



Choosing a Computer

Western Sullivan Public Library
Public Computer Center

Choosing a Computer – a quick guide to the questions you should consider, if you are looking for a new computer.

LAPTOP VS. DESKTOP

Years ago, having a laptop meant gaining portability, but sacrificing performance. But as computer parts have both improved and become smaller, this is no longer as much the case. The advantages of a laptop are obvious. It can easily be carried around and used on the go. At home, in a car, or at a café. But one of the biggest advantages associated with a laptop's portability might not be as obvious—the option of free internet access. Almost all laptops now come with a wireless internet card, allowing it to have a high-speed internet connection when in the presence of a wireless signal (or WiFi). And nowadays, WiFi is everywhere. From libraries to restaurants to airports. So whether you don't want to spend the money on internet access at home, or maybe don't have the option, having a laptop means you can easily take advantage of WiFi in nearby locations. Some desktop computers come with wireless but it's wise to check and see if there is an internet card pre-installed. Even if there is, taking one to a place with a wireless signal might prove impractical.

Desktops do however have advantages of their own. For one thing, laptops have all their parts contained in one device. The screen, mouse, keyboard, are all connected, and if one breaks, it means trouble for all of them. Desktops, however have each part connected separately, so if a mouse breaks, it can simply be unplugged and a new one plugged in to replace it. The larger container of desktop computers also makes it easier to get in and replace old parts like memory or hard drive, or add new parts to improve the computer's performance.

MAC VS. PC

One of the most common questions computer buyers ask is whether they should buy a Mac (Apple) or PC (Windows). Despite the attempts of ad campaigns to paint them as completely different, they're really not in most respects. They both use hard drives, CPUs, Memory, etc... and the capacities of each can be compared. Macs are widely regarded as being more user-friendly and less susceptible to viruses. However, Windows computers can sometimes offer a wider range of control for more advanced users. While there is no right answer as to whether a Mac or PC is better for a buyer, it should be kept in mind that especially outside of urban areas, Macs are largely in the minority, and computer assistance and repair can sometimes be more difficult to come by in a PC-dominated world.

TYPES OF LAPTOPS

There are three main categories of laptop computers. **Laptops**, **Notebooks**, and **Netbooks**. Their differences are size and performance. Laptops are the most powerful, but also the largest (and as a



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result, least portable) and most expensive. Notebooks are sleeker but have a smaller keyboard, monitor, and reduced capacity. Netbooks have very little power and capacity, and are mostly just good for surfing the web or writing documents. But they are so small and lightweight that they can fit easily in a purse.

SOFTWARE

While most computer buyers focus on the computer itself, it's important to remember that one of the most important aspects of a computer is the programs it has. A computer's price is often largely tied to the amount of software it comes preinstalled with, because good software can be very expensive.

Software to consider:

Operating System is a must if you want your computer to "operate"

PC – latest OS is Windows 7

Mac – latest OS is OS X 10.7 Lion

Word Processing Program – helpful for typing text based documents

Most common – Microsoft Word 2010; other programs available, but sharing files more difficult

Free alternative – Open Office; interoperable with MS Word at the Office 2003 level

Other Business Tools – spreadsheets, presentations, email, databases, etc.

Most common – Microsoft Office 2010; other programs available, but sharing files more difficult

Free alternative – Open Office; interoperable with MS Word at the Office 2003 level; not all functions supported

Antivirus – several popular tools exist, including McAfee, Norton

Free alternative - AVG

Internet Browser – required for searching the internet

Most common – Internet Explorer, IE9

Others – Mozilla Firefox, Google Chrome, etc.

Other software to consider – photo editing; video editing; anti-theft

HARDWARE

When trying to find information on a computer, a shopper is usually given a highly technical-looking list of specifications. Many of a computer's specifications are not terribly important for most users. Things like Sound Cards, for instance, may come in a wide variety of different types and models, but the most expensive will not be noticeably different from the most affordable except when connected to high-end multi-speaker systems and played at high volume. The list below breaks down some of the more important computer specifications, and gives an idea of what to look for.



