



# Surfing the Internet

Dodge County 4-H Tech Team

January 22, 2004



# Topics

- Tools needed to surf the web
- How the web works
- Anatomy of a URL
- HTML: Hypertext Markup Language
- Error messages
- Navigating on the web
- Using a search engine
- Bookmarks and favorites

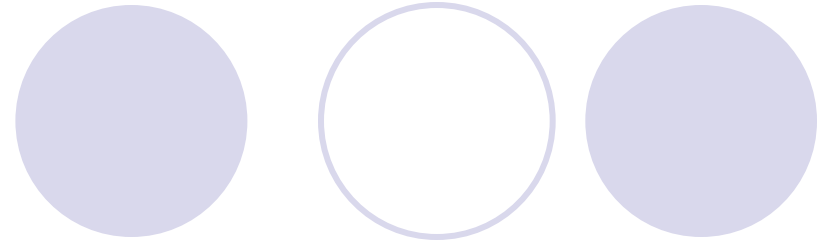
# Tools needed to surf the web



- Computer with a web browser application installed
- Modem and/or NIC (network interface card)
- ISP (internet service provider)

Tools needed to surf the web

# Web browsers

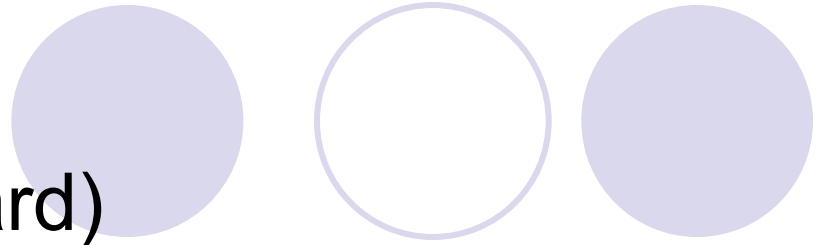


- A web browser is a software program used to access the World Wide Web. A browser retrieves data from remote web servers and displays a web page.
- Examples:
  - Internet Explorer - <http://www.microsoft.com/windows/ie/default.asp>
  - Netscape Navigator - <http://channels.netscape.com/ns/browsers/download.jsp>
  - Mozilla - <http://www.mozilla.org/>
  - Opera - <http://www.opera.com/>
  - Safari (for Mac operating system) - <http://www.apple.com/safari/>

Tools needed to surf the web

Modem and/or

NIC (network interface card)



What is a modem?

A device or program that enables a computer to transmit data over analogue telephone lines. Computer information is stored digitally, whereas information transmitted over telephone lines is transmitted in the form of analogue waves. A modem converts between these two forms.

What is a NIC?

The hardware device that connects your computer to a network.

Tools needed to surf the web

ISP (internet service provider)

What is an ISP?

A company that provides access to the Internet through modems, ISDN, T1s, DSL, etc.

Examples:

- Charter - <http://www.charter.net/>
- Powerweb - <http://www.powerweb.net/>
- Powercom - <http://www.powercom.net/>
- Localnet - <http://www.localnet.com/>
- MSN - <http://www.msn.com/>

# How the Web Works



- **Web pages** are stored on **web servers** located around the globe.
- Entering the (Uniform Resource Locator) **URL** of a web page in your web browser or clicking a link sends a request to the server which hosts the page.
- The server sends the web page to your computer and your **web browser** displays it on your screen.

# Web Pages

- A **web page** is an electronic document written in a computer language called **HTML** (Hypertext Markup Language).
- Web pages can contain text, graphics, video, animation, and sound, as well as **interactive features**, such as data entry forms.
- Each page has a unique address known as a **URL** (Uniform Resource Locator), which identifies its location on the server.
- Web pages usually contain **hyperlinks** to other web pages. Hyperlinks are text and images that **reference the URLs of other web pages**.

# Anatomy of a URL: Uniform Resource Locator



Most of the URLs you will use start with **http**, which stands for **Hypertext Transfer Protocol**, the method by which [HTML](#) files are transferred over the Web.

- A URL usually has no spaces.
- A URL always uses forward slashes (/).
- If you enter a URL incorrectly, your browser will not be able to locate the site or resource you want. Should you get an [error message](#) or access the wrong site, make sure you typed the address correctly.
- You can find the URL behind any link by placing your cursor over the link. The pointer will turn into a hand and the URL will appear in your browser's **status bar**, usually located at the bottom of your screen.

