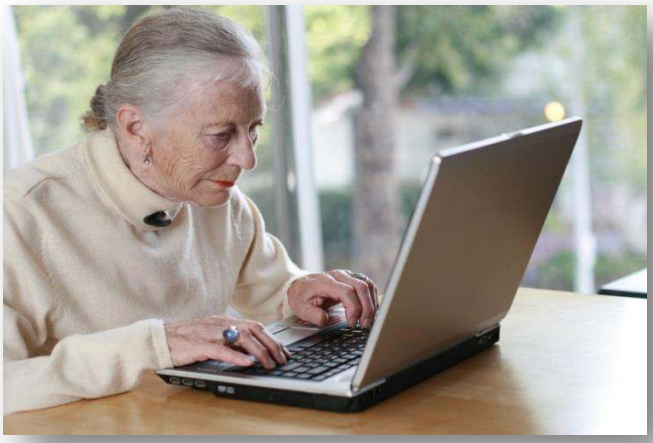
Internet for Beginners, Part I

INTRODUCTION

The internet is a vast, ever changing medium. The evolution of the internet has literally changed the course of history – the ease and speed with which information can be shared globally is a concept that even 30 years ago seemed far-fetched. In this digital age, more and more of what we do is somehow related to the internet. Want to apply for a job? You probably need to use the internet. Want to view your paycheck stub? You probably need to use the internet. Want to watch a movie, play a game, or listen to some music? You probably need to use the internet. By the end of today's lesson, you will be well on your way to doing all this and more! In this class we will discuss:

- The history of the internet
- Getting online
- Parts of a web address
- Links
- Using search engines
- Navigating web pages
- Online safety



SECTION I: THE INTERNET – A BRIEF HISTORY

What is the internet?

The *internet* is a massive "network of networks," a networking infrastructure. It connects millions of computers together globally. The computer you are sitting at (as long as it's connected to the internet) can communicate with the computer across the street, down the block, or even around the world so long as the computer on the other end is connected to the internet as well. Information that travels over the internet does so via a variety of languages known as *protocols*. The internet is a cooperative endeavor—no organization is "in charge" of the internet.

Is the World Wide Web (WWW) the same as the internet?

Many people use the terms internet and *World Wide Web* interchangeably, but in fact the two terms are not synonymous. The internet and the web are two separate but related things. The World Wide Web is a way of accessing information over the medium of the internet. The web uses the *HTTP protocol* (*h*yper*t*ext *t*ransfer *p*rotocol), which is only one of the many "languages" spoken over the internet, to transmit data. Email, instant messaging, and uploading and downloading files are all things that you do on the internet but aren't part of the HTTP protocol. The web utilizes special software called *browsers* to access web documents (more commonly known as *web pages*) that are linked to each other via *hyperlinks*. Web pages contain some or all of the following: text, images, audio, and video.

If you walk into a car dealership and say "I want to buy a vehicle..." Well, a vehicle can be any number of things: a car, a van, a truck, an SUV, a motorcycle, maybe even a boat. "Vehicle" is a very general term. If you walk into a car dealership and say "I want to buy a car," then you are being (somewhat) more specific and eliminating trucks, vans, SUVs, and so forth from your buying options. Think of the term "vehicle" as being similar to the internet. It's a broad term that covers a lot. Think of "World Wide Web" as a term similar to car—it's a bit more specific. While the vast majority of "vehicles" on the road are in fact cars, not all vehicles are cars. Similarly, while the vast majority of what you may do on the internet involves the World Wide Web, not everything on the internet is part of the web.

The bottom line is, the web is just a portion of the internet, albeit a large portion, but the two terms are not synonymous and should not be confused.

Internet for Beginners, Part I

What is the internet used for?

A lot of different things! People use the internet to apply for jobs, play games, do research, watch movies, listen to music, go to school, stay in contact with friends, family, and co-workers, run a small business, buy or sell products, and much more.

How do you connect to the internet?

There are many different ways to connect to the internet from your personal computer. The most popular ways are listed below.

- **Dial-up**: With a dial-up connection you can connect to the Internet via a telephone line and an *internet service provider* (ISP). This method is inexpensive, yet obsolete. It provides the user with the slowest overall connection speeds. However, it may suit the purposes of the occasional internet user without a need for a fast or consistent connection.
- **Broadband**: Cable, DSL, and fiber optics are in this category. With a cable connection, the user must subscribe to a cable television/internet service. These connections offer speeds up to 70 times faster than dial-up. They also allow the user to stay connected to the internet at all times; the user need only open a browser window to access the internet, as there is no log-on process to complete. Like cable internet service, DSL offers much faster speeds than those available with dial-up modems. However, there are a wide range of speeds available from different providers. With DSL, normal telephone wires are used to combine usually separate voice and data lines, allowing users to connect to the internet and talk on the phone via the same telephone line. The newest technology, fiber optics, allows speed even greater than DSL or Cable. Fiber optic connections are more expensive than DSL and Broadband, and are not available in all areas (yet).

