

電子商務安全

Secure Electronic Commerce

**Web 2.0, Social Network,
Social Media**

992SEC07

TGMXMOA

Fri. 6,7,8 (13:10-16:00) L526

Min-Yuh Day

戴敏育

Assistant Professor

專任助理教授

Dept. of Information Management, Tamkang University

淡江大學 資訊管理學系

<http://mail.im.tku.edu.tw/~myday/>

2011-04-01

Syllabus

週次 月／日 內容 (Subject/Topics)

- 1 100/02/18 電子商務安全課程簡介
(Course Orientation for Secure Electronic Commerce)
- 2 100/02/25 電子商務概論 (Introduction to E-Commerce)
- 3 100/03/04 電子市集 (E-Marketplaces)
- 4 100/03/11 電子商務環境下之零售：產品與服務
(Retailing in Electronic Commerce: Products and Services)
- 5 100/03/18 網路消費者行為、市場研究與廣告
(Online Consumer Behavior, Market Research, and
Advertisement)
- 6 100/03/25 電子商務 B2B、B2C、C2C (B2B, B2C, C2C E-Commerce)
- 7 100/04/01 Web 2.0, Social Network, Social Media
- 8 100/04/08 教學行政觀摩日
- 9 100/04/15 行動運算與行動商務 (Mobile Computing and Commerce)
- 10 100/04/22 期中考試週

Syllabus (cont.)

週次 月／日 內容 (Subject/Topics)

- | | | |
|----|-----------|---|
| 11 | 100/04/29 | 電子商務安全 (E-Commerce Security) |
| 12 | 100/05/06 | 數位憑證 (Digital Certificate) |
| 13 | 100/05/13 | 網路與網站安全 (Network and Website Security) |
| 14 | 100/05/20 | 交易安全、系統安全、IC卡安全、電子付款
(Transaction Security, System Security, IC Card Security,
Electronic Commerce Payment Systems) |
| 15 | 100/05/27 | 行動商務安全 (Mobile Commerce Security) |
| 16 | 100/06/03 | 電子金融安全控管機制
(E-Finance Security Control Mechanisms) |
| 17 | 100/06/10 | 營運安全管理 (Operation Security Management) |
| 18 | 100/06/17 | 期末考試週 |

Chapter 7

The Web 2.0 Environment and Social Networks

Source: Turban et al.,
Introduction to Electronic Commerce,
Third Edition, 2010, Pearson

LEARNING OBJECTIVES

1. Understand the Web 2.0 revolution, social and business networks, Social Media, and industry and market disruptors.
2. Understand the concept, structure, types, and issues of virtual communities.
3. Understand social networking and social network services sites.
4. Describe some of the major social networks.

LEARNING OBJECTIVES

5. Describe **business-oriented** and **enterprise social networks**.
6. Understand the **commercial aspects** of social networking.
7. Describe **Web 2.0** entertainment.
8. Describe the potential of **Web 3.0** and **Web 4.0**.

THE WEB 2.0 REVOLUTION, SOCIAL MEDIA, AND INDUSTRY DISRUPTORS

Web 2.0

- The popular term for **advanced Internet technology and applications**, including blogs, wikis, RSS, and social bookmarking.
- One of the most significant differences between Web 2.0 and the traditional World Wide Web is greater **collaboration** among Internet users and other users, content providers, and enterprises.

THE WEB 2.0 REVOLUTION, SOCIAL MEDIA, AND INDUSTRY DISRUPTORS

- **REPRESENTATIVE CHARACTERISTICS OF WEB 2.0**
 - The ability to tap into the collective intelligence of users
 - Data is made available in new or never-intended ways
 - Web 2.0 relies on user-generated and user-controlled content and data
 - The virtual elimination of software-upgrade cycles makes everything a *work in progress* and allows rapid prototyping

THE WEB 2.0 REVOLUTION, SOCIAL MEDIA, AND INDUSTRY DISRUPTORS

- Users can access applications entirely through a browser
- An architecture of participation encourages users to add value to the application
- A major emphasis on social networks and computing
- Strong support of information sharing and collaboration
- Rapid and continuous creation of new business models

