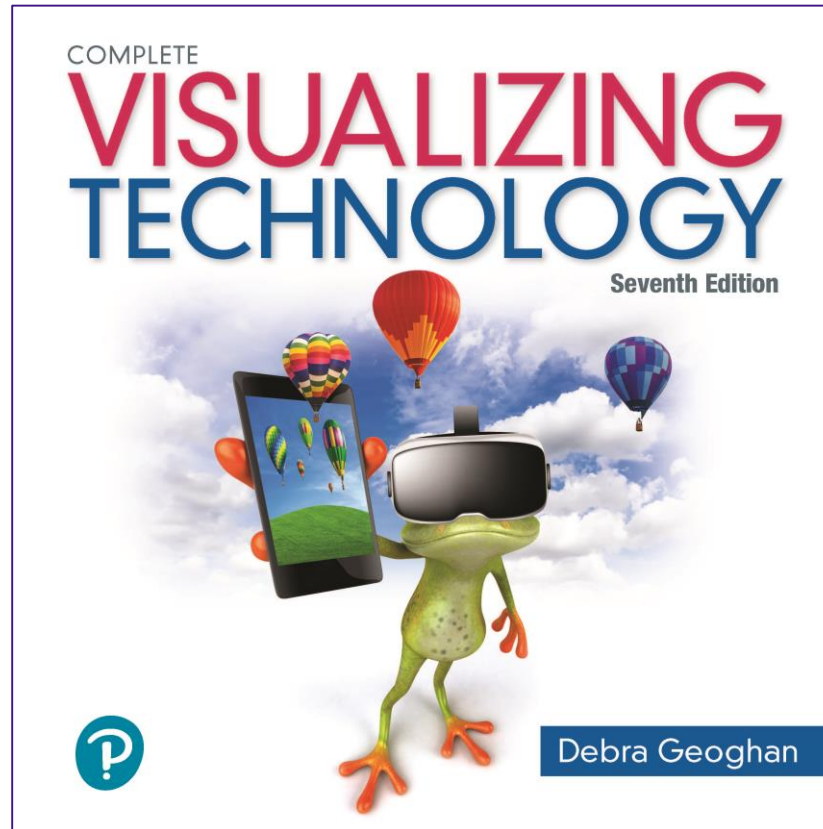


# Introductory Visualizing Technology

Seventh Edition



## Chapter 7

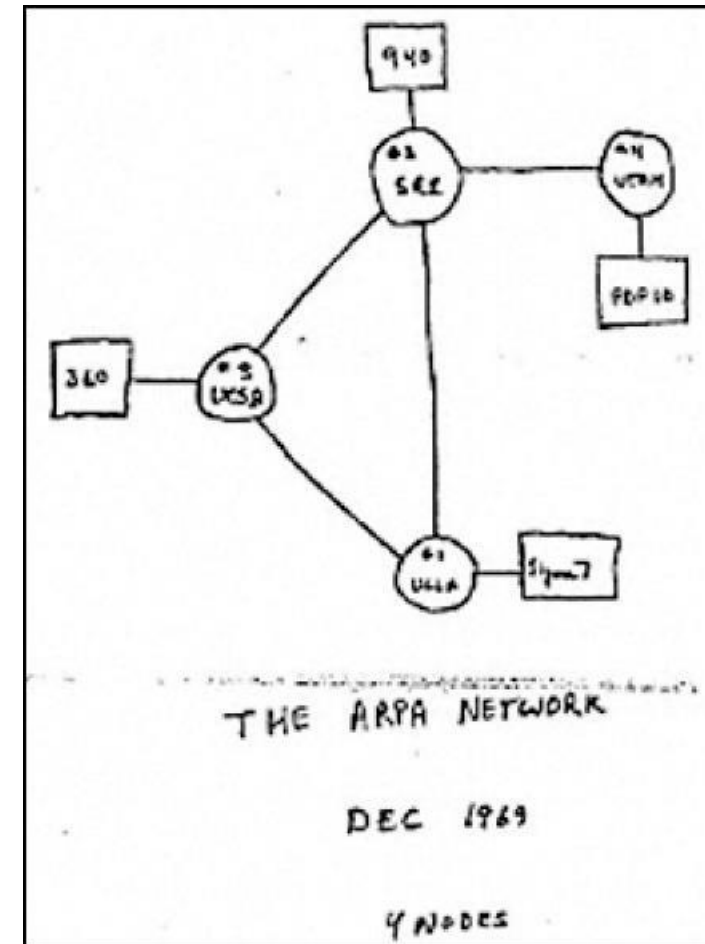
The Internet

# Recognize the Importance of the Internet



# Internet Timeline—How it All Got Started

- How it all got started
  - 1957—Soviet Union launches Sputnik
  - 1960s—U.S. Department of Defense develops the ARPA project



# Internet Timeline—How it All Got Started

- ARPA (Advanced Research Projects Agency)
  - Started in 1958 by President Eisenhower
  - The Internet started as an ARPA project named ARPANET
    - Had four sites

# Internet Timeline—How it All Got Started

- The Computer Science Network (CSNET)
  - Founded in 1979 by the National Science Foundation
  - Connected computer science departments at universities
  - Used ARPANET technology

# Internet Timeline—How it All Got Started

- Internet backbone – high-speed connection points between networks
  - Mid-1980s—NSF created NSFNET
  - Late 1980s—NSFNET was the primary Internet backbone

# Internet Timeline—How it All Got Started

- 1995—NSF backbone decommissioned and privatized
- New backbone established using five Network Access Points
- Today the backbone is composed of Internet Exchange Points around the world

