

**15.561A: Information Systems:  
From Technology Infrastructure  
to the Networked Corporation**

**15.566: Information Technology as an  
Integrating Force in Manufacturing**

**Class #14: THE INTERNET  
AND ELECTRONIC  
COMMERCE #2**

Spring 1998  
Sloan School of Management  
Massachusetts Institute of Technology

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## Electronic Commerce on the Internet

- **The First Wave of Web Use: Information Exchange**
  - Publishing, customer feedback
- **The Current Wave: Transactions**
  - Product Delivery
  - Create a Marketplace
  - New types of Intermediaries
- **Emerging Waves:**
  - Business Information Sharing & Partnerships
  - Customization & Communities of Interest



## Publishing (Both Internally and Externally)

- Product Brochures
- Annual Reports
- Catalogs
- Press Releases
- Technical Specs
- Telephone Directories
- News/Research Documents
- Schedules
- Price Lists
- FAQ'S
- Order Status
- Software Demos



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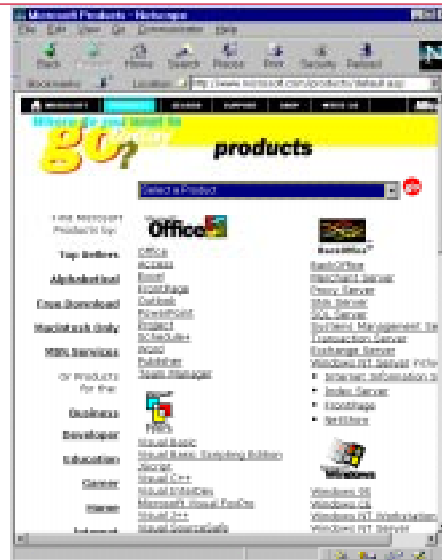
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## Examples of Web Publishing

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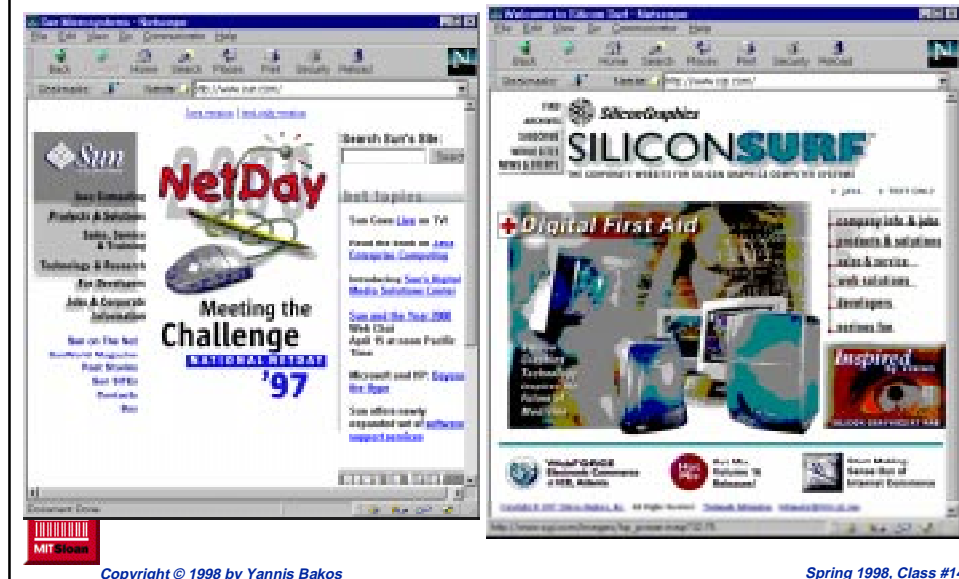


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## More Examples of Web Publishing



