

Safe Computing for the College Bound



Dan Appleman

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This ebook is a supplement to “Always Use Protection: A Teen’s Guide to Safe Computing”, focusing on the computing needs of students heading off to college. In this book you’ll learn:

- How to choose a computer for college – including the choice of notebook vs. desktop.
- What college networks are like, and some of the unique security risks they pose.
- The best ways to keep your computer, and the information on it, safe while in college.
- What you can expect in terms of rules and regulations for network use when you arrive on campus.

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Author’s Bio:

Daniel Appleman is the author of “Always Use Protection: A Teen’s Guide to Safe Computing”, “How Computer Programming Works” and numerous books for computer professionals. He is president of [Desaware Inc.](#), a developer of add-on products and components for Microsoft Visual Studio and a cofounder of [Apress](#) a computer book publishing company. He is also the author of a series of [Ebooks](#) on programming and other technology topics.

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Introduction

When I wrote the book “Always Use Protection: A Teen’s Guide to Safe Computing”, I started with the premise that teenagers in our society are actually more technologically advanced than most adults. They have the best computers in the house, spend the most time online, and are usually more familiar with technology than their parents. So it only makes sense that if our society is ever going to improve the overall security of home systems, we should start with teenagers (if only because if we wait for the average adult to secure their systems we could be waiting a very long time).

But if teens in general are at the leading edge of technology, than college students are without doubt at the bleeding edge (technology so advanced it’s sometimes painful). College dorms had high-speed Internet access long before home broadband access became popular. College students almost all have computers at school.

In this ebook you’ll read an overview of what every graduating high school senior needs to know before heading off the college, starting from the question of what kind of computer to buy (since leaving for college is an excuse for many to upgrade to a new computer), to how to prepare it for connection to a college network, to how to keep it secure while on campus.

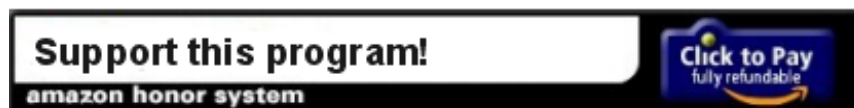
This book doesn’t try to teach you everything you need to know about computer security (that’s covered in the book “Always Use Protection”), but will serve as both a starting point before you read the book and a valuable supplement to those who already have.

Dan Appleman

www.AlwaysUseProtection.com

March 2004

Robert Heinlein coined a term: TANSTAAFL – There ain’t no such thing as a free lunch. If you purchased this ebook on Amazon.com – thank you. But if you downloaded it, please consider donating a dollar or two if you found it worthwhile. That will, at the very least, encourage me to write more of these ebooks in the future.



Choosing a Computer

I can't tell you how many times I've been asked by graduating seniors what kind of computer they should get before going off to college. It's not a surprising question – going to college is the perfect time to get a new machine. Chances are the one you've been using for the past couple of years is obsolete. It's also a time when many students consider getting a notebook computer for the first time.

Usually, when you read an article discussing what computer to buy, what you actually end up getting is a lot of discussion on what features to look for, and absolutely nothing as far as which brand or specific model to get. That's because articles generally appear in magazines, and few magazines want to show a preference for one brand of computer over another, because you never know when brand "X" might suddenly decide to advertise in your magazine (or stop, if they already are).

Fortunately, I don't have that problem. I can't promise to offer you the "perfect" choice for your needs. That's in part because I can't know your exact needs, but mostly because I don't think it's usually possible to come up with the perfect answer – not only are there always unexpected "quirks" in every computer, but your needs are sure to change after you buy your machine.

But the recommendations I offer are based on my own research and personal experience, and I think you'll be happy with them.

Notebook vs. Desktop

The biggest decision you have to make is whether you want a notebook or desktop computer. There are two issues to consider here:

- Performance and Value
- Lifestyle
- Risk of theft

Let's consider these one by one.