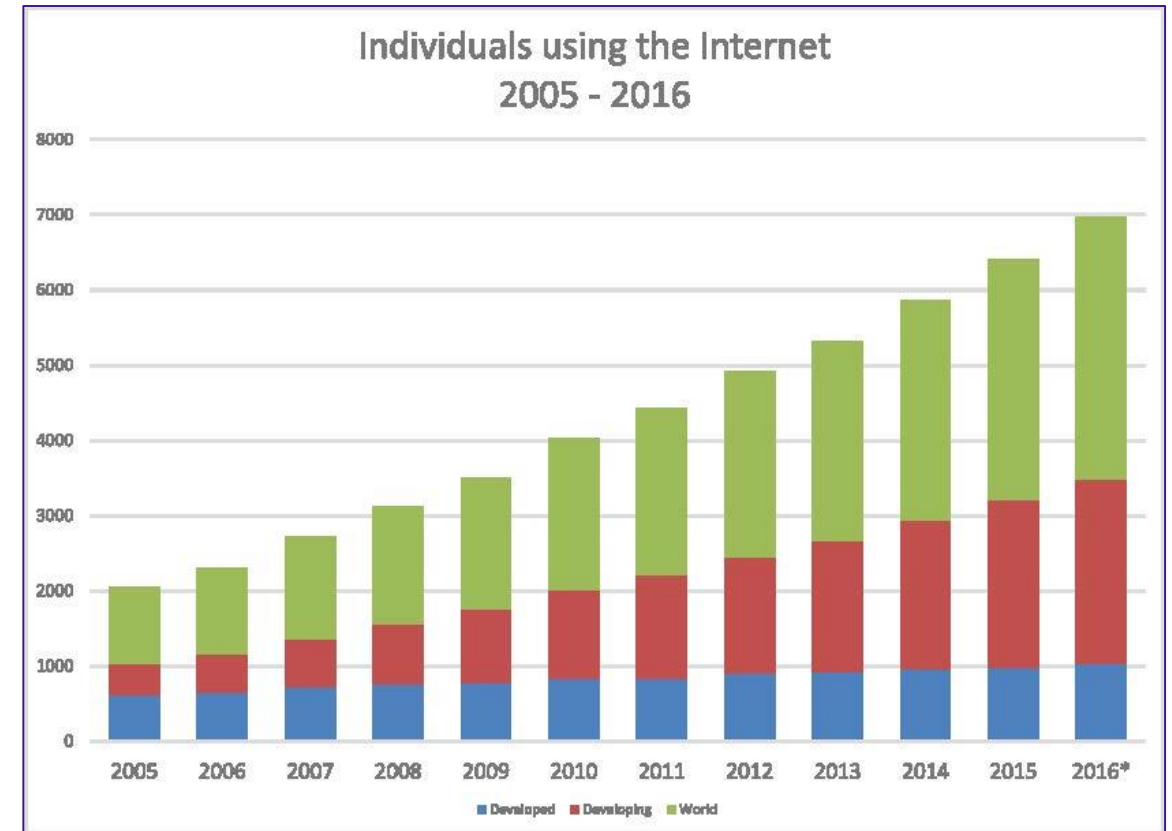
# History of the Internet

## History of the Internet



# Internet Timeline—World Wide Web

- One way information moves on the Internet
- Internet and World Wide Web are two different things
- Other ways to use the Internet
  - Email
  - Instant messaging
  - VoIP (Voice over IP)

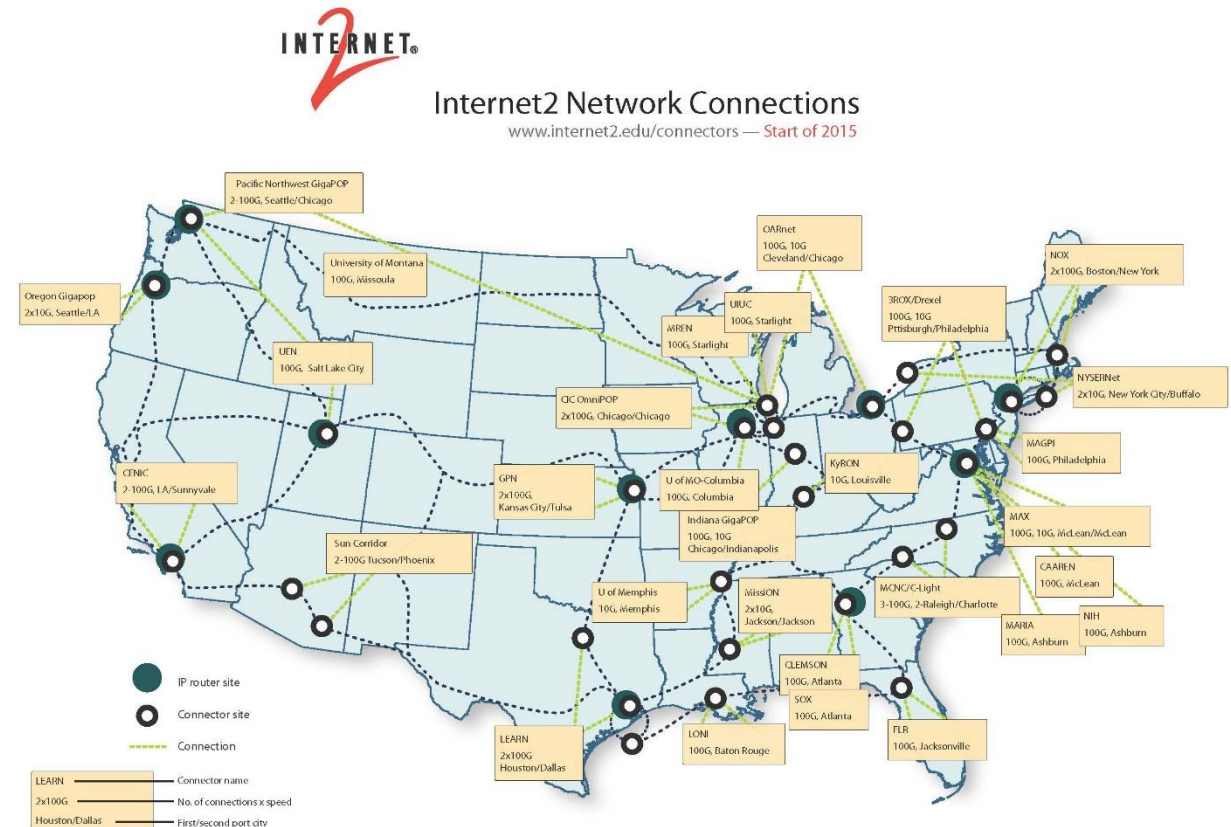


# Internet Timeline—World Wide Web

- Hypertext—text that contains links to other objects
- Hyperlink—links that connect web objects

# Internet Timeline—Internet2

- A second Internet for education, research, and collaboration
- Internet2 membership includes
  - Universities
  - Museums
  - Art galleries
  - Libraries
  - Hospitals



