

c h a p t e r

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**THE DIGITAL FIRM:
ELECTRONIC COMMERCE &
ELECTRONIC BUSINESS**

4.1

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Reading notes for chapter 4 in the textbook

- Chapter 4 is on the digital firm, electronic commerce and business. We have to read entire chapter carefully and digest the material thoroughly. Internet is a widely used technology today and there is no doubt that Internet and digital organization will shape every aspect of our lives, personal as well as professional in the years ahead.
- Section 4.1 elaborates on the benefits of Internet technology to the organizations of any kind. Read section 4.1 carefully and pay attention to Internet business models and concepts like information asymmetry, richness, reach, dynamic pricing and portals. Table 4.1 is a concise summary of Internet business models. Customer-centered retailing, business-to-business electronic commerce, and electronic payment systems also deserve a close and critical look. Marshall Industries is an interesting example of a virtual distribution network and gives us clues about future business models. Examine figure 4.7 carefully.
- Section 4.3 explores how intranets support electronic business and services like group collaboration, coordination and supply chain management that are vital for any organization. Group collaboration at Internet has new dynamics and implications in product design and delivery as well as organization's functional areas and supply chain management. Finally management challenges and opportunities deserve careful scrutiny.

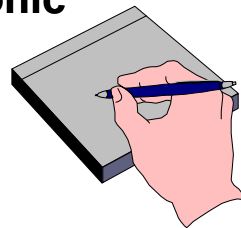
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LEARNING OBJECTIVES

- Explain how internet transforms business
- Compare categories of electronic commerce (B2C, B2B, and C2C)
- Evaluate principal electronic payment systems and methods

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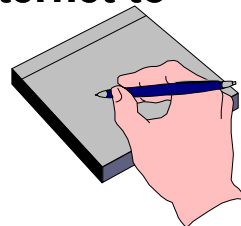
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LEARNING OBJECTIVES

- Demonstrate how Internet technology supports electronic business, supply chain management (make it shorter)
- Examine challenges of Internet to business & society

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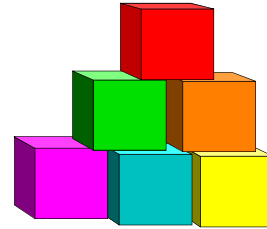


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MANAGEMENT CHALLENGES

- **EMERGING DIGITAL FIRM**
- **ELECTRONIC COMMERCE**
- **ELECTRONIC BUSINESS**
- **CHALLENGES**
 - Global competition
 - Unproved business models
- **OPPORTUNITIES**
 - Small businesses can compete with large businesses



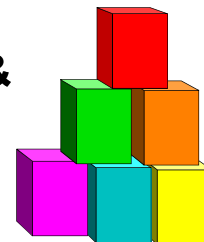
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MANAGEMENT CHALLENGES

1. **ELECTRONIC COMMERCE & ELECTRONIC BUSINESS REQUIRE NEW MINDSET**
2. **FINDING SUCCESSFUL INTERNET BUSINESS MODEL**



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INTERNET TECHNOLOGY & THE DIGITAL FIRM 1/3

- **INFORMATION TECHNOLOGY INFRASTRUCTURE:**
 - Information flows seamlessly throughout..
 - Internet/Intranet ease info flow
- **DIRECT COMMUNICATION BETWEEN TRADING PARTNERS:**
 - *DISINTERMEDIATION*: removes intermediate layers streamlines process.
 - Direct relation with stakeholders

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INTERNET TECHNOLOGY & THE DIGITAL FIRM 2/3

- **Vendors can provide information 24 hours a day**
 - Outside worktime/new market
- **Can extend distribution channels**
- **Can reduce transaction costs (paperless, minimal human interaction, electronic transaction, etc)**

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INTERNET TECHNOLOGY & THE DIGITAL FIRM 3/3

- **REDUCES *INFORMATION ASYMMETRY*:**
 - Asymmetry exists when one party has more information than other (democracy of info, transparency, readiness, ..etc)
- **INCREASES *RICHNESS*:**
 - Depth & detail of information
- **INCREASES *REACH*:**
 - Number of people contacted (global audience)

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Business Model

- **An abstraction of what and how the enterprise delivers a product or service, showing how the enterprise creates wealth.**

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Internet Business Models Definitions

Dynamic pricing

Pricing of items based on *real time* interactions between buyers and sellers that determine what an item is worth at any particular moment.