## Internet Present: Product delivery

### 6 Example: Grocery Shopping



## Internet Present: Product delivery Example: Electronic Newspapers

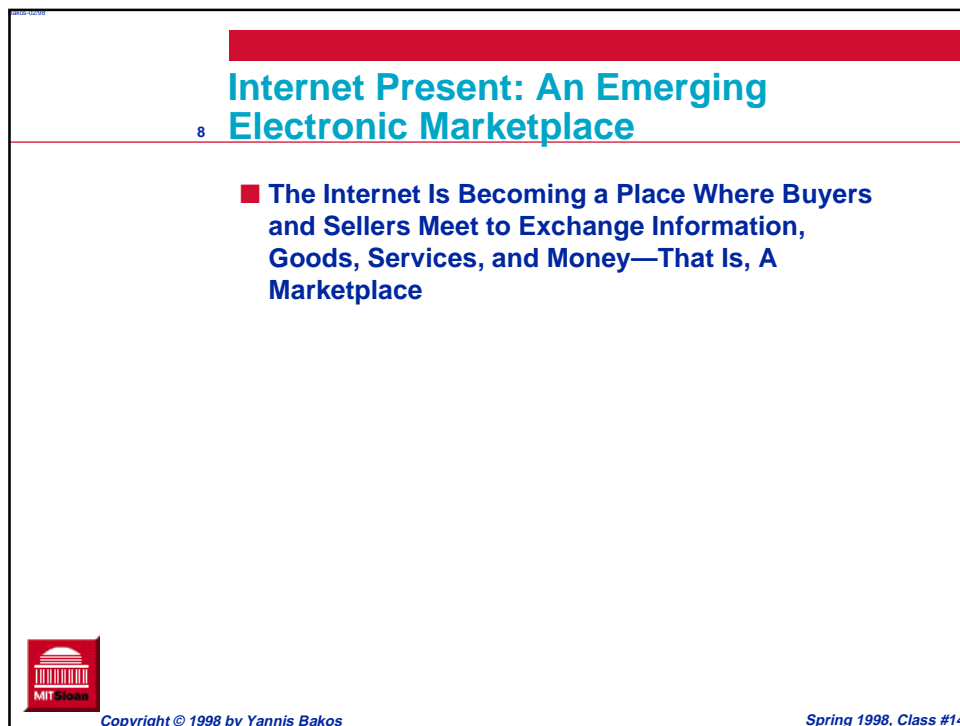
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## Internet Present: An Emerging Electronic Marketplace

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- The Internet Is Becoming a Place Where Buyers and Sellers Meet to Exchange Information, Goods, Services, and Money—That Is, A Marketplace



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BRAND	PRODUCT	DESCRIPTION	PRICE	DEALER	DATE ADDED (By Dealer)	UNIT	IN STOCK	PARTS
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Intel	Processor II	166MHz Celeron	\$ 349	Intel Memory International (800)551-1587 Online Online Only Available (972)76-1968	10/1/97 10/1/97 AM	TX	99%	n/a
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Intel	Processor II	166MHz 386SX 128K	\$ 555	Compu Computer Source Inc. USA (800)551-1587 On-Line Only Available (408) 613-1300	10/1/97 10/1/97 PM	NY	7.99%	n/a
Intel	Processor II	166MHz Celeron	\$ 344	Paragon Technology Inc. (800)227-7730 Online Only Available	10/1/97 10/1/97 AM	CA	99%	n/a
Intel	Processor II	266MHz 128K cache Intel Pentium Version Type 1, memory with ECC	\$ 879	Ken Olson (800)221-7730 (340)411-0500	10/1/97 10/1/97 PM	TX	99%	n/a
Intel	Celeron® Processor II	300MHz 128K cache	\$ 379	Micro & Design (800)541-4787 (340)411-0500	10/1/97 10/1/97 PM	TX	99%	n/a
Intel	Processor II	266MHz 128K cache with ECC	\$ 999	MicroShack Corporation (800)551-1587	10/1/97 10/1/97 AM	TX	99%	PENTIUM-300

Document Closed

Netscape - [Bargain Finder agent prototype]

