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Five Things to Consider When Buying a Laptop Computer

Purchasing a laptop is a large investment, and one that can be complicated by all of the options, manufacturers, and technical mumbo-jumbo that needs to be sifted through. Before you spend a lot of money on a laptop, it is important to spend a little time considering some basics that may affect the decision-making process. This Tech Tip will take a look at five of the innumerous things worth considering when buying a laptop computer.

1 Ergonomics

If you are going to be spending any significant amount of time working on this laptop computer, you're going to want to be comfortable. A well-designed interface is essential for comfort, as well as good health. Carpal tunnel syndrome or tendonitis may be some of the more common conditions associated with extended computer usage, and selecting the most comfortable laptop may help avoid them all together.

The keyboards on laptops generally feature compressed layouts with smaller keys, which may place a strain on hands and wrists as users try to adapt to these miniature arrangements. Generally speaking, the larger the laptop, the larger the keyboard, as they are usually designed to span the entire width of the unit.

Most laptops use either a touchpad or tracking pointer (knob) as a replacement for a mouse. These may be adequate for occasional use, but even the best designs can become frustrating and uncomfortable when used extensively. Plus, when used for game play or other applications where precise motion is critical, they just don't cut it.

Purchasing a separate mouse may be the best bet, as it allows you to place your arm in a more familiar (and comfortable) position, as well as providing something that may fit your hand much better. Notebook mice (http://www.geeks.com/details.asp?invtid=LM-

811-O&cat=MOU&cpc=USB) are available in a wired or wireless version, and generally feature a slightly smaller footprint than your typical mouse.

Connectivity

Being able to connect to common devices is just as important on laptops as it is on desktops, but being able to add these connections down the road is not as easy on a laptop. Upgrades aren't as easy on laptops due to the basic design, so make sure what you need is included up front.

Wireless networking is almost a must-have feature on laptops now. The cord has been severed to every other shackle confining you to your desk; don't let network connectivity hold you back. Wireless networking adapters are available as upgrades via either PCMCIA cards (http://www.geeks.com/details.asp?invtid=DWL-650PLUS&cat=NBB) or USB adapters (http://www.geeks.com/details.asp?invtid=RU5AWGB2U&cat=NET&cpc=USB), but many now offer it onboard, hidden inside the system's housing. Integrated wireless is the best option if available, as it requires fewer accessories to carry and to configure, and leaves those expansion ports open for other uses.

USB 2.0 may be the most common peripheral connection, and many laptops may still come with just one port. That's fine if you don't mind carrying around a USB hub (http://www.geeks.com/details.asp?invtid=USB-MH20-GRY&cpc=SCH&srm=0), but the more you have to carry, the less mobile you are. A good example of the importance of USB is that many people decide they want to use a separate mouse for ergonomic reasons, and generally it will connect via USB. On a laptop with just one port, you now have to juggle the use of the mouse with connecting anything else, like a digital camera, MP3 player, or an external hard drive.

Firewire may not be as popular as USB, and as such, it doesn't show up at all on many computer systems, regardless of whether they are desktops or laptops. Having this connection may not be necessary for everyone, but for those who want it, keep in mind that its inclusion on any particular laptop is not a given.

Bluetooth (http://geeks.com/pix/techtips-011905.htm) is another type of connectivity you may want in a laptop, but its popularity has yet to really catch up to its hype. More and more consumer electronics devices are starting feature Bluetooth technology, but for general computer applications, it may be more trouble than it is worth.

This Toshiba Satellite (http://www.geeks.com/details.asp?invtid=PSP30U-01Q001Z-R&cat=NBB) features a solid assortment of connections with three USB 2.0 ports, a Firewire port, integrated wireless and wired networking, and even a modem.

3 Power Management

If you are going to use a laptop as it was intended, away from your desk, you're going to want it to provide as much battery life as possible. The first step is to shop around for a unit that offers the best battery life possible, and then seek out independent reviews to verify this performance. A good laptop should be able to run for four hours or more on a full charge, and as the technology advances, finding units that can double this time isn't unrealistic.