Banner ad

Graphic display on a web page used for advertising. The banner is linked to the advertiser’s web site so that a person clicking on it will be transported to the advertiser’s web site.

Pure-play

Business model based solely on the internet.

Clicks-and-mortar

Business model where the web site is an *extension* of a traditional bricks-and-mortar businesses.

Mobile commerce (m-commerce)

The use of wireless devices, such as cell phones or handheld digital information appliances, to conduct e-commerce transactions over the internet.

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INTERNET BUSINESS MODELS



Category	Description	Examples
1. Virtual Store front	Sells physical goods or services on-line instead of through a physical storefront or retail outlet. Delivery of nondigital goods and services takes place through traditional means.	Amazon.com Wine.com, Wingspanbank.com
2. Marketplace concentrator	Concentrates information about products and services from multiple providers at one central point. Purchasers can <i>search, compare</i> shop, and sometimes <i>complete the sales</i> transaction.	Shopnow.com Dealernet Industrial mall Insure market
3. On-line exchange	<i>Bid-ask</i> system where multiple buyers can purchase from multiple sellers.	Asia capacity Exchange Covisint E-steel Fibermarket

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4. Information broker	Provides <i>product, pricing, and availability information</i> . Some <i>facilitate transactions</i> , but their main value is the <u>information they provide</u> .	Partnet Travelocity
5. Transaction broker	Buyers can view rates and terms, but the primary business activity is to <u>complete the transaction</u> .	E*TRADE Ameritrade
6. Auction	Provides electronic clearinghouse for products where <i>price and availability are constantly changing</i> , sometimes in response to customer actions	Ebay Ubid Bigequip.com
7. Reverse auction	Consumers submit a bid to <i>multiple sellers</i> to buy goods or services at a buyer specified price.	Priceline.com Importquote.com
8. Aggregator	Groups of people who want to purchase a particular product sign up and then <i>seek a volume discount from vendors</i> .	Mobshop.com
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9. Digital product delivery	Sells and <u>delivers software, multimedia, and other digital products</u> over internet.	Regards.com Photodisc
10. Content provider	Creates revenue by <u>providing content</u> . The customer may <i>pay to access</i> the content, or revenue may be generated by selling <i>advertising</i> space or by having advertisers placement in an organized listing in a searchable database.	Salon.com Thestreet.com NY Times
11. On-line service provider	Provides <i>service and support</i> for hardware and software users (ASP).	Pcsupport.com Xdrive.com (box.net)
12. Virtual community	Provides <i>on-line meeting place</i> where people with similar interests can communicate and find useful information.	Fortunecity Tripod Forums
13. Portal	Provides <u>initial point of entry</u> to the web along with specialized content and other services.	Yahoo Barrabas
14. Syndicator	<u>Aggregates content or applications</u> from <u>multiple sources</u> and resells them to other companies.	Thing Screaming Media
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CONTEMPORARY TECHNOLOGIES & ISSUES

- **Web 2.0**
- **User-generated content**
- **User-centered design**
- **Social Media**
- **Blogs**
- **Web 3.0 (Semantic Web)**
- **Social Networks**
- **AJAX**
- **Web APIs**
- **Wisdom of the crowd**
- **Crowdsourcing** (act of sourcing tasks traditionally performed by specific individuals to a group of people or community (crowd) through an open call)
- **Cloud Computing** (Internet-based computing, delivers services on demand, just like the electricity grid, involves SaaS, HaaS, usually referred to as utility computing)
- **E-Government**
- **WIKI**
- **Internet of Things**

