for your body, a personal computer does for your mind, taking you across intellectual distances that you'd have neither the time nor the stamina to cross on your own. Most important, the personal computer's instant adaptability lets it carry you in virtually any direction you choose.

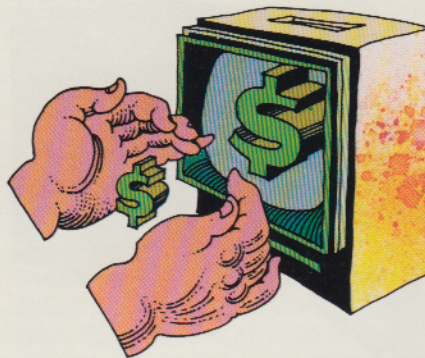
Seven Powers

In a general sense, personal computers have seven application areas. You may be surprised to find how many of them are already familiar to you.

Managing finances. A personal computer is a powerful tool for riding herd on your money. At home, it keeps track of budgets, mortgages, depreciation, tax records of all kinds, auto expense records, income and expenses for church groups or clubs — you get the idea.

A personal computer also makes it simple to see the differences, in dollars and cents, between various complicated repayment schedules on homes and cars. On these and other expensive purchases, a personal computer can actually save you enough money to pay for itself.

A personal computer can help you make better long term investments, too. Growth in money markets, T-bills, and IRAs can all be forecast and compared side by side. If you play the stock market or invest in property, you can compute a truckload of variables that will help you find a good buy and steer clear of a bad one.



In addition, the personal computer is useful for managing business finances. Its prodigious number-crunching ability makes it an indispensable accounting tool. You can also use it to do sophisticated business analyses—forecasting, statistical surveying, financial modeling, and more.

Word processing. Word processing—the next giant step beyond typing—a perfect application for personal computers. Like a typewriter, the personal computer lets you type any document you want. But the computer lets you rearrange what you've written, instantly displaying your new version on the computer's video monitor. You can weed out typos, correct your syntax, even try out a new page format. The computer instantly adjusts the entire document to accommodate the most major or minor changes. When all your changes have been made, the computer records or saves the document on a disk. You can store all your work there until you wish to review or further revise it. Hook the computer to a printer and you can

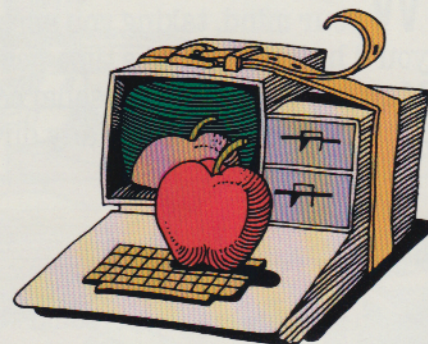
print that document, letter-perfect, automatically.

Consider an example. If you had typed this entire book on a personal computer set up to do word processing (as this writer did, incidentally), it would be easy to delete this sentence without having to retype the entire manuscript. You would simply tap two or three keys. The computer would take out the sentence and adjust *all* the following copy, filling the space where the sentence had been. You could insert a new sentence — or chapter—just as easily.

Because word processing makes changes easier, it encourages your best writing efforts.

