Lecture 1: The Internet (Part 1)

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 farfetched. 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.

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.

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 (hypertext transfer protocol), 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 are not 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.

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.

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,
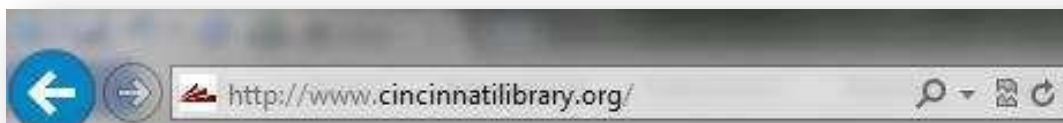
Opening up the browser:

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 lower-case 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 preferences.

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.

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.

Parts of A Web Address:

There are typically four main parts to a URL or a 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 dots on either side   which separates 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
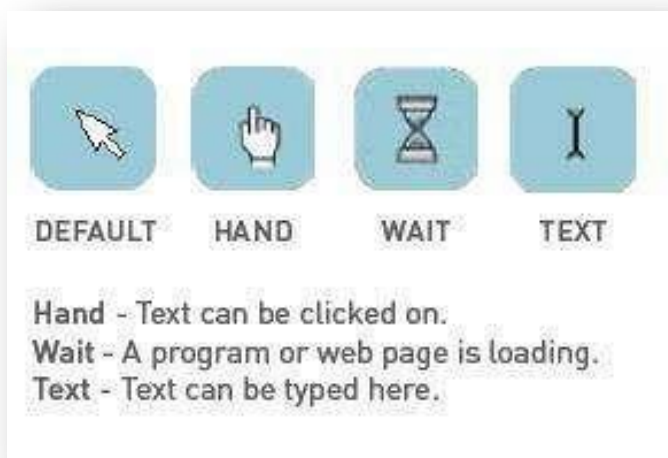
a web site refers to the entire domain (www.cincinnatilibrary.org a d all of its' sublevels. Think of it like your house; your kitchen is just a single room (web page) within your house (web site).

Links:

When you move the mouse around on your desk it will move your little pointer in the same direction around the screen.

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.

DEFAULT	HAND	WAIT	TEXT

Hand - Text can be clicked on.
Wait - A program or web page is loading.
Text - Text can be typed here.

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)](www.google.com), Yahoo ([www.yahoo.com)](www.yahoo.com), and Bing ([www.bing.com)](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.