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Web 2.0

- **Web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the World Wide Web.**
- **A Web 2.0 site allows users to interact and collaborate with each other in a social media dialogue as creators (prosumers) of user-generated content in a virtual community.**
- **Websites users are no longer only consumers.**
- **Ex. social networking sites, blogs, wikis, video sharing sites, hosted services, web applications, mashups and folksonomies (collaboratively tagging).**

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Web 2.0 SLATES

- **Search:** Finding information through keyword search.
- **Links:** Connects information together into a meaningful information ecosystem model.
- **Authoring:** The ability to create and update content leads to the collaborative work, ex. wikis, blogs, posts and comments.
- **Tags:** Categorization of content by users adding "tags" - short, usually one-word descriptions = to facilitate searching, without dependence on pre-made categories. Collections of tags created by many users within a single system may be referred to as "folksonomies" (i.e., folk taxonomies).
- **Extensions:** Software that makes the Web an application platform as well as a document server.
- **Signals:** The use of syndication technology such as RSS to notify users of content changes.

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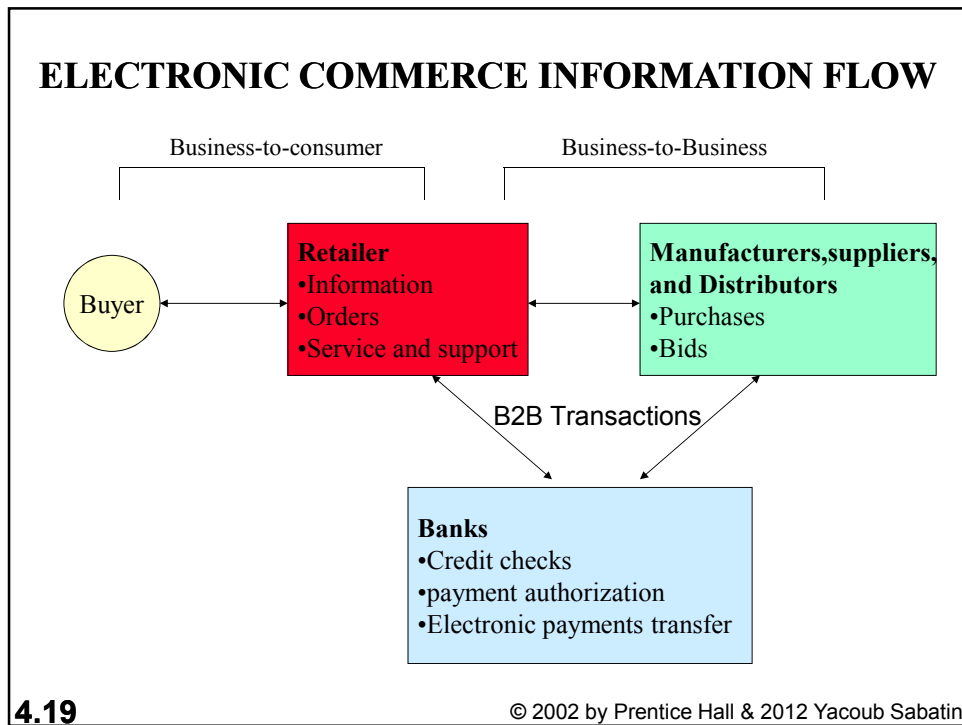
ELECTRONIC COMMERCE

