3G

3G refers to the third generation of cellular data standards. Cell phone companies often market mobile phones as "3G devices," but there is no single 3G standard. Rather, 3G is a broad label given to cellular technologies that support data transfer rates of 14.4 Mbps or faster.

3G networks and devices started to gain widespread use in the US around 2007. However, it took a few more years before the majority of smartphones supported 3G. As of 2012, most cell phone networks support both 3G and 4G technologies.

Access Point

An access point provides wireless access to a network. Devices connected to an access point can communicate with other devices on the network. They may also connect to the Internet if the access point is linked to an Internet connection, which is commonly the case. Access points that use Wi-Fi are also called base stations.

ADSL

Stands for "Asymmetric Digital Subscriber Line." ADSL is a type of DSL, which is a method of transferring data over copper telephone lines. While symmetrical DSL (SDSL) uploads anddownloads data at the same speed, ADSL has different maximum data transfer rates for uploading and downloading data.

For example, an ADSL connection may allow download rates of 1.5Mbps, while upload speeds may only reach 256Kbps. Since most users download much more data than they upload, this difference usually does not make a noticeable impact on Internet access speeds. However, for Web servers or other computers that send a lot of data upstream, ADSL would be an inefficient choice.

Adware

Adware is free software that is supported by advertisements. Common adware programs are toolbars that sit on your desktop or work in conjunction with your Web browser. They include features like advanced searching of the Web or your hard drive and better organization of your bookmarks and shortcuts. Adware can also be more advanced programs such as games or utilities. They are free to

use, but require you to watch advertisements as long as the programs are open. Since the ads often allow you to click to a Web site, adware typically requires an active Internet connection to run.

Most adware is safe to use, but some can serve as spyware, gathering information about you from your hard drive, the Web sites you visit, or your keystrokes. Spyware programs can then send the information over the Internet to another computer. So be careful what adware you install on your computer. Make sure it is from a reputable company and read the privacy agreement that comes with it.

AGP

Stands for "Accelerated Graphics Port." This is a graphics card expansion port designed by Intel that resides on the motherboard of a computer. PCI graphics ports typically run at 33 MHz and have a maximum transfer rate of 132 MB/sec. AGP ports, on the other hand, run at 66 MHz and can transfer data up to 528 MB/sec. This allows games and applications to store and retrieve larger, more realistic 3D shapes and textures without slowing down the animation on the screen. Additionally, AGP cards can store graphics in system memory rather than video memory, which also helps improve performance. Becuase of these advantages, AGP cards will typically have better performance per MB of VRAM than PCI graphics cards.

Bandwidth

Bandwidth refers to how much data you can send through a network or modem connection. It is usually measured in bits per second, or "bps." You can think of bandwidth as a highway with cars travelling on it. The highway is the network connection and the cars are the data. The wider the highway, the more cars can travel on it at one time. Therefore more cars can get to their destinations faster. The same principle applies to computer data -- the more bandwidth, the more information that can be transferred within a given amount of time.

Bcc

Stands for "Blind Carbon Copy." When you send an e-mail to only one person, you type the recipient's address in the "To:" field. When you send a message to more than one person, you have the option to

enter addresses in the "Cc:" and "Bcc:" fields. "Cc" stands for "Carbon Copy," while "Bcc" stands for "Blind Carbon Copy."

A carbon copy, or "Cc'd" message is an e-mail that is copied to one or more recipients. Both the main recipient (whose address is in the "To:" field) and the Cc'd recipients can see all the addresses the message was sent to. When a message is blind carbon copied, neither the main recipient nor the Bcc'd recipients can see the addresses in the "Bcc:" field.

Blind carbon copying is a useful way to let others see an e-mail you sent without the main recipient knowing. It is faster than sending the original message and then forwarding the sent message to the other recipients. It is also good netiquette to use Bcc when copying a message to many people. This prevents the e-mail addresses from being captured by someone in the list who might use them for spamming purposes. However, if it is important that each recipient knows who your message was sent to, use carbon copy (Cc) instead.

BIOS

Stands for "Basic Input/Output System." Most people don't need to ever mess with the BIOS on a computer, but it can be helpful to know what it is. The BIOS is a program pre-installed on Windows-based computers (not on Macs) that the computer uses to start up. The CPU accesses the BIOS even before the operating system is loaded. The BIOS then checks all your hardware connections and locates all your devices. If everything is OK, the BIOS loads the operating system into the computer's memory and finishes the boot-up process.

Since the BIOS manages the hard drives, it can't reside on one, and since it is available before the computer boots up, it can't live in the RAM. So where can this amazing, yet elusive BIOS be found? It is actually located in the ROM (Read-Only Memory) of the computer. More specifically, it resides in an eraseable programmable read-only memory (EPROM) chip. So, as soon as you turn your computer on, the CPU accesses the EPROM and gives control to the BIOS.

The BIOS also is used after the computer has booted up. It acts as an intermediary between the CPU and the I/O (input/output) devices. Because of the BIOS, your programs and your operating system don't have to know exact details (like hardware addresses) about the I/O devices attached to your PC. When device details change, only the BIOS needs to be updated. You can make these changes by entering the BIOS when your system starts up. To access the BIOS, hold down the key as soon as your computer begins to start up.

Bit

The computer term "bit" comes from the phrase "Binary DigIT," which is different than that thing you put around a horse's mouth. A bit is a single digit number in base-2 (a zero or a one) and is the smallest unit of computer data. A full page of text is composed of about 16,000 bits.

It is important not to confuse bits with bytes. Both are used to measure amounts of data, but it takes eight bits to make one byte. The most common area where bits are used intstead of bytes is in measuring bandwidth (in bits per second). Why? Probably because it makes your Internet connection sound faster than it really is.
Abbreviation: b

Byte

A byte is a set of 8 bits that represent a single character in the computer's memory. Do not confuse this term with "bite," as in taking a bite of a cookie, because that is totally different. While bits are often used to measure data transfer speeds, bytes are used to measure file sizes, hard disk space, and computer memory. Larger amounts of data are measured in units such as megabytes, gigabytes, and terabytes. For example, one kilobyte is equal to 1,024 bytes.
For a list of all the different units of measurements, view this Help Center article.

C/C++

C is a high-level programming language that was developed in the mid-1970s. It was originally used for writing Unix programs, but is now used to write applications for nearly every available platform. Compared to most previous languages, C is easier to read, more flexible (can be used for a wide variety of purposes), and more efficient at using memory.

C++, pronounced "C plus plus," is a programming language that was built off the C language. The syntax of C++ is nearly identical to C, but it has object-oriented features, which allow the programmer to create objects within the code. This makes programming easier, more efficient, and some would even say, more fun. Because of the power and flexibility of the language, most software programs today are written in C++.