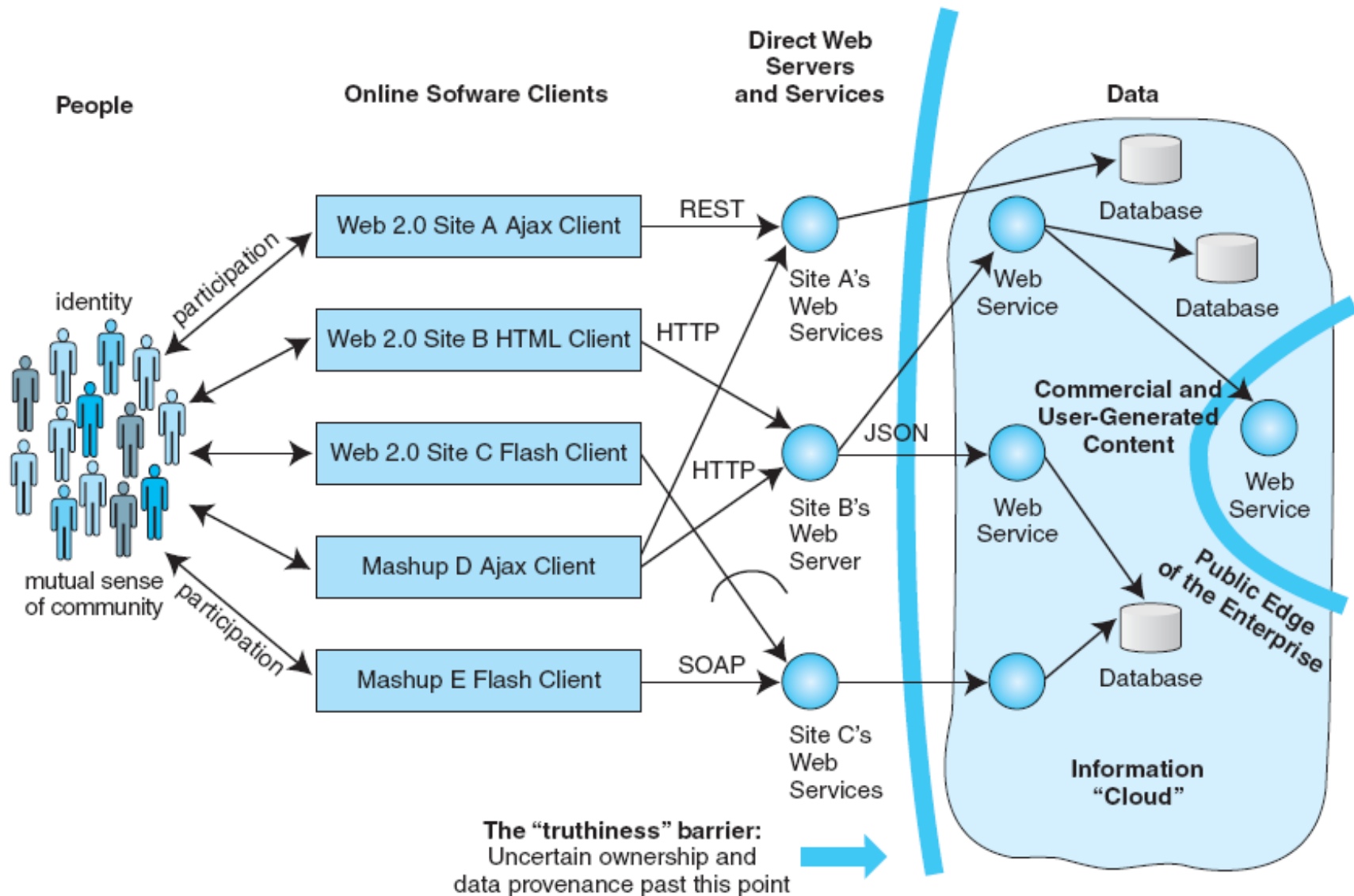
THE WEB 2.0 REVOLUTION, SOCIAL MEDIA, AND INDUSTRY DISRUPTORS

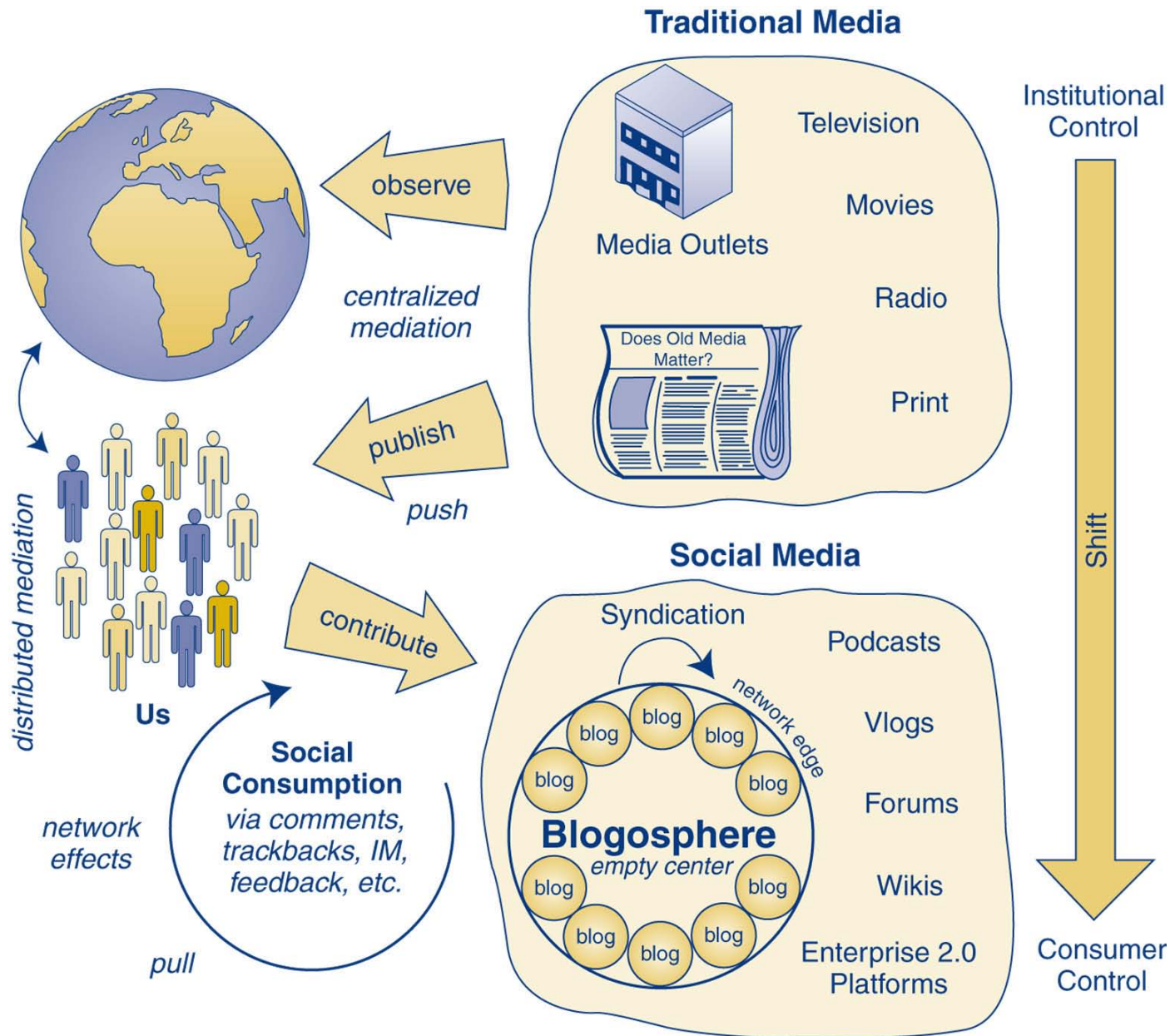
- **WEB 2.0 COMPANIES AND NEW BUSINESS MODELS**

Social Media

The online platforms and tools that people use to share opinions, experiences, insights, perceptions, and various media, including photos, videos, and music, with each other.

EXHIBIT 7.1 The Emergence and Rise of Mass Social Media





INDUSTRY AND MARKET DISRUPTORS

- **disruptors**

Companies that introduce a significant change in their industries, thus causing a disruption in normal business operations.

VIRTUAL COMMUNITIES

- **virtual (Internet) community**

A group of people with similar interests who interact with one another using the Internet.

