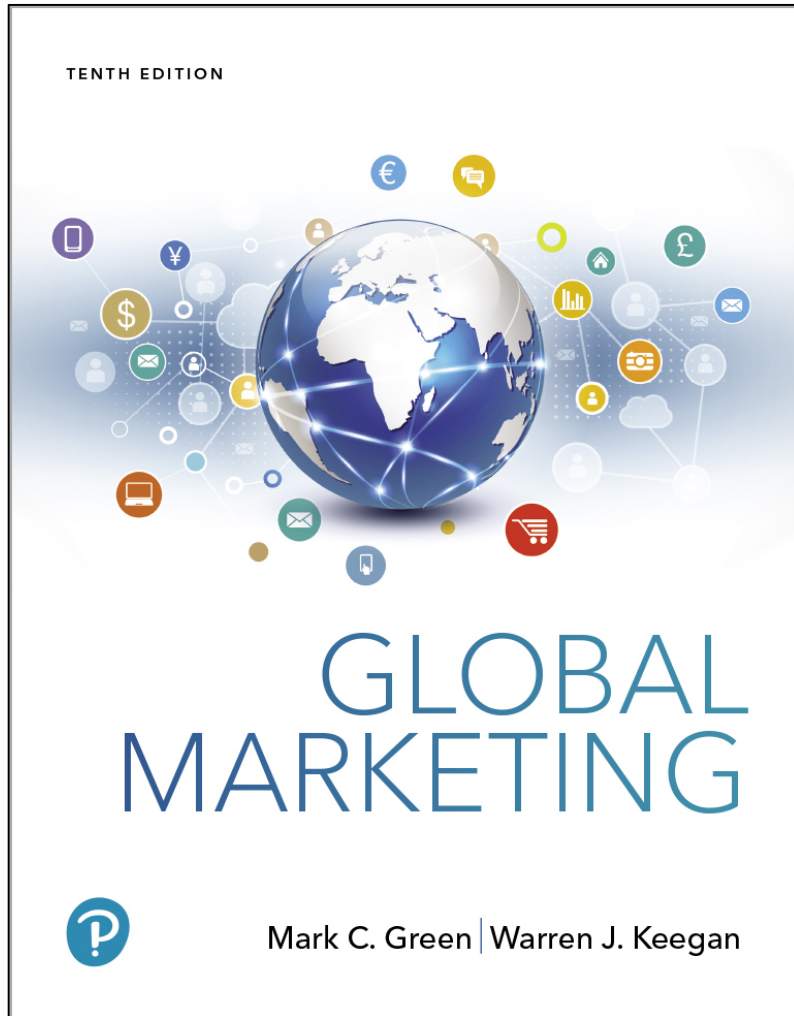


Global Marketing

Tenth Edition



Chapter 15

Global Marketing and the Digital Revolution

Learning Objectives

- 15.1** List the major innovations and trends that contributed to the digital revolution.
- 15.2** Define “convergence” and give an example.
- 15.3** Define **value network** and explain the differences between sustaining technologies and disruptive technologies.
- 15.4** Identify current trends in global e-commerce and explain how global companies are expanding their presence on the Web.
- 15.5** Explain the key issues facing a company when designing and implementing a Web site.
- 15.6** Identify the most important new products and services that have been introduced in the past decade.

The Digital Revolution: A Brief History (1 of 2)

- 1937 to 1942: World's first electronic digital computer was developed at Iowa State University
- 1947: The transistor was invented
- 1948: Information Theory established binary digits could encode information media using 1s & 0s
- 1950s: Invention of the silicon chip (integrated circuit)
- 1970s: The decade for companies like Atari, Commodore, and Apple

The Digital Revolution: A Brief History (2 of 2)

- 1981: IBM introduced its first personal computer (PC); Bill Gates developed MS-DOS for IBM
- 1982: The 286 microprocessor was unveiled
- 1984: Apple introduced the Macintosh
- 1993: The creation of the Pentium processor

The Digital Revolution: Additional Milestones (1 of 2)

- 1969: The Internet can trace its origins (Defense Advanced Research Projects Agency)
- 1972: E-mail was sent for the first time
- 1973-1974: The creation of a cross-network protocol; the true birth of a network of networks or the Internet
- 1993: Tim Berners-Lee invented URL, HTML, and HTTP;