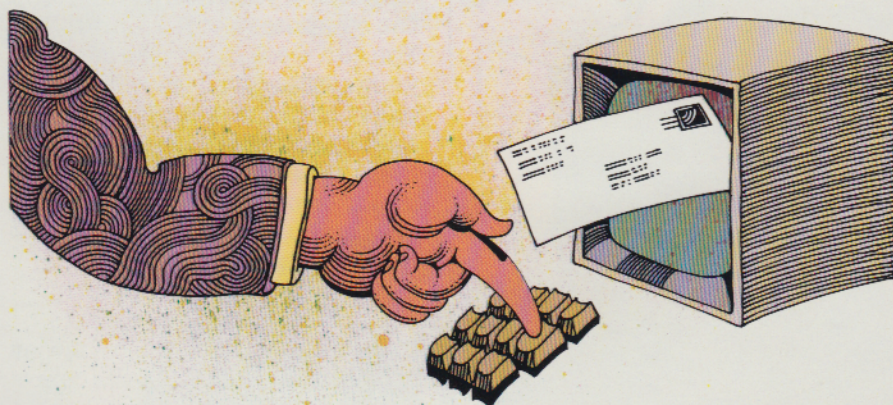
You can compose as you go, deleting parts that aren't leading anywhere and stitching together those parts that you want to develop. Many people end up writing in the same, spontaneous way they think—trying a number of approaches and quickly compiling the best parts of each. In the end, because word processing enormously speeds the process of making changes, it makes even short documents far easier to compose—and often far easier to read.

Education. Adaptable, never tiring, and fun to learn from, the personal computer is a potent tool in education. It's a natural



with subjects that require drill and practice, such as spelling, multiplication tables, foreign language vocabularies, and sight reading in music.

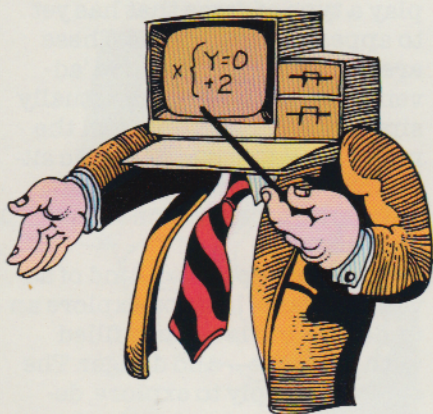
The computer gives the student an exercise and he types in a response. The computer then evaluates the response, adjusts itself to the student's skills, and poses exercises at a more appropriate level of difficulty. A personal computer gives a student undivided attention, too. The machine advances the student at his or her own pace, selects areas that need attention, and gives encouragement with congratulations and entertaining visual effects. Best of all, since students are in charge of the computer,



they find themselves in charge of their own education. Their sense of accomplishment flourishes.

A personal computer can lecture as well, combining text, music, and graphics—illustrations, diagrams, charts, even entire video tapes—to teach anything from auto maintenance to art history. When lecturing is combined with drills and practice, students can be quizzed, evaluated, given the results, and reviewed at the same time.

Personal computers also play educational games, everything from skill games that teach hand-eye coordination to math games that teach players how to run a small business.



When the world first encountered the copying machine, the stereo record player, and the hand-held calculator, understanding their function wasn't a problem. The copying machine copied, the calculator calculated, the record player played records.

But the personal computer doesn't have a single, definitive role. One minute it's an enormously powerful calculator, the next minute it's a word processor, and the next minute it's a game machine. Small wonder that a first encounter with a personal computer can produce a cloud of confusion.

The confusion begins to lift when one recognizes the difference between computers and computer *programs*.

The personal computer is simply a program player. Its single function is to run whatever program it is fed—economic model, word processing, or game—in the same way a record player runs Tchaikovsky, Miles Davis, or Rodney Dangerfield.

It follows that software is of first importance, inasmuch as it determines what the computer does. Bad software, like bad records, makes even the best hardware perform badly.

Some of the best games teach students through fantastic simulations.

A simulation is simply a computerized representation of something else in action—anything from a lunar lander or a nuclear reactor to the food chain in a fresh water lake. Students makes decisions about the vital factors that control the simulation. To save fuel, should the lander descend faster—or slower? Will using the reactor's backup

cooling system prevent a meltdown—or cause one? Will removing the lake's algae help or hurt the fish? Students make the decisions and the computer instantly adjusts the simulation's action. Immediately, the students see the consequences of their decisions on the entire simulation and gain first-hand experience solving complex, interrelated problems.

