

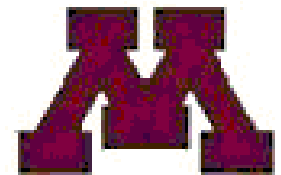
# The New Economics of E-Commerce: Interpreting the Marketplace



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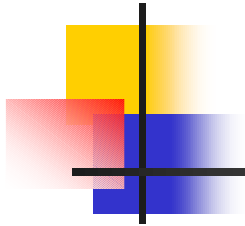
**Robert J. Kauffman**

Carlson School of Management  
University of Minnesota



University of  
Minnesota

Based on (1) R. J. Kauffman and E. A. Walden, "Economics and Electronic Commerce: Survey and Directions for Research," *International Journal of Electronic Commerce*, 5, 4 (June 2001), 4-115, (2) Q. Dai and R. J. Kauffman, "Business Models for Internet-Based E-Procurement and B2B Electronic Markets: An Exploratory Study, in *Proceedings of the 34<sup>th</sup> Hawaii International Conference on Systems Science*, Maui, HI, January 2001, IEEE Computer Society Press, Los Alamitos, CA, 2001, (3) A. M. Chircu and R. J. Kauffman, "Reintermediation Strategies in Business-to-Business Electronic Commerce," *International Journal of Electronic Commerce*, 4, 4 (Summer 2000), 7-42, and (4) A. M. Chircu and R. J. Kauffman, "Strategies for Internet Middlemen in the Intermediation / Disintermediation / Reintermediation Cycle. *Electronic Markets*, 9, 2 (February 1999), 109-117.



# Speaker's Biography

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**Robert J. Kauffman** is Professor and Department Chair of Information and Decision Sciences at the Carlson School of Management, University of Minnesota. His current research interests center on IT and organizational strategy, electronic commerce, adoption and diffusion of technology, the economics of information systems, applications of IT in financial services, and measuring the value of IT investments. He received a B.A. from the University of Colorado, Boulder, an M.A. from Cornell University, and an M.S. and Ph.D. from the Graduate School of Industry Administration, Carnegie Mellon University. Rob has held faculty positions at New York University and the University of Rochester. His research appears in *Information Systems Research*, *MIS Quarterly*, *Decision Science*, *Communications of the ACM*, *Journal of Management Information Systems*, *Journal of the Association of Information Systems*, *IEEE Transactions on Software Engineering*, and *International Journal of Electronic Commerce*.

He has twice co-chaired the annual *Workshop on Information Systems and Economics (WISE)*. Rob also acts as an associate editor for *Management Science*, *International Journal of Electronic Commerce*, *International Journal of Intelligent Systems in Accounting, Finance and Management*, *Journal of Management Information Systems*, and the newly-announced *Information Systems and E-Business Management*. His newest research article, due out in *Organization Science* in November/December 2001, is on reservation system competition in the airline industry. He also completed a special issue of the *Journal of Management Information Systems* on "Economics, Electronic Commerce and Organizational Strategy," which is due out in Fall 2001. This follows up a prior issue of *Communications of the ACM* that he edited in August 1998 on "Economics and Information Systems." In his spare time, Rob likes to travel, sail small boats, and play the piano. He lives with his wife, Jean, and daughter, Lauren, in Bloomington, Minnesota.



# 'The EBay of Blank ... ?'

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- Internet IPOs: Wit Capital
- On-line stock trading: Charles Schwab
- Electronics retailing: Buy.com
- Books: Amazon.com
- B2B E-Markets: E-Steel.com

But the opportunities aren't like they used to be – at least when venture capital is required.

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### Today's Markets



|           |           |         |
|-----------|-----------|---------|
| ▼ DJIA    | 11,005.37 | -117.05 |
| ▼ NASDAQ  | 2,251.03  | -30.99  |
| ▼ S&P 500 | 1,277.89  | -15.28  |

as of Close

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[Market Summary](#)

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"...I don't think it's time to ease up. To back off on our e-initiatives is to basically back off on the business. It's everything we touch now. You can't retreat."

-- **Jacques Nasser**,  
CEO of Ford Motor Co.

[Business 2.0](#)  
[May 29, 2001](#)



e-STEEL<sup>SM</sup> is an internet software company that creates competitive advantage for buyers and suppliers of [direct materials](#). We build and operate [web-based applications](#) that enable you to manage your [supply network](#) transactions, information, and partner relationships. Our solutions enable buyers to [manage the full procurement cycle](#) to reduce material costs, improve quality, and increase flexibility. Suppliers are able to [control sales channels](#) to increase customer loyalty, reduce costs, and speed inquiry to payment. e-STEEL has a proven track record for delivering the solution that meets your specific business requirements on time and on budget.

**The e-STEEL SupplyNetwork<sup>SM</sup>** enables any company involved in the direct materials supply chain to leverage web-based technology to manage their supply network. [Network Sponsors and Members](#) can conduct the full range of transactions from inquiry to settlement and capture all transactional information in one place to monitor

**Visit e-STEEL**  
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## Highlights

- [Business 2.0: The Re-Education of Jacques Nasser](#)
- [e-STEEL Launches Initial Phase of Major e-Commerce Private Marketplace for BHP Steel](#)

## Customer Success

"Our partner e-STEEL has successfully demonstrated its ability to deliver an enhanced and extended platform that combines existing and new applications, and features an increased level of flexibility."

-- **Kirby Adams**,  
President of BHP Steel\*

# Driving Principles in Electronic Commerce?



**Ask:** What principles can be leveraged for competitive advantage in your context?

- Space
- Time
- Value
- Efficiency
- Markets
- Transactions
- Impulse
- Growth
- Matter
- People