CAD

Stands for "Computer-Aided Design." Also known by engineers and architects as the best invention of all time. Today, CAD software is used for nearly all three-dimensional designing. Designers can turn an object into an electronic representation more quickly and accurately than by diagraming it with a pencil and paper. Better yet, objects created with CAD software can be moved, resized, and rotated instantly. With a pencil and paper, you can only erase so much before it starts to smudge.

CMYK

Stands for "Cyan Magenta Yellow Black." These are the four basic colors used for printing color images. Unlike RGB (red, green, blue), which is used for creating images on your computer screen, CMYK colors are "subtractive." This means the colors get darker as you blend them together. Since RGB colors are used for light, not pigments, the colors grow brighter as you blend them or increase their intensity. Technically, adding equal amounts of pure cyan, magenta, and yellow should produce black. However, because of impurities in the inks, true black is difficult to create by blending the colors together. This is why black (K) ink is typically included with the three other colors. The letter "K" is used to avoid confusion with blue in RGB.

RGB

Stands for "Red Green Blue." It refers to the three hues of light (red, green, and blue, for those of you that are a little slow), that can mix together to form any color. When the highest intensity of each color is mixed together, white light is created. When each hue is set to zero intensity, the result is black. TVs and computer monitors use RGB to create the colorful images you see on the screen. In print, however, the 4 colors -- cyan, yellow, magenta, and black (CYMK) -- are used to create color images.

CPU

Stands for "Central Processing Unit." This is the pretty much the brain of your computer. It processes everything from basic instructions to complex functions. Any time something needs to be computed, it gets sent to the CPU. Every day, it's compute this, compute that -- you'd think the CPU would need a break after awhile. But no -- it just keeps on processing. The CPU can also be referred to simply as the "processor."

CRM

Stands for "Customer Relationship Management." This is a business term that started somewhere in the deep abyss of the IT (Information Technology) world. CRM refers to solutions and strategies for managing businesses' relationships with customers. (I suppose that's why they call it customer relationship management). With the advent of Web retailing, companies have found it hard to develop relationships with customers since the e-commerce interface is so impersonal. After all, don't you miss the firm handshake and sparkling smile of the salesperson who just sold you the most expensive computer system in the store? Well, whether or not you miss the personal experience of the retail store, the goal of CRM is to give you that feeling when you buy products over the Internet. When it comes to CRM, customer service is the number one priority. Yes, all companies seem to make that claim, but when online businesses create CRM models, it really is the case.

CRT

Stands for "Cathode Ray Tube." CRT is the technology used in traditional computer monitors and televisions. The image on a CRT display is created by firing electrons from the back of the tube to phosphors located towards the front of the display. Once the electrons hit the phosphors, they light up and are projected on the screen. The color you see on the screen is produced by a blend of red, blue, and green light, often referred to as RGB.

The stream of electrons is guiding by magnetic charges, which is why you may get interference with unshielded speakers or other magnetic devices that are placed close to a CRT monitor. Flat screen or LCD displays don't have this problem, since they don't require a magnetic charge. LCD monitors also don't use a tube, which is what enables them to be much thinner than CRT monitors. While CRT displays are still used by graphics professionals because of their vibrant and accurate color, LCD displays now nearly match the quality of CRT monitors. Therefore, flat screen displays are well on their way to replacing CRT monitors in both the consumer and professional markets.

DDR

Stands for "Double Data Rate." It is an advanced version of SDRAM, a type of computer memory. DDR-SDRAM, sometimes called "SDRAM II," can transfer data twice as fast as regular SDRAM chips. This is because DDR memory can send and receive signals twice per clock cycle. The efficient operation of DDR-SDRAM makes the memory great for notebook computers since it uses up less power.

Dial-up

Example: "Before switching to DSL, the family connected to the Internet using a dial-up connection."

A dial-up connection uses a modem to connect to an ISP or another computer. It uses standard analog phone lines to transfer data up to 56 Kbps. Before the year 2000, dial-up was the standard way to connect to Internet. However, most users now connect to the Internet is via aDSL or cable modem connection. Both cable and DSL services provide a constant connection and support data transfer speeds over 100 times faster than dial-up modems.

DNS

Stands for "Domain Name System." The primary purpose of DNS is to keep Web surfers sane. Without DNS, we would have to remember the IP address of every site we wanted to visit, instead of just the domain name. Can you imagine having to remember "17.254.3.183" instead of just "apple.com"? While I have some Computer Science friends who might prefer this, most people have an easier time remembering simple names.

The reason the Domain Name System is used is because Web sites are acutally located by their IP addresses. For example, when you type in "http://www.adobe.com," the computer doesn't immediately know that it should look for Adobe's Web site. Instead, it sends a request to the nearest DNS server, which finds the correct IP address for "adobe.com." Your computer then attempts to connect to the server with that IP number. DNS is just another one of the many features of the Internet that we take for granted.

DOS

Stands for "Disk Operating System." DOS was the first operating system used by IBM-compatible computers. It was originally available in two versions that were essentially the same, but marketed under two different names. "PC-DOS" was the version developed by IBM and sold to the first IBM-compatible manufacturers. "MS-DOS" was the version that Microsoft bought the rights to, and was bundled with the first versions of Windows.

DOS uses a command line, or text-based interface, that allows the user to type commands. By typing simple instructions such as `pwd` (print working directory) and `cd` (change directory), the user can browse the files on the hard drive, open files, and run programs. While the commands are simple to type, the user must know the basic commands in order to use DOS effectively (similar to Unix). This made the operating system difficult for novices to use, which is why Microsoft later bundled the graphic-based Windows operating system with DOS.

The first versions of Windows (through Windows 95) actually ran on top of the DOS operating system. This is why so many DOS-related files (such as .INI, .DLL, and .COM files) are still used by Windows. However, the Windows operating system was rewritten for Windows NT (New Technology), which enabled Windows to run on its own, without using DOS. Later versions of Windows, such as Windows 2000, XP, and Vista, also do not require DOS.

DOS is still included with Windows, but is run from the Windows operating system instead of the other way around. The DOS command prompt can be opened in Windows by selecting "Run..." from the Start Menu and typing `cmd`.

DPI

Stands for "Dots Per Inch." DPI is used to measure the resolution of an image both on screen and in print. As the name suggests, the DPI measures how many dots fit into a linear inch. Therefore, the higher the DPI, the more detail can be shown in an image.

It should be noted that DPI is **not** dots per square inch. Since a 600 dpi printer can print 600 dots both horizontally and vertically per inch, it actually prints 360,000 (600 x 600) dots per square inch.