# Anatomy of a URL



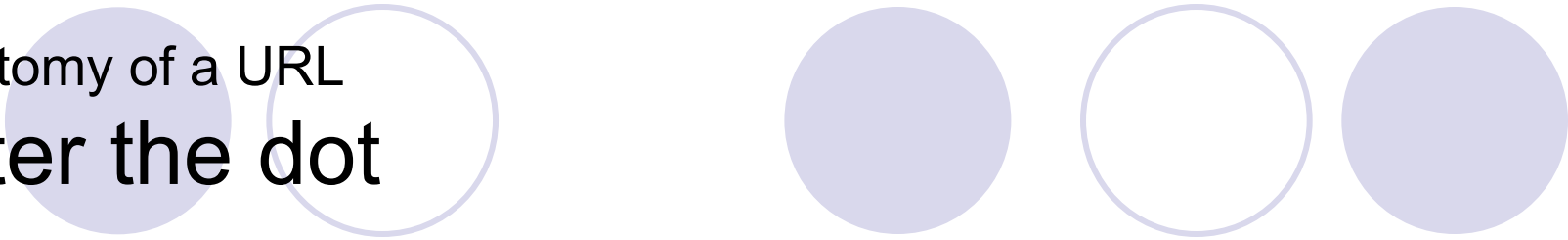
A World Wide Web Address:

<http://www.uwex.edu/ces/index.html>

- http - the method for retrieving the page
- www - the type of page (the www is not always necessary)
- uwex.edu - the domain name
- ces - a directory on the web server
- index.html - the name of the web page

# Anatomy of a URL

## After the dot



.com – commercial website

.net – network website

.org – non-profit organization

.edu – educational website

.gov – government website

- More information on domain extensions:

<http://www.internic.net/faqs/new-tlds.html>

- Take a look at more domain extensions:

<http://www.computeruser.com/resources/dictionary/noframes/nf.domains.html>

# HTML: Hypertext Markup Language

## Example

### Web page



### Web page source or HTML

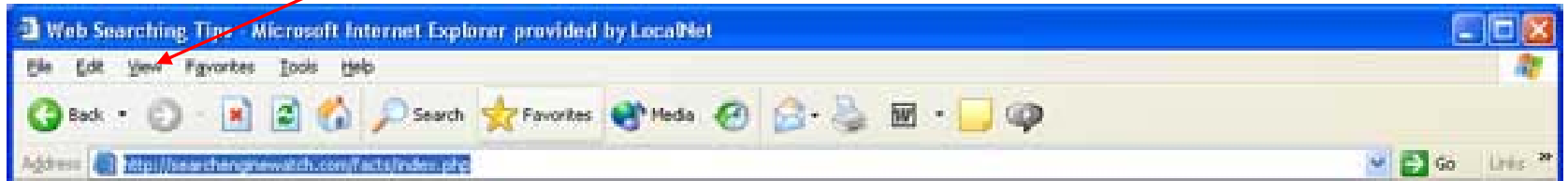
```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
  Transitional//EN">
<html>
<head>
<title>Surfing the Internet Workshop: 1-22-2004</title>
<meta http-equiv="Content-Type" content="text/html;
  charset=iso-8859-1">
</head>

<body>
<h1>
Welcome to 4-H!
</h1>
<p>Tonight's workshop is called:</p>
<h2> &quot;Surfing the Internet&quot;</h2>
<p>Click on the link to the 4-H website! <a href="http://www.uwex.edu/ces/cty/dodge/4h/index.html">
Click here.</a></p>
<p>Have a good time.</p>
</body>
</html>
```

# HTML: Hypertext Markup Language

## Exercise

- View the source code of a web page.
  - On the menu bar of the browser, click on “View” and then click on “View Source” or “Source.”



- Text is “marked up” with tags that tell a browser application what to do.

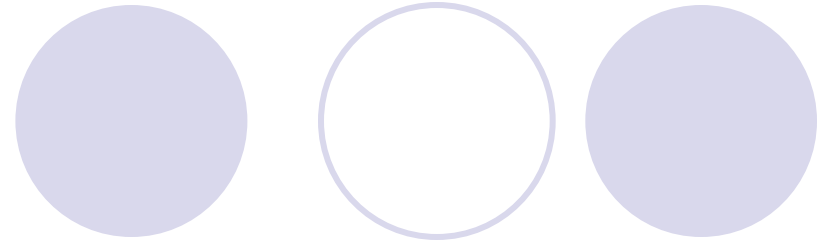
# Error Messages



Some error messages that appear instead of an expected web page:

- 400 - Bad Request
- 401 - Unauthorized
- 403 - Forbidden
- 404 - Not Found
- 503 - Service unavailable

# 400 - Bad Request



- **Problem:** There's something wrong with the address you entered. You may not be authorized to access the web page, or maybe it no longer exists.
- **Solution:** Check the address carefully, especially if the address is long. Make sure that the slashes are correct (they should be forward slashes) and that all the names are properly spelled. Web addresses are case sensitive, so check that the names are capitalized in your entry as they are in the original reference to the website. Check to make sure that spaces are not mistakenly entered before or after the web address.