NETWORK  
PARTNERS

ciena

INDIANA UNIVERSITY

BROCADE

JUNIPER  
NETWORKS

Level(3)  
NETWORKS

# Compare Types of Internet Connections



# Get Connected—How Do You Get Connected?

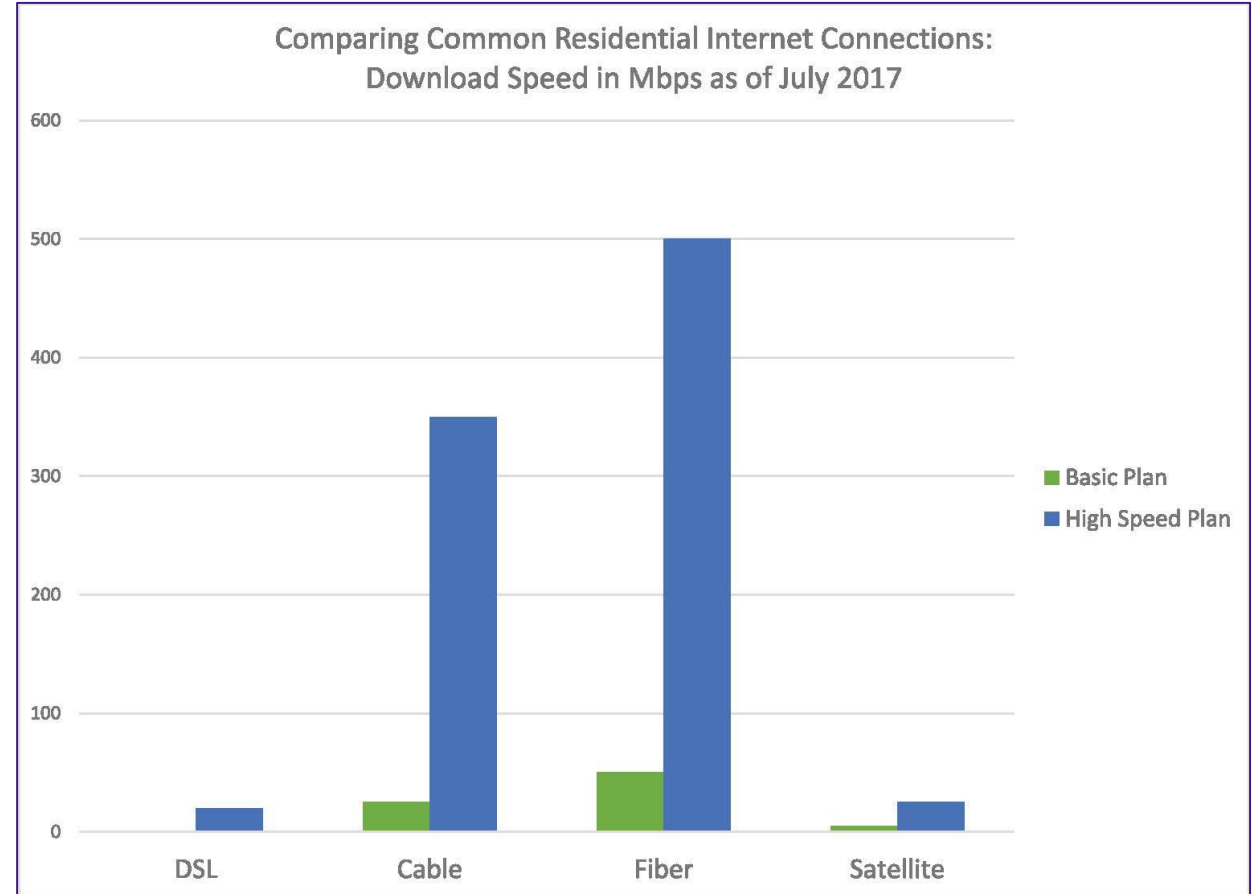
- Internet Service Providers—companies that offer Internet access
- Comparing bandwidth of Internet connections
- Bandwidth—the data transfer rate of a network
  - Measured in kilobits, megabits, or gigabits per second

# Get Connected—How Do You Get Connected? (2 of 3)

- Dial-up



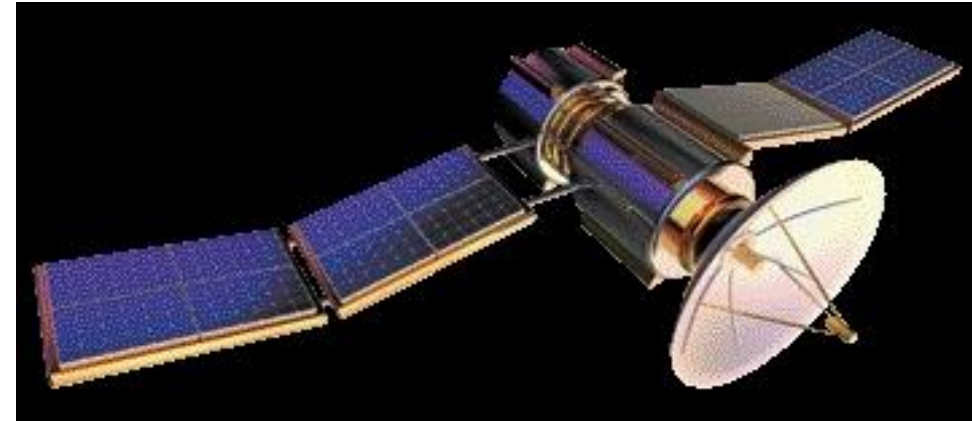
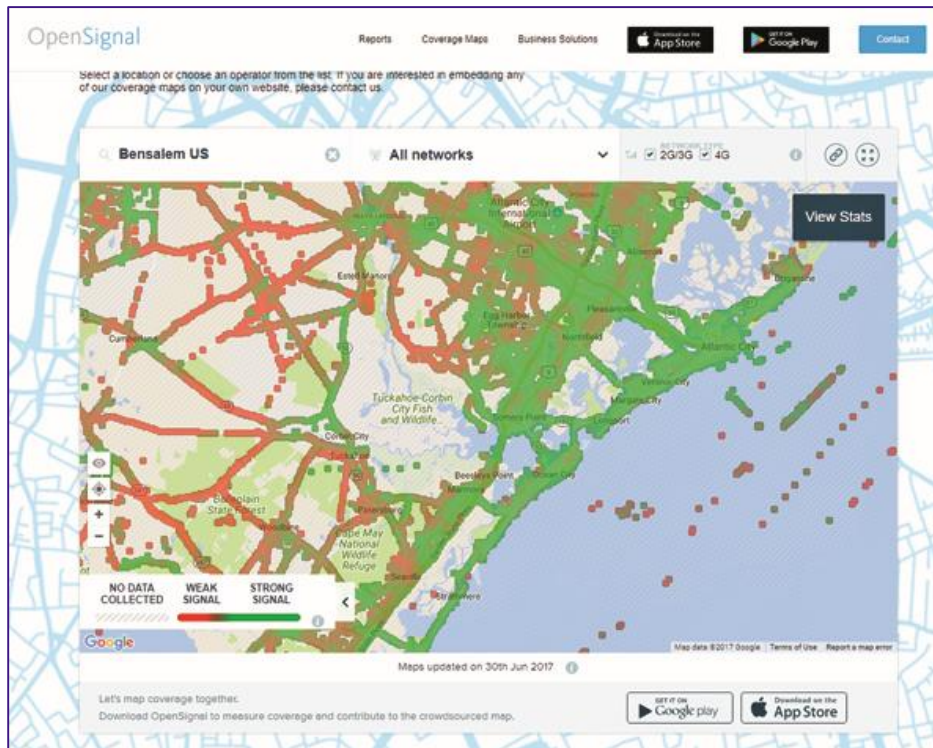
- Broadband
  - Faster web access





