Laptop or Desktop?

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Sooner or later we are all faced with the question of whether to replace an existing computer or the need to purchase a new machine. Unless you want to have one put together to your own specification, computers are now off the shelf products. Just like any other appliance, find one that has the features you want, take it home, put it together . . . Yes, put it together. Believe it or not, it is relatively easy to connect the components (main box, monitor, printer, mouse, keyboard, speakers) that make up a computer together. Most of the plugs are unique; they only fit in one place. Those plugs that are not unique are color-coded; just match the colors. The software is pre-loaded. Have faith: plug it together, turn it on, and it will work.

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The real decision is when to buy and whether to buy a laptop or a desktop. Moore's Law states that the speed of the state-of-the-art computer will double every 18 months. This can most easily be seen when looking at computer speed. Approximately two years ago, I paid a premium for a 600 megahertz Pentium III. Some colleagues are now kidding me about owning such a "slow" machine. After all, the state of the art is now over 2 gigahertz (2,000 megahertz). Unless you are going to change computers every few months, it is impossible to keep up with the state of the art. The real question is, is it necessary to keep up and when will you know that its time to change?

Is it necessary to change? That depends on the circles in which you travel. Some people wouldn't be caught dead in last year's style of clothing even though the clothing is still both presentable and functional. For the vast majority of us, the standard of presentable and functional should be our guides.

Unlike clothing, whether a computer is presentable is probably not the major consideration. Of course, if it is sitting in an office setting and is noticeably old or worn (to some of us, even computers can look tattered and tired), it may subliminally be interfering with your desire to project professionalism. On the other hand, it may be considered an antique; then it might be thought of as stylish.

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The major consideration in buying a computer is functionality. Is my current computer capable of doing what I want it to do? Yes, but only if they stop putting out new versions of programs that have features that I think I need or devices that I would like to use. So when I get envious of my friends who don't have to wait what seems like an eternity for the system to turn itself on, or I don't have a way of storing the pictures stored on those little cards that fit inside my new digital camera, its time to get a new machine.

You basically have two choices: desktop or laptop. Until a year ago, laptop computers were considered only for businesspeople or perhaps students who needed a portable computer. Screen size, memory capacity, and storage capacity was limited. More importantly, so was expansion and upgrade. In general, very little could be added to the machine as designed by the manufacturer. I once had a laptop that came with a then state-of-the-art 9.6 kbps modem. Within months, the state-of-the-art speed became 28.8 kbps, and I had no way to upgrade.

CARDS

Desktop computers can generally be expanded or upgraded, because many of the built-in features are on separate cards that plug into a standard electronic interface (buss). Pull out the old slow modem card, replace it with a new fast modem card (under $50), and the computer is restored to the state of the art.

To allow easy laptop computer enhancement, computer manufacturers added an opening, usually on the side of their laptops, a PCMCIA card slot, into which could be plugged credit card sized cards. These cards usually contained a modem or a network interface, but cards containing a better monitor interface or additional memory are also available. Most laptops contained only one slot, so card manufacturers began making multi-function cards that allow more than one function to be added.

PCMCIA cards fall into two technically different categories: the original design is now called the 16-bit PC Card; the newer version is known as the 32-bit CardBus. The PC Card may be used in machines designed for the CardBus but not visa versa. The CardBus can transfer data 100 times faster than the PC Card. Although these cards added greater flexibility to the laptop, it still was not able to compete with the desktop.

USB PORT

A few years ago, a new input/output port was added to the desktop PC: the Universal Service Bus or USB. The USB port has practically revolutionized the connection of devices to the desktop. Many new desktop PCs only have a USB port (no more separate and confusing connections for a mouse, keyboard, and printer). Everything plugs into the USB port, usually through a USB hub or splitter, and the computer sorts it all out. Special "cables," that allow the USB port to be connected to a phone line or network have also become available.

Just like the PCMCIA card, the USB port now comes in two types. With the original USB port, specification 1.1, it takes about 30 minutes to back-up 1 gigabyte of data to a backup device connected to the USB port. The newer USB specification, 2.0, will allow the same transfer in under a minute. The newer specification is rapidly replacing the older one. Fortunately the two are compatible.

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Laptop computers now also come with a USB port. Given the increase in speed of the new USB specification and its ability to connect to almost any available type of add-on, the advantage of the portability of the laptop may now also be matched by its ability to be updated and expanded. Laptop or desktop . . . the choice is yours!