Chapter 2
The Internet, Digital Media, and Media Convergence
Media theorist Marshall McLuhan wrote in 1972 that “the wired planet has no boundaries and no monopolies of knowledge.”

William Gibson, the novelist who coined the word cyberspace in the 1980s to represent the virtual reality environment of computing networks, similarly argued “the Internet is transnational. Cyberspace has no borders.”

And in 2000, Microsoft leader Bill Gates said, “The Internet is a constantly changing global network that knows no borders.”
This trend became most evident with the operation of the Internet in China. Over 123 million Chinese are online, only a fraction of the country’s 1.3 billion population, but with enough Internet users to be second only to the United States.

- the openness of the Internet has led to a clash of cultures. As Washington Post reporter Philip Pan writes, “The party appears at once determined not to be left behind by the global information revolution and fearful of being swept away by it.”
As more and more Chinese citizens take to the Internet, an estimated thirty thousand government censors monitor their use of Web pages, blogs, chat rooms, and e-mails.

- This surveillance constitutes what some now call the “Great Firewall of China.”
Chinese Internet service providers and Webmasters have learned to self-censor to avoid attracting attention.

For those who persist in practicing “subversive” free speech, there can be severe penalties:

Paris-based Reporters without Borders (www.rsf.org) reports that more than eighty-one cyber-dissidents and journalists are in Chinese prisons for writing articles and blogs that criticized the government.
information highway

- Unlike interstate highways built by federal and state governments, the information highway has been taken over and expanded by private enterprise, although it was initially established and subsidized by the government.
The full impact of the Internet, like that of all emerging mass media, will evolve over time.

Unlike cable and earlier mass media, the Internet is also unique in that there is no limit on how large its databases of content can grow.
Origins of the Internet

- From its humble origins as an attack-proof military communications network in the 1960s, the Internet became increasingly interactive by the 1990s, allowing immediate two-way communication (like telephones) and one-to many communication (like radio and television) between senders and receivers of media messages.

- With its ability to transport both personal conversation and multimedia mass communication, the Internet has begun to break down conventional distinctions among various media and between private and public modes of communication.
The Evolution of a New Mass Medium: 3 Stages

• First is the *novelty or development stage in which* inventors and technicians try to solve a particular problem.

• Second is the *entrepreneurial stage in which* inventors and investors determine a practical and marketable use for the new device.

• The third phase in a new medium’s development involves a breakthrough to the *mass medium stage*. At this point, *businesses figure out how to market the new device as an appealing consumer product.*
The Initial Structure of the Internet

- Internet Service Providers – broadband: data transmission over a fiber-optic cable — a signaling method that handles a wide range of frequencies.
- Web Browsers
  - Internet Explorer continues to dominate the Web browser business
- Directories and Search Engines
  - review and cataloguing services that group Web sites under particular categories (e.g., Arts & Humanities, News & Media, Entertainment).
- E-mail and Instant Messaging Services
  - instant messaging: a Web feature that enables users to chat with buddies in real time via pop-up windows assigned to each conversation.
The Structure of the Internet

- By the end of the 1990s, Yahoo!, Microsoft, AOL, and Google had emerged as the leading forces on the Internet, each with a different business angle.
The Structure of the Internet

• **AOL**
  - AOL attempted to dominate the Internet as the top ISP, connected millions of home users to its proprietary Web system through dial-up access.
  - AOL never recovered in the shift from dial-up to broadband connections and its early success led to the huge AOL-Time Warner corporate merger of 2001, but its technological shortcomings in broadband contributed to its devaluation and eventual spin-off from Time Warner in 2009. Instead, social networking giant Facebook emerged as one of the new top Internet companies of Web 2.0.
The Structure of the Internet

• **Google**
  - Google made its play to seize the Internet with a more elegant, robust search engine to help users find Web sites. It had instant success with its algorithmic search engine, which now controls over 70 percent of the search market and generates billions of dollars of revenue yearly through the pay-per-click advertisements that accompany key-word searches.
The Structure of the Internet

• **Microsoft**
  - Operates the most popular web browser (Internet Explorer) and also owns one of the leading free Web e-mail services (Hotmail), a top internet provider (MSN), a popular instant messaging service (MSN Messenger), a search engine (Bing), and an Internet-connected video game console (Xbox).
The Structure of the Internet

- **Yahoo!**
  - Yahoo! Quickly became a major Internet property by dominating the Web directory portion of the market and, initially, the search engine portion as well. Yahoo! Ranks as the third most popular search site. In 2010 Yahoo! Bought Associated Content, a Web-content provider of text, audio, video and images, to increase its online offerings.
The Structure of the Internet

- **Facebook**
  - Of all the leading Internet sites, Facebook is the “stickiest,” with users staying on the social networking site on average 6 hours and 43 minutes each day. Because users reveal so much about themselves in their profiles and posted messages,

  - Facebook is able to connect users’ social actions to advertisers in order to increase ad relevance.