# Get Connected—How Do You Get Connected? (3 of 3)

- Wireless



# Compare Popular Web Browsers

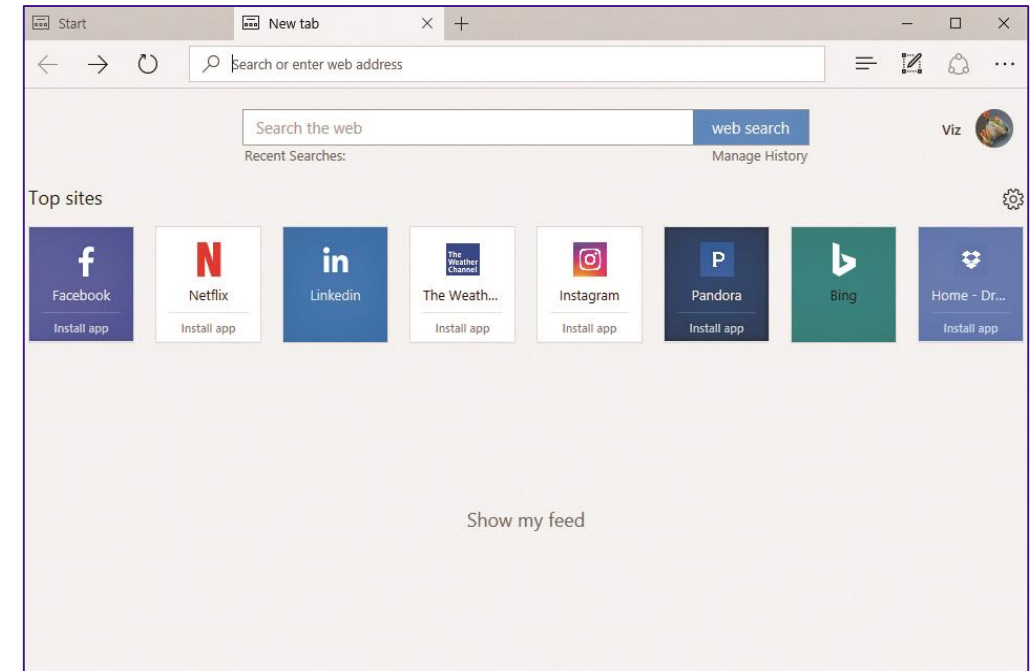
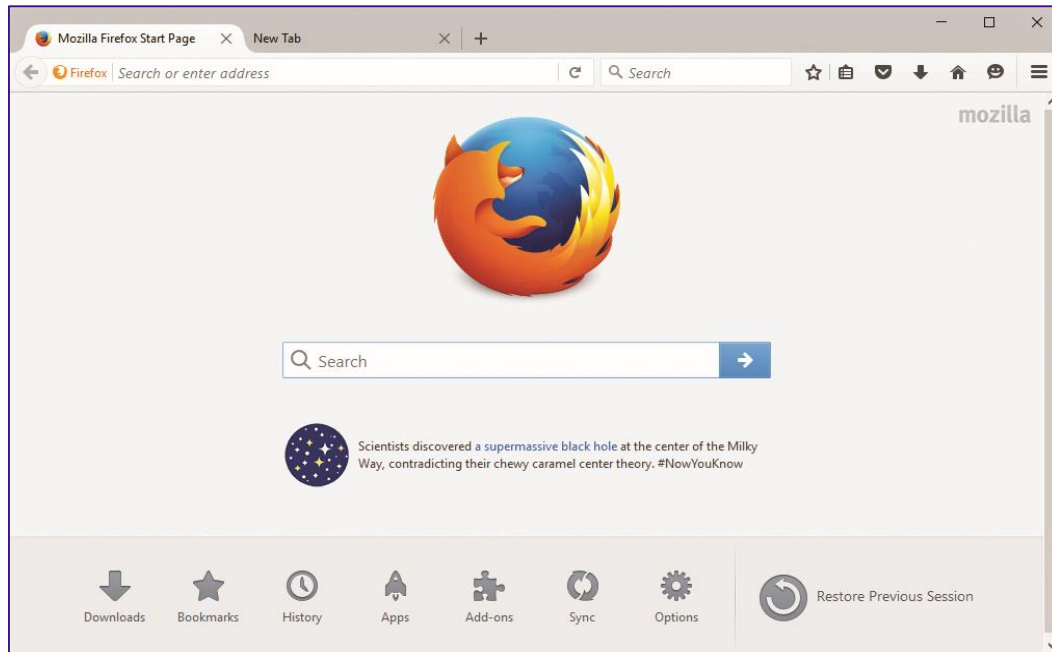




