

The Internet and World Wide Web

Discovering Computers 2012

**Your Interactive Guide
to the Digital World**



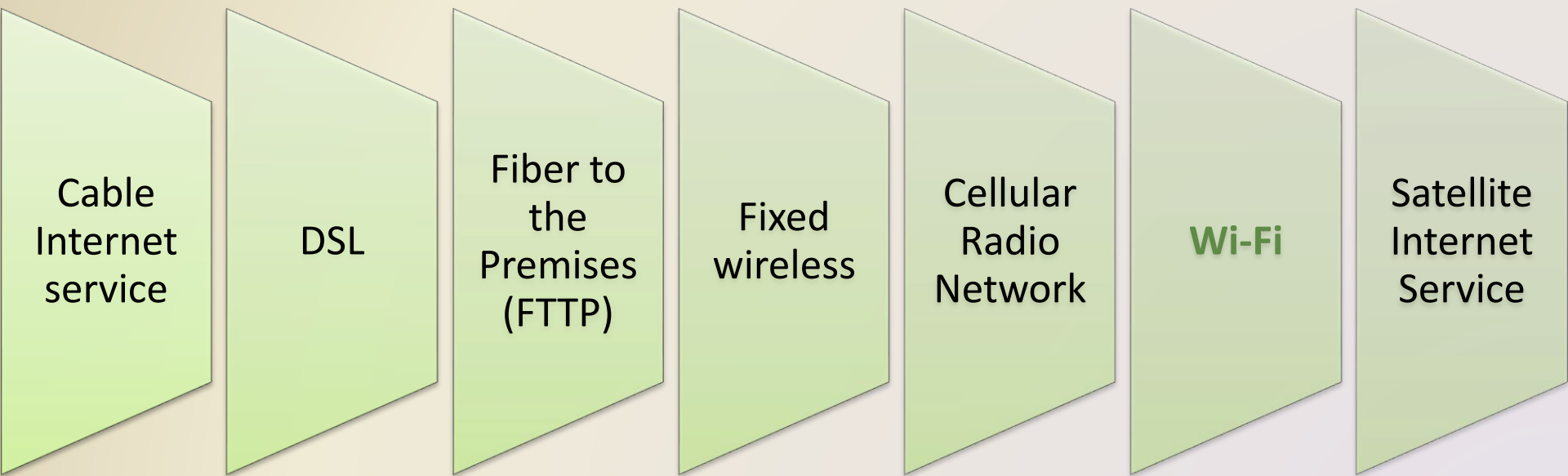
The Internet

- The **Internet** is a *global* system of *interconnected networks* to link millions of businesses, government agencies, educational institutions, and individuals



Evolution of the Internet

- Many home and small business users connect to the Internet via *high-speed broadband Internet service*



Evolution of the Internet

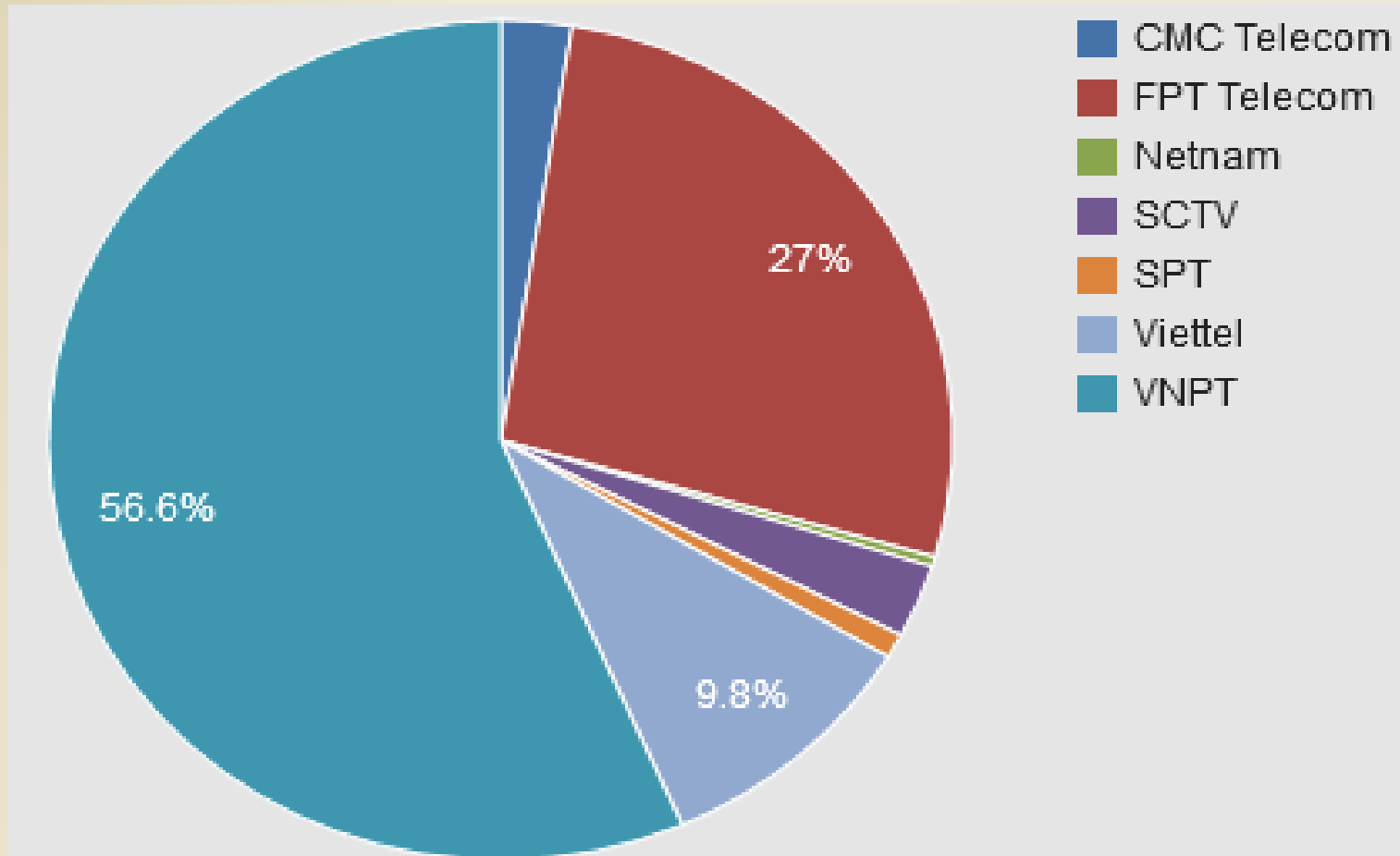
- An **ISP (Internet Service Provider)** is a company that provides access to Internet.