# 401 - Unauthorized

- **Problem:** You can't access a website because your password is invalid or you have entered your password incorrectly.
- **Solution:** If you think you have authorization, try typing your password again. Remember that passwords are case sensitive.

Error Messages

## 403 - Forbidden

- **Problem:** Essentially the same as a 401.
- **Solution:** Try entering your password again or move on to another site.

# 404 - Not found

- **Problem:** Either the web page no longer exists on the server or it is nowhere to be found.
- **Solution:** Check the address carefully and try entering it again. You might also see if the site has a search engine. If so, use it to hunt for the document. (It's not uncommon for pages to change their addresses when a website is redesigned.) To get to the home page of the site, delete everything after the domain name and hit the Enter or Return key.

Error Messages

## 503 - Service unavailable

- **Problem:** Your Internet service provider (ISP) or your Internet connection may be down.
- **Solution:** Wait a few minutes and try again. If you still have no luck, phone your ISP or system administrator.

# Navigating on the Web



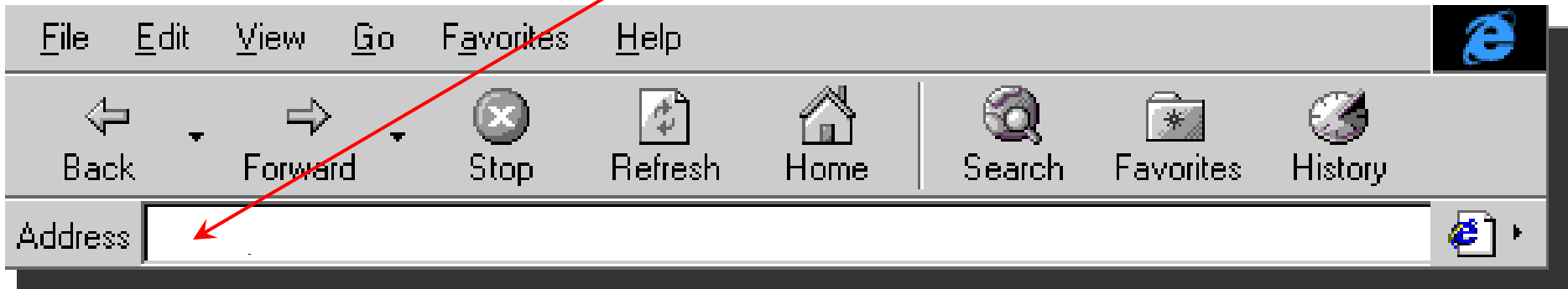
There are three main ways to move between web pages or websites:

- Clicking a **text hyperlink**.
- Clicking a **hyperlinked graphic image**, such as a button, photograph, or drawing.
- Typing the **URL of a web page** in the **location box** (also known as the address field) of your web browser and the pressing the **Enter** or **Return** key.