EXHIBIT 7.2 Elements of Interaction in a Virtual Community

Category	Element
Communication	Bulletin boards (discussion groups)
	Chat rooms/threaded discussions (string Q&A)
	E-mail and instant messaging and wireless messages
	Private mailboxes
	Newsletters, "netzines" (electronic magazines)
	Blogging, wikis, and mashups
	Web postings
	Voting
Information	Directories and yellow pages
	Search engine
	Member-generated content
	Links to information sources
	Expert advice
EC element	Electronic catalogs and shopping carts
	Advertisements
	Auctions of all types
	Classified ads
	Bartering online

VIRTUAL COMMUNITIES

- **CHARACTERISTICS OF TRADITIONAL ONLINE COMMUNITIES AND THEIR CLASSIFICATION**
 - **Types of Communities**
 - Public Versus Private Communities
 - Internal and External Private Communities
 - **Other Classifications of Virtual Communities**

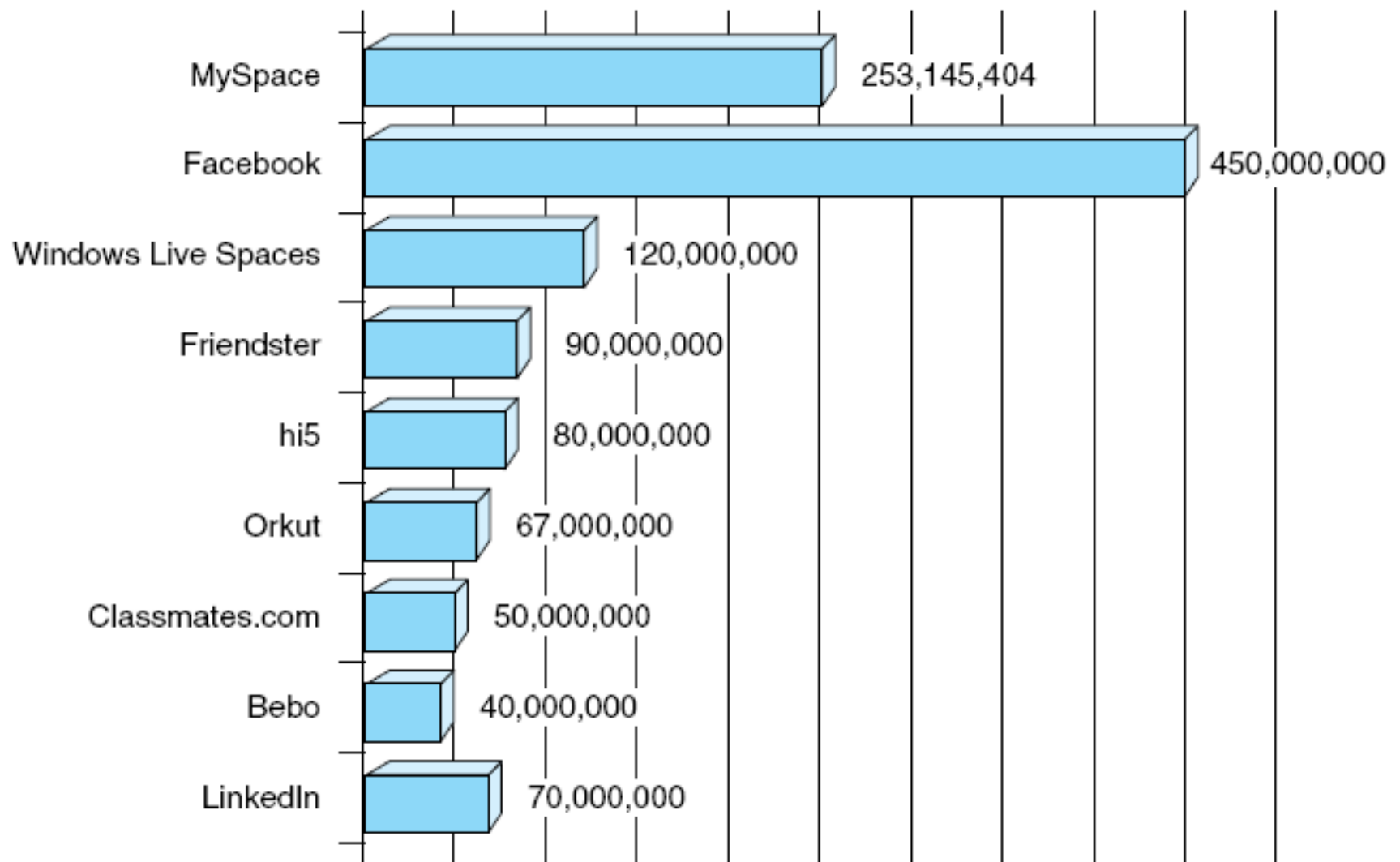
EXHIBIT 7.3 Types of Virtual Communities