Regional ISPs provide Internet access to a specific geographical area

National ISPs provide Internet access in cities and towns nationwide

Evolution of the Internet

- Vietnam ISP market shares in Q4 2013 (source: Point Topic)



Evolution of the Internet

- An **IP address** is a number that *uniquely identifies* each computer or device connected to the Internet
- A **domain name** is the *text version of an IP* address
 - Top-level domain (TLD)
- A **DNS server** translates the domain name into its associated IP address

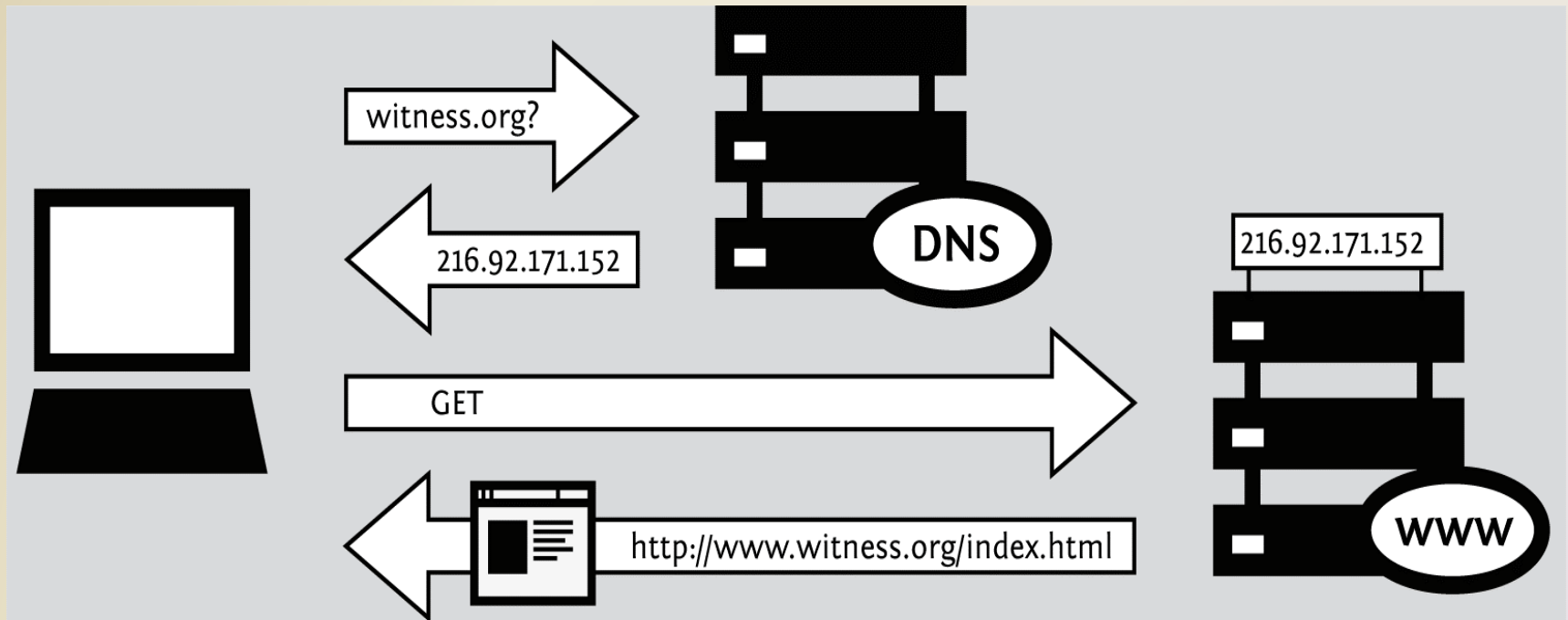
IP address —————→ 72.14.207.99

Domain name —————→ www.google.com

top-level domain —————→ com

Evolution of the Internet

- IP address vs. Domain name



Evolution of the Internet

- IPv4 vs. IPv6

	Internet Protocol version 4 (IPv4)	Internet Protocol version 6 (IPv6)
Deployed	1981	1999
Address Size	32-bit number	128-bit number
Address Format	Dotted Decimal Notation: 192.149.252.76	Hexadecimal Notation: 3FFE:F200:0234:AB00: 0123:4567:8901:ABCD
Prefix Notation	192.149.0.0/24	3FFE:F200:0234::/48
Number of Addresses	$2^{32} = \sim 4,294,967,296$	$2^{128} = \sim 340,282,366,920,938,463,463,374,607,431,768,211,456$

Evolution of the Internet

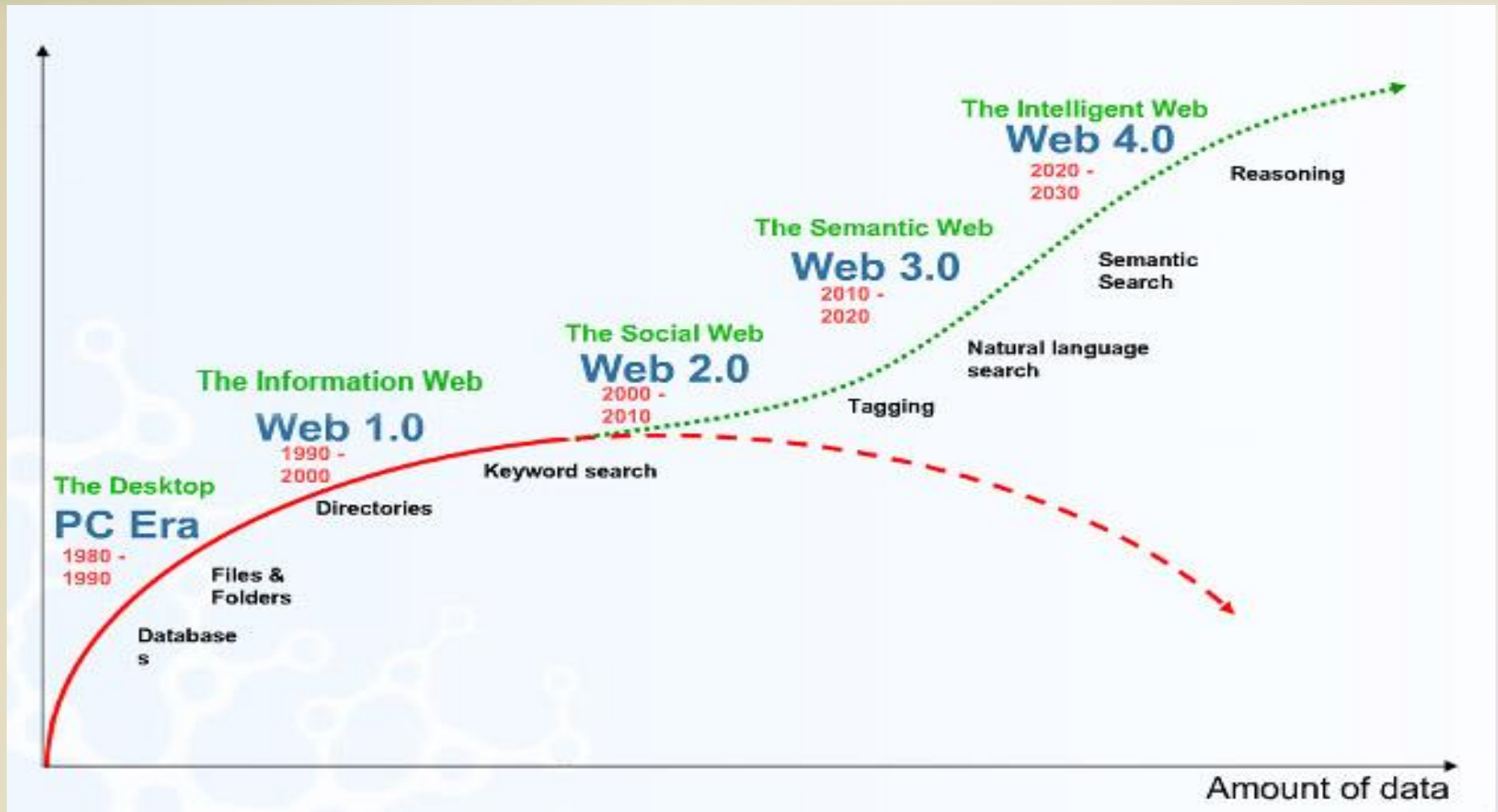
- Top Level Domain

ZONE	DEFINITION	FOR USE BY
.com	Commercial	Businesses
.edu	Education	Universities
.gov	Government	U.S. federal government agencies
.int	International	Organizations established by international treaties
.mil	Military	U.S. military
.net	Network	Network providers, administrator computers, network node computers
.org	Organization	Non-profit and miscellaneous organizations