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Hard Drive- The computer's hard drive determines how much room your computer has for programs and files. Its size is described in gigabytes (or GBs). A computer with a smaller hard drive (such as 60GB), would be sufficient for someone mostly interested in surfing the web and using email and writing documents, but not for someone interested in editing and storing digital pictures and videos, who would be better served by 250GB. To give some basic ideas of how much might be enough for you:

- The computer's Operating System alone will require about 20GB of hard drive space.
- It is important to never use more than 80% of your total hard drive space.
- 1GB of hard drive can hold approximately 300 digital pictures, or 15 half-hour-long videos.

Memory - The computer's memory (or RAM) will play a large part in determining how fast your computer runs. Think of your hard drive as your closet, and your memory as your bedroom. Even if your closet has tons of storage space, anytime you want anything from it, you have to walk across your room, dig through the closet, and find what you're looking for, which can take time. Having a larger room (or memory) allows you to store more things you want to access in close proximity. Here's a comparison of some different memory sizes.

512 MB – A very inexpensive choice, and sufficient for light computer use where only one program is run at a time. Multitasking (such as surfing the web while watching a video, or running anti-virus software while editing a document) can cause slow-down.

1 GB – A mid-range choice that is enough for the majority of users. Allows for smooth, quick multitasking and running more heavy-duty programs like Photoshop or watching hi-quality videos.

2 GB and higher – Though the most expensive choice, there are still situations where more than 1 GB would be a good option. This would include users who intend to do heavy multitasking, like running intensive games and downloading files through programs like Bittorrent. However, higher capacity memory is wasted if the CPU isn't powerful enough.

CPU - The CPU is the primary engine of the computer, and generally, only the best and latest models are included in new computers. So not too much attention needs to be paid to this specification. CPUs are released in generations, and the generation number will be listed. A higher number means a newer CPU, which means better performance. The number of "cores" in a CPU can be another factor. A dual core processor is like having two CPUs, a triple-core CPU is like having 3 CPUs, etc... However, most of these differences will not be noticeable except in extreme circumstances.

Optical Drive - This is the drive that can play or create CDs, DVDs, or Blu-ray. Since DVD drives are not much more expensive than CD drives, it is uncommon to find new computers with CD drives. Having a DVD drive allows you to not only watch DVD movies on your computer, but to save data to blank DVDs. A DVD can hold up to 4.7GB of data. The newer Blu-ray Discs can hold 25GB, so while more expensive, a Blu-ray drive might not be a bad investment.



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USB ports - The number of USB ports are generally listed in the specifications. USB ports are the most common way of connecting devices like printers, scanners and digital cameras to your computer, so having several USB ports can come in handy. But USB hubs can also be purchased to allow for additional ports, so this shouldn't be a large consideration.

Video - The video card is the device that translates your computer's information into the images you see on screen. A higher-quality video card will usually have more frames per second, resulting in smoother, more seamless video. Any video card should be at least 512MB to ensure high-quality playback. Any more than that is generally unnecessary for any application except playing extremely high-quality video games on a massive display, such as a big-screen TV.

Monitor - Monitors come in many sizes. Best to look at a few options before you decide which suits you best. Size, weight, portability are all factors. If it's your laptops monitor you'll want to worry about having a screen large enough to work comfortably, but small enough to carry around. If it's for your desktop, you might want the largest bang for the buck. You can also purchase a desktop computer that comes with just the computer (not the monitor, keyboard, or mouse). If you already have some components, you can save a few dollars by only buying what you need.

Camera - Many computers come equipped with a webcam these days, but this is one of those components you might want to check to see if it's included. If not, they're not expensive, but an internal webcam makes portability much nicer, especially with your laptop or netbook.

Keyboard - Believe it or not, keyboards come in a variety of flavors, extended vs. standard being the most obvious. An extended keyboard includes the number pad to the right, while the standard keyboard does not. If you will be using your computer to crunch a lot of numbers, a number pad is a huge time saver.

Microphone - Many smaller or less expensive devices may not include a microphone. You can buy an external one, but this is just another of those items you want to check and see whether it's included.

WiFi - Wireless fidelity or WiFi allows you to connect wirelessly to the internet. Fairly standard these days in laptops, possibly not in smaller or less expensive devices or even desktops... again, always wise to verify!

Extended Service Warranty - available from the manufacture or seller; worth considering for the first 2-3 years. You may also want to consider accidental damage protection