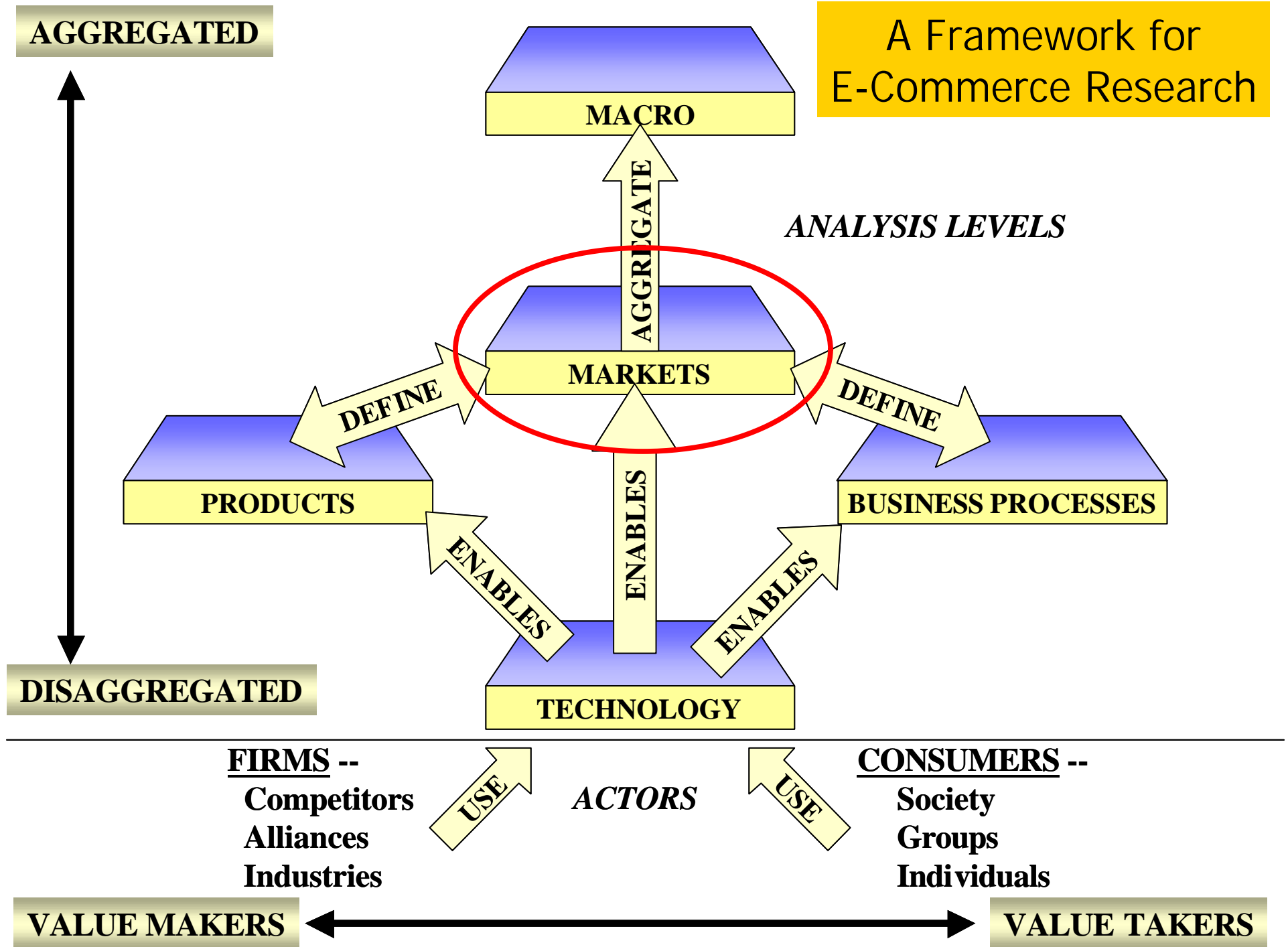


# Why Examine E-Commerce from Economics Perspective?

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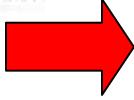
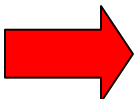
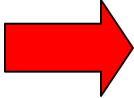
- Depth and breadth of the applicable theory
- Maturity, rigor and precision of the analytical techniques
- Natural emphasis on decisionmakers, products, processes, firms, markets and aggregate economic behavior
- Power of econometric methods to handle large-scale data analysis

A Framework for  
E-Commerce Research





# Applicable Economic Theories

| LEVEL OF ANALYSIS       | INFORMATION TECHNOLOGY                                                                                                                                                                                        | RELEVANT ECONOMIC THEORIES                                                                                                                                                                 |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Technology</b>       | Agent technology, network infrastructure, structural standards (TCP/IP, HTML, XML, objects, middleware, encryption, etc.)  | Public goods theory, efficient pricing, game theory, negotiation, network externalities and standards                                                                                      |
| <b>Product</b>          | Digital products, information, information goods, services                                                                                                                                                    | Pricing theory, versioning, information goods, switching costs, network externalities and standards, economies of scale and scope                                                          |
| <b>Business Process</b> | EDI, interorganizational systems, browsers, email, intranets and extranets                                                | Adoption theory, economics of design, cost-benefit analysis, allocation of benefits, IT value, negotiation, economies of scale and scope, game theory                                      |
| <b>Market</b>           | Internet-based businesses, electronic markets, financial services and analytics                                          | Auction theory, industrial organization, transaction costs, market microstructure, intermediation, adoption and diffusion, perfect competition, returns to scale, optimal market structure |
| <b>Macroeconomy</b>     | World Wide Web, Internet-based corporate recruiting, new labor markets, electronic payments, fraud and security                                                                                               | Monetary economics, taxation theory, labor economics, regulatory economics, public goods                                                                                                   |



# Let's Talk About ...

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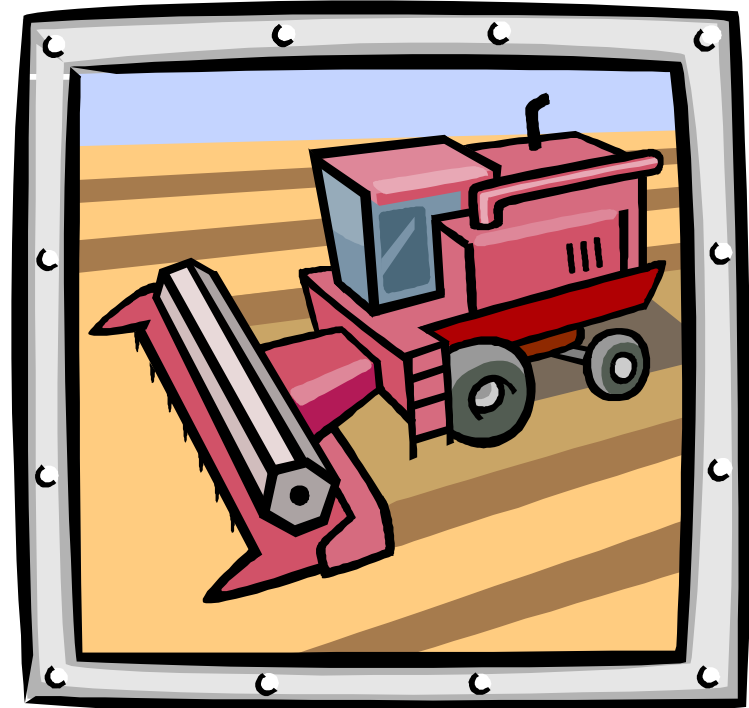
- I. Technologies
- II. Business processes
- III. Electronic markets and e-intermediation
- IV. Firm strategies in the marketplace

... all through the interpretative lens  
of economic theory and thinking



# I. Technologies

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# Initial Words for the Network-Wise

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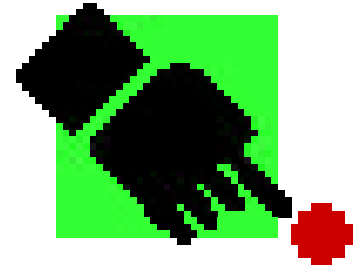
“Almost any decision about a given technical solution will be risky, *until* it becomes clear than there is **sufficient installed base** for the solution to become ***cost-effective and value-effective as a network.***”

- Standards combat among e-commerce solution providers complicate matters



# Contested Ground

---



- There are many domains in e-commerce in which **standards combat** is occurring:
  - DotCom and e-business infrastructures
  - Web-based travel reservation systems
  - Internet-based B2B procurement markets
- E-billing is a good example -- **no longer a revolution, but an evolution** that we are seeing in the marketplace ... and it's focused on IT



# Integrion's Solution Sounded Great

**INTEGRION**  
Financial Network

PROFILE THE INTEGRION SOLUTION OWNERS TECHNOLOGY PARTNERS FAQs NEWS

Overview

Products

- Internet Banking
- Bill Payment and Presentment
- Consolidated Customer Care

Platform

Home

**Overview**

The Integrion Financial Network LLC product and access channel services, collectively known as IFN® service, include traditional banking functions plus new capabilities uniquely defined to accommodate electronic commerce transactions.