  - Facebook has suffered trying to balance its corporate interests and its users’ interest in controlling the privacy of their own information at the same time.
Digital Technology and Converging Media

• Three innovations make the Internet a particularly distinct mass medium, offering unprecedented opportunities to communicate.

• interactive

• converging media—connecting consumers to other media

• personalizing this experience allows individuals to create and distribute their own messages in what has been called participatory media
The Economics and Issues of the Internet

• Companies have realized the potential of dominating the Internet business through search engines, software, social networking, and perhaps most important, advertising.

• Ownership and control of the Internet is connected to 3 Internet issues that command much public attention:
  - the security of personal and private information, the appropriateness of online materials, and the accessibility of the Internet.
The Economics and Issues of the Internet

• Important questions have been raised:

  ▫ Should personal or sensitive government information be private, or should the Internet be an enormous public record?

  ▫ Should the Internet be a completely open forum, or should certain types of communications be limited or prohibited?

  ▫ Should all people have equal access to the Internet, or should it be available only to those who can afford it?
Ownership Issues on the Internet

• Large media firms, such as Disney, Time Warner, and Microsoft, are buying up or investing in smaller companies and spreading their economic interests among books, magazines, music, movies, radio, television, cable, and Internet channels.

• Telecommunications Act of 1996: the sweeping update of telecommunications law that led to a wave of media consolidation.
Targeted Advertising and Date Mining

- Advertising has spread to social networking sites, e-mail, and IM, all activities in which computer users reveal something about themselves and their interests.

- For advertisers these activities make advertising easy to track, effective in reaching the desired niche audience, and relatively inexpensive because ads get wasted less often on the disinterested.
Targeted Advertising and Date Mining

• A related Internet security issue is the unethical gathering of date, or **data mining**.

• Millions have embraced the ease of **e-commerce**: the buying and selling of products and services on the Internet.

• What people don’t know is that their personal information may be used without their knowledge for commercial purposes, such as targeted advertising.
Security: The Challenge to Keep Personal Information Private

- After the September 11 attacks in 2001 the USA PATRIOT Act grants sweeping powers to law enforcement agencies to intercept individuals’ online communications, including e-mail messages and browsing records.

- Intended to allow the government to more easily uncover and track potential terrorists and terrorist organizations,
  - many now argue that the PATRIOT Act is too vaguely worded, allowing the government to unconstitutionally probe the personal records of citizens without probable cause and for reasons other than preventing terrorism.
Although about 75 percent of U.S. households are connected to the Internet, there are big gaps in access, particularly in terms of age and education.

A 2009 study found that only 45 percent of Americans ages seventy to seventy-five go online, compared with 78 percent ages fifty to fifty-four, 87 percent ages thirty to thirty-four, and 89 percent ages eighteen to twenty-four.
Access: The Fight to Prevent a Digital Divide

- One way of avoiding the digital divide is to make Internet access available in public libraries. The rising use of Smartphone’s is also helping to narrow the digital divide.

- The United States, Norway, Sweden, Finland, Japan, South Korea, Israel, Australia, the United Kingdom, and Germany account for most of its international flavor.

- Although the Web claims to be worldwide, in nations such as Jordan, Saudi Arabia, Syria, and Myanmar the governments permit limited or no access to the Web.

- Argentina, Colombia, Brazil, and Mexico, an inadequate telecommunications infrastructure means that consumers must endure painfully long waits to get online.
The Internet and Democracy

• Despite continuing concerns over the digital divide, many have praised the Internet for its democratic possibilities.

• The biggest threat to the Internet’s democratic potential may well be its increasing commercialization.

• The growth of commercial “channels” on the Internet has far outpaced the emergence of viable nonprofit channels, as fewer and fewer corporations have gained more and more control.
  ▫ It has been large corporations such as Yahoo! Microsoft, Apple, and Google that have weathered the low points of the dot-com economy and maintained a controlling hand.
The Internet and Democracy

- Internet portals such as Yahoo! allow users to personalize their front-page services by choosing their own channels of information—their favorite newspapers or sports teams, local movie listings and weather broadcasts, and many other categories—within the Yahoo! Interface.

- However, users are limited to the options, templates, and automated RSS feeds provided by the media company and subject to the company’s overall business plan.

- Skeptics raise doubts about the participatory nature of discussions on the Internet.

- They warn Internet users may be searching out only those people whose beliefs and values are similar to their own.

- Although it is important to communicate across distances with people who have similar viewpoints, these kinds of discussions may not serve to extend the diversity and tolerance that are central to democratic ideals.