Community Type	Description
Transaction and other business activities	Facilitate buying and selling (e.g., <i>ausfish.com.au</i>). Combine an information portal with an infrastructure for trading. Members are buyers, sellers, intermediaries, etc., who are focused on a specific commercial area (e.g., fishing).
Purpose or interest	No trading, just exchange of information on a topic of mutual interest. Examples: Investors consult The Motley Fool (<i>fool.com</i>) for investment advice; rugby fans congregate at the Fans Room at <i>nrl.com</i> ; music lovers go to <i>mp3.com</i> ; <i>geocities.yahoo.com</i> is a collection of several areas of interest in one place.
Relations or practices	Members are organized around certain life experiences. Examples: <i>ivillage.com</i> caters to women, and <i>seniornet.com</i> is for senior citizens. Professional communities also belong to this category. Example: <i>isworld.org</i> is a space for information systems faculty, students, and professionals.
Fantasy	Members share imaginary environments. Examples: sport fantasy teams at <i>espn.com</i> ; GeoCities members can pretend to be medieval barons at <i>dir.yahoo.com/Recreation/games/role_playing_games/titles</i> . See <i>games.yahoo.com</i> for many more fantasy communities.
Social networks	Members communicate, collaborate, create, share, form groups, entertain, and more. MySpace.com is the leader.
Virtual worlds	Members use avatars to represent them in a simulated 3D environment where they can play, conduct business, socialize, and fantasize. Second Life (<i>secondlife.com</i>) is currently the most well-known virtual world.

Social Networking

Social networks and activities conducted in social networks. It also includes activities conducted using Web 2.0 (e.g., wikis, microblogs) not within social networks.

- **The Size of Social Network Sites**
- **New Business Models**

EXHIBIT 7.4**The Top Nine Social Networking Sites**

(Source: Turban et al., 2010)

Social Network Analysis (SNA)

- The mapping and measuring of relationships and information flows among people, groups, organizations, computers, and other information- or knowledge-processing entities.
- The nodes in the network are the people and groups, whereas the links show relationships or flows between the nodes.
- SNAs provide both visual and a quantitative analysis of relationships.

ONLINE SOCIAL NETWORKING: BASICS AND EXAMPLES

- **REPRESENTATIVE SOCIAL NETWORKS SITES AND SERVICES**
 - Classmates Online
 - Xanga
 - Digg

Mobile Social Networking

- Members converse and connect with one another using cell phones or other mobile devices.
 - **Mobile Enterprise Networks**
 - **Mobile Community Activities**

MAJOR SOCIAL NETWORK COMPANIES: FROM FACEBOOK TO FLICKR

- **FACEBOOK: THE NETWORK EFFECT**
- **BEBO**
- **TWITTER IS ALSO FOR BUSINESSES**
 - **How Does Twitter Work?**
 - **The Key Business Benefits of Twitter**
- **FLICKR TICKS OFF SOME OF ITS USERS**

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

- **business network**

A group of people who have some kind of commercial relationship; for example, sellers and buyers, buyers among themselves, buyers and suppliers, and colleagues and other colleagues.

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

- **business social network**

A social network whose primary objective is to facilitate business connections and activities.

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

- The major reasons to use or deploy a business social network:
 - Build better customer relationships
 - Improve knowledge management
 - Facilitate recruiting and retention
 - Increase business opportunities
 - Build a community
 - Gain expert advice
 - Improve trade show experiences
 - Improve communication and collaboration

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

- **BUSINESS-ORIENTED SOCIAL NETWORKING**
 - Ryze
 - The Business Social Network
 - Viadeo
 - APSense

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

- **ENTERPRISE SOCIAL NETWORKS**
 - Allow employees to collaborate and communicate in an employee-driven system
 - Promote the use of enterprise wikis via demonstrations
 - Set up internal blogs and incorporate them into internal directories so users can see who has a blog
 - Set up enterprise social bookmarking systems so users can see what sort of content their colleagues are tagging
 - CIOs should be involved from the beginning

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

- **OTHER SOCIAL NETWORKING STRUCTURES**
 - **Enterprise 2.0**

Technologies and business practices that free the workforce from the constraints of legacy communication and productivity tools such as e-mail. Provides business managers with access to the right information at the right time through a Web of interconnected applications, services, and devices.