Performance and Value

Notebook computers have come down in price dramatically. However there is no doubt that you can still get a greater bang for the buck with a desktop. They're cheaper and faster.

Lifestyle

Notebooks lend themselves to a portable lifestyle, which (depending on your campus) can be a real advantage. You can take your work to a park, or to the library, or to a friend's room (say, when your room is being tied up by your roommate for a party or other purpose). You can take your notebook home with you on vacations and weekends.

Notebooks are not only smaller than desktops, they have the advantage of being possible to put away – a great advantage considering that the average size of a dorm room is only a bit larger than that of a walk-in closet in newer homes¹.

Risk of Theft

Let's face it, a notebook is much more likely to be stolen than a desktop – if only because it's easy for someone to just walk off with it. But desktops are not perfectly safe in college – dorms are rarely secure, and given that you'll probably be sharing a room, you're dependent not only on yourself remembering to lock up, but your roommate doing so as well.

Features: The latest isn't always the best choice

I've known quite a few students who chose their computer by comparing features and choosing the very best computer they could afford – in part under the argument that it will be longer until the machine is obsolete.

There are two big problems with that approach.

First, you end up paying a high premium for the very latest technology, in many cases gaining features or performance you really don't need.

Second, it really doesn't matter, because whatever computer you buy will be obsolete within a few days anyway.

You can save a significant amount of money – I mean as much as 50% off current prices or more, by purchasing a computer that is about six months to a year old. By this I don't mean a used computer – rather a discontinued model or refurbished unit. Not only does it save you cash, but you can then go ahead and buy a second machine or a newer machine in a year or two, and still pay less than a top model system today.

What does refurbished actually mean?

A refurbished machine can be one of two things: it can be unit that was purchased and then returned by a customer. It's then examined and tested by the factory and resold at a discount. Some refurbished machines are actually brand new – this happens when the manufacturer has too much stock of a discontinued model and wants to clear them out of inventory. Some web sites will tell you which are refurbished and which are overstock units. If you get a refurbished machine, be sure to test it right away, as the warranty period may be limited.

What features do you need?

The big question you need to ask yourself today is whether or not you will be doing video editing and gaming.

If you don't need to do video work, you should look for the following features:

- Pentium IV, Celeron, Athalon or Duron processors at 1.5Ghz or faster.
- At least 2 USB Ports

¹ Hint: Even if you get a desktop, it's worth it to get a flat screen display. The typical college dorm desk will be almost completely taken over by a traditional CRT monitor.

- DVD player.
- CD R/W (Able to write CD-R or CD-RW). Some units come with combination DVD/CDRW drives. Some older notebooks don't include the CDRW, but it may still be cheaper to buy an older machine and upgrade or buy an external unit, than to buy the top of the line machine.
- 512 MB memory (Again, you can add this after the fact. One good source of memory is www.crucial.com).
- Built-in network adapter. Most are now 100Mbit.

Hard drives nowadays are so large that chances are slim it will be a concern.

You generally do NOT need a wireless adapter. Most schools have wired connectors into each dorm room. If you do end up needing a wireless adapter, they are easily added after the fact.

If you are planning to do video editing, you'll also want the following:

- IEEE 1394, also known as iLink or Firewire connector.
- As large a hard drive as you can get, and one with a rotation speed of 7200 (for desktops).
- More memory is better for video editing.

If video editing is a high priority for you, you might consider a desktop instead of a notebook – they support larger and faster hard drives.

Gaming Computers

If you are planning to do a lot of online gaming, you need to use more care in your selection. The newer games sometimes require newer graphic cards and thus may not run on older computers. **This is an especially serious concern with notebook computers, where the built-in graphics card is generally not upgradeable.**

If you choose a notebook, you should look up the graphics controller information before purchasing and check its compatibility with the games you are interested in playing. Keep in mind that newer games that come out may not be compatible with your graphic card.

