Chapter 5

Electronic Commerce: New Ways of Doing Business

Developing a sound grounding in electronic commerce concepts and vocabulary
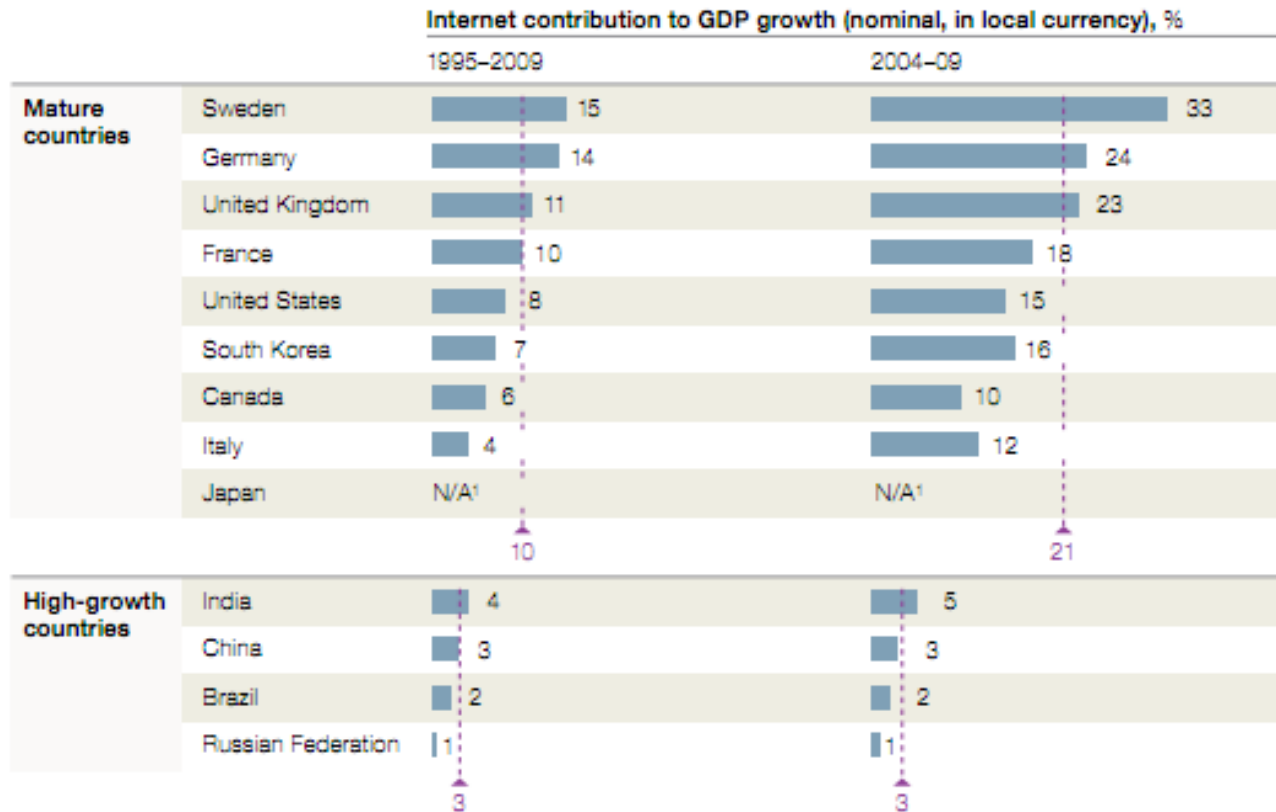
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Learning Objectives

1. Understand and be able to clearly articulate what the Internet is, its principal characteristics, and the principal services it makes available to users.
2. Broaden your definition of the Internet from a network of computer networks to an information grid connecting a staggering range of devices, both wired and wireless.
3. Be able to compare and contrast *electronic commerce* and *electronic business*, and provide examples of each. Identify and understand the enablers of electronic commerce trends.
4. Categorize electronic commerce phenomena on a number of different dimensions, including the type of transactions taking place and the structure of the organizations involved.
5. Understand and apply the concept of *business model*, and explain why the Internet has led to so much business model experimentation. Identify the principal *revenue models* employed in electronic commerce and explain the dominant business model in use today.
6. Understand and evaluate the principal implications of electronic commerce for both established firms and new entrants.
7. Be able to evaluate the *Web 2.0* phenomenon and be able to discuss both its technological and organizational manifestations.
8. Discuss some of the more relevant future electronic commerce and electronic business trends.