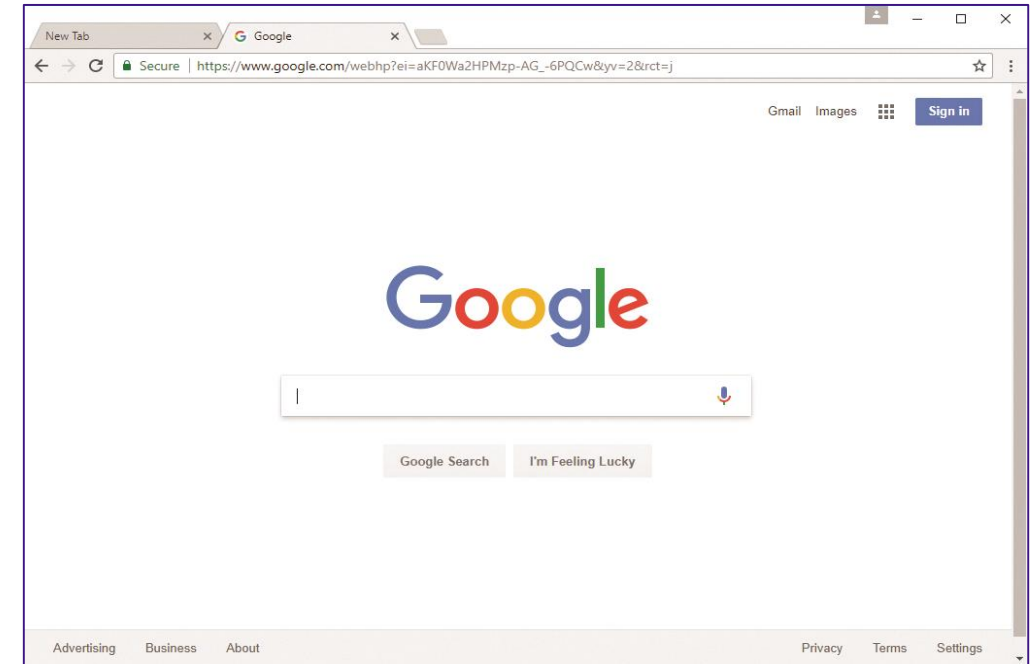
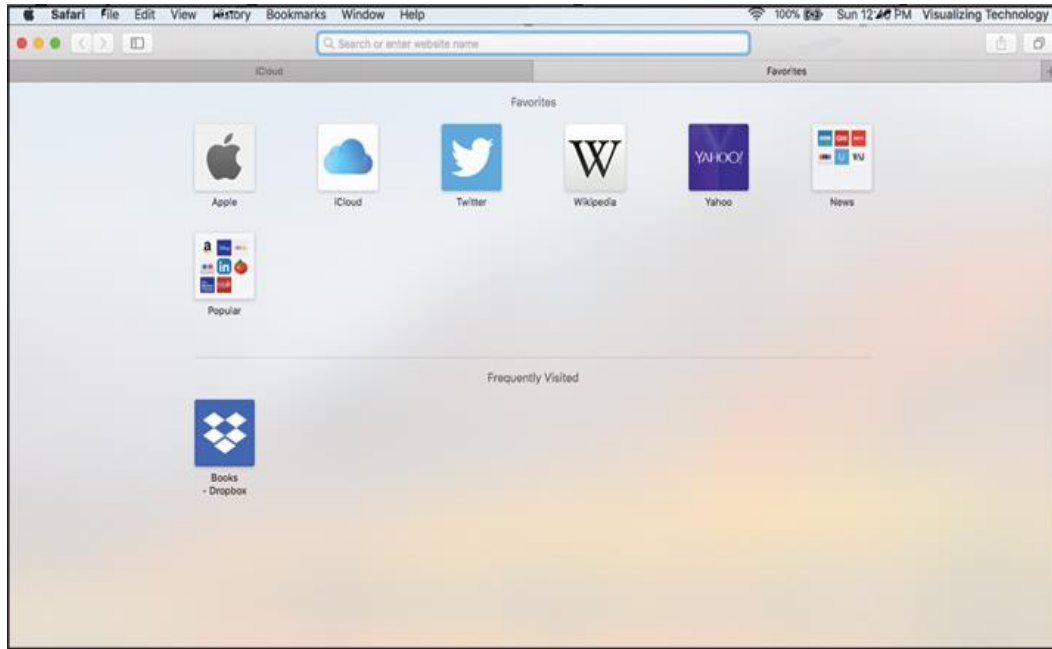
# Surf's Up—Web Browsers

- PC browsers
  - Internet Explorer and Microsoft Edge
  - Firefox
  - Chrome
  - Safari
  - Opera