Also, since most monitors have a native resolution of 72 or 96 pixels per inch, they cannot display a 300 dpi image in actual size. Instead, when viewed at 100%, the image will look much larger than the print version because the pixels on the screen take up more space than the dots on the paper.

DVI

Stands for "Digital Video Interface." DVI is a video connection standard created by the Digital Display Working Group (DDWG). Most DVI ports support both analog and digital displays. If the display is analog, the DVI connection converts the digital signal to an analog signal. If the display is digital, no conversion is necessary.

There are three types of DVI connections: 1) DVI-A (for analog), 2) DVI-D (for digital), and 3) DVI-I (integrated, for both analog and digital). The digital video interface supports high bandwidth signals, over 160 MHz, which means it can be used for high resolution displays such as UXGA and HDTV. You may find DVI ports on video cards in computers as well as on high-end televisions.

E-commerce

E-commerce (electronic-commerce) refers to business over the Internet. Web sites such as Amazon.com, Buy.com, and eBay are all e-commerce sites. The two major forms of e-commerce are Business-to-Consumer (B2C) and Business-to-Business (B2B). While companies like Amazon.com cater mostly to consumers, other companies provide goods and services exclusively to other businesses. The terms "e-business" and "e-tailing" are often used synonymously with e-commerce. They refer to the same idea; they are just used to confuse people trying to learn computer terms.

FAQ

Stands for "Frequently Asked Questions," and can be pronounced "fak" or simply "F-A-Q." An FAQ is a text file that is created to answer common questions a user may have about a certain software program or that a newcomer to a Web site might have regarding the site. Web sites will often refer visitors to an FAQ before asking them to e-mail their questions, which helps cut down on tech support. While FAQs are common for software programs and Web sites, FAQs can be written for other topics such as company information, computer hardware, technology standards, and video games.

FIFO

Stands for "First In, First Out." FIFO is a method of processing and retrieving data. In a FIFO system, the first items entered are the first ones to be removed. In other words, the items are removed in the same order they are entered.

To use a real world analogy, imagine a vending machine where the items are loaded from the back. When someone selects a Milky Way bar from row E5, the machine churns out the candy bar closest to the front. The next Milky Way in line then moves to the front. Therefore, using the FIFO method, the candy bars are dispensed in the order they were placed in the machine.

Computers often implement the FIFO system when extracting data from an array or buffer. If the first data entered into the buffer must be extracted first, the FIFO method is used. The opposite of FIFO is LIFO, in which the last data entered is the first to be removed.

Freeware

Like shareware, freeware is software you can download, pass around, and distribute without any initial payment. However, the great part about freeware is that you never have to pay for it. No 30 day limit, no demo versions, no disabled features -- it's totally free. Things like minor program updates and small games are commonly distributed as freeware. Though freeware does not cost anything, it is still copyrighted, so other people can't market the software as their own.

FTP

Stands for "File Transfer Protocol." It is a common method of transferring files via the Internet from one computer to another. Some common FTP programs are "Fetch" for the Mac, and "WS_FTP" for Windows. However, you can also use a Web browser like Netscape or Internet Explorer to access FTP servers. To do this, you need to type the URL of the server into the location field of the browser. For example: "ftp://ftp.servername.com/" will give you a listing of all the directories of the FTP server, "ftp://ftp.servername.com/directory/" will give you a listing of all the files available in that directory, and "ftp://ftp.servername.com/directory/filename" will download the actual file to your computer. Many FTP servers are "anonymous FTP" servers which means you can log in with the user name "anonymous" and your e-mail address as the password. Other FTP servers require a specific login in order to access the files.

GPS

Stands for "Global Positioning System." GPS is a satellite navigation system used to determine ground position and velocity (location, speed, and direction). Though it was created and originally used by the U.S. military, GPS is now available to the general public all over the world. GPS navigation systems are currently installed in a number of luxury cars, complete with an LCD map that shows the driver exactly where in the world he is. Advanced car GPS units can actually speak the directions to a certain destination and tell the driver when to turn. Cool, huh?

Hard Copy

A hard copy is a printed document. It may be a text file, photograph, drawing, or any other type of printable file. For example, instead of e-mailing a business memo, it may be sent out as a hard copy, or an actual physical paper containing the memo.

When a document is created on a computer, it is typically saved as a file on the the computer'shard drive. This is sometimes referred to as a soft copy. While the file can be easily opened and edited on a computer, it can also be easily deleted. Therefore, sometimes printing a hard copy is done to create a physical backup of the document.

Hard Disk

When you save data or install programs on your computer, the information is typically written to your hard disk. The hard disk is a spindle of magnetic disks, called platters, that record and store information. Because the data is stored magnetically, information recorded to the hard disk remains intact after you turn your computer off. This is an important distinction between the hard disk and RAM, or memory, which is reset when the computer's power is turned off.
The hard disk is housed inside the hard drive, which reads and writes data to the disk. The hard drive also transmits data back and forth between the CPU and the disk. When you save data on your hard disk, the hard drive has to write thousands, if not millions, of ones and zeros to the hard disk. It is an amazing process to think about, but may also be a good incentive to keep a backup of your data.

HDD

HDD is short for "hard disk drive." An HDD is a storage device used to store data. Unlike RAM, which requires electrical power to maintain its state, a hard disk drive stores data magnetically. Therefore, it retains its data when the power source is turned off or disconnected.

Most computers include either an HDD or an SSD that stores your files. For example, if your computer has an internal HDD, when you save a file, it is written to the hard disk drive. Additionally, the HDD stores pre-installed applications and other programs you add to your computer. Since modern HDDs have storage capacities of more than one terabyte, most users do not even come close to running out of disk space. However, if necessary, you can connect an external HDD (often called and external hard drive for additional storage or for backup purposes.

Important: The term "hard disk drive" may be used synonymously with the terms "hard drive" and "hard disk." Technically, an HDD and a hard drive refer to the same thing, while a hard disk refers to the actual magnetic platter inside the drive case.

HDMI

Stands for "High-Definition Multimedia Interface." HDMI is a digital interface for transmitting audio and video data in a single cable. It is supported by most HDTVs and related components, such as DVD and Blu-ray players, cable boxes, and video game systems.

While other types of A/V connections require separate cables for audio and video data, HDMI carries the audio and video streams together, greatly eliminating cable clutter. For example, a component cable connection requires three cables for video and two for audio, totaling five cables in all. The same information can be transmitted using one HDMI cable.

Because HDMI is a digital connection, HDMI cables are less prone to interference and signal noise than analog cables. Also, since most components, such as DVD players and digital cable boxes process information digitally, using HDMI eliminates the analog to digital conversion other interfaces require. Therefore, HDMI often produces the best quality picture and sound compared to other types of connections.