Finally, using a personal computer is educational in itself.

your phone to talk with your office's main computer. Or you can get late-breaking stock prices by connecting your personal computer to big computers in New York via telephone. Link your computer to computers in Chicago for information on commodities trading, or call someone else's personal computer to leave short messages or 40-page business reports. Others can contact your computer, too, and deliver information you need.

With personal computer telecommunications, you can also shop by computer catalog, browse through specialized computer libraries, do your banking, and more. All of these transactions, of course, take place at the speed of light.

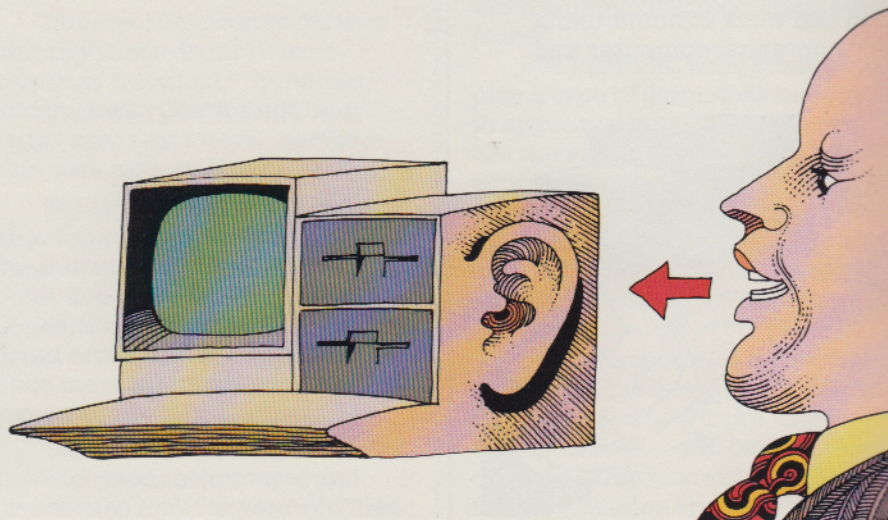
Programming. Programming is nothing more than making up your own instructions for the computer in a language it can understand. Learning a computer language—BASIC or Pascal, for example—takes time and work, but is generally a lot easier than learning a human language like French or Latin. In fact, you can learn enough in just a few

hours to write elementary but useful programs.

Programming lets you apply the power of your personal computer to the area of interest that suits you. Care to examine the aerodynamics of insect flight? Want to re-enact the world chess championship of 1958? Feel like experimenting with designs for a summer house? If you know how to program, you can tell the computer to come up with just the answers you're looking for.

Summing up. A personal computer can vastly supplement

your abilities in seven broad areas—finance management, word processing, education, record keeping, entertainment, telecommunications, and programming. The personal computer enables you to use its enormous data-crunching powers to reach formerly inaccessible solutions involving money, paperwork, class lessons, record keeping, games, communications, and just about anything else that interests you.



When you bring a personal computer into your home, you can plug into the whole world. Your computer can be equipped to join networks of computers all over the globe, computers containing vast quantities of every kind of information. You can even do office work at home by hooking into your company's large computers.

This kind of computer-to-computer communication is called telecommunications. It's made possible by using your telephone (and/or certain specialized communications lines) to link your computer to something called a data base, a library of information (data) stored in a computer.

The number, variety, and uses of data bases now available over public networks is impressive. You can use them to visit with friends, send and receive

mail, store facts or shuttle them from remote file to remote file, search libraries, take part in conferences, rent a car, select and pay for a TV set, run your own business, monitor stock and commodity prices, search for information on a multitude of subjects from abortion to zoology, play games, and even publish a novel. You can link your computer to hundreds of libraries that you may search and use without ever leaving your home. And because these libraries are electronically updated, their information is always current.

Two popular networks, The SourceSM and CompuServe,TM offer a wide range of information and communications services, including in-depth Dow JonesTM stock statistics and general news service, the UPI news wire, and a composite of stories from 11 different news sources.