BUSINESS AND ENTERPRISE SOCIAL NETWORKS

– social marketplace

The term is derived from the combination of *social networking* and *marketplace*. An online community that harnesses the power of one's social networks for the introduction, buying, and selling of products, services, and resources, including one's own creations. Also may refer to a structure that resembles a social network but is focused on individual members.

COMMERCIAL ASPECTS OF WEB 2.0 AND SOCIAL NETWORKING APPLICATIONS

- **WHY IS THERE AN INTEREST?**
 - Web 2.0 applications are spreading rapidly, and many of them cater to a specific *segment of* the population (e.g., music lovers, travelers, game lovers, and car fans), enabling segmented advertising
 - Many users of Web 2.0 tools are young, and they will grow older and have more money to spend

COMMERCIAL ASPECTS OF WEB 2.0 AND SOCIAL NETWORKING APPLICATIONS

- **ADVERTISING USING SOCIAL NETWORKS, BLOGS, AND WIKIS**
 - **Viral (Word-of-Mouth) Marketing**
 - **viral blogging**

Viral (word-of-mouth) marketing done by bloggers.
 - **Classified Ads, Job Listings, and Recruitment**
 - **Special Advertising Campaigns**
 - **Mobile Advertising**

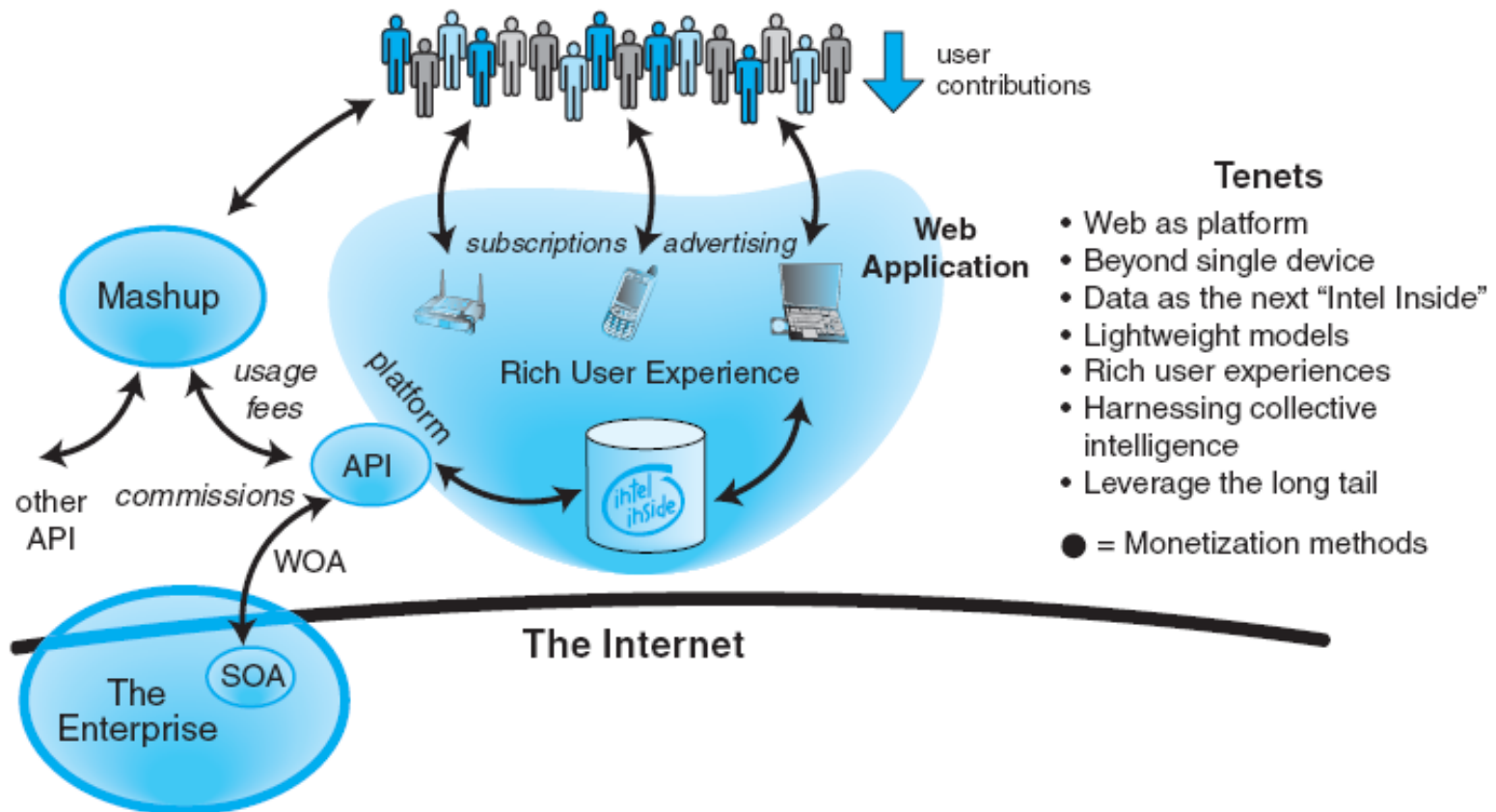
COMMERCIAL ASPECTS OF WEB 2.0 AND SOCIAL NETWORKING APPLICATIONS

- **SHOPPING IN SOCIAL NETWORKS**
- **FEEDBACK FROM CUSTOMERS:
CONVERSATIONAL MARKETING**
 - **Customer Feedback with Twitter**

COMMERCIAL ASPECTS OF WEB 2.0 AND SOCIAL NETWORKING APPLICATIONS

- **COMMERCIAL ACTIVITIES IN BUSINESS AND
ENTERPRISE SOCIAL NETWORKS**