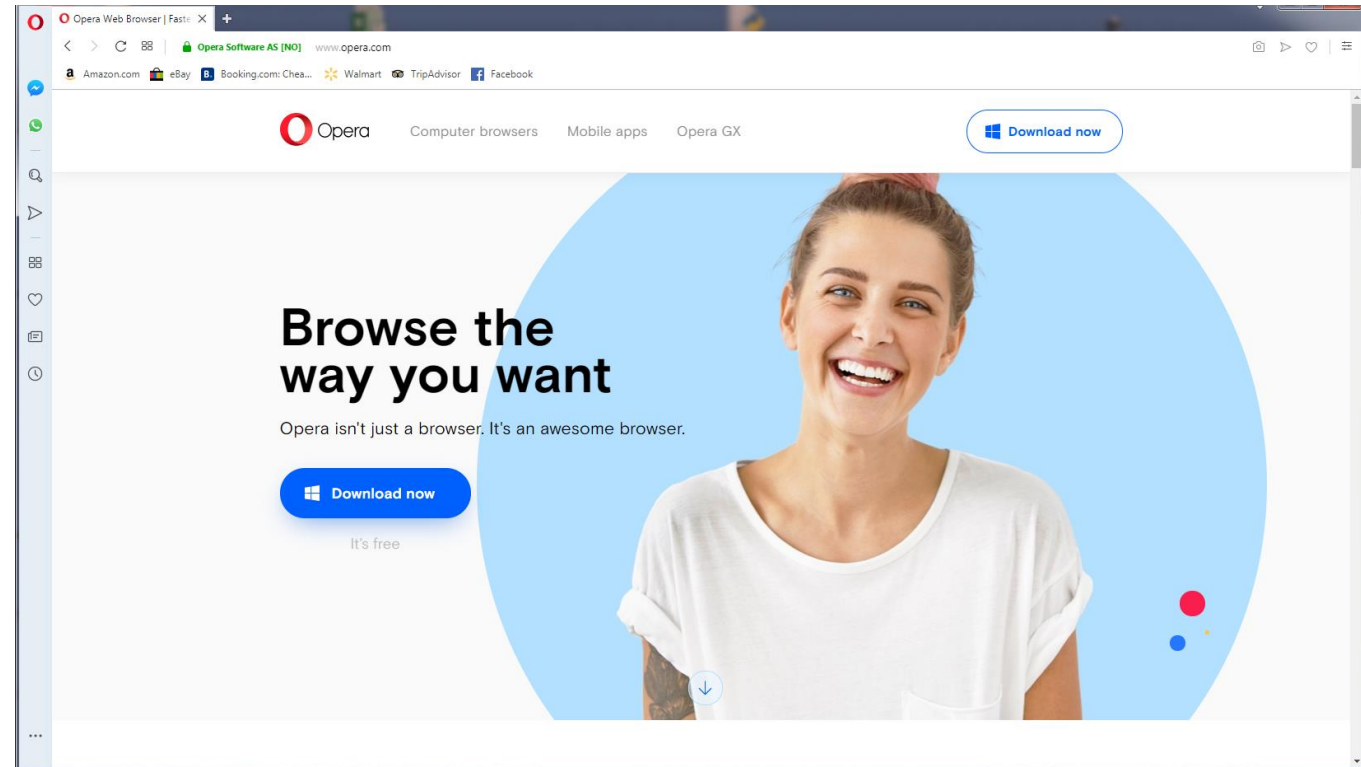
# Surf's Up—Web Browsers



# Surf's Up—Web Browsers (3 of 5)



# Surf's Up—Web Browsers



# Surf's Up—Web Browsers

- Mobile browsers
  - Chrome
  - Firefox
  - Safari
  - Opera

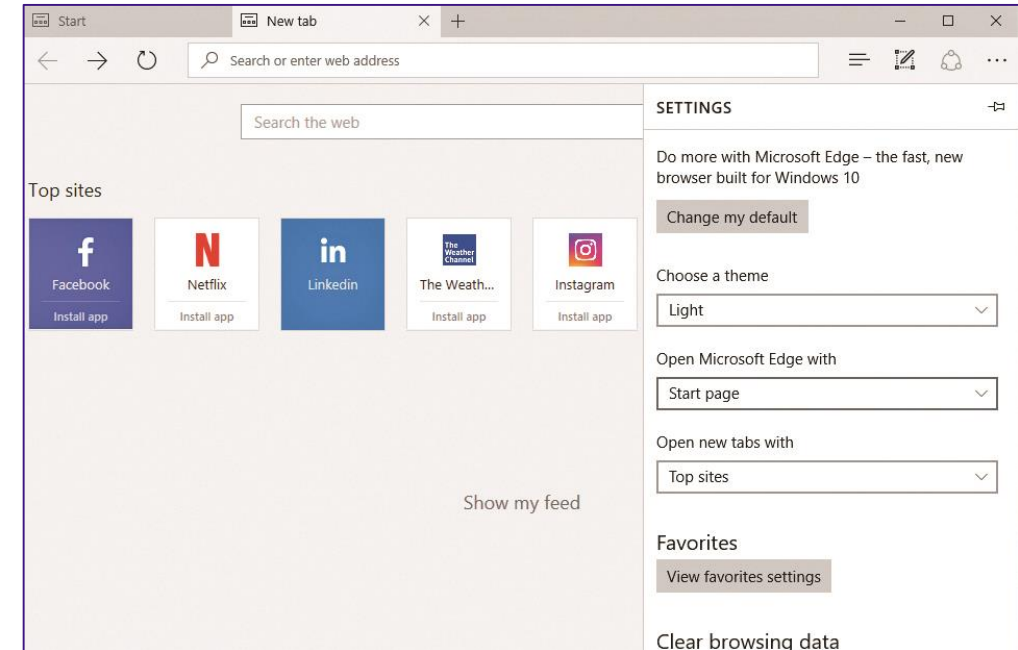
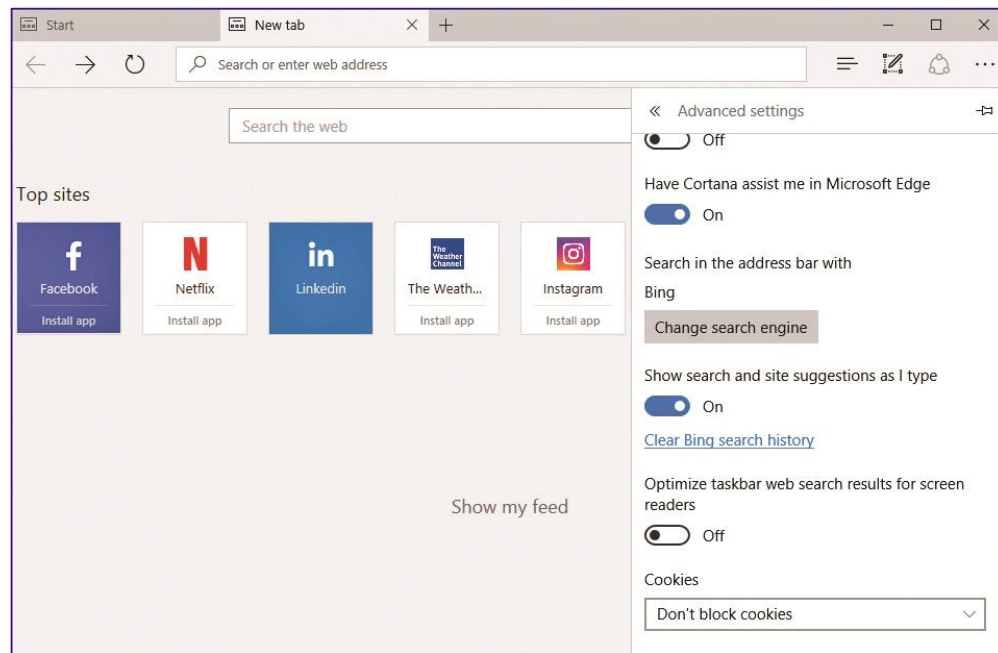


# Surf's Up—Web Browsers

- HTML
  - Hypertext Markup Language
  - Authoring language that defines the structure of a webpage
- Web browsers
  - Programs that interpret the HTML
  - Display webpages
    - Home page—the first page of a website; page that appears when you first open your browser

# Surf's Up—Configuring Your Web Browser

- Setting the home page
- Setting the search providers



# Surf's Up—Add-Ons, Plug-Ins, and Toolbars

- Plug-in
  - Third-party program, such as Adobe Reader
- Add-on
  - Created for a specific browser to add features to it



# Surf's Up—Add-Ons, Plug-Ins, and Toolbars

- Toolbar
  - Added to a browser for quick access to a feature of an application that installed it
  - Be wary of toolbars that come bundled with software
  - Can be a source of malware and can slow down browsing

# Demonstrate How to Navigate the Web



# Navigating the Net

- Two ways to navigate to a website
  - Type the URL (uniform resource locator) webpage address
    - <http://www.google.com>
  - Follow hyperlinks embedded in the webpages