Introduction

- A basic understanding of how the Internet works and a mastery of the business vocabulary

- The research found that the Internet contributes directly as a vehicle for economic activity (e.g., online sales, advertisement) and indirectly as an element of economic progress is very important today

- The internet is a catalyst for job creation adding 2.6 jobs for every technology job lost

Impact of the Internet

Internet contribution to GDP growth (nominal, in local currency), %

		1995–2009	2004–09
Mature countries	Sweden	15	33
	Germany	14	24
	United Kingdom	11	23
	France	10	18
	United States	8	15
	South Korea	7	16
	Canada	6	10
	Italy	4	12
	Japan	N/A[1]	N/A[1]
		10	21
High-growth countries	India	4	5
	China	3	3
	Brazil	2	2
	Russian Federation	1	1
		3	3

[1] Negative growth due to deflation.

Source: Organisation for Economic Co-operation and Development (OECD) national accounts, McKinsey analysis

The Internet

- The Internet is an infrastructure upon which *services*—such as e-mail, the Web, instant messaging, and many others—are delivered

- Today we can confidently estimate that there are more intelligent devices connected to the Internet than there are people with access

- We already see laptops and advanced handsets connected, but in the future everything that will benefit from being connected will be connected, including heart monitors, house appliances, and sensors of all kind

Internet Services

Multiplicity of Devices
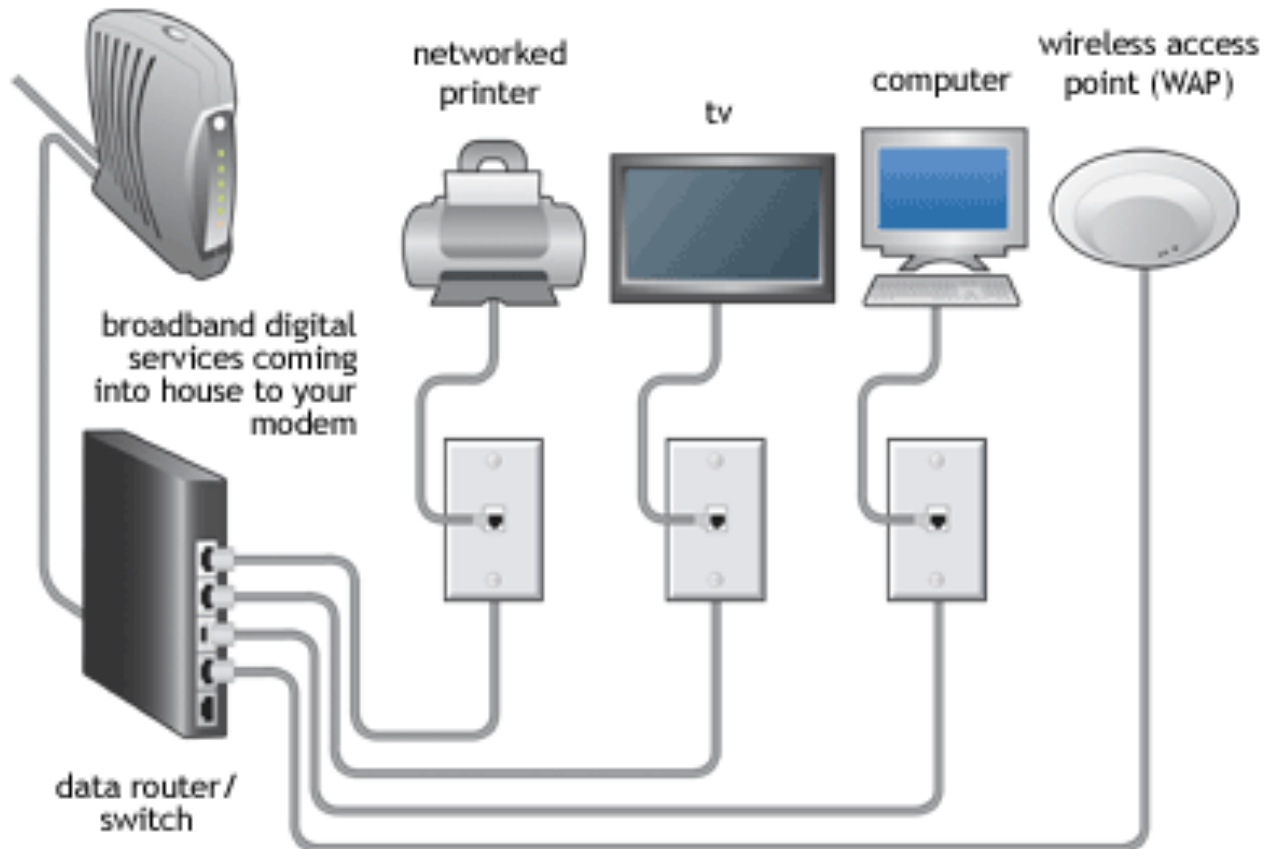
Standards & Protocols