- **Wi-Fi**: It's even possible to connect to the internet wirelessly from home or while you are out and about. Wireless technology allows users to have mobile connections, accessing the web where and when they need to. Wi-Fi networks can be found at many businesses, restaurants, and other public areas (parks, schools, libraries) or a home connection can be set up through your ISP. These technologies vary in terms of connectivity, reliability, and cost, but they all allow users to connect whether they are at home, school, work, or on the road.

SECTION II: GETTING ONLINE

A web browser is the computer program you use to retrieve and view webpages. On most computers, including those at the Library, the browser you will use is called Internet Explorer (IE). There are dozens of other web browsers (Firefox, Google Chrome, Safari, & Opera are some of the most popular). They may look different, but the same basic elements will be there and they all take you to the same place—the internet. Since we have Internet Explorer, we will focus on using that browser in today's class.





Internet for Beginners, Part I

Opening up the browser

One thing you will notice about the computer as you become more comfortable with it—there are usually at least three different ways to do everything. For example, on most computers there will be an icon on the desktop for your internet browser. Typically it will be the brand name of the browser, for example the icon will usually say "Internet Explorer." By double clicking on this icon, your browser should automatically open up and take you to your *home page*. The home page is the first webpage that is displayed when you open your internet browser. If you don't see the icon on the desktop for Internet Explorer, try clicking on the Start button on the lower left hand corner of the screen. Often right there on the start button menu you will see an option for Internet Explorer. A single click of the mouse will take you to the internet from here. Sometimes you might even have a little logo next to the Start button on your desktop taskbar. If you have IE on your computer, it will probably look like a lowercase blue "e" with a yellow ring around it. This is the logo for Internet Explorer, and clicking on it will open the browser. None of these options for opening up a browser are "right" or "wrong"—it's just a matter of personal preference. They all take you to the same final destination!

Basic parts of the browser

When you open your browser window, no matter which browser you use, you will usually see several main parts:

The *address bar* is where the web address of the page you are currently on is displayed. It's the white bar at the very top of your page. If you want to go to a new website and know the *Uniform Resource Locator* (*URL*), or *web address*, of the site you'd like to go to, you can click in the address bar and type in the address, click the enter button on your keyboard, and go directly to that page.

Tip: One cool thing about the address bar is that sometimes as you are typing, a drop down list of different webpages will open. This is called an *auto-suggest* or *auto-complete* feature (you'll see this later when we learn about search engines too!). If you see the site you want to visit on the list, you can click it with the mouse to go to the page without typing the whole address in.

Next to the address bar on the left, you'll see the *Back* and *Forward* buttons/arrows. Once you leave the first webpage you are on, the back button (the arrow pointing to the left) will become active. Clicking on it will take you back— one page at a time – along your path since opening up your web browser. For example, if you start on www.cincinnatilibrary.org and go to www.cnn.com and finally www.cincinnati.com, clicking the back arrow button twice will bring you back to your starting point. Once you have gone back a page at some point during your session, the forward button (the arrow pointing to the right) will become active. This will allow you to move forward a page and revisit pages that you have already seen.

This is a good time for a tip that applies to many things when dealing with the computer. If a button or word or image appears to be grayed out – some would say "ghostly" or "see through" or "not bold" or "faint" – that means it is an option that is currently inactivate for the time being. In other words, it's an option that, under the right circumstances, you will be able to access later. Think of this way – the radio in your car is always there, but it will only work once the key is in and the ignition has been turned on. You have to follow a series of steps in a certain order to allow the car radio to be turned on. In the example above, the Forward arrow only becomes available once you have gone back a page.

Internet for Beginners, Part I

The Toolbar

In most computer programs, the *toolbar* is located on the top of the screen and contains all of the various options, effects, and well, tools, you might need while using that particular program. In the most recent version of Internet Explorer the Toolbar is located on the upper right side of the page.

The Internet Explorer toolbar contains buttons for some of the tasks you are likely to want to do while on the web. Here are the ones you'll use most:

- Home will take you back to your home page. On library computers this is the library's website; if you have a home computer, you can set it to any page you want.
- Favorites. The star button is for adding sites for your favorites – making it easier to find them in the future (we will discuss this option more in *Internet for Beginners, Part II*).
- Tools (the button that looks like a gear) is the place to go for many different options, including printing, zooming in on a page, and adjusting your Internet Explorer options.