HDMI cables are typically more expensive than analog cables, largely because they cost more to manufacture. But it is important to remember that with HDMI, you don't need to buy separate audio and video cables. Besides, the single all-purpose connection may alone be worth the difference to those who don't like dealing with confusing cables and connections. Just remember that before you buy an HDMI cable, make sure the devices you are connecting have HDMI connections available.

HTML

Stands for "Hyper-Text Markup Language." This is the language that Web pages are written in. Also known as hypertext documents, Web pages must conform to the rules of HTML in order to be displayed correctly in a Web browser. The HTML syntax is based on a list of tags that describe the page's format and what is displayed on the Web page.

Fortunately, the HTML language is relatively easy to learn. Even more fortunately (so much for good grammar), many Web development programs allow you to create Web pages using a graphical interface. These programs allow you to place objects and text on the page and the HTML code is written for you.

HTTP

Stands for "HyperText Transfer Protocol." This is the protocol used to transfer data over the World Wide Web. That's why all Web site addresses begin with "http://". Whenever you type a URL into your browser and hit Enter, your computer sends an HTTP request to the appropriate Web server. The Web server, which is designed to handle HTTP requests, then sends to you the requested HTML page.

I/O

Stands for "Input/Output" and is pronounced simply "eye-oh." Computers are based on the fundamental idea that every input results in an output. For example, if you are running a word processor program and type a sentence on your keyboard, the text will appear on the screen. The keyboard is an input device and the screen is an output device. You might also print the text using a printer, which is another output device. The computer's CPU handles all the I/O operations, sending the data it receives to the correct path. The path may be to the video card, to the hard drive, or to the RAM, just to name a few.

The ports on the outside of a computer are commonly referred to as "I/O ports" because they are what connect input and output devices to the computer. Software developers use I/O to describe how a program will function, depending on what a user enters. For example, if the user presses the space bar key in a game, say "*Super Jumper Man*," the character on the screen will jump. Multiply that by several thousand other scenarios of user input and you have yourself a computer game.

ICT

Example: "Thanks to ICT, users can access information from all over the globe."

ICT is short for "Information and Communication Technologies." It is similar to IT (Information Technology), but focuses more on telecommunications mediums, such as the Internet, cell phone networks, and satellite technology. Modern forms of ICT have made it possible for users across the world to communicate with each other in real-time on a regular basis. Examples include instant messaging, video-conferencing, online multiplayer gaming, and social networking websites.

IEEE

Stands for the "Institute of Electrical and Electronics Engineers." This is a non-profit organization that develops, defines, and reviews electronics and computer science standards. Though it is a U.S. based organization, standards developed by the IEEE often become International standards. Some examples of commonly-used products standardized by the organization are the IEEE 1284 interface (a.k.a. Parallel Port), which many printers use, and the IEEE 1394 interface (a.k.a. Firewire), which is a super-fast connection for digital video cameras, hard drives, and other peripherals.

The IEEE describes itself as "the world's largest technical professional society -- promoting the development and application of electrotechnology and allied sciences for the benefit of humanity, the advancement of the profession, and the well-being of our members." Perhaps they could standardize a more simplified definition of their organization...

IP

Stands for "Internet Protocol." It provides a standard set of rules for sending and receiving data through the Internet. People often use the term "IP" when referring to an IP address, which is OK. The two terms are not necessarily synonymous, but when you ask what somebody's IP is, most people will know that you are referring to their IP address. That is, most people who consider themselves computer nerds.

IPv4

Example: "Most computers display their IP address in the IPv4 format."

IPv4 is the fourth revision of the Internet Protocol and is the most common version used today. It uses 32-bit addresses, which are formatted as "111.111.111.111." Each section may contain a number from 0 to 255, which provides a total of 4,294,967,296 (2^32) possible addresses.

Since each computer connected to the Internet must have a unique IP address, 4.3 billion IP addresses is not enough to cover the worldwide requirement for unique IPs (nice planning guys). Therefore, IPv6, which supports 128-bit IP addresses, is currently being developed to replace IPv4.

ISDN

Stands for "Integrated Services Digital Network." No, it's not the same thing as the ISBN you see in books. ISDN is a data transfer technology, created in 1984, that can transfer data significantly faster than a dial-up modem. ISDN enables wide-bandwidth digital transmission over the public telephone network, which means more data can be sent at one time. A typical ISDN connection can support transfer rates of 64K or 128K of data per second. While these speeds are faster than what you can get with a dial-up modem, the newer DSL technology can support even faster transfer rates and is less costly to set up and maintain.

ISP

Stands for "Internet Service Provider." In order to connect to the Internet, you need an ISP. It is the company that you (or your parents) pay a monthly fee to in order to use the Internet. If you use a dial-up modem to connect to your ISP, a point-to-point protocol (PPP) connection is established with another modem on the ISP's end. That modem connects to one of the ISP's routers, which routes you to the Internet "backbone." From there, you can access information from anywhere around the world. DSL and cable modems work the same way, except after you connect the first time, you are always connected.

IT

Stands for "Information Technology," and is pronounced "I.T." It refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies. Many companies now have IT departments for managing the computers, networks, and other technical areas of their businesses. IT jobs include computer programming, network administration, computer engineering, Web development, technical support, and many other

related occupations. Since we live in the "information age," information technology has become a part of our everyday lives. That means the term "IT," already highly overused, is here to stay.

JPEG

The term actually stands for "Joint Photographic Experts Group," because that is the name of the committee that developed the format. But you don't have to remember that because even computer nerds will think you're weird if you mention what JPEG stands for. Instead, remember that a JPEG is a compressed image file format. JPEG images are not limited to a certain amount of color, like GIF images are. Therefore, the JPEG format is best for compressing photographic images. So if you see a large, colorful image on the Web, it is most likely a JPEG file.

While JPEG images can contain colorful, high-resolution image data, it is a lossy format, which means some quality is lost when the image is compressed. If the image is compressed too much, the graphics become noticeably "blocky" and some of the detail is lost. Like GIFs, JPEGs are crossplatform, meaning the same file will look the same on both a Mac and PC.

File extensions: .JPG, .JPEG

Kbps

Stands for "Kilobits Per Second." Don't confuse this with Kilobytes per second (which is 8 times more data per second). This term is commonly used in describing data transfer rates. For example, two common modem speeds are 33.6 Kbps and 56 Kbps.

LAN

Stands for "Local Area Network," and is pronounced like "land" without the "d". (Computer people will think you're weird if you pronouce it "L-A-N"). A LAN is a computer network limited to a small area such as an office building, university, or even a residential home. Most mid to large-sized businesses today use LANs, which makes it easy for employees to share information. Currently, the most common type of LANs are Ethernet-based and use software from Novell or Oracle. However, with the emergence of wireless networking, wireless LANs have become a popular alternative.