The operating system on most laptops will allow for the hardware to be configured to utilize the battery as efficiently as possible. It is just up to the user to navigate their way to these tabs and set things like the display to turn off, hard drives to power down, or even the processor to slow down when it isn't needed to run full speed. Not all processors can provide this speed throttling, but finding a system with a Mobile Pentium/Celeron (http://www.geeks.com/details.asp?invtid=28885RU-N&cat=NBB) or Centrino (http://www.geeks.com/details.asp?invtid=28885RU-N&cat=NBB) processor may be your best bet to ensure this capability.

Another way to ensure extended life away from a power outlet is to just add a second battery. Although you can obviously carry a charged spare in your bag, some laptops allow for two batteries to be installed at once, with one generally replacing the optical disk drive.

4 Size / Weight

All laptop computers are not created equal, and the size and weight of the various models reflect that. Some may weigh more than others due to the quantity of components included, but it may also be due to the quality of the components. Larger displays, multiple hard drives, and other integrated components will all contribute to the weight of a laptop. The largest single source of weight in a laptop may be the battery, and systems with two batteries as described above, should be expected to be much heavier.

No laptop may be considered heavy in the grand scheme of things, but just a few pounds more may be noticeable if you regularly have to lug it through a busy airport or across a large college campus. Geeks.com may not provided the exact weight of each laptop they carry, but they do provide a shipping weight for each, which is a good approximation of what the laptop and various accessories will weigh when loaded into your carrying bag.

The overall size of a laptop is generally governed by the size of the display included. You may have seen the commercial where Yao Ming (7'5" basketball player) and Verne

Troyer (Mini-Me) compare their laptops with 12 inch and 17 inch monitors. It is an excellent demonstration of the range of sizes available in laptop computers, and how the various sizes may be appropriate for different users. Those seeking a replacement for their desktop computer may insist on a 17" display, while those seeking to minimize size and weight in the name of portability may be willing to select a laptop with a smaller display.

Future Proof

Basically, purchase as much laptop as you can afford, so that a year or two down the road you may be less likely to need a replacement.

Processors in a laptop are generally not upgradeable, or at least quite difficult to upgrade, so picking something with marginally adequate speed for today's needs will no doubt be obsolete sooner than you might expect. Desktop computers generally offer the convenience of having their processors (and other components) upgraded, making it less of an issue, but it is important to plan ahead with laptops, or to plan on buying another one in a few years.

The graphics processor is another integrated feature that should be considered before making a purchase, as there is no upgrading. Many laptops may offer somewhat basic graphics intended for good 2D display and 3D displays that may be hit or miss as far as the quality is concerned. In general, laptops were never intended for 3D gaming, but things are changing and many manufacturers now offer higher performance graphics solutions that can rival many desktop computers. ATI is well known for their high performance graphics products, and offer the Mobility Radeon X series (http://www.ati.com/products/mobile.html) of graphics processors based on their popular desktop solutions.

Laptop memory (http://www.geeks.com/products.asp?cat=RAM#200-pinDDRNotebookMemory) is less of a bottleneck, as it is readily available and can be upgraded rather easily. That said, many notebooks offer a base configuration of memory that may not be adequate for your particular needs. It is suggested that a Windows XP system have a minimum of 256MB of memory (http://www.bigbruin.com/reviews05/memorybuy/index.php?file=2), and you may find that this is what is offered on many systems. 512MB is the recommended amount of memory for smooth operation on Windows XP, and many users with more intensive applications to run may insist on 1024MB. If you intend to run serious business applications or want to play some modern 3D games, it may be worth having that base 256MB upgraded before the laptop ships to you.

Final Words

Picking a laptop computer will probably be more involved than reviewing five simple steps, but you have to start somewhere! Each of these steps will hopefully guide other decisions and make the process less frustrating, while also leading to the selection of the best laptop possible.