- **BUSINESS-TO-CONSUMER (B2C)**
- **BUSINESS-TO-BUSINESS (B2B)**
- **CONSUMER-TO-CONSUMER (C2C)**



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1. BUSINESS-TO-CONSUMER ELECTRONIC COMMERCE

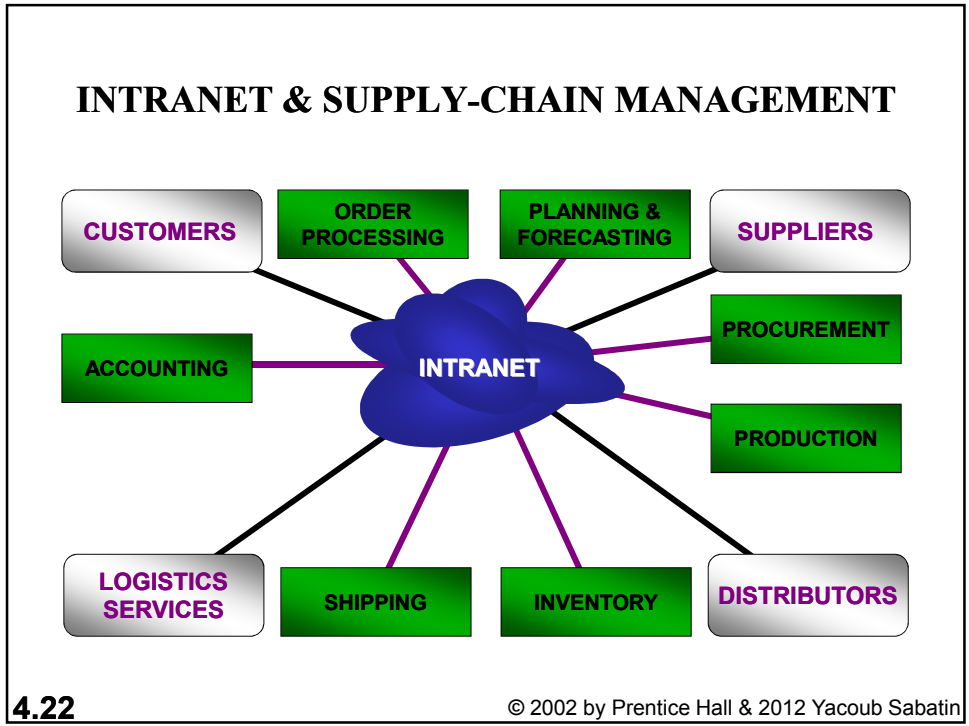
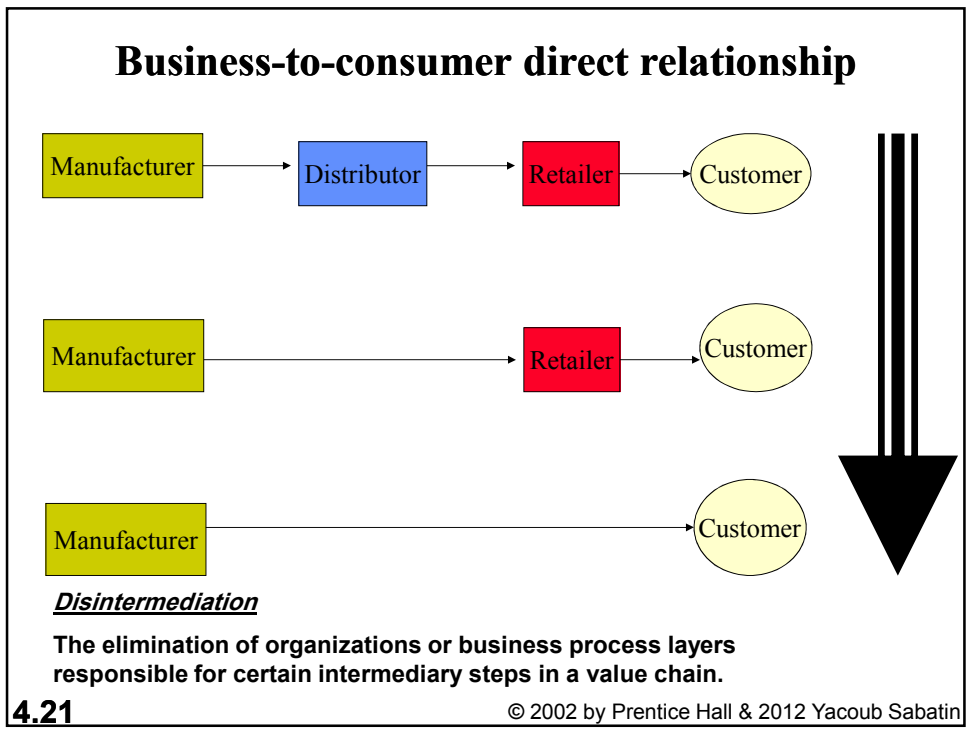