- A protocol is an agreed-upon set of rules or conventions governing communication among the elements of a network (i.e., network nodes)
  - TCP/IP
  - HTML

The Future Internet

- The Internet of tomorrow will be as dramatic a change from the Internet of today as today's Internet is from the unconnected, proprietary computing networks of yesterday

- Mobile computing devices, broadband access, wireless networks, and computing power embedded in everything from refrigerators to automobiles will converge into a new global network

eCommerce and eBusiness

- ## Electronic commerce
  - An online exchange of value
  - The process of distributing, buying, selling, marketing, and servicing products and services over computer networks such as the Internet.

- ## Electronic business
  - The use of Internet technologies and other advanced IT to enable business processes and operations.

The Enablers

- Affordable computing equipment
- Access to the Internet
- Ease of use
- Open standards

Categorizing eCommerce Initiatives

- Categorizing ventures by transaction type
  - Business-to-Consumer (B2C)
  - Business-to-Business (B2B)
  - Consumer-to-Consumer (C2C)
  - Consumer-to-Business (C2B)
  - eGovernment
- Categorizing ventures by company structure
  - Bricks and mortar
  - Bricks and clicks
  - Pure play

Business-to-Consumer (B2C)

- Business-to-consumer transactions: Involve a for-profit organization on one side and the end-consumer on the other.
- Examples:
  - Amazon.com
  - Target.com
  - Edmunds.com
- The most visible kind of eCommerce.
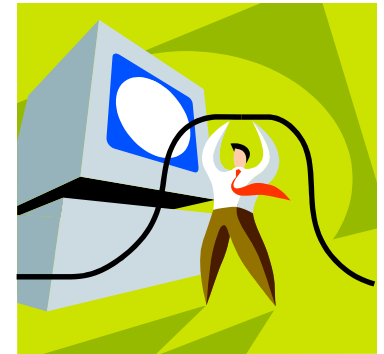
Business-to-Business (B2B)

- Businesses-to-business transactions: Two or more business entities take part in the transaction.

- The transactions can range from one-time interactions to unique and highly tailored relationship between two firms.

- Example: Premier Pages of Dell.com

Consumer-to-Consumer (C2C)

- Consumer-to-consumer transactions: Enable individual consumers to interact and transact directly

Consumer-to-Business (C2B)

- Consumer-to-business transactions: Individuals transact with business organizations not as buyers of goods and services, but as suppliers

eGovernment

- Electronic government: Transactions involving legislative and administrative institutions.

- eGovernment transaction can occur with individual citizens, businesses or other governments.