Because notebook performance is usually not as high as desktop performance, they are not as good for gaming as desktop machines. However, the newer notebooks will do a satisfactory job for most games.

What Brand Should I Get?

Everyone has their favorite brand and their own priorities for choosing a computer. Perhaps you know someone who works at a company who can get you a great deal? Perhaps you have a friend who is great at building custom computers. Perhaps gaming is your top priority, so you want a souped up gaming machine?

If you're knowledgeable about computers and features, and experienced at shopping for machines, I encourage you to read what follows, but feel free to ignore the advice. It is, however, important that you understand the reasoning behind my recommendations so that you can apply them to your own decision process.

Following these recommendations are should provide satisfactory results for most students.

The key factor to consider isn't looks, isn't features, and isn't even value. It's actually reliability and support.

When you're in college, you're on a tight schedule – especially when on the quarter system. And Murphy's Law² pretty much guarantees that if your computer is going to crash, or fail, or eat your term paper, it will do so the night before that paper is due. Your screen will fail the day before the final. Your battery will die right before you have a chance to save that project.

So you want a computer that...

- Is a good value
- Is reliable
- Has a great support web site
- Has someone you can reach on the phone at 2:00am to help when something goes wrong.

If your priorities are different, you'll want to do further research. For example: serious gamers might prefer machines by Alienware (www.alienware.com). You should also visit websites that post customer reviews (such as www.epinions.com) to get a sense of other customer's experience.

Also, if you're the kind of person who likes to do their own computer repair, are very experienced at system software and configuration issues, and you have a good computer parts store near campus, you may not be as concerned about support issues.

Also, keep in mind that the suggestions that follow are based on recent experience with these companies, but past experience is no guarantee of future performance. It's just a good indicator.

Desktops

If you're buying a new machine, I recommend choosing either a Sony or Dell. I've had great luck with both, and both have 24x7 support service.

- For Sony, you can buy direct at www.sonystyle.com. And here's a hint – you can often buy last season's Sony machines or refurbished machines at a great discount. Two sites I've had good luck with are www.tigerdirect.com and www.ubid.com. I've had great luck with Sony's refurbished machines as well³.
- If you're buying Dell, you'll probably buy it directly from them at www.dell.com.

Notebooks

This one is easy – if you want to know which notebook to get, you take a look at what the “Road Warriors” use (that's people like me who do a lot of traveling, speak at conferences, work in hotel rooms, etc). The notebook you want is an [IBM ThinkPad](#).

² Everything that can go wrong, will go wrong – and at the worst possible time.

³ I have three of them at home, one of which is my main work system.

They are reliable, well made, and their support is outstanding⁴. They are also very compatible with different OS versions.

New machines are available directly from IBM, but as with the Sony, you can save a lot by getting a refurbished or previous season's model. For a good selection, visit www.tigerdirect.com. It's a good thing IBM's refurbished and discontinued models are good, because their newest ones do tend to be more expensive than other brands. But this is a case where you really are getting what you pay for.

Here's a hint – for IBM accessories, be sure to check IBM's online store. Astonishingly enough, they sometimes have the best available price for add-ons.

Why Major Brands?

Dell, Sony, IBM – these are among the biggest PC brands. Aside from support, there's another reason why you want one of these – especially if you are going into engineering or computer science. You may find yourself upgrading operating systems or loading multiple operating systems onto your computer during your time at school. You may find yourself trying out beta (pre-release software), or installing other systems such as Linux.

The people who develop operating systems (including both Windows and Linux) do their development and testing on certain machines. I can guarantee you that Microsoft has rooms full of Dells, Sonys and IBM ThinkPad's on which they test even the pre-release versions of their software. So by sticking with one of the major brands, you dramatically increase the chances that your hardware will be compatible with whatever software comes your way⁵.

One comment – avoid refurbished HP computers. I've had trouble with a number of their refurbished machines.

What about Apple?