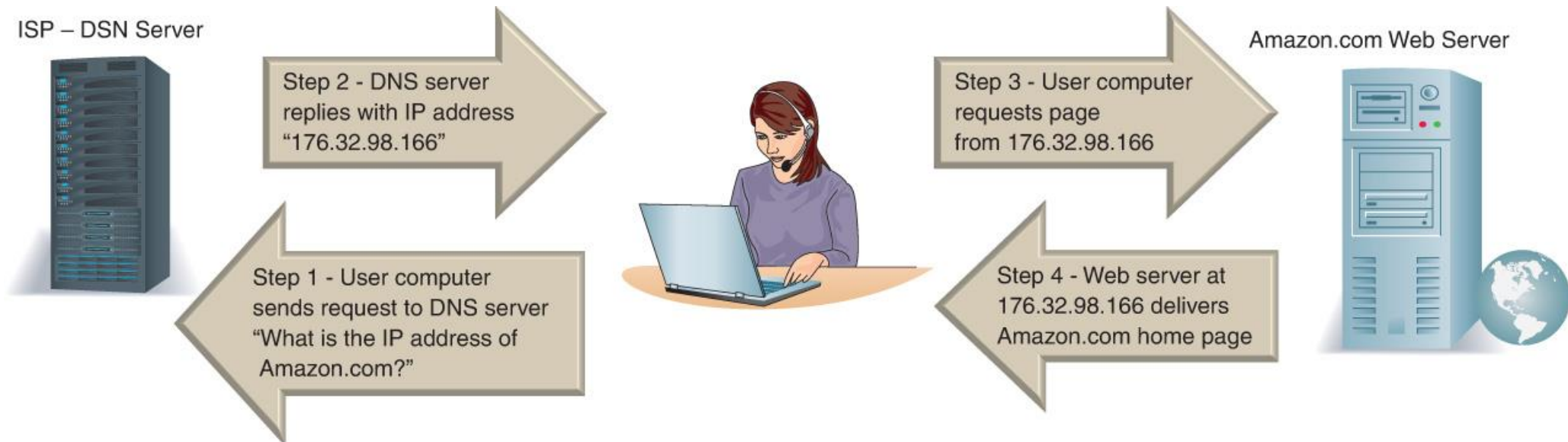
# Navigating the Net—Web Addresses (1 of 2)

- ICANN
  - Internet Corporation for Assigned Names and Numbers
  - Coordinates the Internet naming system
- IP address
  - Internet Protocol address
  - Unique numbered address associated with a website



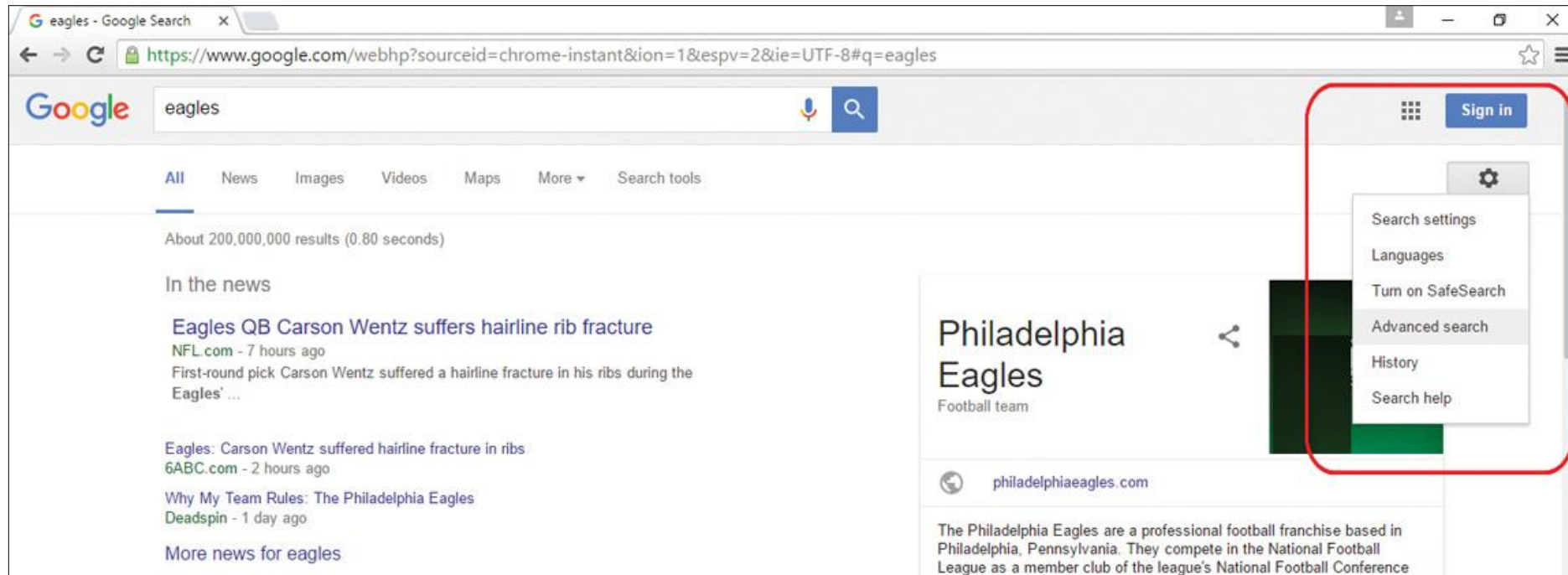
# Navigating the Net—Web Addresses (2 of 2)

- DNS
  - Domain Name System
  - Provides a user-friendly name instead of an IP address