File Edit View Go Bookmarks Options Directory Window Help

Back Forward Home Reload Images Open Print Find Stop

Location: <http://bf.cstar.ac.com/bf/>

What's New! What's Cool! Handbook Net Search Net Directory Software

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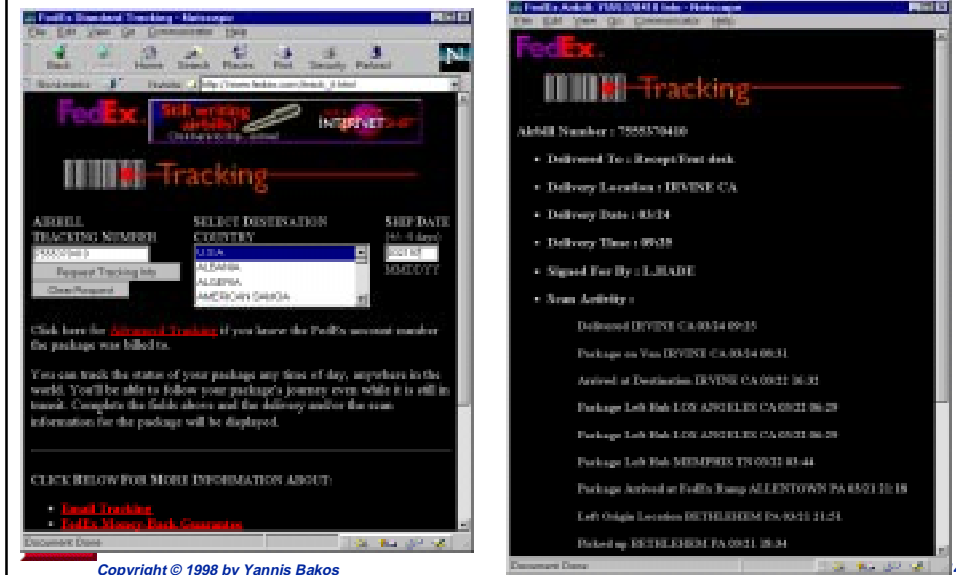
## Internet Present: the Glue for Electronic Integration

- Link the value chains of a customer and a supplier
- Main benefits
  - reduced costs (e.g., lower inventories)
  - increased speed and accuracy
  - integration of the value chains
- EDI has been around for a long time, but the Internet will dramatically lower the cost of entry



## GIVE YOUR CUSTOMERS ACCESS TO YOUR SYSTEMS

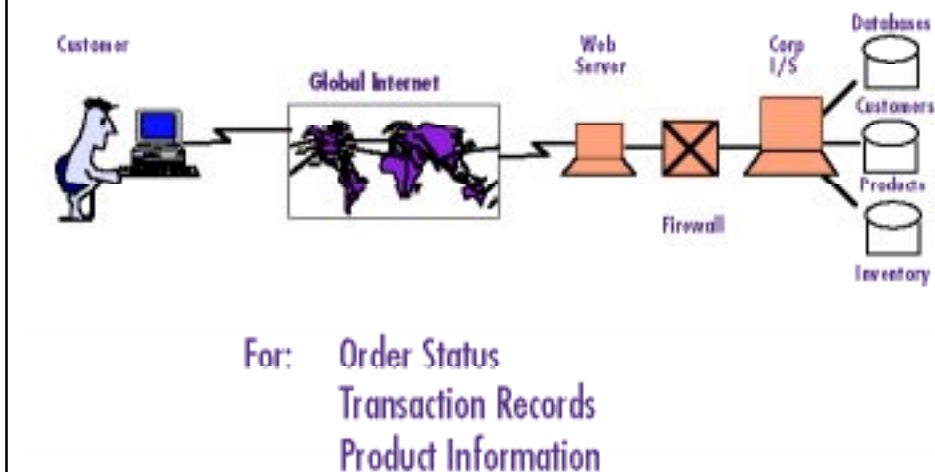
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## Provide Access to Corporate Databases Internally and Externally

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MIT Sloan

source: P. Gudonis, BBN Planet

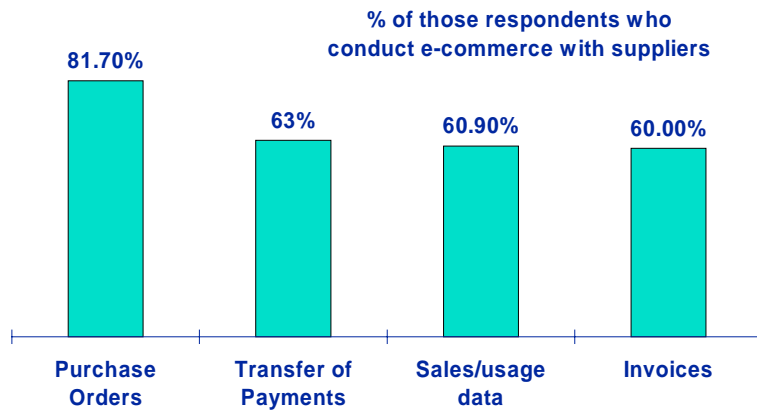
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## Business processes handled in e-commerce systems