This one's a tough one. Apple makes great machines and great notebooks. Their operating system is solid and arguably more secure than Windows. So if you're already familiar with Apples, there's no harm in sticking with them. Otherwise, see if you can reach someone on campus (or better yet, talk to people during a campus visit) and find out how many students on campus are using Apples. If it's a popular machine, you know you'll have good local support – in the form of other students who can help you out, software availability at the campus bookstore, etc. – so it can be a very good choice. But if you're going to be the only person in the dorm with an Apple, you can find yourself having a hard time getting help with issues like networking, file exchange, and so forth, and should probably stick with a Windows machine.

⁴ Recently a friend of mine's daughter spilled milk on a ThinkPad late on a Sunday night. Ouch! We were able to reach a technician who told us how to open it, clean it, and dry it. Within two hours it was running as good as new. This experience notwithstanding, I strongly encourage you to avoid spilling milk on your laptop.

⁵ I can't stress this enough if you plan to run pre-release software (not uncommon for CS and EE students). Companies usually support a very limited set of machines during a beta program. Testing and support for a broader set of machines, including "generic" motherboards and adapters is generally only done for the final release version.

Physical Security

Colleges are wonderful places. I know I enjoyed college a lot more than high school. But as great as they are, they do exist in the real world. Which means that all sorts of unpleasant things can happen to your computer, ranging from theft, to accidental damage, to you just forgetting it somewhere. Fortunately, a few simple precautions can dramatically reduce these risks, and the consequences of problems when they occur.

Tie it down

If someone really wants to steal your computer or notebook, they'll probably find a way to get it. The real problem with computer theft isn't the serious thief – there won't be that many of those at your school (if there are, you're probably going to the wrong school). And the problem isn't really desktop computers – someone lugging a computer out of your room and down the dorm halls might raise some suspicion.

The big problem is notebook computers. Leave one alone on a table when you go to grab a napkin, and it can be gone in seconds. Forget one in class and by the time you get back it's gone.

Fortunately, almost all notebooks come with a security slot that can be used with a standard notebook security cable. These locks and cables won't prevent theft – a good pair of cable cutters will take them out. But they do a great job against the opportunistic thief – and may slow the others down long enough to save you from the loss.

I recommend combination based locks – less risk of losing the key. Try for a 4 digit model. Manufacturers including Targus (www.targus.com), Belkin (www.belkin.com) and Kensington (www.kensington.com). Prices tend to run under \$40.

One of my favorites is the [Targus Defcon CL](#).

They also have security locks for desktop PCs for those of you who want the extra security.

You can also find desktop and notebook alarms that sound a siren if the computer is moved. I tend to prefer physical locks in that they serve to actually slow down the theft processes rather than just let people know a theft is taking place⁶.

Wrap it up: Cases

I cringe every time I see a backpack or bookpack with a small section wrapped with a thin piece of foam that is being used to hold a notebook. I'm sorry, but that just doesn't cut it. As one who has lost a notebook to a 3 foot drop, believe me, you want a case that's actually designed to hold a notebook. You can find excellent traditional notebook cases, bookbags or backpack for your notebook, and the name to look for is Port (which is now part of Targus www.targus.com). They have a \$50 backpack

⁶ Not that I don't have total faith in humanity, but I can't avoid the mental image of a large group of people standing around and thinking to themselves "Oh, listen... a siren. How annoying. I hope it stop soon. Maybe if that person would take that laptop away quickly it will quiet down and I can get back to studying."

(model TPEB01) that is designed specifically for ThinkPads. It has an air cushion protection system that can make all the difference if you drop your case. Another nice thing about backpack cases is they don't obviously look like computer cases, so are less tempting to casual thieves than a traditional notebook case⁷.

Insure It

Computers can be stolen. They can be dropped. They can be hit by power surges. They can be damaged by floods. Ok, the latter might be unlikely, but you never know what kinds of things might happen in a college dorm.