The World Wide Web

- The **World Wide Web**, or **Web**, consists of a worldwide collection of electronic documents (**Web pages**)
- A **Web site** is a collection of related Web pages
- A **Web server** is a computer that delivers requested Web pages to your computer
- **Web 2.0** refers to Web sites that provide a means for users to interact

The World Wide Web



The World Wide Web

- A **Web browser**, or **browser**, allows users to access Web pages and Web 2.0 programs

Internet
Explorer

Firefox

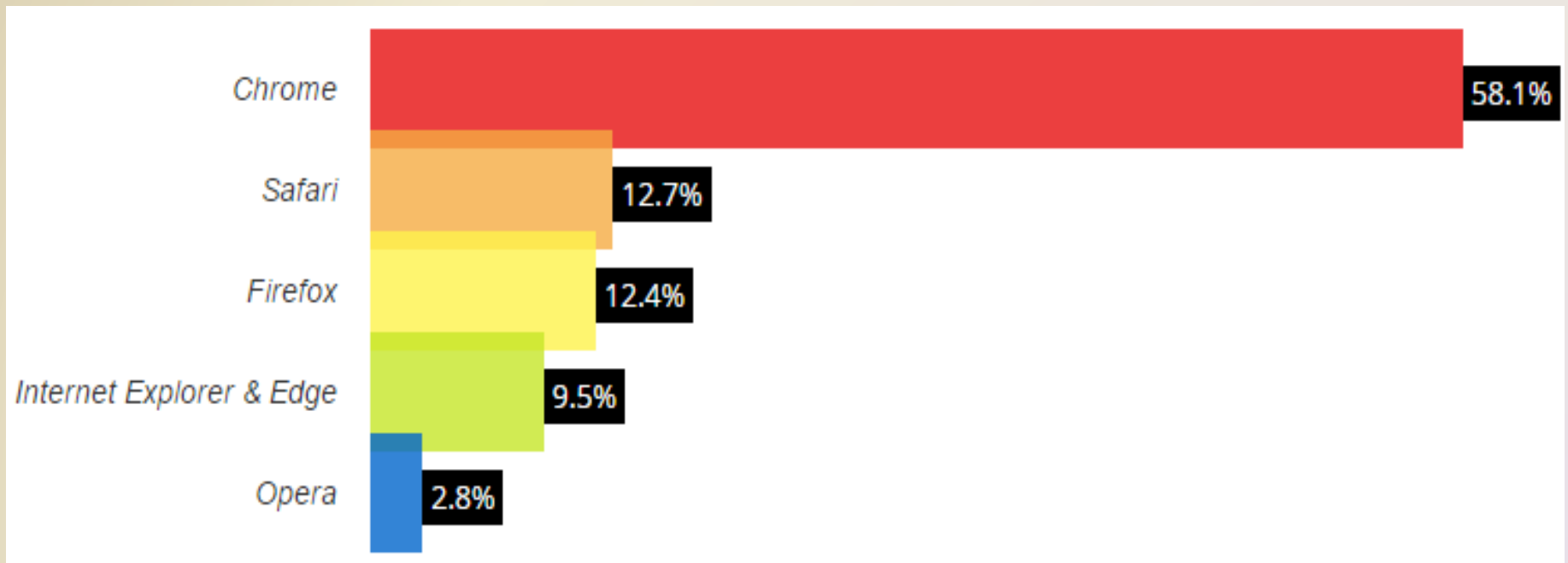
Opera

Safari

Google
Chrome

The World Wide Web

- Web browser market share 8/2016
(source: w3counter.com)



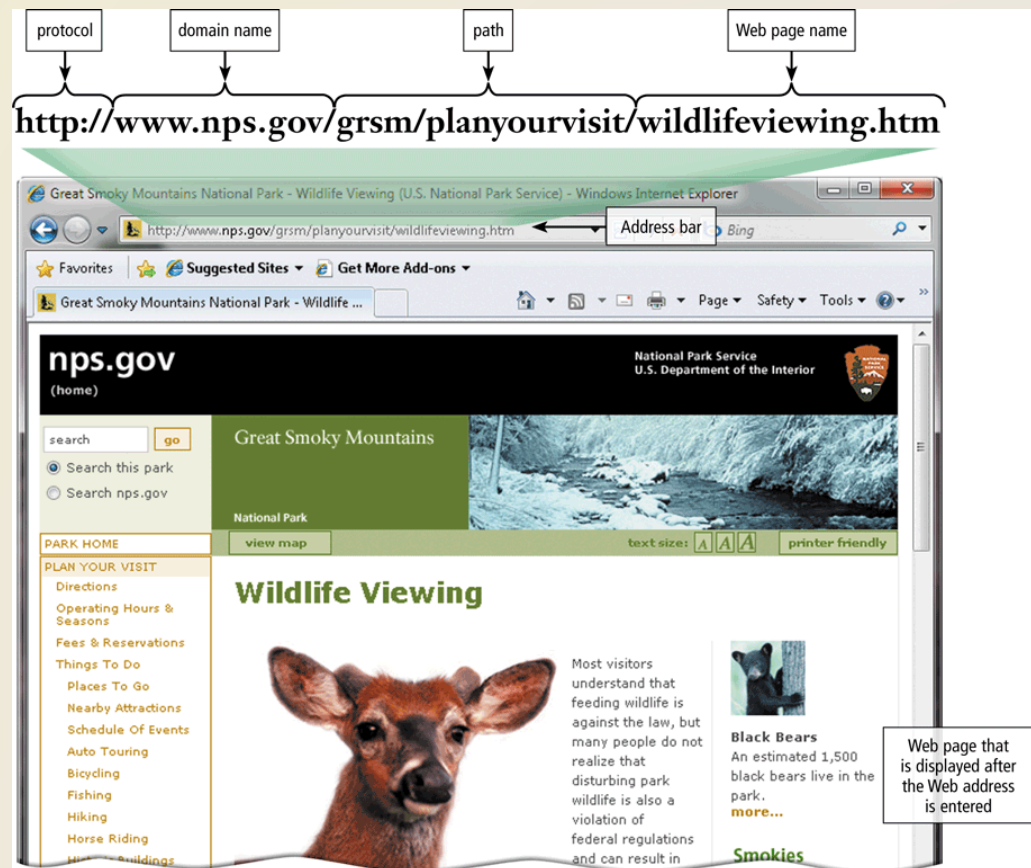
The World Wide Web

- Dominant web browsers by countries 2017
(source: StatCounter Global Stats)