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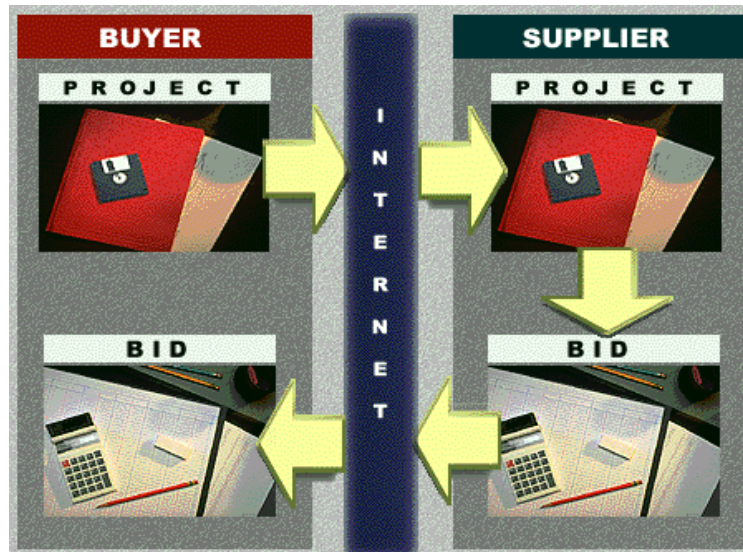


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## GE's TRANSACTION PROCESSING NETWORK (TPN)

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## The Internet Future: Collaborative Filtering and Communities of Interest

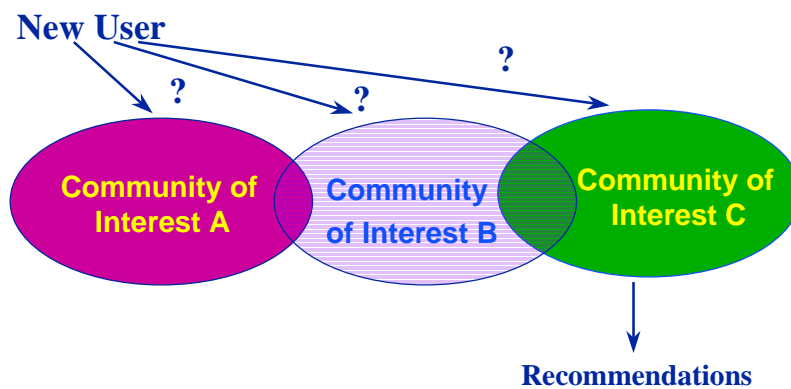
- Create a community of interest
- Each user specifies preferences
  - Active (explicit) ratings
  - Passive (implicit) ratings
- Correlate rating information across users
  - Create individualized, “virtual” shopping agent
- Find and Recommend products
  - Before you even ask!