 - **Finding and Recruiting Workers**
 - **Management Activities and Support**
 - **Training**
 - **Knowledge Management and Expert Location**
 - **Enhancing Collaboration**
 - **Using Blogs and Wikis Inside the Enterprise**

EXHIBIT 7.5 Generating Revenue from Web 2.0 Applications



COMMERCIAL ASPECTS OF WEB 2.0 AND SOCIAL NETWORKING APPLICATIONS

- **REVENUE-GENERATION STRATEGIES IN
SOCIAL NETWORKS**
 - Increased Revenue and Its Benefit
- **RISKS AND LIMITATIONS WHEN INTERFACING
WITH SOCIAL NETWORKS**
- **JUSTIFYING SOCIAL MEDIA AND
NETWORKING**

ENTERTAINMENT WEB 2.0 STYLE: FROM SOCIAL NETWORKS TO MARKETPLACES

- **ENTERTAINMENT AND SOCIAL NETWORKS**
 - Mixi
 - Last.fm
 - Pandora
 - eFans
 - Internet Series and Movie Streaming
 - Adult Entertainment in Virtual Worlds

ENTERTAINMENT WEB 2.0 STYLE: FROM SOCIAL NETWORKS TO MARKETPLACES

- **MOBILE WEB 2.0
DEVICES FOR
ENTERTAINMENT AND
WORK**
 - iPhone and Its Clones

iPhone 3G



THE FUTURE: WEB 3.0 AND WEB 4.0

- **Web 3.0**

A term used to describe the future of the World Wide Web. It consists of the creation of high-quality content and services produced by gifted individuals using Web 2.0 technology as an enabling platform.

THE FUTURE: WEB 3.0 AND WEB 4.0

– Semantic Web

An evolving extension of the Web in which Web content can be expressed not only in natural language, but also in a form that can be understood, interpreted, and used by intelligent computer software agents, permitting them to find, share, and integrate information more easily.