- **WEB SITES:**
 - Provide information on products, services, prices, orders
- **CUSTOMER-CENTERED RETAILING:**
 - Closer, yet more cost-effective relationship with customers
- **INFORMATION BROKERS:**
 - Comparison shops to customer's requirements, reintermediation
 - Sometimes facilitates the transactions (Ex. Google Shopping Services, Froogle)

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2. BUSINESS-TO-BUSINESS ELECTRONIC COMMERCE

- **AUTOMATION OF PURCHASE, SALE TRANSACTIONS FROM BUSINESS TO BUSINESS**
- **PROVIDES ALTERNATIVE SOURCES**
- **ELECTRONIC HUBS: Online marketplaces, point-to-point connections, integrated information**



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2. BUSINESS-TO-BUSINESS ELECTRONIC COMMERCE (Cont.)

- **EXCHANGES: commercial on-line market, many buyers, sellers**
- **Potential for integrating product information**
- **Integrating business processes among businesses.**
- **Provides service, value**

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3. CONSUMER-TO-CONSUMER ELECTRONIC COMMERCE (C2C)

- Individuals use Web for private sales or exchange
- Examples: Auctions, Forums, and now, Web 2.0 apps



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ELECTRONIC COMMERCE PAYMENT SYSTEMS	
SYSTEM	DESCRIPTION/EXAMPLES
CREDIT CARDS	SECURE SITE PRESERVES INFORMATION
ELECTRONIC CASH	DIGITAL CURRENCY USED FOR MICROPAYMENTS, Ex. Flooz.com, e-Coin, CashU
PERSON-TO-PERSON	SEND MONEY TO SITES UNABLE TO USE CREDIT CARDS, Ex. Paypal, Google Checkout, WU
DIGITAL WALLET	SOFTWARE STORES CREDIT CARD INFORMATION
ELECTRONIC CHECK	CHECK WITH ENCRYPTED DIGITAL SIGNATURE
SMART CARD	MICROCHIP STORES ELECTRONIC CASH
ELECTRONIC BILL PAYMENT	ELECTRONIC FUNDS TRANSFER
Micropayment Service Providers	payment for a very small sum of money. Ex. PayPal
Mobile	Premium SMS, IVR, Mobile Money

INTRANETS AND ELECTRONIC BUSINESS

- **BENEFITS**
- **FUNCTIONAL APPLICATIONS**
- **SUPPLY CHAIN MANAGEMENT**

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BENEFITS OF INTRANETS 1/2

- **CONNECTIVITY:**
 - Accessible from most computing platforms
- **CAN BE TIED TO LEGACY SYSTEM
& TRANSACTION PROCESSING**
 - Easier integration
- **INTERACTIVE APPLICATIONS
WITH TEXT, AUDIO, VIDEO**
- **SCALABLE TO LARGER OR
SMALLER SYSTEMS AS REQUIRED**

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BENEFITS OF INTRANETS 2/2

- **EASY TO USE BROWSER INTERFACE**
- **LOW START-UP COSTS**
- **RICH, MORE RESPONSIVE INFORMATION ENVIRONMENT**
- **REDUCED INFORMATION DISTRIBUTION COSTS**

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FUNCTIONAL APPLICATIONS OF INTRANET:

- **FINANCE & ACCOUNTING**
- **HUMAN RESOURCES**
- **SALES & MARKETING**
- **MANUFACTURING & PRODUCTION**

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IN FINANCE & ACCOUNTING:

- **Project costing**
- **Annual reports**
- **Budgeting**
- **General ledger reports**



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IN HUMAN RESOURCES:

- **Clear corporate policies**
- **Employee savings plans**
- **Benefits enrollment**
- **On-line training**
- **Job posting**



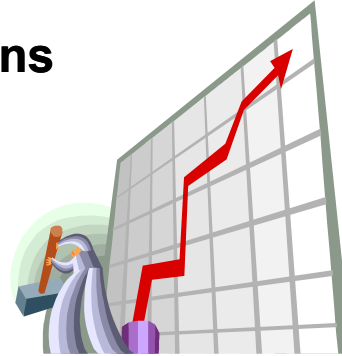
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IN SALES & MARKETING:

- **Competitor analysis**
- **Price updates**
- **Promotional campaigns**
- **Sales presentations**
- **Sales contracts**

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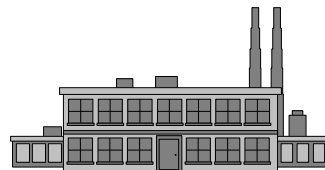
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IN MANUFACTURING & PRODUCTION:

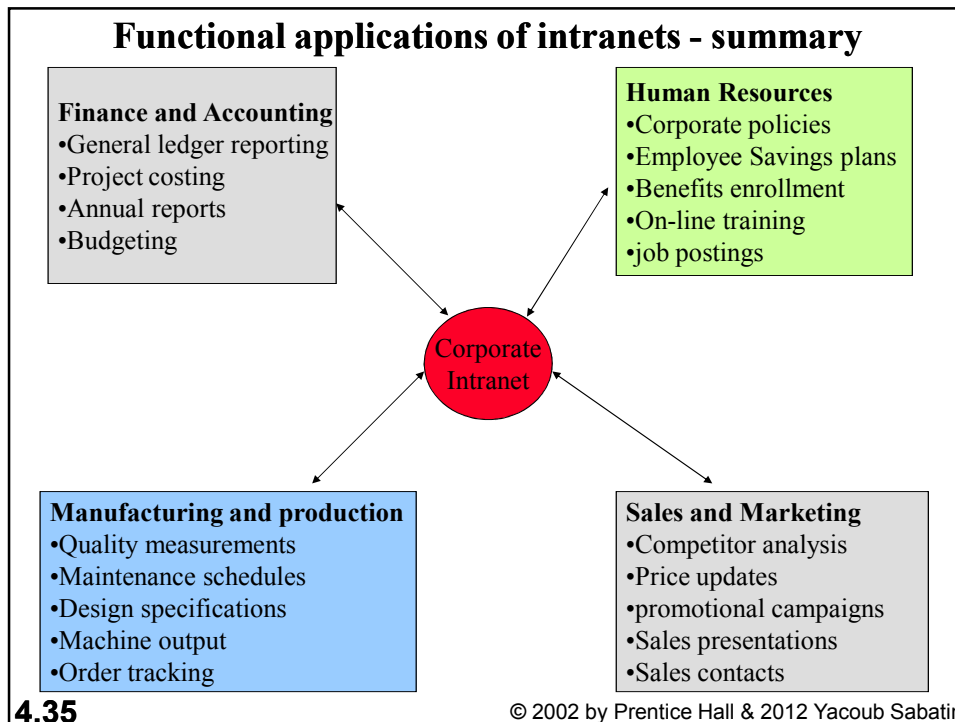
- **Quality measurements**
- **Maintenance schedules**
- **Design specifications**
- **Machine output**
- **Order tracking**

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CHALLENGES & OPPORTUNITIES IN E-BUSINESS/E-COMMERCE

- **Unproven business models**
- **Business process change requirements**
- **Channel conflicts may arise**
- **Legal issues (globally)**
- **Security & privacy**

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