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## Firefly Network

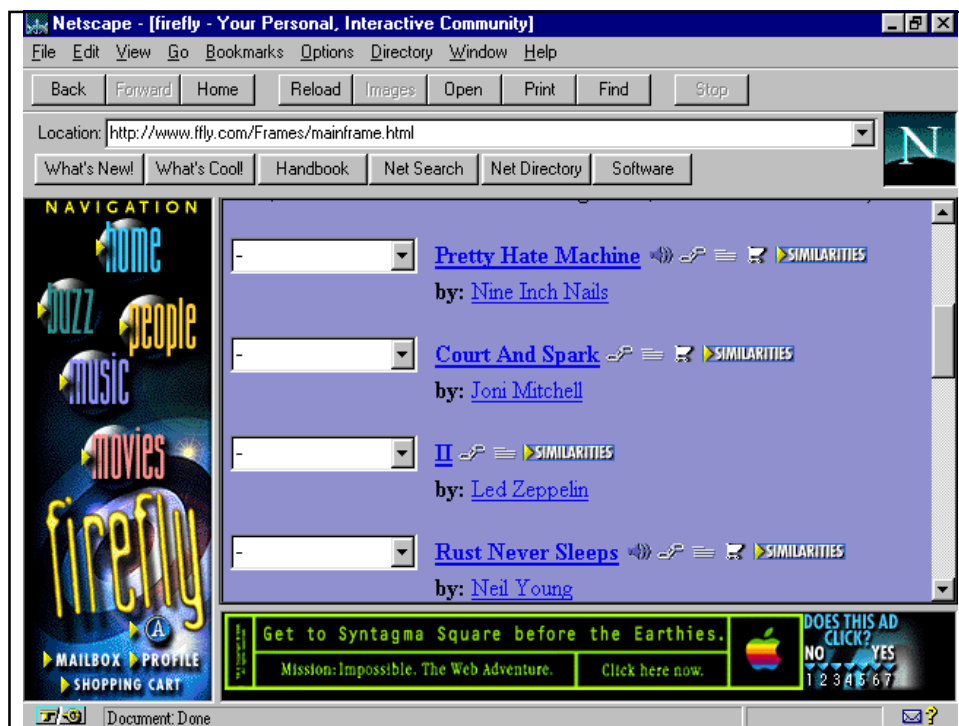


Firefly Network becomes a market intermediary and captures marketing data



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## EXPLICIT RATINGS

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## The Internet Future: Customization

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## CUSTOMIZE!!!

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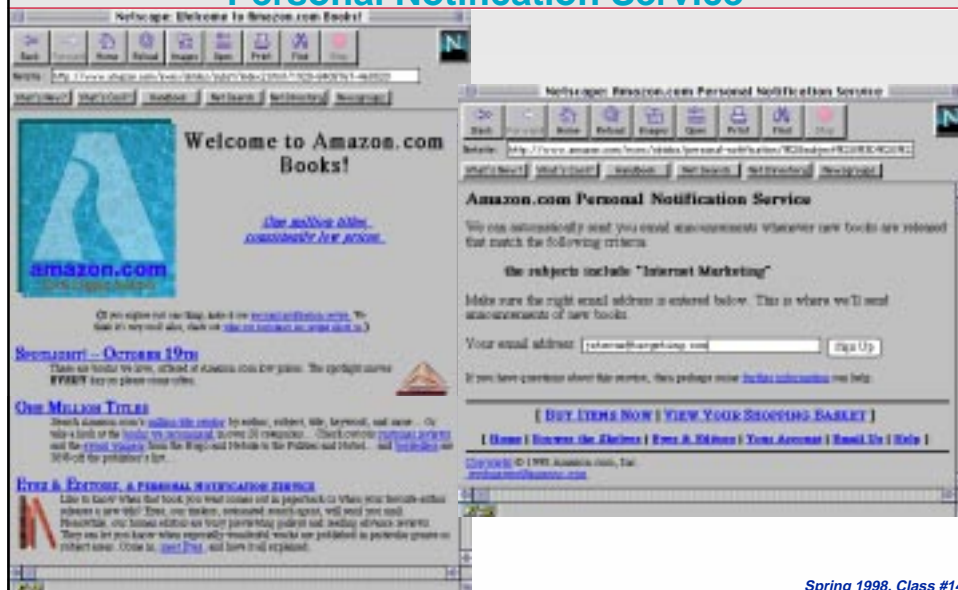


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## CUSTOMIZATION: Amazon.com Personal Notification Service



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## 2001: A CYBERSPACE ODYSSEY?

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Good to see you again Dave.  
Since you were here last:

- I have an update for your software
  - It's time for some fashionable new shirts
  - And some matching ties
  - I've selected a humorous video for tonight
  - And found a nice young lady to chat with
  - We received your last payment .
- Thank you so much!

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## CONCLUSIONS

- From Mass Marketing to Individual Tailoring
  - Create more value
  - Dampen price competition
- Business-to-Business
  - A big win (and where most of the action is)
  - Beyond cost reduction: redefine relationships
- Publishing, Transactions & Customization
  - Communities of Interest
  - Individualized collaborative filtering



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