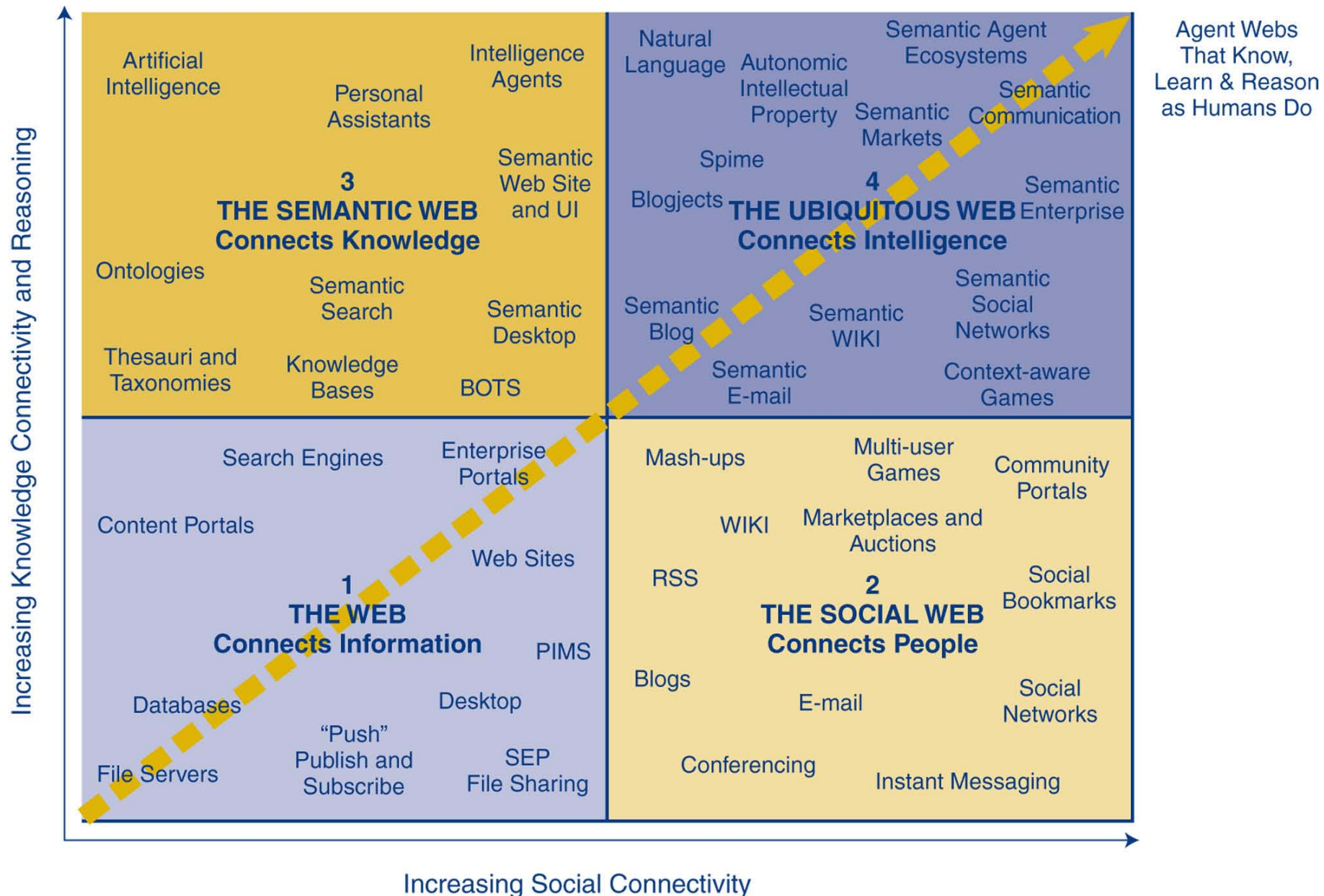
THE FUTURE: WEB 3.0 AND WEB 4.0

– Web 4.0

The Web generation after Web 3.0. It is still mostly an unknown entity. However, it is envisioned as being based on islands of intelligence and as being ubiquitous.

– Future Threats

- Security concerns
- Lack of Net neutrality
- Copyright complaints
- Choppy connectivity



Copyright ©2011 Pearson Education, publishing as Prentice Hall

(Source: Turban et al., 2010)

MANAGERIAL ISSUES

1. How will social medial impact businesses?
2. How will social networking impact businesses?
3. Should we explore Web 2.0 collaboration?
4. Do we need to sponsor a social network?
5. How should we deal with Web 2.0 risks?
6. Should we have an in-house social network?

References

- Turban et al., Introduction to Electronic Commerce, Third Edition, 2010, Pearson