If you want to play it safe, you can buy an insurance policy just to cover your computer (it even covers preinstalled software, and you can cover other devices such as PDA's or digital cameras as well). The company to call is Safeware (www.safeware.com).

Protecting Sensitive Data

There are numerous ways that people can access data on your computer in college:

- Strangers or friends who use your computer without your permission.
- Those who use your computer with your permission.
- Attackers who obtain access to your system by way of a Trojan (hack into your machine).
- If your computer is stolen, the thief will have access to anything on your machine.

It's always safest not to keep sensitive data on your computer, but it's even more important for notebooks and the college environment.

What is sensitive data?

- Your birth date and social security number.
- Any passwords you use (because people tend to reuse the same password).
- Any financial information.

Watch out for health insurance info – that often has social security numbers. There are a few colleges that still use your social security number as part of your student ID.

Other suggestions:

- Never use automatic logon for web sites or allow Windows to store your user ID and passwords (including for Microsoft Passport). That stores your passwords and account information in a way that allows retrieval if someone has access to your system.
- Consider using encryption to protect sensitive information.
- Be sure your computer requires a password to logon.

⁷ Serious thieves will be able to spot backpack cases as well, but on the balance you're probably still better off having a well padded familiar case, than a less recognizable piece of junk.

For an in-depth discussion of privacy issues, identity theft, and how to configure your computer to minimize these risks, refer to “Always Use Protection: A Teen’s Guide to Safe Computing”.

Backups

Whether it’s term papers or homework, you will be creating content on your computer that is hard if not impossible to replace. You probably do not want to end up repeating a course because your final project vanished in a hard drive crash the day before it was due. Keeping backups is essential.

Whatever it is, if it’s important, you should back it up often. That can be to a CD-R, to a floppy, or to a campus server (network drive) if your school provides you with personal storage space on their network.

Internet Security

You read earlier about the importance of not keeping sensitive personal information on your computer – especially notebook computers. There are many other things you can do to help secure your system, but three of them are essential: antivirus, firewalls and system updates. You must have all three, because no one is sufficient by itself to protect your machine – each has vulnerabilities. You can learn how each of these work and where they are vulnerable in the book “Always Use Protection: A Teen’s Guide to Safe Computing,” but this section will at least get you started.

If you perform all three of the tasks described here you may never be hit with a virus or other form of attack. The small amount of effort it needs to do these things can save you hours of grief and lost data.

Antivirus

You should always keep an antivirus program active on your computer. The program should have the following features:

- Automatic updating
- Active scanning (scans every file before it is loaded into memory or stored on disk)

The most popular antivirus programs at the moment are Norton AntiVirus and McAfee VirusScan.

Most colleges require your computer have an antivirus program installed and active at all times when you connect to their network.

The book “Always Use Protection” also covers under what circumstances you may need to disable your antivirus program, how they are vulnerable, and how to use them to clean up an existing infection.

Firewall

There are two types of firewall: hardware and software. Hardware firewalls for students and home users typically take the form of an inexpensive router that features Network Address Translation (NAT), also called “Internet Connection Sharing.”

A router is the preferred way of protecting your computer when connecting to a high-speed line, however some colleges have policies restricting their use.

If you can’t use a router, be sure you have a software firewall in place. Popular software firewalls include ZoneAlarm and the Windows XP Internet Connection Firewall (which is improved for XP service pack 2).

Do NOT rely on your university network firewalls. Figure 1 shows you why:

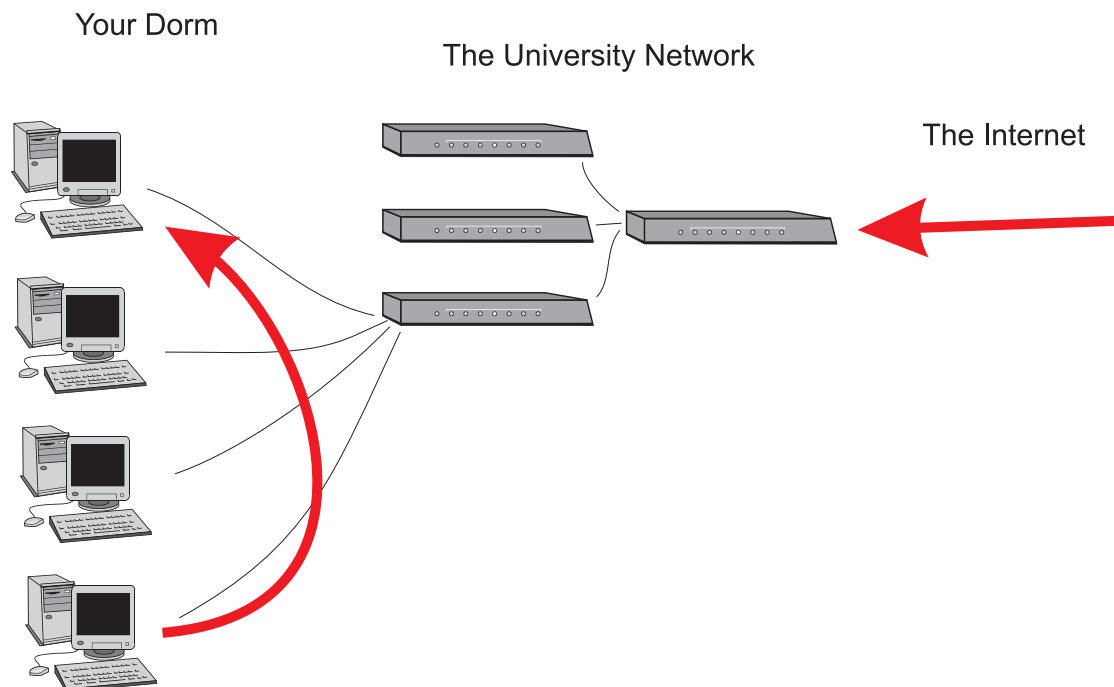


Figure 1 – Typical University Network

When you're at home, your router connects directly to the Internet. You may have a few computers on your local network, but they are largely under your control, so if you keep them all updated and protected with an antivirus, your router/firewall will offer excellent protection from attacks from the Internet.

However, when you're on a university network, your Internet connection is usually several routers away from the Internet. Any firewalls the university provides may protect you from outsiders, but will probably not protect you from your roommate's computers, other computers in your dorm, and any other computers on your local network branch.

Unfortunately, in college you need to be concerned not only with the careless student who accidentally gets infected. Colleges are sometimes spawning grounds for new viruses, some of which can be released onto campus networks.

This means that you really do need firewall security on your own computer – or at the very least firewall protection for those in your room.

It is also critically important that you learn how to safely open ports in your firewall for when necessary (for example: for online gaming, P2P connections or certain software projects). You need to be able to open just the ports you need without taking down the entire firewall.

This topic is also covered in depth in the book "Always Use Protection."

System Updates

New Windows vulnerabilities are found almost daily. It is important that you keep your system up to date. The best way to do this is either using the Windows automatic update feature, or visiting windowsupdate.microsoft.com.

Windows updates do entail some degree of risk – so you should be sure to back up your system before performing an update, or at least make sure you have operating system disks which you can use to reinstall your operating system (many new computers do not come with Windows system disks, making it difficult to reinstall your operating system without losing all your data files).

This topic, along with what to do in case of problems, is also covered in depth in the book “Always Use Protection.”

College Networks and Policies

College networks are among the most complex and vulnerable in the world – much more so than typical business systems. There are a number of reasons for this:

- College students spend a lot of time on the Internet, and tend to use high-bandwidth applications (music, video, file sharing).
- Unlike businesses, college network administrators have little control over an individual student's computer.
- Unlike most businesses, which usually standardize on hardware, college students use every brand of hardware, peripheral, and system software you can imagine, and a few you probably can't.
- Unlike most businesses, college students are often very sophisticated computer users, who may enjoy experimenting with various kinds of software including network software such as port scanners or packet sniffers.