The World Wide Web

- A Web page has a unique address called a **URL** or **Web address**



The World Wide Web

- URL anatomy



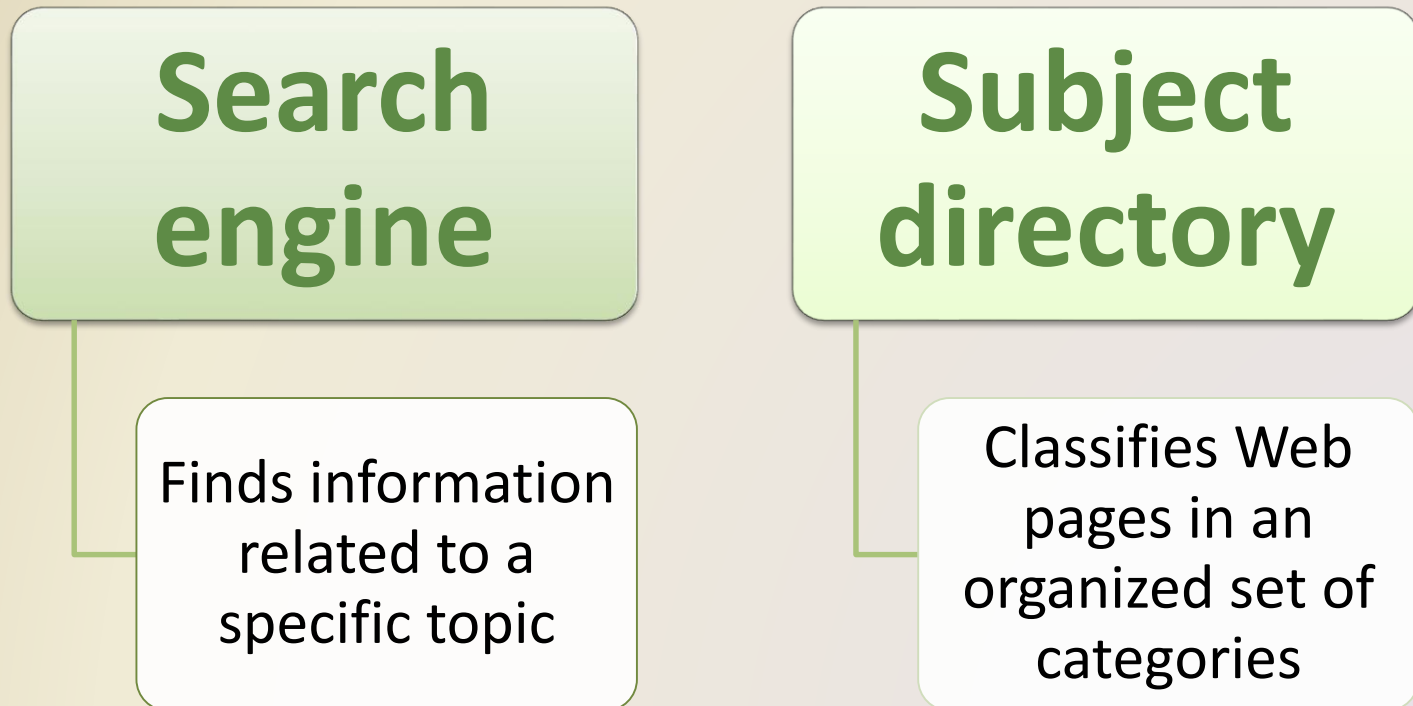
The World Wide Web

- **Tabbed browsing** allows you to open and view multiple Web pages in a single Web browser window



The World Wide Web

- Two types of search tools are search engines and subject directories



The World Wide Web

- Popular search engines



The World Wide Web

- A search engine is helpful in locating items such as:



Images

Videos

Audio

Publications

Maps

People or
Businesses

Blogs

The World Wide Web

- **Search operators** can help to refine your search

Calculator	What you can do with it	Google this
+ - * /	add, subtract, multiply, divide	12 + 68
% of	percentage of a number	12 % of 68
cos() sin()	trigonometry: cos, sin, tan, arcsin ...	cos (68)
km to miles	convert units: temp (C to F), weight (kg to lbs) ...	100 km to miles
Info	What you can do with it	Google this
weather	get weather for a region	weather honolulu
movies	find movies & theatres nearby (zip or city)	movies 94043
flight status	get flight status with the airline & flight number	HA 124

The World Wide Web

- **Search operators** can help to refine your search

Advanced	What you can do with it	Google this
site:	search only within a specific site	site: www.stanford.edu
filetype:	find a type of file: PDF, DOC, TXT ...	filetype: PDF
define:	find definitions for a word	define: audacity
intitle:	find words in the title of the webpage	intitle: inspirational
..	get ranges of numbers, dates, or prices	presidents 1800.. 1900
word * word	find other combinations of words between words	creative * writing
-word	search for homer, but NOT simpson	homer -simpson
"word"	find exact words—no synonyms or plurals	"peace" "freedom"
"set of words"	search for exact set of words, quotes or phrases	"I have a dream"

The World Wide Web

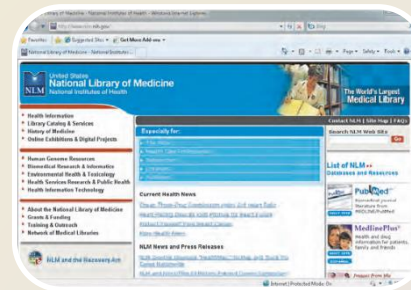
- There are thirteen types of Web sites



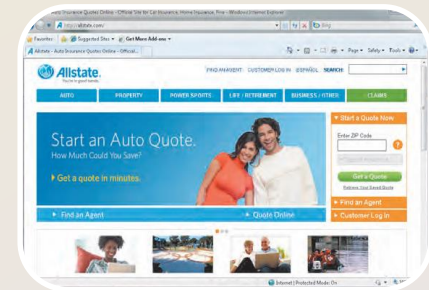
Portal



News



Informational



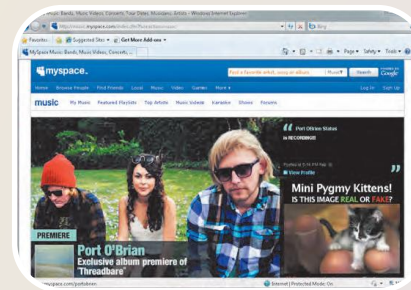
Business/Marketing



Blog



Wiki

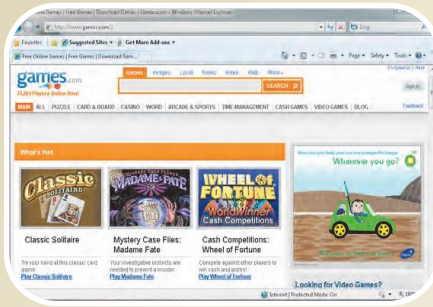


Online Social Network



Educational

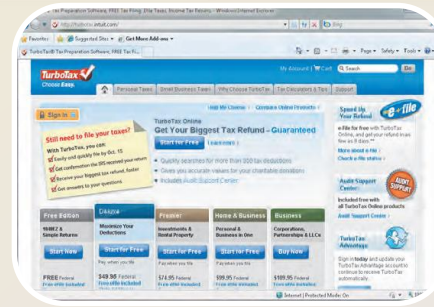
The World Wide Web



Entertainment



Advocacy



Web Application



Content Aggregator



Personal

The World Wide Web

- **Multimedia** refers to any application that combines text with:

Graphics

Animation

Audio

Video

Virtual
Reality

The World Wide Web

- A **graphic** is a digital representation of nontext information
- Graphic formats include BMP, GIF, JPEG, PNG, and TIFF