**THE INTEGRION SOLUTION**  
Integrion Financial Network

Interface Linkages

| Front End Processing<br>Low Cost           | Back End Processing<br>Best in Class Applications |                                  |
|--------------------------------------------|---------------------------------------------------|----------------------------------|
| Secure<br>Flexible<br>Scalable<br>Reliable | Core Banking                                      | Bill Payment<br>Bill Presentment |
|                                            | Small Business                                    | Investments                      |
|                                            | Insurance                                         | Commercial Loans                 |
|                                            | Targeting Marketing                               | Mortgage                         |
|                                            | Credit Card                                       | Future Applications              |

Consolidated Customer Care

Future Applications

Web  
PFM software  
Telephone  
Future Devices

Financial Institution

**In theory, at least .....**

**Owners included:**

- B of A
- Citibank
- and more banks
- IBM

Outlook ... Microsoft Word ... Integrion Fin... Microsoft Power... 6:59 PM

# But Who Will Win in E-Billing?



The screenshot shows the TransPoint website homepage. At the top is the TransPoint logo with the tagline "The Way to Pay Online". Below the logo is a navigation bar with links: "home", "the service", "demo", "company info", and "contact us". On the left side, there is a large image of a smiling woman. To the right of the image, the text reads: "TransPoint is the convenient, secure way to pay your bills online or send money to anyone in the U.S. You can do it with a few clicks of your mouse!". Below this text are three buttons: "Get more info", "Check out our demo", and "See our guarantee". To the right of these buttons is a "Transaction Guaranteed by TransPoint" seal. Below the buttons is a large button that says "It's FREE for up to 6 months! Sign up now! It only takes a few minutes!". Below this button is a link that says "Become a corporate partner". At the bottom left, there is a button that says "Log on now!". At the bottom right, there is a footer that says "Year 2000 | Privacy Policy | © 1999-2000 TransPoint and/or its suppliers. All rights reserved."

TRANSPOINT™  
The Way to Pay Online

home the service demo company info contact us

*TransPoint*  
is the **convenient, secure**  
way to pay your bills online or send money to anyone in the U.S.  
You can do it with a few clicks of your mouse!

Get more **info** Check out our **demo** See our guarantee 

**It's FREE for up to 6 months!**  
 **Sign up now!**  
It only takes a few minutes!

Already Registered?  
**Log on now!**

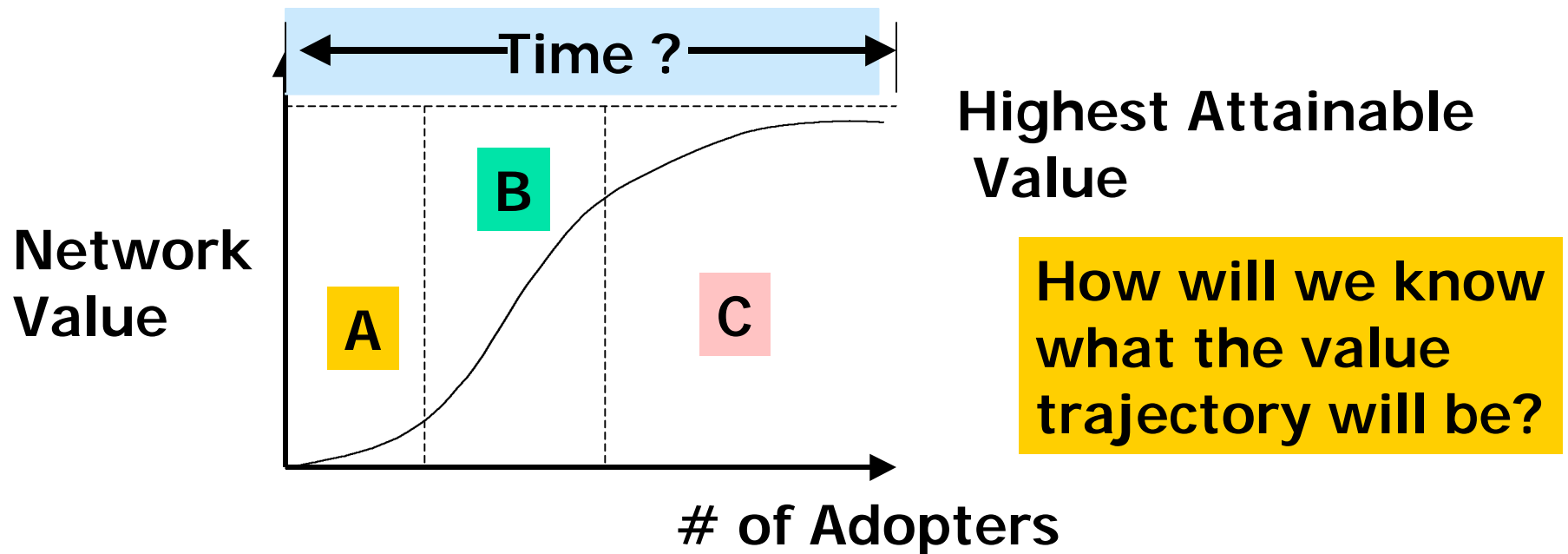
Become a corporate partner

[Year 2000](#) | [Privacy Policy](#) | © 1999-2000 TransPoint and/or its suppliers. All rights reserved.

Microsoft is behind Transpoint too. What does this tell us? And so is Citibank ... Real options, here, don't you think? Nobody knew how this combat would come out.

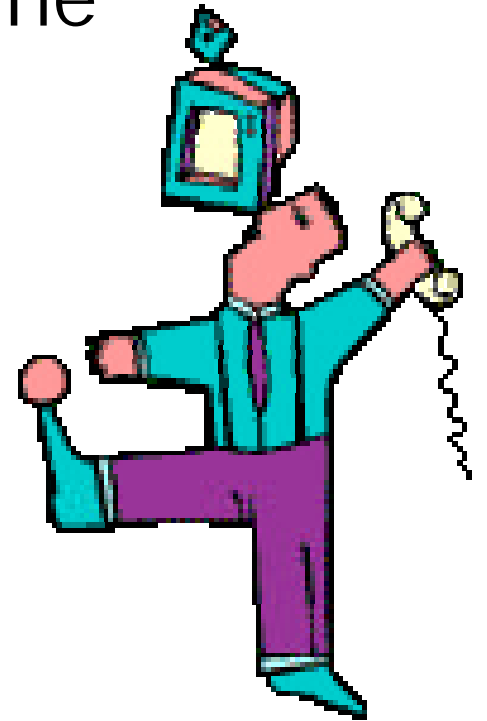
# Network Externalities Tell You

- The value of a technology standard increases with the number of adopters
- Externalities grow over time



# Amidst This Standards Combat

- Senior managers must think about IT investments consistent with the **value trajectory** for *network externalities*
- Don't want to get on the wrong "**bandwagon**"
- So waiting has "**real option value**"





# Tap Into Installed Base

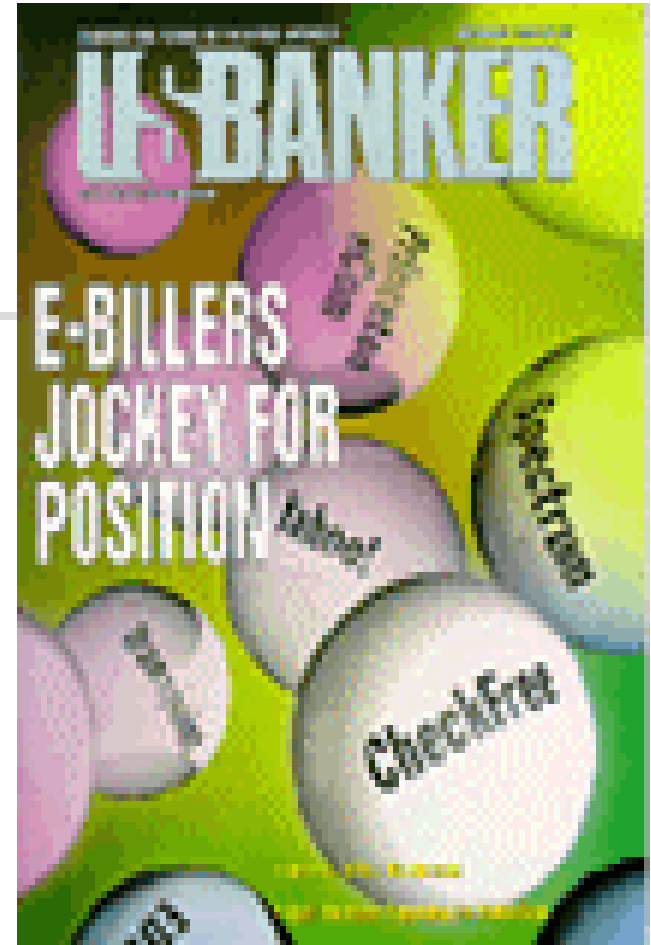
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- Larger network **installed bases** are consistent with higher valuation and earlier corporate adoption of technological innovations
- Installed base: examples --
  - number of vendors in an e-billing network
  - number of search engine users
  - number of firms using XML
  - number of buyers/sellers in an e-auction