No wonder universities often have strict policies for use of their networks.

How College Networks work

While it varies from school to school, figure 2 shows a rough outline of a typical university network.

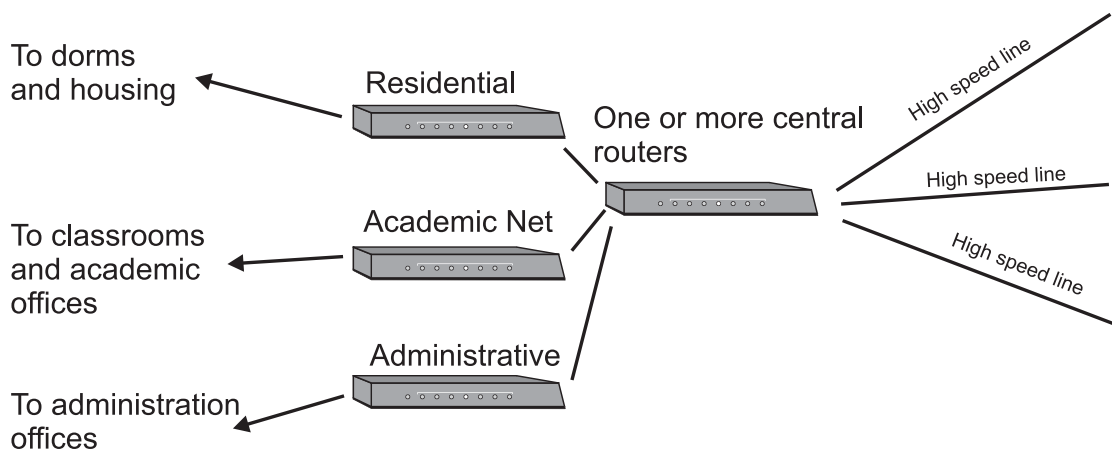


Figure 2: Topology of a typical university network

Major universities not only have multiple high-speed connections to the Internet, they often serve as major routing hubs for the entire Internet. This is in part for historical reasons – the original Internet (called ARPANet) started out with four nodes on the network: UCLA, UC Santa Barbara, University of Utah and the Stanford Research Institute. While the major telecommunications companies now maintain large hubs as well, the universities continue to play a major role. In addition to those systems that route general Internet

Routers, Hubs & Switches

If you don't know the difference between a hub, switch, router or bridge, don't worry about it. Just assume they are all ways to allow multiple computers to connect to a network.

traffic, a campus will typically have a bridge to its own internal network (so all internal network traffic goes through this bridge). The internal network will then subdivide into other sub-networks, often divided by both purpose and campus geography.

Networks then continue to subdivide further. So when you plug your computer into an Ethernet connection in your dorm room, a network packet will probably travel through the following additional hardware:

- A hub or switch handling the group of rooms near you, perhaps a floor or suite.
- A hub, switch or router handling the entire dorm.
- A router for your entire dorm complex.
- One or more routers handling the entire residential network
- A bridge to the Internet.

Most colleges use fairly smart switches, and have the ability to turn on and off individual network connections. In some cases they can detect your MAC address (network card address, which is unique for every network card) and control your computer's access to the network in general, regardless of where you plug in (this is one reason some campuses don't like you to use cable/DSL routers as firewalls – they have their own MAC address. Yes, they can be configured to reflect your computer's MAC address, but it's quite a hassle for the school administrators to teach every student how to do that considering the wide variety of routers available).