LCD

Stands for "Liquid Crystal Display." LCDs are super-thin displays that are used in laptop computer screens and flat panel monitors. Smaller LCDs are used in handheld TVs, PDAs, and portable video game devices. The image on an LCD screen is created by sandwiching an electrically reactive substance between two electrodes. This color of this substance can be changed by increasing or reducing the electrical current. Since LCD screens are based on the principle of blocking light (rather than emitting it), they use up much less power than standard CRT (Cathode-Ray Tube) monitors.

LED

Example: "Many modern cars use LEDs for their brake lights."

LED is short for "Light-Emitting Diode." It is a type of electronic light source that is activated by an electrical current. LEDs are highly energy-efficient and last much longer than traditional light bulbs. They can used for indicator lights, clock displays, street lights, and many other applications. LEDs have also begun to replace traditional bulbs as the backlight source in LCDmonitors and TVs.

MAC Address

Stands for "Media Access Control Address," and no, it is not related Apple Macintosh computers. A MAC address is a hardware identification number that uniquely identifies each device on a network. The MAC address is manufactured into every network card, such as anEthernet card or Wi-Fi card, and therefore cannot be changed.

Because there are millions of networkable devices in existence, and each device needs to have a unique MAC address, there must be a very wide range of possible addresses. For this reason, MAC addresses are made up of six two-digit hexadecimal numbers, separated by colons. For example, an Ethernet card may have a MAC address of 00:0d:83:b1:c0:8e. Fortunately, you do not need to know this address, since it is automatically recognized by most networks.

Mbps

Stands for "Megabits Per Second." One megabit is equal to one million bits or 1,000 kilobits. While "megabit" sounds similar to "megabyte," a megabit is roughly one eighth the size of a megabyte (since there are eight bits in a byte). Mbps is used to measure data transfer speeds of high bandwidth connections, such as Ethernet and cable modems.

Modem

The word modem is actually short for Modulator/Demodulator. (There's something you can really impress your friends with). A modem is a communications device that can be either internal or external to your computer. It allows one computer to connect another computer and transfer data over telephone lines. The original dial-up modems are becoming obsolete because of their slow speeds and are being replaced by the much faster cable and DSL modems.

Monitor

The term "monitor" is often used synonymously with "computer screen" or "display." The monitor displays the computer's user interface and open programs, allowing the user to interact with the computer, typically using the keyboard and mouse.

Older computer monitors were built using cathode ray tubes (CRTs), which made them rather heavy and caused them to take up a lot of desk space. Most modern monitors are built usingLCD technology and are commonly referred to as flat screen displays. These thin monitors take up much less space than the older CRT displays. This means people with LCD monitors have more desk space to clutter up with stacks of papers, pens, and other objects.

"Monitor" can also be used as a verb. A network administrator may monitor network traffic, which means he watches the traffic to make sure the bandwidth usage is within a certain limit and checks to see what external sources may be attempting to access the network. Software programs may monitor the system's CPU performance as well as RAM and hard disk usage.

Finally, monitors also refer to speakers used for monitoring sound. Audio engineers typically use "studio monitors" to listen to recordings. These high-end speakers allow the engineers to accurately mix and master audio tracks. So a sound mixer could be monitoring a recording visually using a computer monitor, while monitoring the sound using audio monitors at the same. As you can tell, "monitor" serves as a rather multipurpose word.

Motherboard

The motherboard is the main circuit board of your computer and is also known as the mainboard or logic board. If you ever open your computer, the biggest piece of silicon you see is the motherboard. Attached to the motherboard, you'll find the CPU, ROM, memory RAMexpansion slots, PCI slots, and USB ports. It also includes controllers for devices like the hard drive, DVD drive, keyboard, and mouse. Basically, the motherboard is what makes everything in your computer work together.

Each motherboard has a collection of chips and controllers known as the chipset. When new motherboards are developed, they often use new chipsets. The good news is that these boards are typically more efficient and faster than their predecessors. The bad news is that older components often do not work with new chipsets. Of course, if you are planning on upgrading multiple components, it may be more cost-effective to just buy a new computer.

MPEG

Stands for "Moving Picture Experts Group." The MPEG organization, which works with the International Organization for Standardization (ISO), develops standards for digital audio and video compression. The group constantly works to develop more efficient ways to digitally compress and store audio and video files.

The term MPEG also refers to a type of multimedia file, which is denoted by the file extension ".mpg" or ".mpeg." These files are compressed movies that can contain both audio and video. Though they are compressed, MPEG files maintain most of the original quality of the uncompressed movie. This is why many videos on the Web, such as movie trailers and music videos, are available in the MPEG format.

File extensions: .MPG, .MPE, .MPEG

Multimedia

As the name implies, multimedia is the integration of multiple forms of media. This includes text, graphics, audio, video, etc. For example, a presentation involving audio and video clips would be considered a "multimedia presentation." Educational software that involves animations, sound, and text is called "multimedia software." CDs and DVDs are often considered to be "multimedia formats" since they can store a lot of data and most forms of multimedia require a lot of disk space.

Due to the advancements in computer speeds and storage space, multimedia is commonplace today. Therefore, the term doesn't produce the same excitement is once did. This also means it is not as overused as it was back in the late '90s. Thank goodness.

Null

When a variable has no value, it considered to be null. Having a null value is different than having a value of 0, since 0 is an actual value. However, when used in a boolean test, both null and zero result in a FALSE value. Programmers often use boolean tests to determine whether a variable has been given a value or not.

OCR

Stands for "Optical Character Recognition." This technology is what allows you to scan that paper you lost on your hard drive, but fortunately printed out, back into your computer. When a page of text is scanned into a computer without OCR software, all the computer sees is a bunch graphical bits, or an image. In other words, it has no idea that there is text on the page, much less what the text says. However, an OCR program can convert the characters on the page into a text document that can be read by a word processing program. More advanced OCR programs can even keep the formatting of the document in the conversion.

OEM

Stands for "Original Equipment Manufacturer." This refers to a company that produces hardware to be marketed under another company's brand name. For example, if Sony makes a monitor that will marketed by Dell, a "Dell" label will get stuck on the front, but the OEM of the monitor is Sony. You can also use the term as a verb, such as, "That Dell monitor over there is OEM'd by Sony." That should impress your friends.

OSD

Example: "You can adjust the brightness of your display using your monitor's OSD."

OSD is short for "On Screen Display." An OSD is an onscreen menu included with most monitorsthat allows users to make adjustments to the display. Common OSD settings include brightness, contrast, and color calibration adjustments. Some monitors also include positioning settings and tilt control. You can activate the OSD by pressing the MENU button on the side of the monitor. Once the OSD appears, you can navigate through the menu options and make adjustments using the plus (+) and minus (-) buttons.