# But Timing is a Big Gamble

- Whom do we bet on?
  - Banks?
  - Consolidators?
  - Internet portals?
  - Software solution vendors?
- **Translation:** Who's in the position to generate the greatest externalities soon?



# Seek Out “Spatial” Externalities, Too



[home](#) | [my eBay](#) | [site map](#) | [sign in](#)

[Browse](#) [Sell](#) [Services](#) [Search](#) [Help](#) [Community](#)

[categories](#) [featured](#) [hot](#) [grab bag](#) [great gifts](#) [big ticket](#)

The screenshot shows the eBay Automotive section. At the top, there's a banner with a car image and the word "Automotive" in large white letters. Below this, a "featured auctions" section displays three car listings with images. To the right, a search box is highlighted with a red circle. It contains the text "By Keyword:" followed by a search input field with "Red Ford F-150" and a "tips" link. Below the input field are two checkboxes: "Vehicles Only (\$1000+)" which is checked, and "Titles and Descriptions" which is unchecked. There is also a location dropdown menu showing "MN-Minn-St. Paul". A "Search" button is located below these options. Further down, there's a promotional message: "Can't find your dream car? Let [Personal Shopper](#) keep an eye out for it!". At the bottom right, a "welcome new users" section states: "The place to buy and sell just about anything automotive."

Get close to [Jesse Ventura](#) without getting bodyslammed!

eBay's recent alliance with AutoTrader.Com is a good case in point: excellent externality growth, but regional focus.



# Be Market Savvy on Standards

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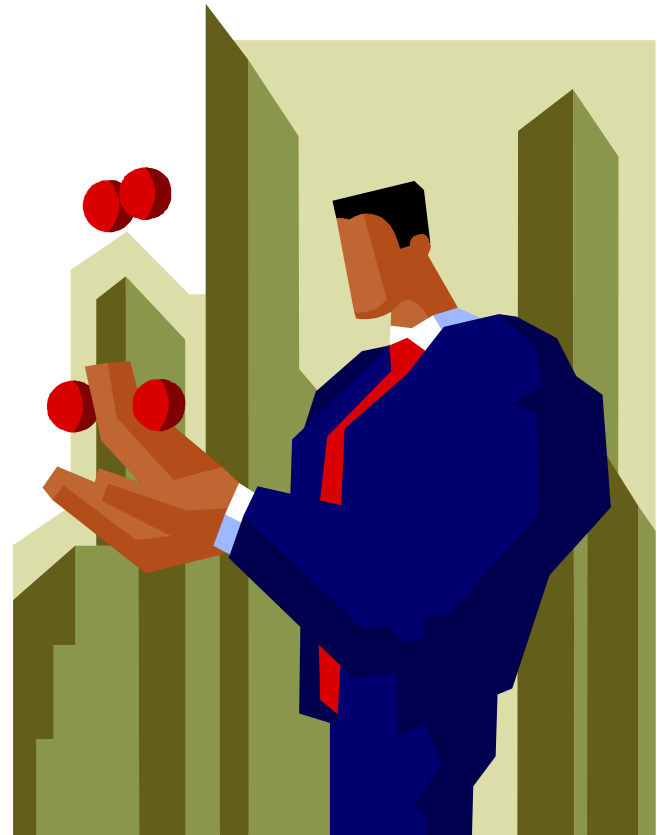
"Take advantage of the wisdom of the market in gauging the value of standards; markets, even if they are wrong sometimes, are usually not wrong for long."





## II. Business Processes

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# IT Used to Mass Customize in E-Commerce

## ■ The product:

- physical goods and information goods
- create unique product bundles

## ■ The selling process:

- one-on-one marketing with IT
- create unique value propositions by segment







**categories**

[Automotive](#) **NEW!**

[Antiques](#) (65921)

[Books, Movies, Music](#)  
(414019)

[Coins & Stamps](#) (114216)

[Collectibles](#) (925256)

[Computers](#) (100773)

[Dolls, Figures](#) (57516)

[Jewelry, Gemstones](#)  
(125285)

[Photo & Electronics](#) (52042)

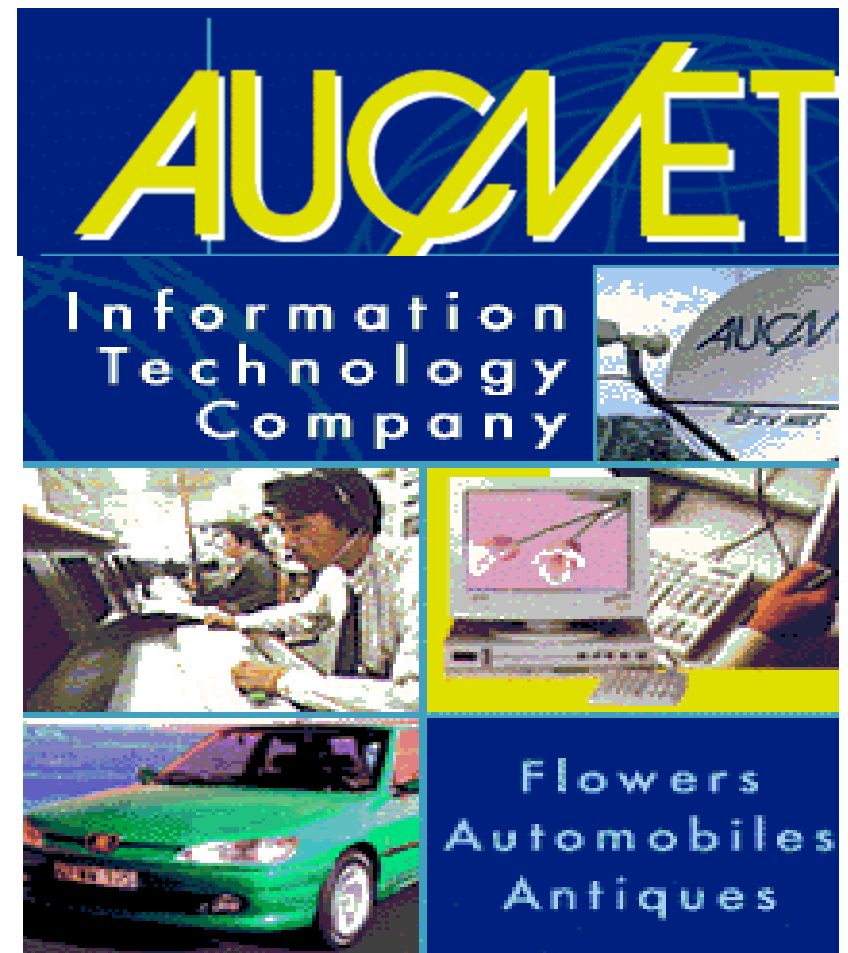
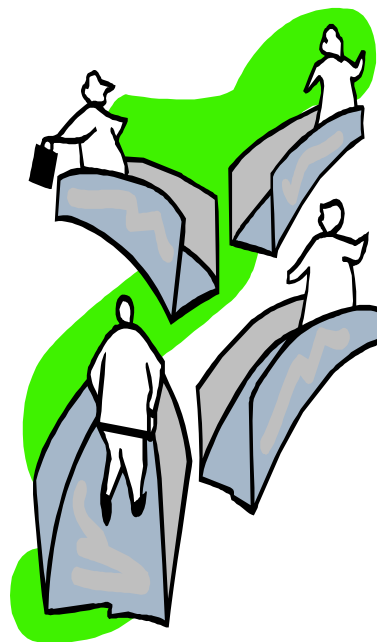
[Pottery & Glass](#) (176126)