The Digital Revolution: Additional Milestones (2 of 2)

The Father of the World Wide Web

- Mid-1990s: First commercial browser, Netscape, was created
- Web users: 1993 - 600,000, 1998 - 40 million; today - 3 billion
- Search engines Google and Yahoo! Bing have improved security features
- Google: You Tube, Google Glass, Android Op Sys

The Internet Revolution According to Steve Case, AOL Cofounder

- First Wave: mid-1980s, companies like Cisco & Xilinx created core technologies (routers) that were the “on ramps” to the Internet
- Second Wave: 2000-2014; focus shifted to building on top of the Internet: search engines, encryption & security, social media
- Third Wave: A future when the Internet is seamlessly integrated into everyday life; already occurring with Lyft & Uber. An era of reinvention & disruption in key economic sectors

Case's Third Wave Trends

- **Capital for all:** global crowdfunding (GoFundMe & Kickstarter)
- **Reemergence of partnerships** where who a company partners with is as important as what it does
- **Social enterprise** that links profit & purpose (Tom's Shoes, Warby Parker, Tesla)
- **Rise of the rest:** globalization of entrepreneurship becomes regional, not in startup hotbeds like Silicon Valley

Who Controls the Internet? (1 of 3)

- The first **Internet Governance Forum (IGF)** held in Athens, Greece, 2006 was charged with:

“the development and application by governments, the private sector, and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet.”

- The **nonprofit Internet Corporation for Assigned Names and Numbers (ICANN)** in Marina del Rey, CA
 - Maintains a database of Web addresses
 - Approves new suffixes for Web addresses (.info & .tv)
 - Other actions for keeping the Internet functioning

Who Controls the Internet? (2 of 3)

- Many countries think the U.S. should not be in control because the Internet is global; China, India, Brazil, and the EU have sought to have the United Nations assume a role in Internet governance.
- Policy makers and the general public have privacy concerns as Amazon, Facebook, Google, and others gather information about customers.
- Russia and China require data about customers to be stored on servers in their countries.

Who Controls the Internet? (3 of 3)

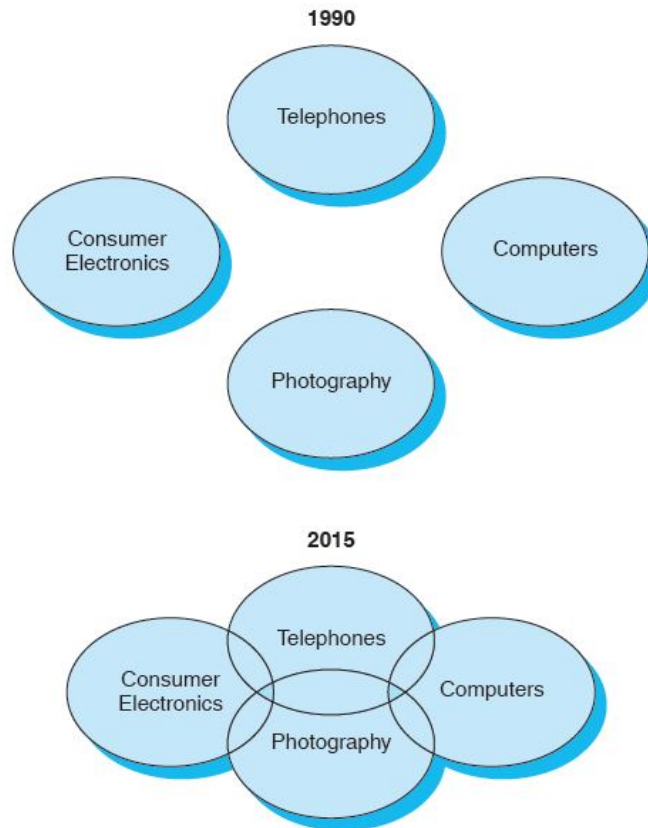
- Stringent guidelines for gathering, storing, and using data are covered by the **General Data Protection Regulation (GDPR)** and are mandatory for all companies doing business in the EU.
- Over 2,000 U.S. companies have agreed to EU data protection by signing the Privacy Shield.

