

Introduction to Information and Communication Technologies

Chapter 2

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Agenda

- Evolution of the internet
- The World Wide Web
- E Commerce

Evolution of Internet

- The **Internet**, also called the **Net**, is a worldwide collection of networks that links millions of businesses, government agencies, educational institutions, and individuals.
- Today, more than one billion users around the world access a variety of services on the Internet.
- The Internet has its roots in a networking project started by an agency of the U.S. Department of Defense which is DARPA.
- The goal was to build a network that allowed scientists at different locations to share information and work together on military and scientific projects.
- That network, called ARPANET, became functional in September 1969, linking scientific and academic researchers across the United States.

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Evolution of Internet

- The original network consisted of four main computers, one each located at the University of California at Los Angeles, the University of California at Santa Barbara, the Stanford Research Institute, and the University of Utah.
- Each computer served as a host on the network.
- A **host** or **server** is any computer that provides services and connections to other computers on a network.
- By 1984, the network had more than 1,000 individual computers linked as hosts.
- Today, more than 350 million hosts connect to this network, which became known as the Internet.
- Each organization on the Internet is responsible only for maintaining its own network.
- No single person, company, institution, or government agency controls or owns the Internet.

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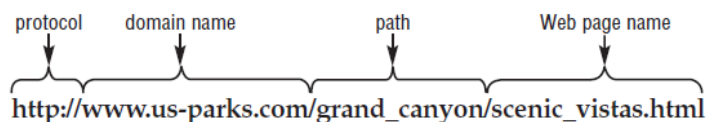
The World Wide Web: Key Concepts

- The **World Wide Web (WWW)**, or **Web**, a widely used service on the Internet, consists of a worldwide collection of electronic documents.
- Each electronic document on the Web, called a **Web page**, can contain text, graphics, audio, and video. Additionally, Web pages usually have built-in connections to other documents.
- A **Web site** is a collection of related Web pages and associated items, such as documents and pictures, stored on a Web server.
- A **Web server** is a computer that delivers requested Web pages to your computer.
- A **Web browser**, or **browser**, is application software that allows users to access and view Web pages. e.g. Internet Explorer, Netscape, Firefox, Opera, and Safari.

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The World Wide Web: Key Concepts

- **Home page**, refers to the first page that a Web site displays. Similar to a book cover or a table of contents for a Web site, the home page provides information about the Web site's purpose and content.
- **Downloading** is the process of a computer receiving information, such as a Web page, from a server on the Internet.
- A Web page has a unique address, which is called a **URL** (Uniform Resource Locator) or **Web address**.
- A Web address consists of a protocol, domain name, and sometimes the path to a specific Web page or location on a Web page.
 - E.g. <http://www.urdupoint.com/daily/livenews/2021-07-24/news-2861359.html>



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The World Wide Web: Key Concepts

- A **subject directory** provides categorized lists of links arranged by subject. Using this search tool, you can locate a particular topic by clicking links through different levels, moving from the general to the specific.
- A **search engine** is particularly helpful in locating Web pages about certain topics or in locating specific Web pages, images, videos, news, and other information for which you do not know the exact Web address.

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E-Commerce

- **E-commerce**, short for electronic commerce, is a business transaction that occurs over an electronic network such as the Internet.
- Anyone with access to a computer, an Internet connection, and a means to pay for purchased goods or services can participate in e-commerce.
- Three types of e-commerce are business-to-consumer, consumer-to-consumer, and business-to-business.
- Business-to-consumer (B2C) e-commerce consists of the sale of goods and services to the general public.
- For example, Dell has a B2C Web site. Instead of visit in a computer store to purchase a computer, customers can order one directly from the Dell Web site.

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E-Commerce

- A customer (consumer) visits an online business through an **electronic storefront**, which contains product descriptions, graphics, and a shopping cart.
- The **shopping cart** allows the customer to collect purchases. When ready to complete the sale, the customer enters personal data and the method of payment, preferably through a secure Internet connection.
- Instead of purchasing from a business, consumers can purchase from each other. For example, with an **online auction**, users bid on an item being sold by someone else. The highest bidder at the end of the bidding period purchases the item.
- **Consumer-to-consumer (C2C)** e-commerce occurs when one consumer sells directly to another, such as in an online auction. eBay is one of the more popular online auction Web sites.

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E-Commerce

- Most e-commerce, though, actually takes place between businesses, which is called **business-to-business (B2B)** e-commerce.
- Many businesses provide goods and services to other businesses, such as online advertising, recruiting, credit, sales, market research, technical support, and training.
- As an alternative to entering credit card, bank account, or other financial information online, some shopping and auction Web sites allow consumers to use an online payment service such as PayPal or Google Checkout.

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Other Services of Internet

- FTP
- Telnet
- Instant Messaging (IM)
- Chat Rooms
- Internet Telephony
- Email
- News Groups

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THE END