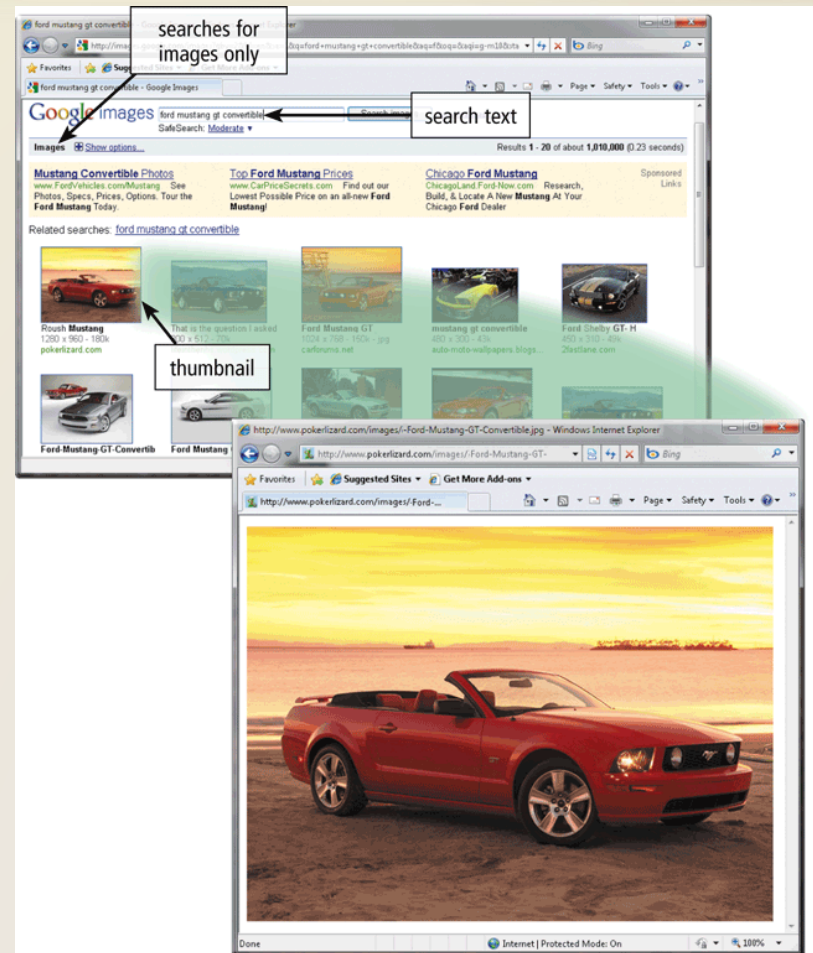
The World Wide Web

- A **graphic** is a digital representation of nontext information
- Graphic formats include BMP, GIF, JPEG, PNG, and TIFF



The World Wide Web

- A thumbnail is a small version of a larger graphic



The World Wide Web

- **Animation** is the appearance of motion created by displaying a series of still images in sequence



The World Wide Web

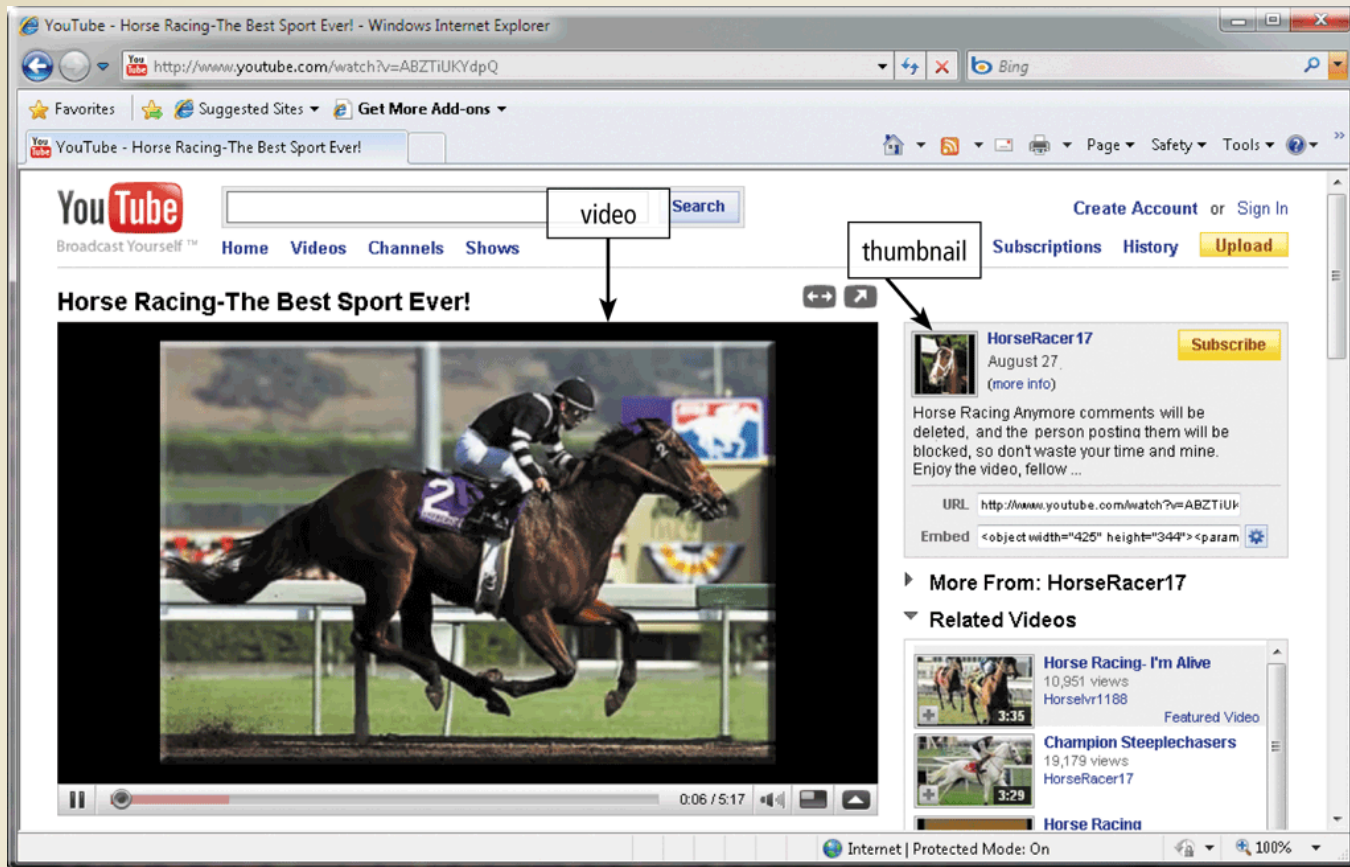
- **Audio** includes music, speech, or any other sound
 - Compressed to reduce file size
- You listen to audio on your computer using a **player**
- **Streaming** is the activity of listening to or watching sound or video directly from the internet

Audio Web File Formats

Format	Description	Format	Description
AAC	Advanced Audio Coding	WAV	Windows waveform
AIFF	Audio Interchange File Format	WMA	Windows Media Audio (part of Windows Media framework)
ASF	Advanced Streaming (or Systems) Format (part of Windows Media framework)	RA	RealAudio sound file (supported by RealPlayer)
MP3	Moving Pictures Experts Group Audio Layer 3 (MPEG-3)	QT	QuickTime audio, video, or 3-D animation
Ogg	Free, unpatented audio and video format		