Industry Convergence (1 of 2)

“The 2000s were the broadband decade, the disintermediation decade, the file-sharing decade, the digital recording (and image) decade, the iPod decade, the long-tail decade, the blog decade, the user-generated decade, the on-demand decade, the all-access decade. Inaugurating the new millennium, the Internet swallowed culture whole and delivered it back-cheaper, faster, and smaller-to everyone who can get online.”

Jon Pareles, New York Times columnist

Industry Convergence (2 of 2)



Convergence: The coming together of previously separate industries and product categories.

Value Networks & Disruptive Technologies

- Innovator's Dilemma
- Value Network
- Sustaining Technologies
- Disruptive Technologies

Innovator's Dilemma

- Staying committed to a current, profitable technology
- Focus on established customers
- Failing to provide adequate levels of investment to new and possibly risky technologies

Value Network

- Found in every industry
- Cost structure that dictates the margins needed to achieve profitability
- Boundaries are defined by the unique rank ordering of the importance of various product attributes
- Each network has its own metrics of value

Sustaining Technologies

- Incremental or radical innovations that improve product performance
- Most new technologies developed by established companies are sustaining in nature
- The vast majority of innovations are sustaining in nature

Disruptive Technologies

- Redefine performance
- New entrants to an industry
- Enable something to be done that was previously deemed impossible
- Enable new markets to emerge

Five Principles of Disruptive Innovations

1. Companies are dependent on customers and many innovations are customer-driven. By listening to those long-established customers, opportunities may be missed.
2. Small markets don't solve the growth needs of large companies.
3. Markets that don't exist can't be analyzed.
4. An organization's capabilities define its disabilities.
5. Technology supply may not equal market demand.

Global E-Commerce (1 of 2)

- **E-commerce** is the general exchange of goods and services using the Internet or a similar online network as a marketing channel.
- \$1.3 trillion market
- In 2014, China surpassed the U.S. as the world's largest e-commerce market due in part to smartphone shopping. In 2016, Chinese online retail sales were \$750 billion.
- Between 2003 and 2014, the number of Internet users in China increased from 68 million to 640 million; 600 million + Chinese shop online; Alibaba and JD.com dominate.
- Online retail in Western Europe will grow at a CAGR of 11.3% between 2017-2022; By 2018, 85% of European mobile phone owners access the Internet at least weekly.

Global E-Commerce (2 of 2)

- Divided into three broad categories:
 - **Business to Business (B2B)** largest share of the Internet economy
 - **Business to Consumer (B2C)** - iTunes
 - **Consumer to Consumer (Peer to peer)** -eBay

Web Sites

- **Promotion sites:** marketing communications
- **Content sites:** news and entertainment; support PR
- **Transaction sites:** online retail operations
- Web sites can function as all three
- Can be categorized by content and audience focus
 - International students look at college web sites for study abroad
 - Pandora serves only American listeners
 - Deezer, a French music service, is in 160 countries
 - iTunes & Netflix are now in many countries

Internet as a Communications Tool

- Products not viable for Internet sales or firms limit sales to support off-line sales
 - Lack of infrastructure
 - Cost of e-commerce site can be \$20-\$30 million
 - Some product-specific factors may limit online sales

Internet Retail Sales

- U.S online retail sales over \$400 billion in 2017, including orders from abroad
- Companies like A&F, Saks, Timberland, and Coach trying to attract foreign buyers
 - Strong U.S. dollar has Americans ordering from abroad
 - Delivery companies like FedEx, UPS, & DHL are acquiring & partnering with other firms from seamless delivery

The Long Tail

- Use of efficient economics of online retail to aggregate slow-selling products
- eBay, [Amazon.com](https://www.amazon.com)., Netflix, iTunes

“...The Long Tail is really about the economics of abundance...what happens when the bottlenecks that stand between supply and demand in our culture start to disappear and everything becomes available to everyone...These millions of fringe sales are an efficient, cost-effective business...hits and niches are on equal footing.”