For information on "OSD Locked" messages, view this Help Center article.

Partition

A partition is a section of a hard disk. When you format a hard disk, you can usually choose the number of partitions you want. The computer will recognize each partition as a separate disk, and each will show up under "My Computer" (Windows) or on the desktop (Macintosh).

So why would you want to create multiple partitions? Well, there are two main reasons. One is if you want to have multiple operating systems on your computer. Typically, an operating system needs to be installed on its own partition so that it won't conflict with other operating systems on the machine. The other reason is that multiple partitions can improve the efficiency of your hard disk. On larger disks, the cluster or block size (which is the minimum amount of space a file can take up), is larger than on small disks. This can result in a waste of disk space if you have a lot of small files. So creating multiple partitions can actually give you more space. Yep, more room for all those MP3s. "Partition" can also be used as a verb, meaning to create multiple partitions.

PC

Stands for "Personal computer." PCs are are what most of us use on a daily basis for work or personal use. A typical PC includes a system unit, monitor, keyboard, and mouse. Most PCs today also have a network or Internet connection, as well as ports for connecting peripheraldevices, such as digital cameras, printers, scanners, speakers, external hard drives, and other components.

Personal computers allow us to write papers, create spreadsheets, track our finances, play games, and do many other things. If a PC is connected to the Internet, it can be used to browse the Web, check e-mail, communicate with friends via instant messaging programs, anddownload files. PCs have become such an integral part of our lives that it can be difficult to imagine life without them!

While PC stands for "personal computer," the term can be a bit ambiguous. This is becauseMacintosh computers are often contrasted with PCs, even though Macs are also technically PCs. However, Apple itself has used the term "PC" to refer to Windows-based machines, as opposed to its own computers, which are called "Macs." While the Mac/PC dilemma remains, PCs can always contrasted with other types of computers, such as mainframes and servercomputers, such as Web servers and network file servers. In other words, if you use a computer at home or at work, you can safely call it a PC.

PCI

Stands for "Peripheral Component Interconnect." It is a hardware bus designed by Intel and used in both PCs and Macs. Most add-on cards such as SCSI, Firewire, and USB controllers, use a PCI

connection. Some graphics cards use PCI, but most new graphics cards connect to the AGP slot. PCI slots are found in the back of your computer and are about 3.5" long and about 0.5" high. So before you go buy that Firewire expansion card, make sure you have at least one PCI slot available.

PDF

Stands for "Portable Document Format." PDF is a multi-platform file format developed by Adobe Systems. A PDF file captures document text, fonts, images, and even formatting of documents from a variety of applications. You can e-mail a PDF document to your friend and it will look the same way on his screen as it looks on yours, even if he has a Mac and you have a PC. Since PDFs contain color-accurate information, they should also print the same way they look on your screen.

To view a PDF file, you need Adobe Reader, a free application program distributed by Adobe Systems. Adobe also makes an Acrobat Plug-in for Web browsers that enables PDF files to be viewed inside a browser window. For more information on PDFs, visit Abobe's PDF Page.

File extension: .PDF

Plug and Play

Plug and Play, sometimes, abbreviated PnP, is a catchy phrase used to describe devices that work with a computer system as soon as they are connected. The user does not have to manually install drivers for the device or even tell the computer that a new device has been added. Instead the computer automatically recognizes the device, loads new drivers for the hardware if needed, and begins to work with the newly connected device.

For example, if you connect a Plug-and-Play mouse to the USB port on your computer, it will begin to work within a few seconds of being plugged in. A non plug-and-play device would require you to go through several steps of installing drivers and setting up the device before it would work.

While Plug and Play usually refers to computer peripheral devices, such as keyboards and mice, it can also be used to describe internal hardware. For example, a video card or hard drive may be a Plug and Play device, meaning the computer will recognize it as soon as it is installed. The only difference is that internal components usually require the computer to be turned off when they are installed, while external devices can typically be installed while the computer is running.

Power Supply

Example: "The computer would not start up because it had a bad power supply."

A power supply is a component that regulates and provides power to an electrical device. It receives power from a wall outlet, battery pack, or other electrical source and converts the current and voltage to the correct amount required by the connected device. Most computershave internal power supplies, while other devices may use external power supplies that are attached directly to the power cable.

PPM

Stands for "Pages Per Minute." PPM is used to measure the printing speed of both inkjet andlaser printers. Most printers include a PPM rating for both black and color documents. These speed measurements are typically listed in the printer's technical specifications.

While a higher pages per minute rating does indicate a faster printing speed, this measurement can be misleading. This is because manufacturers measure the maximum PPM in the fastest printing mode, a.k.a. "economy mode," which is also the lowest quality. When printing in regular mode, the speed may be twice as slow. When printing in fine or high-quality mode, the speed will likely be reduced even further.

Furthermore, a printer's maximum PPM speed is measured using basic text pages, with no graphics, lines, or other objects. Therefore, if you have a text document that includes a picture, the page could take several times longer to print than a plain text document. If you are going to be printing a lot of color photos, make sure to check the printer's photo printing speed, which is often significantly slower than the printer's maximum PPM. Finally, the PPM measurement does not take into account how long it takes the printer to warm up and begin printing. Therefore, if you are only printing one or two pages, the warm up time may be longer than the actual time it takes to print the document.

In summary, PPM gives a general idea of how fast a printer is. But since there are several other variables involved that determine a printer's speed, PPM does not always accurately reflect a printer's speed. Therefore, when choosing a printer, it may be helpful to read some reviews about the printer you are interested in. The reviews may give you a better idea of the printer's real-world speed an quality than the numbers on the box do.

PPPoE

Example: "DSL Internet connections often require the network configuration to be set to PPPoE."

PPPoE is short for "Point-to-Point Protocol over Ethernet" and is pronounced "P-P-P-oh-E." It is a protocol commonly used by DSL providers for establishing a PPP connection over

anEthernet network. PPPoE is often seen as an alternative to DHCP, which is the standard network configuration used by cable Internet providers.

Since most DSL modems connect to a computer or router via an Ethernet cable, computers cannot connect to an ISP directly via PPP (like a traditional dial-up modem). Therefore, the network configuration must be set to PPPoE, which allows both the Ethernet and PPP protocols to work in tandem. This option is available in the Network control panel in Windows and the Network system preference in Mac OS X. In order to configure a PPPoE connection, you typically need to enter username and password, as well as a service name, which is provided by your ISP.

RAM

Stands for "Random Access Memory," and is pronounced like the male sheep. RAM is made up of small memory chips that form a memory module. These modules are installed in the RAM slots on the motherboard of your computer.