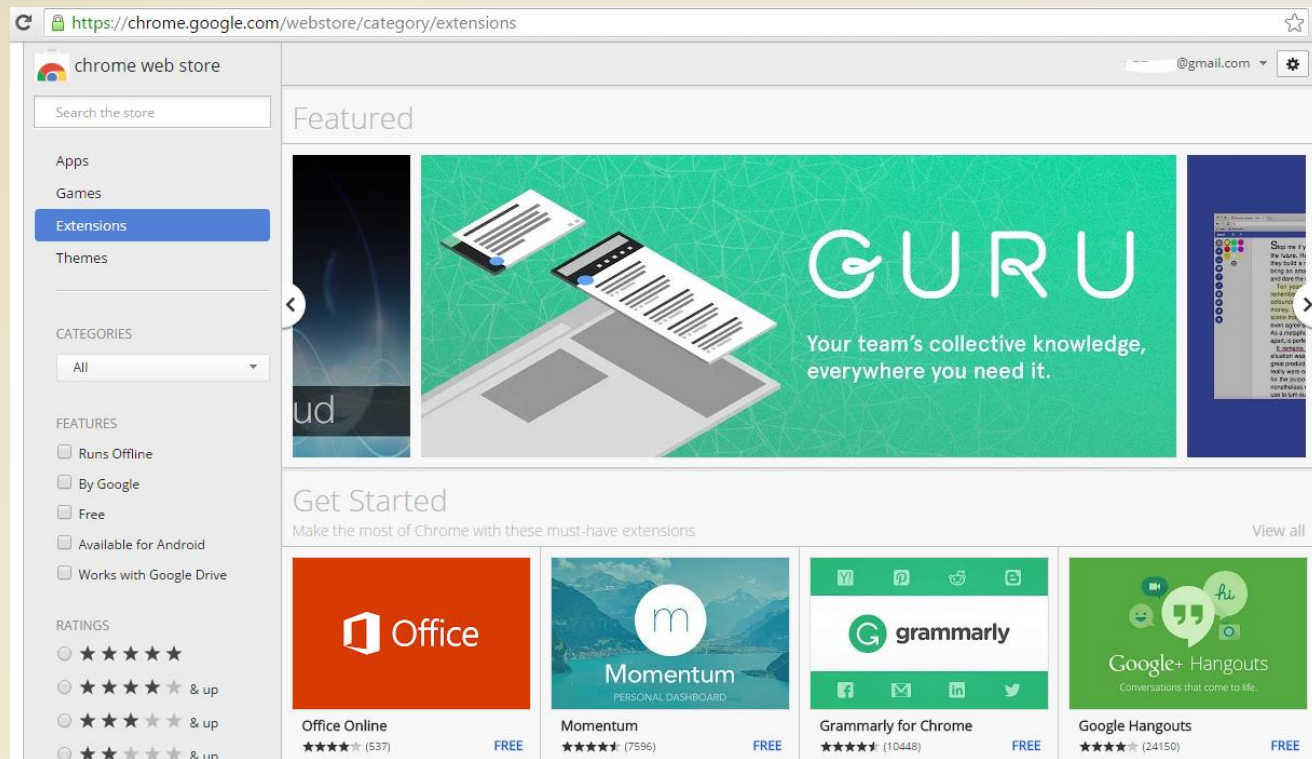
The World Wide Web

- **Video** consists of images displayed in motion



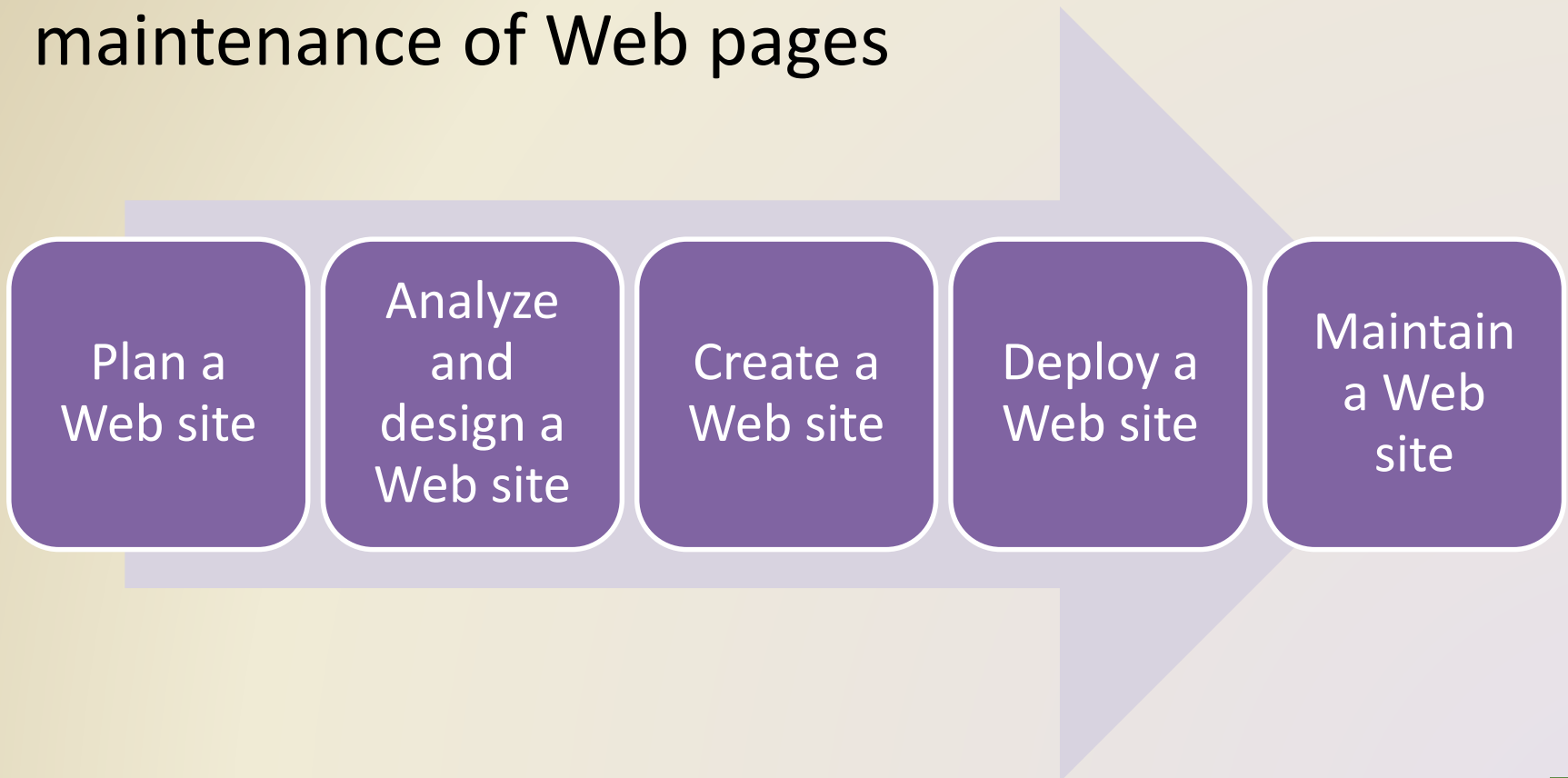
The World Wide Web

- A **plug-in** is a program that extends the capability of a Web browser



The World Wide Web

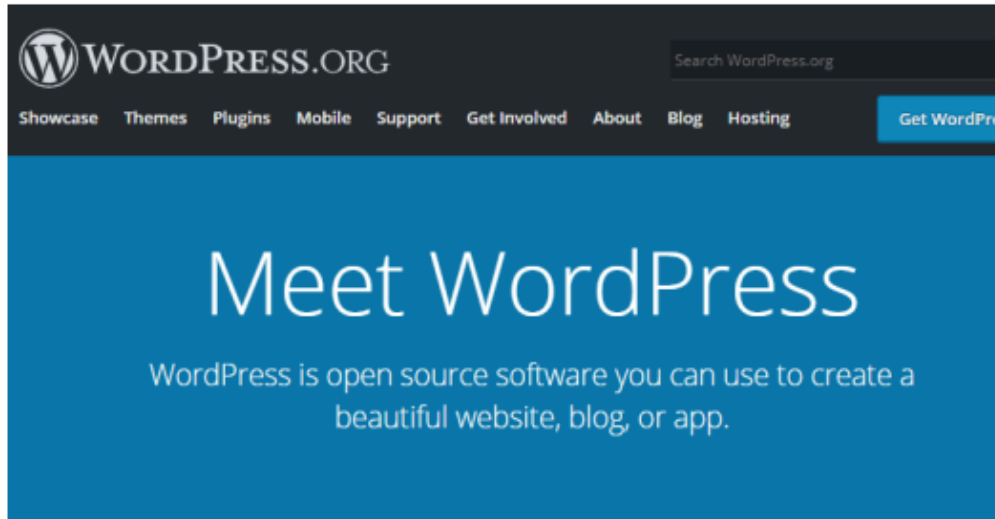
- **Web publishing** is the development and maintenance of Web pages



The World Wide Web

- CMS (content management system platform)