Why do colleges want to be able to control access to the Internet? It's not a matter of being dictatorial, and it's not really a concern about strangers coming in and using the network (though that is a factor). The really big concerns are these:

- Viruses are a huge problem on university networks. If network administrators find an infected computer, especially one that has been hijacked to attack other machines, they want to be able to shut it down. Turning off the machine's network connection is a great way to do that.
- Universities have policies of what you can and cannot do with their network. Many of those policies come down to stopping individual students from tying up too much network bandwidth – which can slow down the network for everyone else. Turning off a network connection is an effective way of stopping a computer from generating too much network traffic (actually any network traffic).

Before you arrive

Many colleges now require you to provide evidence that your computer is free of viruses before you are allowed to connect to the Internet. Your school will tell you what kind of evidence they want.

You can speed up the processes by making sure ahead of time that your computer is protected and clean.

Typical computer network configuration

Most colleges have no special configuration requirements. The default settings (which automatically obtain an IP address and DNS address) are correct for most schools.

Typical policies

Here's a rough idea of some common university policies with regards to use of residential networks.

- Port scanning and hacking are generally prohibited.
- Packet sniffing or other unauthorized access to computers is generally prohibited. You can share files and directories with friends though (that counts as authorized access).
- Most colleges will not allow you to run a server. That includes web servers, FTP servers, game servers, and so on. This is largely because of concern of tying up too much network bandwidth. (You may be able to run LAN based games in your dorm – no doubt you'll find out the details from other students as soon as you arrive on campus).
- Sharing copyrighted files (music, video, etc.) may not only subject you to criminal prosecution, it may cause you to lose access to the Internet – so turn off file sharing/uploading on your system. Most schools don't worry about you downloading those files – but they won't protect you if someone decides to sue you over it.
- Some colleges prohibit use of routers. In these cases, you should be sure to have a software firewall installed.
- Commercial use of the Internet is usually prohibited. If you decide to run a business from your dorm room, find a cheap web hosting company and put your website there.
- Anonymous mailers or sending spam is usually prohibited.

Conclusion

Buying a new computer has increasingly become a tradition for those heading off to college. And colleges remain on the bleeding edge of providing excellent network access to students.

The suggestions in this ebook should help you get off to a good start with your college computing experience. The book “Always Use Protection: A Teen’s Guide to Safe Computing” will take you the rest of the way. Not only will it get you ready to handle virtually anything that comes your way, it will give you the skills to help others avoid trouble and clean up problems that occur. It also covers numerous topics not covered here including how to configure firewalls for safe online gaming, how to protect yourself from identity theft, how to spot and avoid scams, how to deal with spyware and adware, and a whole lot more.

Meanwhile, I wish you a successful college career. And I leave you with the advice I was given when I went to college (which I daresay I followed with great success) – don’t let your classes get in the way of getting a good education.

Dan Appleman

www.alwaysuseprotection.com

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Note regarding affiliate links:

Some of the links to recommended products and companies in this document include affiliate links, which might result in me receiving payment if you make a purchase. Affiliate links are available for virtually every company, and their availability did not influence the recommendation of one product over another. In other words, I chose the products I wanted to recommend, then signed up for their affiliate programs. If a product did not have an affiliate program available, I recommended it regardless.

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Appendix A - Books by Dan Appleman



[Always Use Protection: A Teen's Guide to Safe Computing.](#)

This innovative new book contains the most important things every teen needs to know about computer security. Not just the usual information about protecting teens online, but the equally important information on protecting computers from viruses and preventing identity theft (which teens surprisingly suffer from as well).

Home users including teens are the most vulnerable to viruses and identity theft. Here's the book any home user can use to lock down their system, avoid viruses, deter hackers, prevent identity theft and use the Internet safely.

[How Computer Programming Works](#)

This fully illustrated beginner's book is the perfect book for friends, family and kids – anyone who would like to know more about programming. It's the book to read before you get a programming book, teaching key concepts like variables, compilers, program flow, etc. Think of it as a computer science course for everyone.

[Other Books](#)

Dan has written numerous other books and ebooks for professional Windows developers. If you are a Computer Science or engineering student, you may find some of his more advanced works to be of interest. Find out more at www.desaware.com.