Chris Anderson, Author and Editor of Wired

Web Site Design

- Internet potential requires using interactive media
- Key issues
 1. Register a country-specific domain name-
Cybersquatting
 2. Arranging payment-credit card usage rate, fraud, postal money order, or bank check
 3. Localizing sites-reflect local culture, language, aesthetics
 4. Addressing privacy issues-EU laws more stringent
 5. Setting up distribution-local sales tax issues

Broadband

- Has sufficient capacity to carry multiple voice, data, or video channels simultaneously
- Bandwidth determines the range of frequencies that can pass over a transmission channel
- South Korea has the world's fastest Internet speeds
- **Streaming audio and video**
 - Apple Music, Pandora, Spotify, Tidal, iTunes, Netflix, YouTube
 - 48 million players on Xbox live worldwide

Cloud Computing

- Cloud Software will not be installed on a computer hard drive but through a web browser
- Google's Chrome OS is designed for the cloud
- Amazon Web Service provides cloud-computing resources for business
- AWS will be used by thousands of companies like Netflix and Foursquare instead of running their own data centers
- Growth rate of 25% over next several years

Smartphones

- 1.5 billion shipped in 2017
- Conventional cell phones (feature phones) allow texting via **short message service (SMS)**
- SMS will be integrated with other digital channels like interactive digital TV, the Internet, and email.
- Smartphones have features that rival computers

Mobile Advertising and Mobile Commerce

- Terms for delivering advertising messages and conducting product and service transactions using cell phones
- Use **Wi-Fi** to access the Internet
- Cellular data plans via 3G, 4G networks
- Mobile ad spending: \$1 billion in 2007; \$43 billion in 2014; over \$100 billion in 2016
- GPS on phones led to location-based advertising

Mobile Commerce and Autonomous Mobility

- **Bluetooth**-uses less power than Wi-Fi, works well with cell phones, and covers shorter distances than Wi-Fi.
- The **Internet of Things** is coming into being as refrigerators, lighting systems, and microwave ovens are connected to the Internet.
- As **Internet-connected cars** become reality, automakers are creating apps that enable drivers to check on their cars.
- With **self-driving and electric cars** coming to market soon, most automakers have research facilities in Silicon Valley.

Mobile Music

- iTunes downloads in 2006 reached 1 billion; cumulative total of 25 billion downloads today
- Market for paid downloads has matured due to streaming services like Spotify and Pandora.
- Mobile Gaming revenues of \$17.6 billion in 2015
- Cloud-based music services like iTunes Match or Google Play offer “music lockers” for access from multiple devices

Mobile Gaming & Payments (1 of 2)

- Mobile gaming revenue was \$3.77 billion in 2010; over \$100 billion in 2017.
- Pokémon Go with augmented reality became the most downloaded app in the U.S., Australia, and New Zealand, then launched into Japan, world's largest market for mobile games in 2016.
- Asia-Pacific has more than half of the world market; China's 600 million players spend over \$25 billion a year.

Mobile Gaming & Payments (2 of 2)

- E-sport: video game competitions where pro gamers compete for cash prizes; 200 million fans watch 6 billion hours a year in an industry valued at \$700 million revenue.
- Mobile payments exploded with Apple Pay with iPhone 6 in 2014; near-field communication allows users to connect smartphones to their bank accounts.

Streaming Video

- YouTube
 - 1.3 billion people watch daily
 - 5 billion videos viewed daily
 - 300 hours of content uploaded every minute
- Global penetration of broadband Internet service has fueled the growing popularity of global digital video services such as Facebook, Instagram, Twitter, Netflix, and Meerkat

Internet Phone Service

- The “next big thing” for the telecommunications industry
- **VoIP-Voice over Internet Protocol**
- Has the potential to render the current telecommunications infrastructure obsolete
- Currently only accounts for a small percentage of total global calling
- Skype acquired by Microsoft for \$8.6 billion in 2011

Digital Books & Electronic Reading Devices and Wearables

- Amazon's Kindle, Barnes & Nobles' Nook, and Apple's iPad may help newspapers & magazines
- Textbooks are a huge market opportunity for publishers
- Piracy is a concern for many authors
- Wearables like Google Glass & Apple Watch are reaching a tipping point in fashion and sales
 - 6 million units in 2013
 - 113 million units in 2018

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