[Sports Memorabilia](#)  
(346882)

[Toys, Bean Bag Plush](#)  
(290013)

[Miscellaneous](#) (299947)  
[all categories...](#)

# IT Used to Selectively Commoditize Products to Create Liquidity



**AUCNET**

▲ トップページへ  
▼ 株主の皆様へ

オークネットIR情報

▼ 事業者の皆様へ

中古車オークション  
バイクオークション  
花きオークション

▼ 一般の皆様へ

車の情報販売ステーション  
車の購入支援サイト  
バイクの購入支援サイト  
HENRY'S  
アンティークオークション

- ◆ 社長メッセージ
- ◆ 会社概要
- ◆ 事業紹介
- ◆ IR情報
- ◆ ニュースリリース
- ◆ 採用情報

## トピックス

2001

- ◆ 5月24日 オートバンク「ノリ乗りサマー！」キャンペーン実施！抽選で「テーマパーク・オフィシャルホテル宿泊券」100組200名様プレゼント！6月1日(金)～7月31日(火)
- ◆ 5月24日 「オートバンク佐野店」(栃木県)6月2日(土)県内3店舗目の登場！オープニングキャンペーン実施！
- ◆ 5月14日 オークネット、全国現車オークション会場のライブ中継 ネットワーク構築に向け、戦略的提携を積極展開！—TVオークション専門会社ならではの優位性を生かし、双方にメリットある提携実現へ—
- ◆ 5月7日 オークネット・アンティーク事業部「時計オークション」開催日程、特集企画決定！

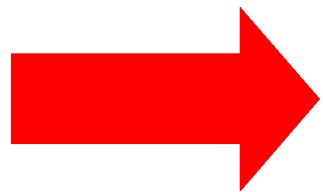
A trusted third-party made all the difference in enhancing transactability of used cars in this e-market



# IT Used for Product Rebundling

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- Natural market re-segmentation based on consumer preferences
- “Death spiral” and “adverse selection”
- Product and service, or both?



Leverage the unique capabilities of the firm with IT





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**"Best Online Brokers"** — In Money magazine's 2001 survey of online brokers, Merrill Lynch Direct ranked second overall.

**Innovation Grants Awarded** — From jet-engine-powered batteries to seaweed for a new class of antibiotics, we help bring academic research to the marketplace.

**Merrill Lynch HSBC - UK** — Merrill Lynch HSBC announced the launch of its full transactional service for U.K. private investors.

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Ask Merrill



# Add Agents to the Process

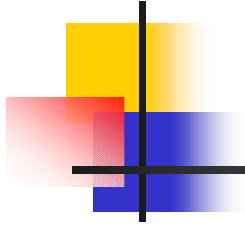
- Everything we sell is going to the Internet, where business and retail customers can easily compare prices, service
- **Ask:** Are your “agents” working for you?

**bottomdollar.com**™ The Shopping Search Engine





# III. Electronic Markets and E-Intermediation





[CLICK HERE](#)



## Weather

[View current U.S. weather.](#)

Enter Zip Code to view conditions for a specific area.

[GO](#)

[International Weather](#)

## Market News

### [Rooster Call<sup>SM</sup>](#)

05/25/2001--Some signs of heat returning to the Midwest/Plains. Will recent soybean/soymeal buyers look to take profits in front of the long weekend?

*Written by:* Duane Lowry

▶ [Previous Rooster Calls<sup>SM</sup>](#)

## Daily Feature

### [Agrinet](#)

### [The Market at Your Fingertips](#)

Monday, May 28, 2001 -- For all things market-wise, you're likely to find it here.

*Written by:* Laura Engelson, Farm Progress

▶ [Previous Daily Features](#)

## Ag News

### [WorldTrak: UN Program Aims for School Lunch](#)

Monday, May 28, 2001 -- First shipment of food headed for Kenya, Australia leans on biotech-free edge in soy market and Argentina sees itself free of foot-and-mouth disease by 2003.

*Written by:* Editors, Farm Progress

### [Decision Making in the Digital Age](#)

Monday, May 28, 2001 -- Don't let information overload delay decisions.

*Written by:* Dale McDonald, Rooster News Network

### [A Beefy Day](#)

Monday, May 28, 2001 -- Americans still like their beef -- especially this weekend. Memorial Day is the beefiest holiday of them all.

## Futures Markets

|                               | Mo | Last    | Chg |
|-------------------------------|----|---------|-----|
| <a href="#">Corn</a>          | N  | 1.912   | -   |
| <a href="#">Soybeans</a>      | N  | 4.472   | -   |
| <a href="#">Wheat</a>         | N  | 2.596   | -   |
| <a href="#">Oats</a>          | N  | 1.116   | -   |
| <a href="#">Soybean Oil</a>   | N  | 14.530  | -   |
| <a href="#">Soybean Meal</a>  | N  | 166.200 | -   |
| <a href="#">Cotton</a>        | N  | 40.550  | -   |
| <a href="#">Rough Rice</a>    | N  | 552.000 | -   |
| <a href="#">Lean Hog</a>      | M  | 66.750  | -   |
| <a href="#">Feeder Cattle</a> | Q  | 91.170  | -   |
| <a href="#">Live Cattle</a>   | M  | 73.900  | -   |
| <a href="#">Heating Oil</a>   | M  | 0.782   | -   |
| <a href="#">Propane Gas</a>   | M  | 0.510   | -   |

Click on individual commodities for more detail.

Quotes on time delayed basis and reflect Project A (night session) where appropriate.

## Rooster<sup>SM</sup> Poll

**What's your biggest frustration with your current Internet Service Provider?**

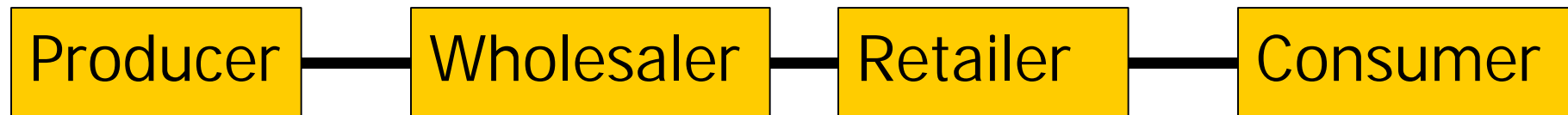
# Operational Efficiency -- An Intermediary Issue



- Reduce your costs by engaging the "right" kinds of middlemen
  - B2C: infomediaries
  - B2B: e-procurement exchanges
- Ask: How can we provide aggregation, buying power, matching and business intelligence? And more?