Every time you open a program, it gets loaded from the hard drive into the RAM. This is because reading data from the RAM is much faster than reading data from the hard drive. Running programs from the RAM of the computer allows them to function without any lag time. The more RAM your computer has, the more data can be loaded from the hard drive into the RAM, which can effectively speed up your computer. In fact, adding RAM can be more beneficial to your computer's performance than upgrading the CPU.

To check how much RAM a Windows computer has, open the "System" Control Panel. This can be done by right-clicking "My Computer" and selecting "Properties..." To view how much RAM is installed in a Macintosh computer, select "About This Mac" from the Apple Menu.

Recycle Bin

The Recycle Bin in used by Windows computers to store deleted items. It temporarily storesfiles and folders before they are permanently deleted. You can open the Recycle Bin by double-clicking the icon on the Windows desktop. The Recycle Bin window allows you to delete items individually or restore them to their original location. If you want to permanently remove all items in the Recycle Bin, select "Empty the Recycle Bin" in the left sidebar of the window.

RGB

Stands for "Red Green Blue." It refers to the three hues of light (red, green, and blue, for those of you that are a little slow), that can mix together to form any color. When the highest intensity of each color is mixed together, white light is created. When each hue is set to zero intensity, the result is black. TVs and computer monitors use RGB to create the colorful images you see on the screen. In print, however, the 4 colors -- cyan, yellow, magenta, and black (CYMK) -- are used to create color images.

ROM

Stands for "Read-Only Memory." Please do not confuse this term with RAM or a hard drive, as many people already do. ROM is memory containing hardwired instructions that the computer uses when it boots up, before the system software loads. In PCs, the instructions are read from a small program in the ROM, called the BIOS (Basic Input/Output System).

SD

Stands for "Secure Digital." It is a type of memory card used for storing data in devices such as digital cameras, PDAs, mobile phones, portable music players, and digital voice recorders. The card is one of the smaller memory card formats, measuring 24mm wide by 32mm long and is just 2.1mm thick. To give the cards some orientation, the top-rght corner of each SD card is slanted. Even though the cards are extremely small, as of late 2004, they can hold up to 8GB of data.

Part of the reason the cards are called "Secure Digital" cards is because the cards have a copyright protection feature built in. The security feature, called "key revocation" means protected data on the card can only be read by specific devices. The cards can have both secured and unsecured areas on them for copyrighted and non-copyrighted data. For more information on SD cards, visit the SD Card Association.

SDSL

Stands for "Symmetric Digital Subscriber Line." SDSL is a type of of DSL, which is used for transferring data over copper telephone lines. The "symmetric" part of the term means that an SDSL connection has the same maximum upload and download speeds.

ADSL, on the other hand, typically provides much faster download speeds than upload speeds. Because most Internet users download much more data than they upload, ISPs usually offer ADSL connections rather than SDSL.

SMS

Stands for "Short Message Service." SMS is used to send text messages to mobile phones. The messages can typically be up to 160 characters in length, though some services use 5-bit mode, which supports 224 characters. SMS was originally created for phones that use GSM (Global System for Mobile) communication, but now all the major cell phone systems support it.

While SMS is most commonly used for text messaging between friends or co-workers, it has several other uses as well. For example, subscription SMS services can transmit weather, news, sports updates, and stock quotes to users' phones. SMS can also notify employees of sales inquiries, service stops, and other information pertinent to their business. Doctors can receive SMS messages regarding patient emergencies.

Fortunately, text messages sent via SMS do not require the recipient's phone to be on in order for the message to be successfully transmitted. The SMS service will hold the message until the recipient turns on his or her phone, at which point the message will be be sent to the recipient's phone. Most cell phone companies allow you to send a certain number of text messages every month for no charge. Though it would be a good idea to find out what that number is before you go text message crazy.

Soft Copy

A soft copy is a document saved on a computer. It is the electronic version of a document, which can be opened and edited using a software program.

The term "soft copy" is most often used in contrast to hard copy, which is the printed version of a document. Soft copies can be sent via e-mail or over a network connection, which makes them a more efficient and cost effective option than using hard copies for communications. The downside to using soft copies is that they require a computer and software to open and can be accidentally deleted. Of course, some people have so many papers on their desks, a soft copy may be less likely to disappear.

Spyware

As the name implies, this is software that "spies" on your computer. Nobody likes to be spied on, and your computer doesn't like it either. Spyware can capture information like Web browsing habits, e-mail messages, usernames and passwords, and credit card information. If left unchecked, the software can transmit this data to another person's computer over the Internet.

So how does spyware get on your computer? Just like viruses, spyware can be installed when you open an e-mail attachment containing the malicious software. It can also be installed when you install another program that has a spyware installer attached to it. Because of the insidious nature of spyware, most people don't even know when spyware is on their computer. Fortunately, you can purchase anti-spyware utilities that will search for spyware on your computer and stomp the unwanted software out of your system. A good way to prevent spyware from infecting your computer is to install a security program that lets you know when any program is being installed, so that you can choose to authorize or stop the installation.

SQL

Stands for "Structured Query Language," and can be pronounced as either "sequel" or "S-Q-L." It is a query language used for accessing and modifying information in a database. Some common SQL commands include "insert," "update," and "delete." The language was first created by IBM in 1975 and was called SEQUEL for "Structured English Query Language." Since then, it has undergone a number of changes, many coming from Oracle products.

Today, SQL is commonly used for Web database development and management. Though SQL is now considered to be a standard language, there are still a number of variations of it, such as mSQL and mySQL. By using a scripting language like PHP, SQL commands can be executed when a Web page loads. This makes it possible to create dynamic Web pages that can display different information each time they load.

TCP/IP

Stands for "Transmission Control Protocol/Internet Protocol." These two protocols were developed in the early days of the Internet by the U.S. military. The purpose was to allow computers to communicate over long distance networks. The TCP part has to do with the verifying delivery of the packets. The IP part refers to the moving of data packets between nodes. TCP/IP has since then become the foundation of the Internet. Therefore, TCP/IP software is built into all major operating systems, such as Unix, Windows, and the Mac OS.

UPS

Stands for "Uninterruptible Power Supply." In the technology world, UPS is more than just a brown shipping company. It is also a type of power supply that uses battery backup to maintain power during unexpected power outages.

A typical consumer UPS is a surge protector that contains a high-capacity rechargeable battery. Smaller UPS devices look like bulky power strips, while larger ones may stand upright and look almost like small computers. Many businesses use uninterruptible power supplies to keep their equipment running in case of a power failure. While a UPS may only keep a computer running for 15 minutes after the power is lost, it is usually sufficient time to save all necessary documents and properly shut down the computer. That extra time can be invaluable to someone who is working on an important document or project that has not been recently saved.