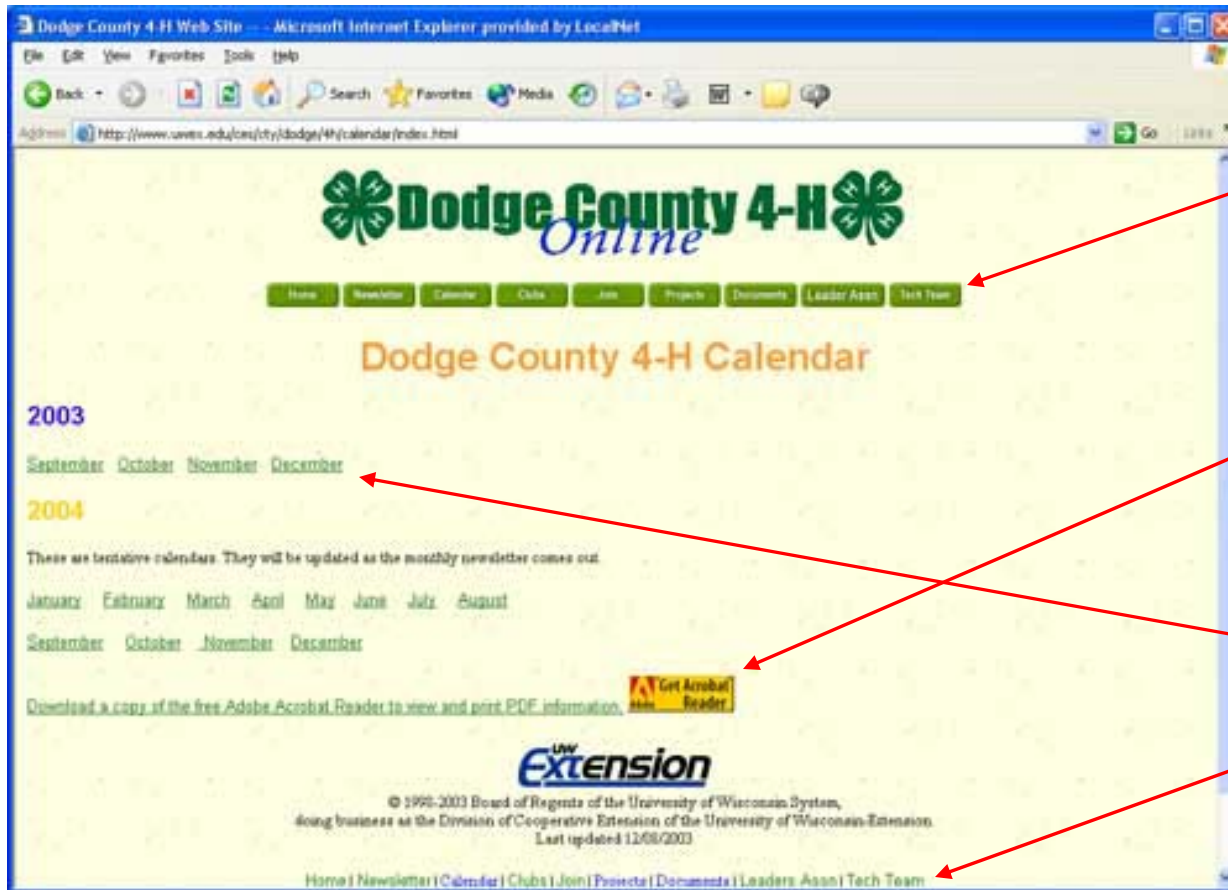
# Navigating on the Web

## Exercise

Type <http://www.uwex.edu/ces/cty/dodge/4h/calendar/index.html> in the address area of the browser window.



# Navigating on the Web Exercise



## Image links:

- Roll-over buttons take you to another webpage on the website.

- Image takes you to Adobe Reader.

## Text links:

- Opens PDF files

- Takes you to another webpage on the website.



# Search Engines

Search engines use automated software (known as robots or spiders) to follow Web hyperlinks, harvesting information about sites as they go.

Examples:

<http://www.google.com>

<http://www.altavista.com>

<http://www.lycos.com>

<http://www.dogpile.com>

# Bookmarks and Favorites

Bookmarks



Netscape browser

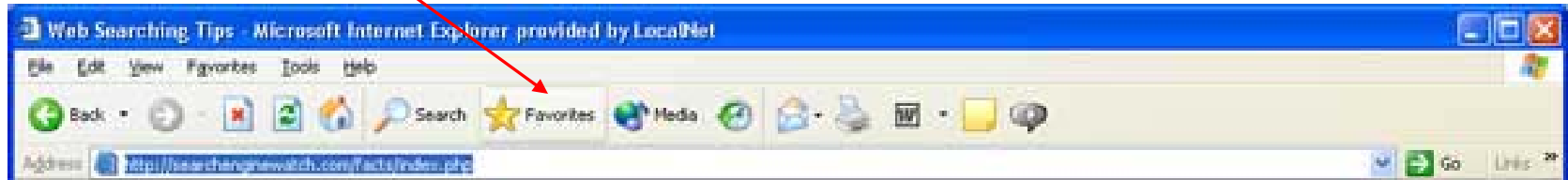
Favorites



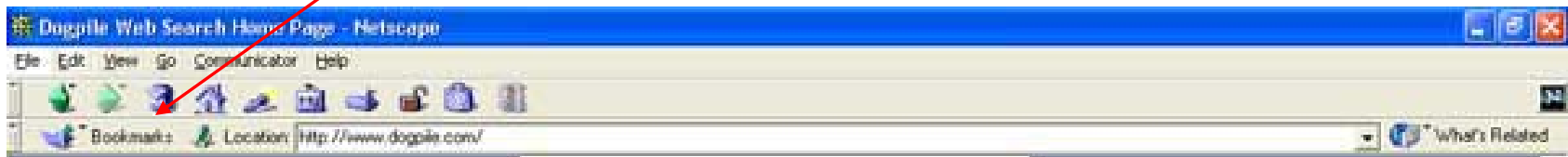
Internet Explore browser

# Bookmarks and Favorites Exercise

1. Enter <http://searchenginewatch.com/facts/index.php> in the Internet Explore address box.
2. Click on Favorites in the toolbar



1. Enter <http://www.dogpile.com/> in the Netscape Navigator address box.
2. Click on Bookmarks in the toolbar
3. Click on Add



# References

The word 'References' is positioned on the left side of the slide. To its right, there are two groups of three circles each. The first group consists of a solid light purple circle, a white circle with a light purple outline, and another solid light purple circle. The second group consists of a solid light purple circle, a white circle with a light purple outline, and another solid light purple circle.

- <http://www.learnthenet.com/english/section/www.html>