SECTION III: PARTS OF A WEB ADDRESS

There are typically four main parts to a URL or web address. Let's look at the example below.

http://www.cincinnatilibrary.org

- The **http://** stands for hypertext transfer protocol which we discussed earlier. This helps your web browser locate the webpage or website, and to display it for you to see. Most browsers will automatically add this prefix, so you don't have to worry about typing it every time.
- The **www.** stands for World Wide Web. This means that the page you're looking for is somewhere on the World Wide Web. For some websites, it's not even necessary to type in the "www" part.
- The next section, which is "**cincinnatilibrary**" in this example, is the name of the webpage or website (aka the "host"). It is flanked by dots on either side which separate it from other sections of the web address.
- The **.org** here is the *top level domain name*. This tells you where the webpage is registered, and often tells you what kind of website it is. For instance, .com usually means that you're looking at a commercial site, or a site that someone has paid to use. Some other common domain names are .edu (sites for educational institutions), .org (sites belonging to organizations), and .gov (sites sponsored by local, state, or federal governments).

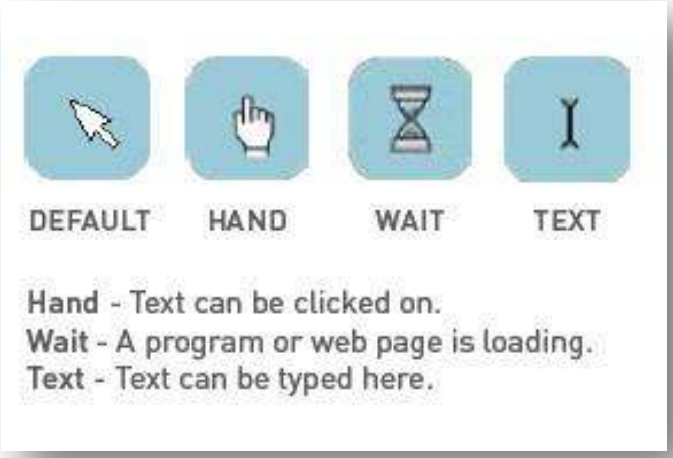
Having an exact web address is extremely important if you want to find exactly what you want. A great example is the Internal Revenue Service (IRS). Many people venture to www.irs.com – but that site has nothing to do with the April 15th folks! To access the real IRS site, you must visit www.irs.gov. To access YouTube, you must go to www.youtube.com – www.utube.com is a different site. One thing that doesn't matter is capitalization; WWW.KROGER.COM is the same as www.kroger.com.

Somewhat related is the idea of a web page vs. a web site. A web *page* typically refers to a single page on the web – for example www.cincinnatilibrary.org/programs/ while a web *site* refers to the entire domain (www.cincinnatilibrary.org) and all of its' sublevels. Think of it like your house; your kitchen is just a single room (web page) within your house (web site).

Internet for Beginners, Part I

SECTION IV: LINKS

When you move the mouse around on your desk it will move your little pointer in the same direction around the screen. If you took the *Computers for Beginners, Part I* class here at the Library, you may remember the different shapes that your mouse cursor may take. Here's a quick review. The hand pointer cursor is the one you will be looking for most often on the internet. When you put your mouse on top of a word or picture or video and it changes to the hand pointer, you know that you can click on that spot and it will take you to another webpage. Text, images, video or other content that is clickable and takes you to another website are called hyperlinks, or just links for short. The entire World Wide Web is based on this idea— pages being "chained" together through the use of hyperlinks.



Often times (although not always) text links will be either underlined or they will be in a different color (usually blue) to help them stand out from other text. As you click on a text link it will usually change color (usually to red) indicating that you have clicked on it. Once you have clicked on a link and you return back to the same page, the link may be yet another color (usually dark purple) indicating that it is a link you have already visited.

SECTION V: USING SEARCH ENGINES

Use a *search engine* if you know the kind of information you are looking for but are uncertain of the exact address to go to with your browser. A search engine is a tool for searching for information on the internet. Most search engines use a simple keyword search, which means you don't have to type in your whole question, just the most important words. The most popular search engines are Google (www.google.com), Yahoo (www.yahoo.com), and Bing (www.bing.com), although there are many other search engines out there. For our purposes today, we will focus on Google. It should be noted, however, that most search engine work basically the same.

Google it!

Google is pretty much just a simple search box. As you begin typing, Google will begin to autosuggest words or phrases which it thinks you might be searching for. The suggestions become more specific the more letters you type. If you see what you are looking for in the autosuggest drop down feature, click it with your mouse—you don't have to type in the whole entry. You can also perform a search by typing in your keyword(s) and pressing the Enter button on your keyboard.

Google™

Google, like all search engine sites, makes money by advertising. In most cases, this takes the form of *sponsored links*. Search engines usually indicate sponsored links by putting them on a different section of the page of search results and/or by labeling them as "sponsored links." So for example, when you type in a search for "pizza" you are likely to get sponsored links from pizza restaurants.