WordPress.org



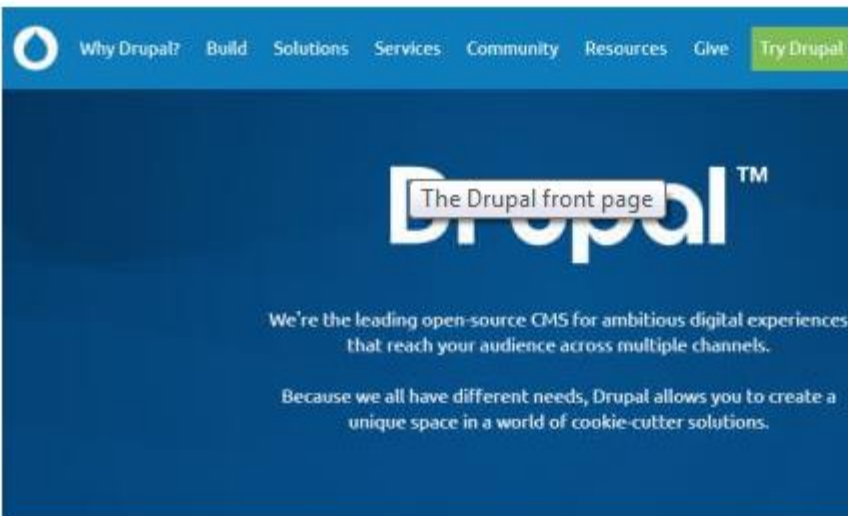
Joomla



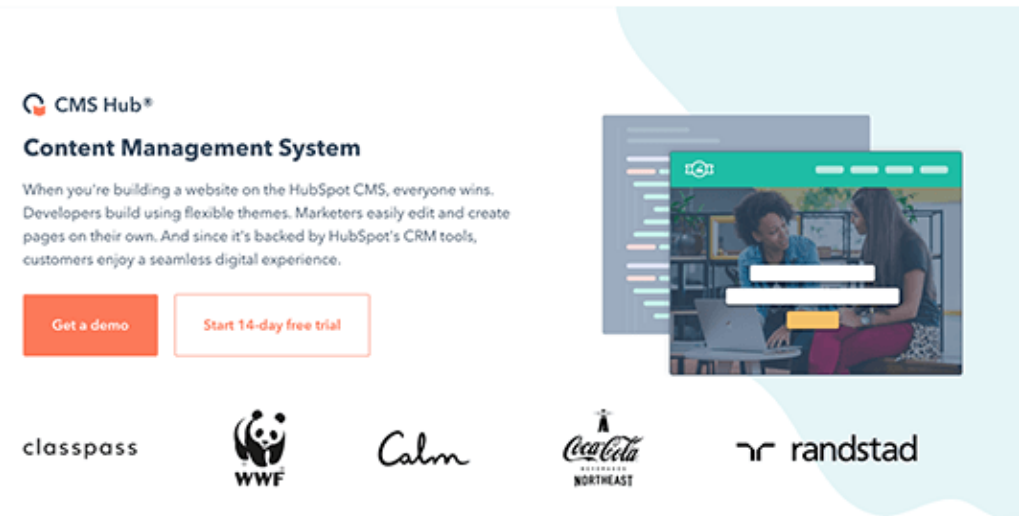
The World Wide Web

- CMS (content management system platform)

Drupal



HubSpot CMS Hub



E-Commerce

- **E-commerce** is a business transaction that occurs over an electronic network
 - **M-commerce** identifies e-commerce that takes place using mobile devices

Jetstar

Chọn chuyến bay > Hành khách > Chỗ Ngồi > Các cộng thêm > Thanh toán

1. Lựa chọn chuyến bay chặng đi
Thành phố Hồ Chí Minh đến Singapore

Thư 8 Sep VND 690.000 | Fri 9 Sep VND 790.000 | Sat 10 Sep VND 890.000 | Sun 11 Sep VND 890.000 | Mon 12 Sep VND 3.490.000 | Tue 13 Sep VND 1.490.000 | Wed 14 Sep VND 790.000

Khởi hành	Đến	Chi tiết chuyến bay	Tiết kiệm Khuyến hàng phổ thông
7:10 Thành phố Hồ Chí Minh	10:10 Singapore	Bay thẳng 2giờ0phút	VND 790,000
8:55 Thành phố Hồ Chí Minh	11:55 Singapore	Bay thẳng 2giờ0phút	VND 1,190,000
15:35 Thành phố Hồ Chí Minh	18:40 Singapore	Bay thẳng 2giờ5phút	VND 1,790,000
21:40 Thành phố Hồ Chí Minh	0:40 (+1) Singapore	Bay thẳng 2giờ0phút	VND 1,190,000

9/9/2016

7kg hành lý xách tay

LAZADA

Tìm kiếm sản phẩm, thương hiệu hay nhãn hàng mong muốn ...

Điện tử | Thời trang nữ | Thời trang nam | Nhà cửa & Đời sống | Sức khỏe & Sắc đẹp | Trẻ em & Đồ chơi | Thể thao & Du lịch | Xe máy & Bảo hiểm

TV, Video, Âm thanh, Game & Thiết bị đeo công nghệ / Thiết bị âm thanh / Các loại tai nghe / Tai nghe Over ear / Tai nghe không dây QC35 (Đen)

Tai nghe không dây QC35 (Đen)

Hãy là người đầu tiên đánh giá sản phẩm này

Thương hiệu: Bose | Thêm Thiết bị âm thanh từ Bose

Bảo hành: 12 tháng Bằng Phiếu bảo hành và Hóa đơn Xem thêm

Công nghệ khử tiếng ồn hàng đầu trong ngành giúp sự yên tĩnh tĩnh lặng hơn và âm nhạc nghe hay hơn more

Lựa chọn khác

8.999.000 VND

Hoặc mua trả góp 0% bằng thẻ tín dụng chỉ từ 749.917 VND/tháng

MUA NGAY

Hướng dẫn mua hàng

hoặc Thanh toán nhanh

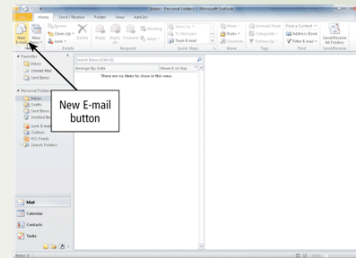
Other Internet Services

- **E-mail** is the transmission of messages and files via a computer network
- An **e-mail program** allows you to create, send, receive, forward, store, print, and delete e-mail messages

How to Send an E-Mail Message Using Outlook

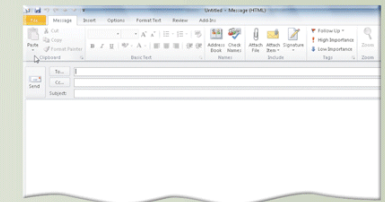
Step 1

Start an e-mail program and point to the New Mail Message button.



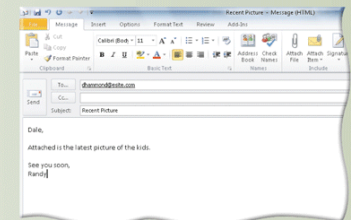
Step 2

Click the New Mail Message button to display the Message window.



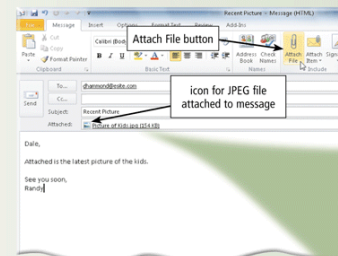
Step 3

Enter the recipient's e-mail address, the subject, and the message in the Message window.



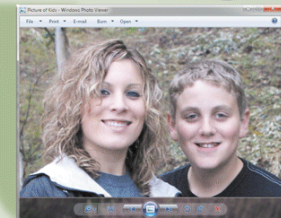
Step 4

Click the Attach File button on the Message tab to attach a JPEG file containing a photo to the message. Click the Send button to send the message.