- Example:
  - Electronic filing of income tax
  - Electronic voting
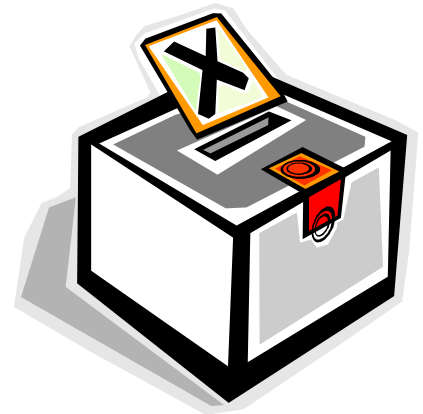
Bricks and Mortar

- Bricks and mortar: "Traditional" organizations that have physical operations and locations and don't provide their services exclusively through the Internet.

Bricks and Clicks

- Bricks and clicks: Organizations that have hybrid operations
  - Also known as click and mortar
- Two approaches
  - Developing independent ventures to take advantage of the opportunities, and capital, available to online ventures
  - Running the online channel as part of the bricks and mortar operations in a highly integrated fashion

Pure Play

- Pure play: Firms with no stores providing their services exclusively through the Internet.

- Example:
  - Google
  - Amazon.com
  - Yahoo!

No stores ≠ No physical operations

Business Models

- A business model
  - Captures the firm's concept and value proposition,
  - Conveys:
    - The market opportunity
    - What product or service the firm offers
    - What strategy the firm will follow to seek a dominant position
  - Identifies organizational capabilities the firm plans to leverage to turn the concept into reality.

- The network economy offered opportunity for new business models

A New Business Model

Priceline.com: name-your-own price model

Revenue Models

- A revenue model specifies how the firm intends to make money
  - **Pay for service**: The firm offers a product or a service for sale
  - **Subscription**: Customers pay for the right to access the content
  - **Advertisement support**: The firm makes its content or service free for a large audience and sells access to its audience to interested advertisers
  - **Affiliate**: The firm generates revenue from a third-party based on traffic it send to the partner web site.
  - **Freemium**: The firm gives away its product or service for free, and attempts to build a large customer base by reducing the obstacle created by the payment

Revenue Models

Freemium

Dominant Business Models

- Online retailing

- Infomediaries

- Content providers

- Online communities

- Exchanges

- Infrastructure providers
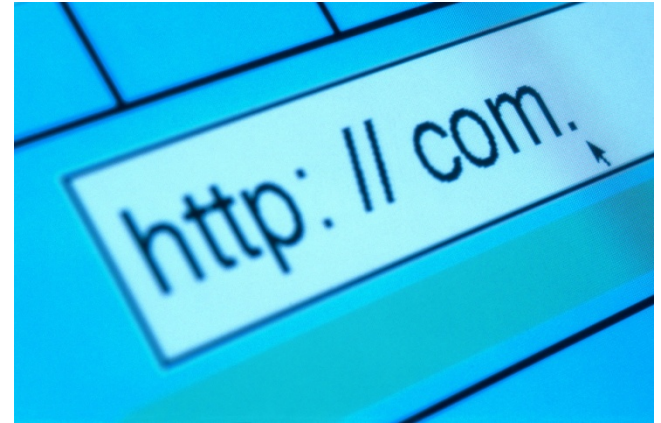
Online Retailing

- Takes control of inventory it then resells at a profit

- Fulfillment is a critical capability for these organizations

- Revenue model: pay for service

- Pure play vs. Bricks & Clicks

Infomediaries

- Information intermediaries
  - Use the Internet to provide specialized information on behalf of product or service providers.
  - Do not sell the goods and services or take ownership of inventory.
- Examples:
  - Consumer electronics: MySimon.com
  - Travel: Kayak.com
  - Autos: Edmunds.com

Content Providers

- Content providers develop and publish content.
- Sources of contents
  - Owned: Generated by the organization's staff
  - Not owned: User-generated
- Revenue model: ad supported, subscription, pay per download
- Examples:
  - News: Reuters.com
  - Current information: Eonline.com
  - Historical and reference information: Britannica.com
  - Travel information and tips: EpicTrip.com