# Traditional Industry Value Chain -- Retail Example



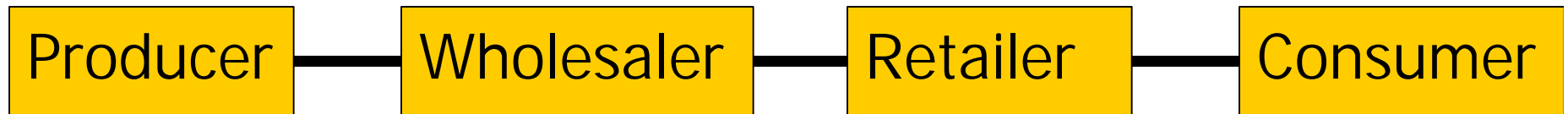
|               | Producer | Wholesaler | Retailer | Consumer* |
|---------------|----------|------------|----------|-----------|
| Value Added   | \$20.45  | \$11.36    | \$20.91  |           |
| Selling Price | \$20.45  | \$31.81    | \$52.72  | \$52.72   |

- **Ask:** Are the value chain costs acceptable?

**Note:** Example based on Benjamin, R., and Wigand, R. "Electronic Markets and Virtual Value Chains on the Information Superhighway," *Sloan Management Review*, 36, 2, Winter 1995, pp. 62-72.

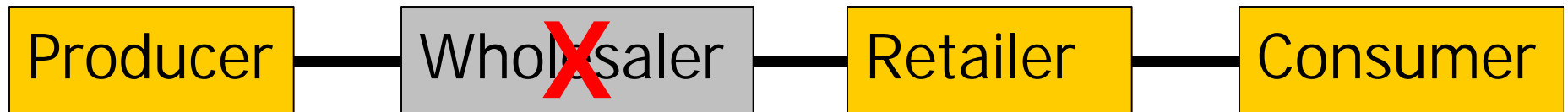
# Identify Your Alternative Industry Value Chains