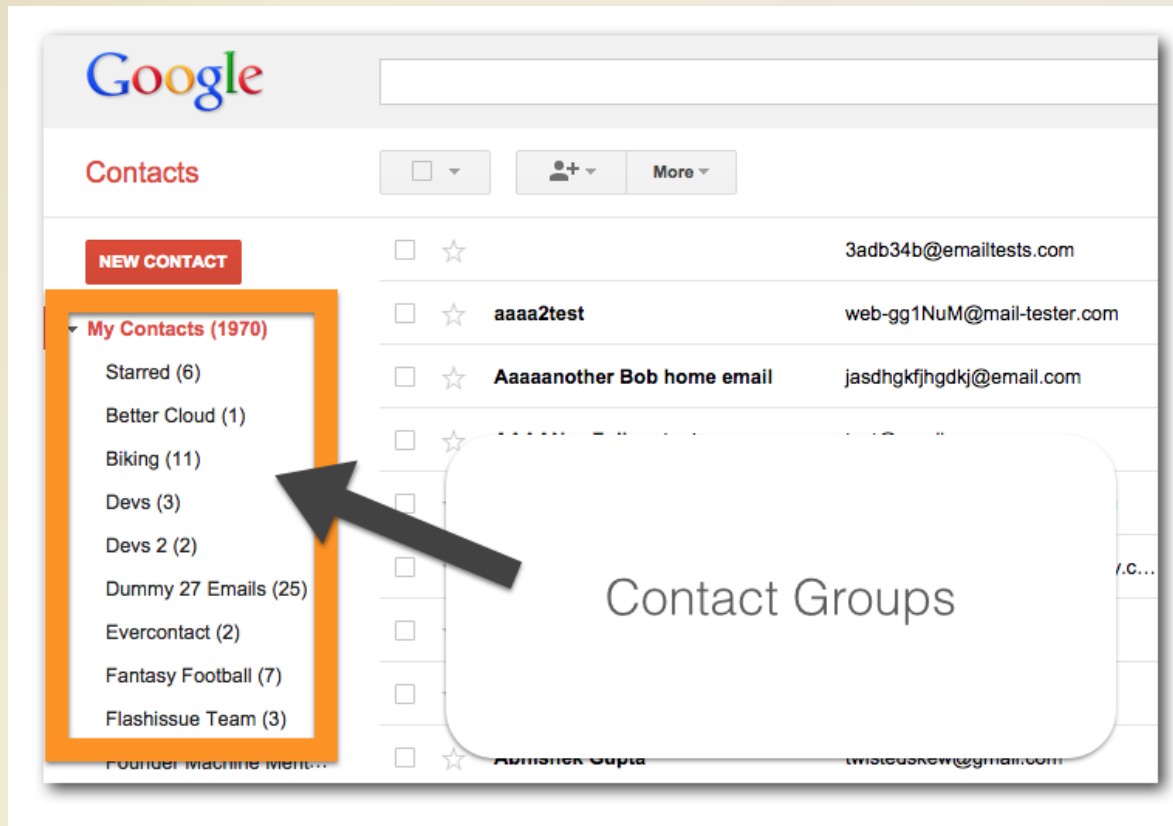
Step 5

When Dale receives the e-mail message, she opens the JPEG file to view the photo.



Other Internet Services

- A **mailing list** is a group of e-mail names and addresses given a single name.



Other Internet Services

- A **chat** is a real-time typed conversation that takes place on a computer
- A **chat room** is a location on an Internet server that permits users to chat with each other

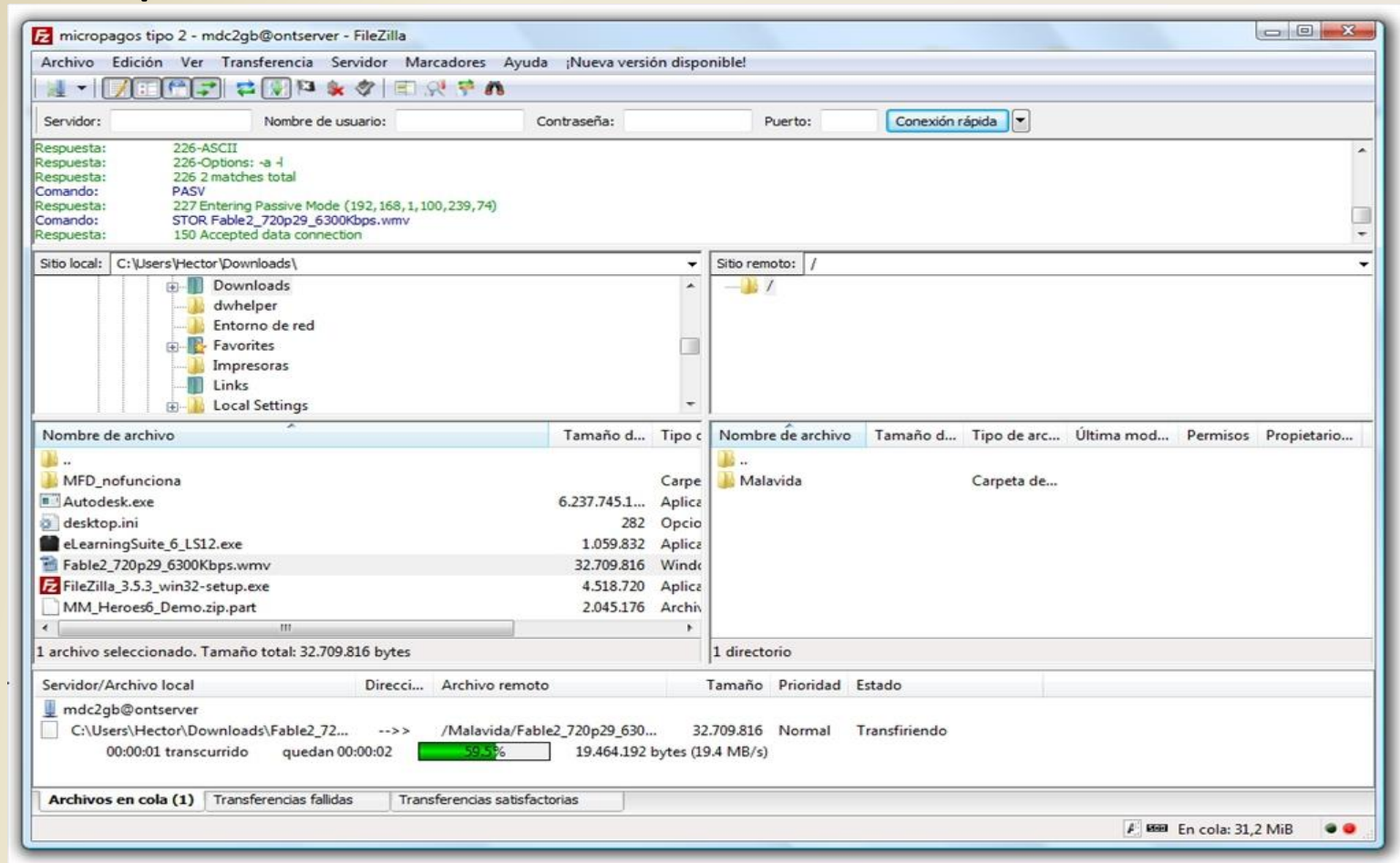


Other Internet Services

- **FTP** (File Transfer Protocol) is an Internet standard that permits file **uploading** and downloading with other computers on the Internet
- Many operating systems include FTP capabilities
- An FTP server is a computer that allows users to upload and/or download files using FTP

Other Internet Services

- Some open source FTP softwares: FileZilla, WinSCP.



The Internet and World Wide Web

Discovering Computers 2012

**Your Interactive Guide
to the Digital World**

Chapter 2 Complete