# Navigating the Net—Smart Searching

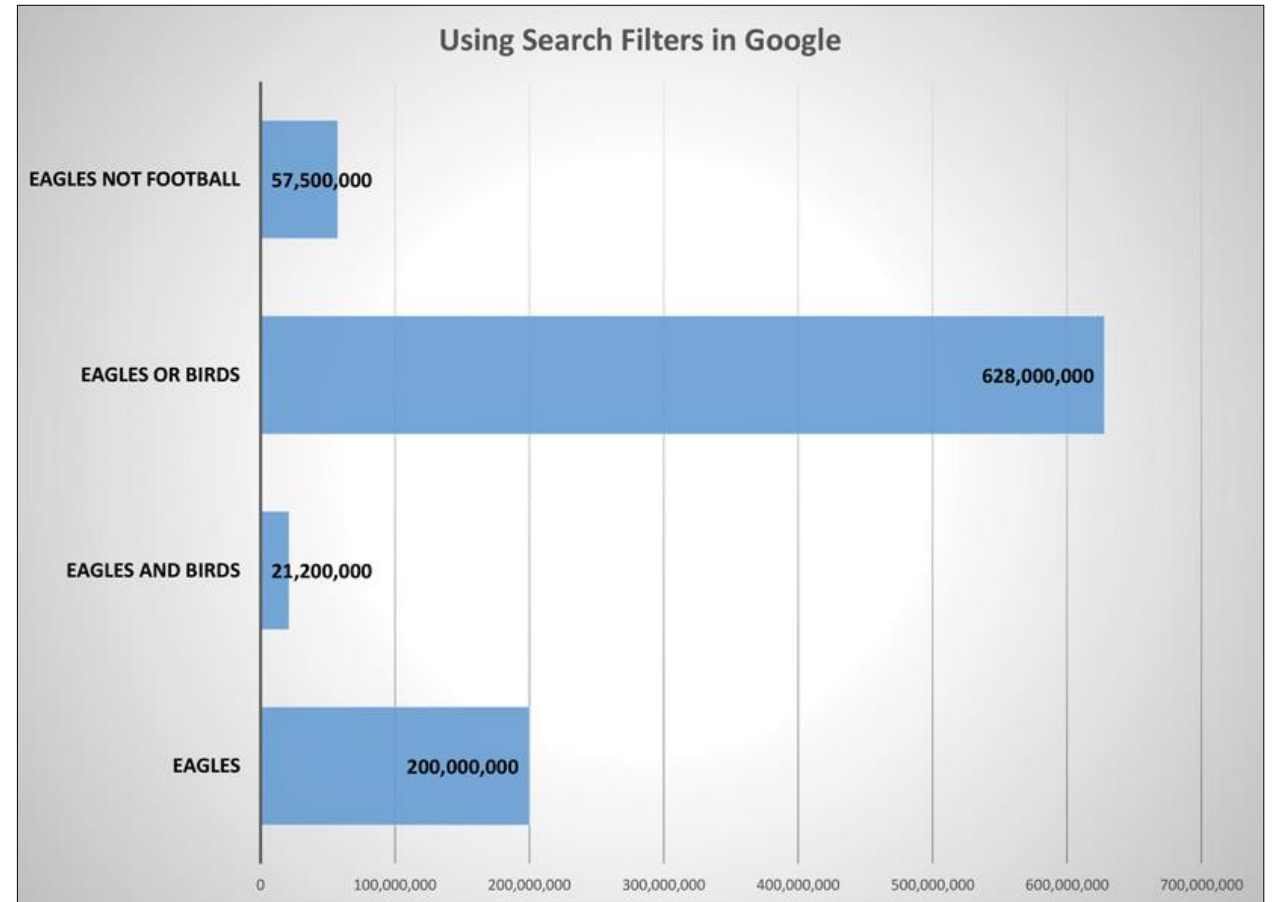
- Search engines are databases that index the web





# Searching the Web

- Boolean operators define a relationship between words
  - AND
  - OR
  - NOT



# Discuss How to Evaluate the Credibility of Information Found on the Web





# Would I Lie to You?—Who Wrote It?

- User-generated content
  - Content written by everyday users
    - Blogs
    - Websites
    - Wikis
    - Social media sites

# Would I Lie to You?—Who Wrote It?

- It is important to know about blogs
  - What is credible
  - How to evaluate the information you find

# Would I Lie to You?—Who Wrote It?

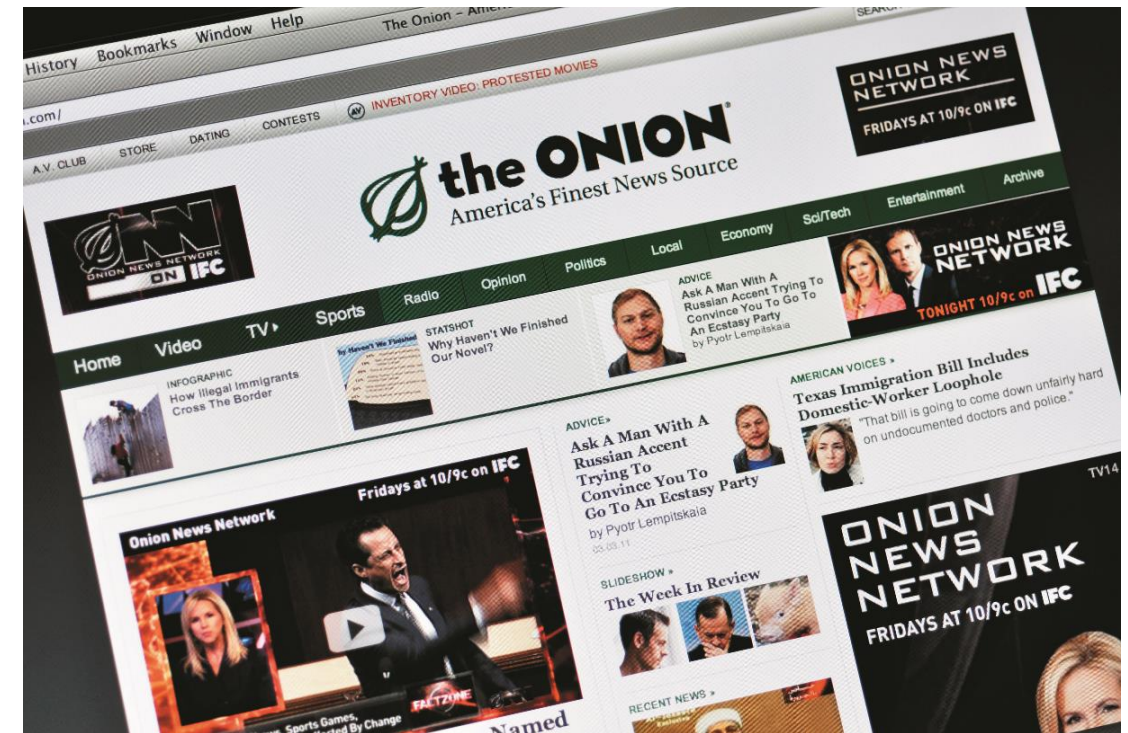
- Check for credibility
  - Look at the URL
    - Top-level domain (TLD)—.edu, .gov, or .com
  - Read the home page and the About Us page
    - Conflicts of interest or obvious biases
    - Contact information

# Would I Lie to You?—Who Wrote It?

- Stick with well-known sources for important information
- Use Google Scholar for scholarly research

# Would I Lie to You?—What about the Design?

- How up-to-date is the website?
  - Usually found at the bottom of the home page
- Look at the design of the website
  - Sophisticated
  - Lacks grammar and spelling errors
- Does the information match other sites?



# Questions



# Copyright