## Traditional Value Chain



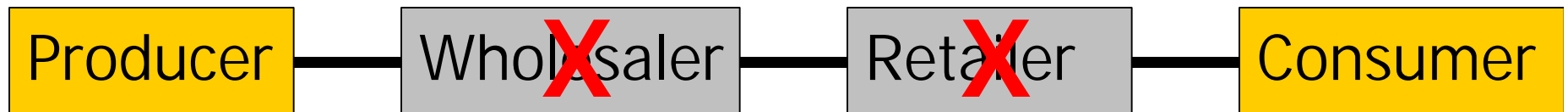
Cost: \$52.72

## Partial Value Chain Disintermediation



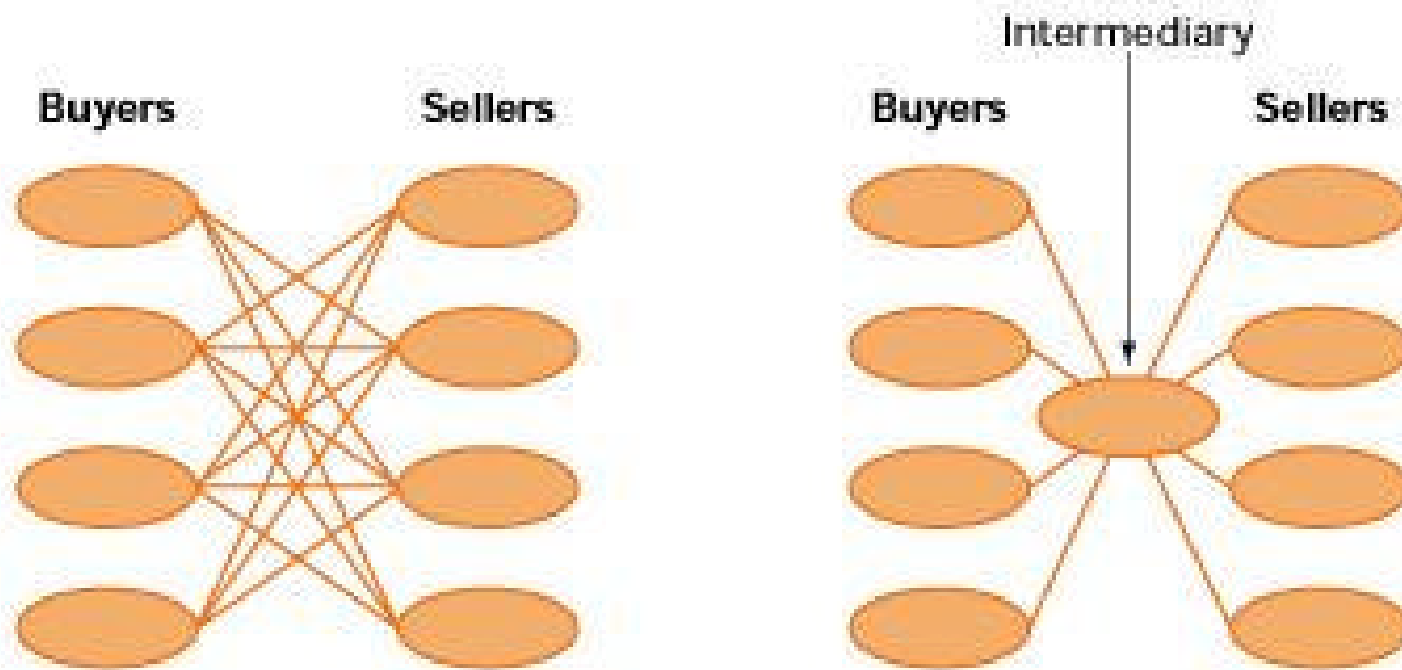
Cost: \$41.34

## Full Value Chain Disintermediation



 Cost: \$20.45

Fig.3: Models for Trade Between Buyers and Sellers



**The Direct Model**

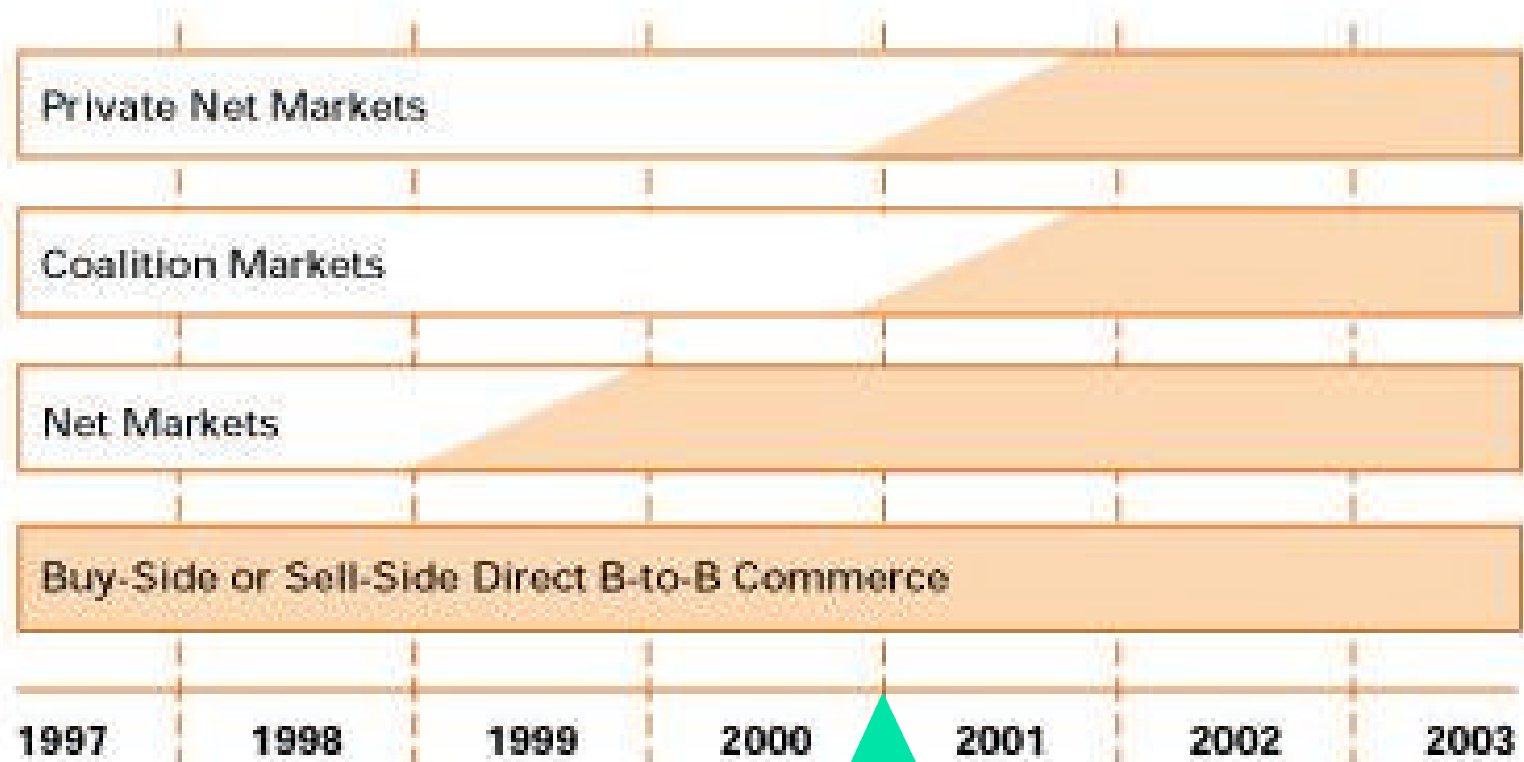
An Online Implementation of the Traditional Business Model. Buyers Deal Directly with Suppliers.

**The Net Market Model**

Leverages an Online Intermediary to Introduce the Buyer to the Seller.

**Source:** Jupiter Communications, "US Business to Business Trade Projections," September 2000.

# Models for Trade Between Buyers and Sellers, 1997-2003



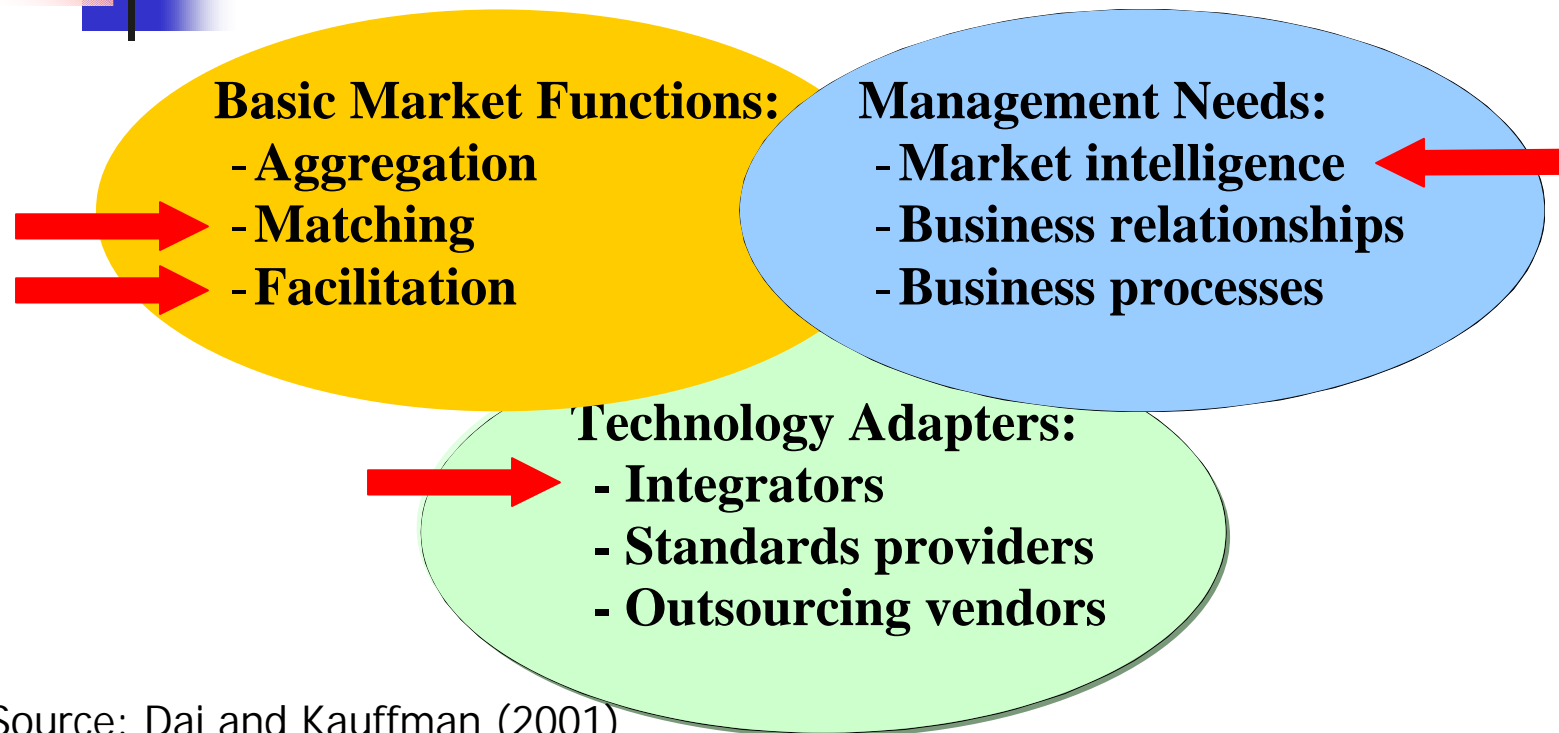
We are here

Source: Jupiter Communications, "US Business to Business Trade Projections," September 2000





# B2B Procurement Markets



Source: Dai and Kauffman (2001)

- Support market functions and mgmt requirements
- Provide technology infrastructures, business models
- Function as “technology adapters” in marketplace



# E-Market Function: Aggregation

---

- **Private**, buyer-specific e-cataloging
  - Pre-qualified suppliers
  - Prices are negotiated offline
  - System integration and connectivity is important
  - Schlumberger, Inc., and CommerceOne
- **Public**, buyer-neutral e-cataloging
  - Adopted for purchases in small lot quantities
  - Demand is of low predictability and high variety
  - Low price volatility
  - SciQuest.com

# SciQuest.com – Public E-Catalog

- SciQuest.com **aggregates** product catalogs for pharmaceutical, chemical and biotechnology industries.
- Lists 600 suppliers, and more than 1 million products.
- Buyers can search and shop among all catalogs.