Online Communities

- A group of people brought together by a common interest or goal

- The community is virtual and alleviates the physical constraint

- Example:
  - Yahoo! Answers
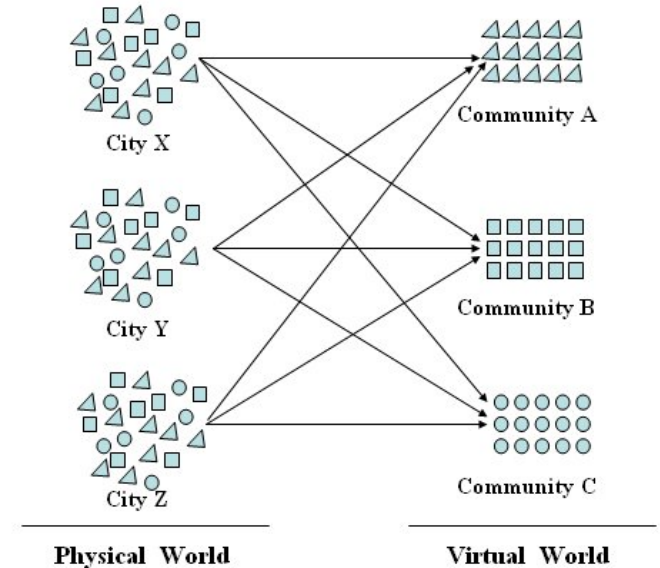
Exchanges

- Exchanges: Create a market-place for buyers and sellers to come together and transact

- Provides a "market making"

- Compensated with fees, commission on sales, or consulting fees

Infrastructure Providers

- Companies that have been able to create value by developing and managing the infrastructure of electronic commerce.

- Revenue model: pay for service

- Example:
  - Hardware companies managing the Internet backbone: MCI WorldCom
  - Internet Service Providers (ISP) enabling access to the Internet and its services: AOL
  - Instance payment service companies: PayPal

eCommerce Implications

- <u>Disintermediation</u>: Shortening the distribution chain by eliminating intermediaries and establishing direct relationship with customers

- <u>Re-intermediation</u>: Creating opportunities for new intermediaries to exist alongside their brick and mortar counterparts

- <u>Market efficiency</u>: Reducing search costs increases difficulty in profiting from strategies rooted in asymmetry of information or high search costs

- <u>Channel conflict</u>: The dilemma of firms facing the choice between disintermediation or re-intermediation

- <u>Customer and employee self-service</u>: Saves time & money by providing customers & employees with the ability to do their own transactional processing

Trends in Technological Innovation

- Web 2.0 :
  - Free
  - Easy to use
  - Less structured
  - More interactive
- Wiki: Enables simple co-authoring and editing of Web content
- Blogs: Online journals that individuals keep and publish on the Web
- Real Simple Syndication (RSS):
  - Enables the creation of web feeds
  - Broadcasted to all subscribers once a trigger event occurs
- Tags: Used to structure and categorize the increasing amount of available user-generated content

Trends in Business Innovation

- Mobile commerce (M-commerce):
  - The ability of completing commercial transactions using mobile devices, such as cellular phones
  - Offers the ability to reach consumers in real-time, at the point of service, based on their current location

- U-commerce
  - The use of ubiquitous networks to support personalized and uninterrupted communications and transactions

Geographic Commerce → Electronic Commerce → Mobile Commerce → Ultimate Commerce

The Recap

- The Internet, traditionally thought of as a network of computer networks, is evolving into a global information grid enabling ever-changing devices, and the people who use them, to easily connect and disconnect from it

- Electronic commerce is defined as an online exchange of value while electronic business as the digital enablement of internal organizational business processes

- We classified electronic commerce as business-to-consumer (B2C), business-to-business (B2B), consumer-to-consumer (C2C), consumer-to-business (C2B), and eGovernment

The Recap

- The dominant business models that have emerged in the network economy are online retailing, infomediaries, content providers, online communities, exchanges, and infrastructure providers

- A key feature of a business model is the revenue model—the firm's plan for building a revenue stream

- The dominant revenue models that have emerged are pay for service, subscription, advertisement support, and affiliate

What We Learned

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