Because UPS devices run the power through a battery, they have a limit on the wattage load they can support. The maximum power load limit is often included in the name of the UPS, followed by the letters "VA." For example, the APC (American Power Conversion) Battery Backup 750VA has a load limit of 750VA. However, the maximum wattage a UPS supports is typically 60% of the VA number. So the 750VA UPS supports a maximum of 450 watts for connected devices. It is important to check how many total watts your computer setup uses before buying a UPS to make sure you get one with enough wattage so you don't overload it.

URL

Stands for "Uniform Resource Locator." A URL is the address of a specific Web site or file on the Internet. It cannot have spaces or certain other characters and uses forward slashes to denote different directories. Some examples of URLs are http://www.cnet.com/, http://web.mit.edu/, and ftp://info.apple.com/. As you can see, not all URLs begin with "http". The first part of a URL indicates what kind of resource it is addressing. Here is a list of the different resource prefixes:

- http - a hypertext directory or document (such as a Web page)
- ftp - a directory of files or an actual file available to download
- gopher - a gopher document or menu
- telnet - a Unix-based computer system that you can log into
- news - a newsgroup
- WAIS - a database or document on a Wide Area Information Search database
- file - a file located on your hard drive or some other local drive

The second part of a URL (after the "://") contains the address of the computer being located as well as the path to the file. For example, in "http://www.cnet.com/Content/Reports/index.html," "www.cnet.com" is the address or domain name of the host computer and "/Content/Reports/index.html" is the path to the file. When a address ends with a slash and not something like ".html" or ".php," the Web server typically defaults to a file in the current directory named "index.html," "index.htm," or "index.php." So, if you type in "http://www.apple.com/" and "http://www.apple.com/index.html," you should get the same page. Go ahead and try it if you have nothing better to do.

USB

Stands for "Universal Serial Bus." USB is the most common type of computer port used in today's computers. It can be used to connect keyboards, mice, game controllers, printers, scanners, digital cameras, and removable media drives, just to name a few. With the help of a few USB hubs, you can connect up to 127 peripherals to a single USB port and use them all at once (though that would require quite a bit of dexterity).

USB is also faster than older ports, such as serial and parallel ports. The USB 1.1 specification supports data transfer rates of up to 12Mb/sec and USB 2.0 has a maximum transfer rate of 480 Mbps. Though USB was introduced in 1997, the technology didn't really take off until the introduction of the Apple iMac (in late 1998) which used USB ports exclusively. It is somewhat ironic, considering USB was created and designed by Intel, Compaq, Digital, and IBM. Over the past few years, USB has become a widely-used cross-platform interface for both Macs and PCs.

VGA

Stands for "Video Graphics Array." It is the standard monitor or display interface used in most PCs. Therefore, if a montior is VGA-compatible, it should work with most new computers. The VGA standard was originally developed by IBM in 1987 and allowed for a display resolution of 640x480 pixels. Since then, many revisions of the standard have been introduced. The most common is Super VGA (SVGA), which allows for resolutions greater than 640x480, such as 800x600 or 1024x768. A standard VGA connection has 15 pins and is shaped like a trapezoid.

VoIP

Stands for "Voice Over Internet Protocol," and is often pronounced "voip." VoIP is basically a telephone connection over the Internet. The data is sent digitally, using the Internet Protocol (IP) instead of analog telephone lines. This allows people to talk to one another long-distance and around the world without having to pay long distance or international phone charges.

In order to use VoIP, you need a computer, an Internet connection, and VoIP software. You also need either a microphone, analog telephone adapter, or VoIP telephone. Many VoIP programs allow you to use a basic microphone and speaker setup. Others requires VoIP phones, which are like regular telephone handsets, but typically connect to your computer viaUSB. Analog telephone adapters allow you to use regular phones with your computer. IP phones are another option that connect directly to a router via Ethernet or wirelessly. These phones have all the necessary software for VoIP built in and therefore do not require a computer.

The largest provider of VoIP services is Vonage, but there are several other companies that offer similar services. While Vonage charges a monthly service fee, programs like Skype and PeerMe allow users to connect to each other and talk for free. However, these free services may offer fewer connections, lower audio quality, and may be less reliable than paid services like Vonage.

VoIP is also referred to as IP telephony, Internet telephony, and digital phone

VPN

Stands for "Virtual Private Network" (not a successor to the UPN television network). VPN is a network term that most computer users don't need to know, but at least you can impress your friends by talking about it. A virtual private network is "tunneled" through a wide area networkWAN such as the Internet. This means the network does not have to be located in one physical location like a LAN. However, by using encryption and other security measures, a VPN can scramble all the data sent through the wide area network, so the network is "virtually" private.

Businesses often use VPNs to communicate across multiple locations. For example, a large company that has offices in several cities may need to send data to the different locations via the Internet. To keep the information secure, the company might set up a VPN with an encrypted connection. This is similar to having a secure intranet over the Internet. On a smaller scale, individual users may have a VPN account with their company, which allows them to connect to their office computer from their home or another location. This is especially helpful for business travelers who need to access office data from their laptops.

WAN

Stands for "Wide Area Network." It is similar to a Local Area Network (LAN), but it's a lot bigger. Unlike LANs, WANs are not limited to a single location. Many wide area networks span long distances via telephone lines, fiber-optic cables, or satellite links. They can also be composed of smaller LANs that are interconnected. The Internet could be described as the biggest WAN in the world. You could even call the Internet a Super WAN BAM if you wanted to. Or maybe not.

Wi-Fi

Example: "Many coffee shops offer customers Internet access through a Wi-Fi connection."
Wi-Fi is a wireless networking standard trademarked by the Wi-Fi Alliance. It refers to all networking equipment that is based on one of the IEEE 802.11 standards. Wi-Fi allows computers and other devices to connect to wireless routers and therefore other systems on the network. If the router is connected to the Internet, devices connected to the wirelessaccess point may also have Internet access.

WWW

Stands for "World Wide Web." It is important to know that this is not a synonym for the Internet. The World Wide Web, or just "the Web," as ordinary people call it, is a subset of the Internet. The Web consists of pages that can be accessed using a Web browser. The Internet is the actual network of networks where all the information resides. Things like Telnet, FTP, Internet gaming, Internet Relay Chat (IRC), and e-mail are all part of the Internet, but are not part of the World Wide Web. The Hyper-Text Transfer Protocol (HTTP) is the method used to transfer Web pages to your computer. With hypertext, a word or phrase can contain a link to another Web site. All Web pages are written in the hyper-text markup language (HTML), which works in conjunction with HTTP.