Source: [www.SciQuest.com](http://www.SciQuest.com)

The screenshot displays the SciQuest.com website interface. At the top, the SciQuest.com logo is on the left, and the tagline 'The Internet Source for Scientific Products' is on the right. Below the logo, a sidebar contains a 'Sourcing Guide' with a cartoon character and text: 'If you can't find what you're looking for in our Marketplace, try our Sourcing Guide' and 'When you need personal attention locating hard-to-find products or suppliers, get expert assistance from our network of staff scientists. AskJoe can help you find what you'. The main navigation bar includes links for 'About SciQuest.com', 'Advanced Search', 'Site Map', and 'Help'. Below this, a search bar contains the text 'injector' with a 'GO' button. To the right of the search bar, there are links for 'New User? Register Now!' and 'Already Registered? Log In here!'. Below the search bar, there are radio buttons for 'Refine Search' and 'New Search'. The search results section is titled '944 total matches for injector' and displays a table with two columns: 'Category' and 'Matches'. The table lists various scientific equipment categories and their corresponding product counts.

| Category                                | Matches      | Category                                                          | Matches     |
|-----------------------------------------|--------------|-------------------------------------------------------------------|-------------|
| <a href="#">All Products</a>            | 944 products | <a href="#">Atomic Absorption Spectrophotometer Accessories</a>   | 2 products  |
| <a href="#">Autosampler Syringes</a>    | 78 products  | <a href="#">Autosampler Vial Septa</a>                            | 3 products  |
| <a href="#">Autosampler Vials</a>       | 12 products  | <a href="#">Blades</a>                                            | 5 products  |
| <a href="#">Chromatography Tools</a>    | 1 product    | <a href="#">Equipment Installation and Configuration Services</a> | 1 product   |
| <a href="#">GC Accessories</a>          | 8 products   | <a href="#">GC Capillary Accessories</a>                          | 8 products  |
| <a href="#">GC Capillary Connectors</a> | 4 products   | <a href="#">GC Capillary Fittings</a>                             | 8 products  |
| <a href="#">GC Columns</a>              | 3 products   | <a href="#">GC Detector Accessories</a>                           | 7 products  |
| <a href="#">GC Empty Columns</a>        | 22 products  | <a href="#">GC Fittings</a>                                       | 17 products |
| <a href="#">GC Injector Accessories</a> | 59 products  | <a href="#">GC Injectors</a>                                      | 68 products |
| <a href="#">GC Inlet Liners</a>         | 128 products | <a href="#">GC Packed Columns</a>                                 | 25 products |

## login

username

password

[forgot your password?](#)

## novopoint news

**April 26, 2001**

Novopoint secures second round...

[\[more\]](#)**April 17, 2001**

Novopoint selects Exodus...

welcome to  
novopoint

Novopoint is an Industry Operating System (I-OPS) that connects buyers and sellers of food and beverage ingredients and related services and gives them a one-point resource through which they can integrate and gain access to mission-critical services and information.

Companies of all sizes can take advantage of Novopoint's hosted, browser-based access to exchange critical information and conduct business over the Internet.

By reducing transactional and logistical workloads, Novopoint will enable buyers and sellers to concentrate on strengthening their strategic relationships while extracting even more value from their supply chains.



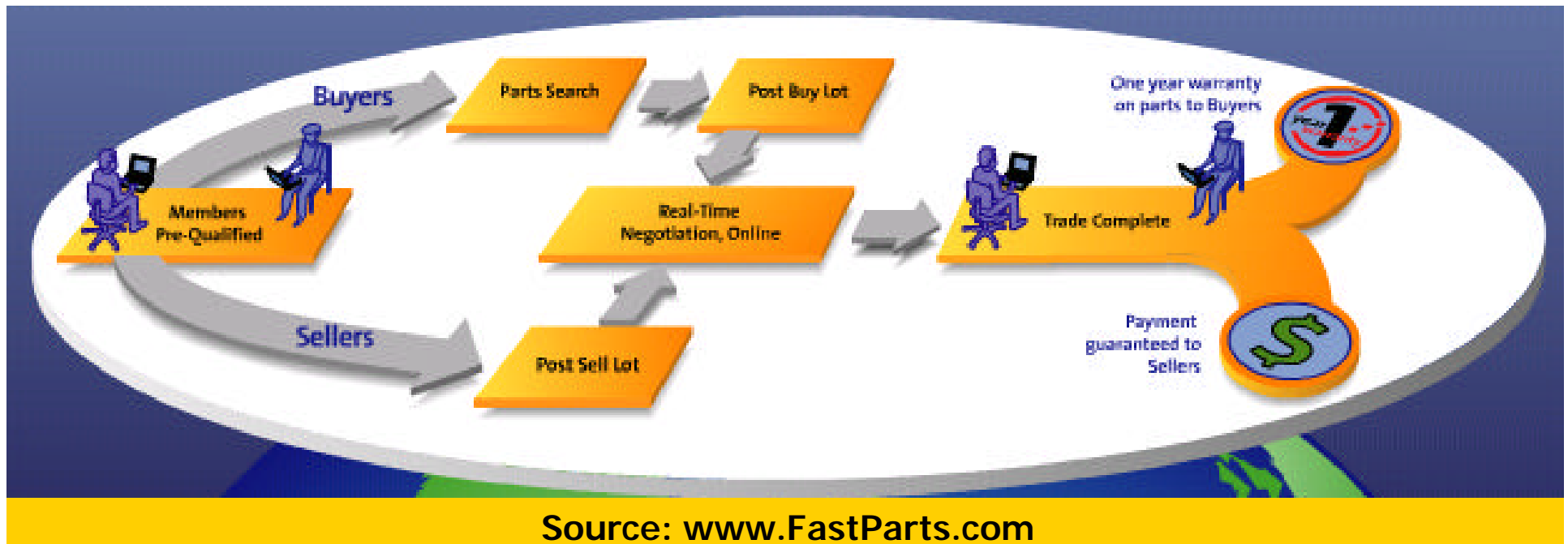
# E-Market Function: Matching

---

- **Private** negotiation mechanism
  - Preselect participants for bids
  - Used for purchasing direct goods in large quantities
  - e-Steel.com
- **Public** bidding mechanism
  - Open bids
  - Especially suitable for exchange excess capacities and inventories
  - FastParts.com

# Public Bidding: FastParts.com

- To serve procurement professionals with “**excess** inventories on cancelled jobs and inventory shortages for **unforecasted** orders”.
- In SOLD!Auction, sellers post offers to all members who bid against each other in an anonymous context.





# Dynamic Trading Processes: Pradium



## Information Request

Sign up to receive more information about the launch of Pradium's exchange and what it can do for you. Please [click here](#).

## Questions?

Call us toll free:  
**1-866-PRADIUM**  
(1-866-772-3486)

or

Email us:  
[info@pradium.com](mailto:info@pradium.com)

[Privacy Statement](#)

## The Information Resource and Marketplace

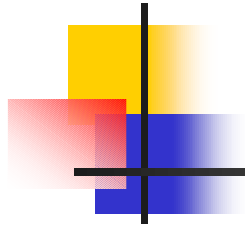
Pradium Inc. will operate an online information resource and marketplace for buyers and sellers of cash grains, oilseeds, and by-products. Best of class market information combined with our unique dynamic order-matching environment makes

**Pradium...the ultimate toolkit for agricultural commodity marketing.**

Pradium gives you the tools you need to be even more productive and competitive - streamlined news, weather, quotes, expert commentary, and virtual trading pits all in one location. Initial trading will include nine virtual trading pits devoted to trading cash corn and soybeans, as well as commodity by-products: wheat middlings, soy hulls, corn gluten feed, corn gluten meal, meat and bone meal, corn hominy, and distillers dried grains.

To be ready for the opening bell, please complete our brief [Information Request](#). We'll keep you informed of our latest announcements, send you a Pradium site demonstration CD, and let you know when trading will begin!





## E-Market Function: Facilitation

---

- **Online transaction settlement:** Net market makers are partnering with financial institutions and transportation providers to offer services for transaction settlement.
- **Procurement expertise:** General and industry-specific purchasing expertise are value-adding services provided by online markets.

# Online Financial Services

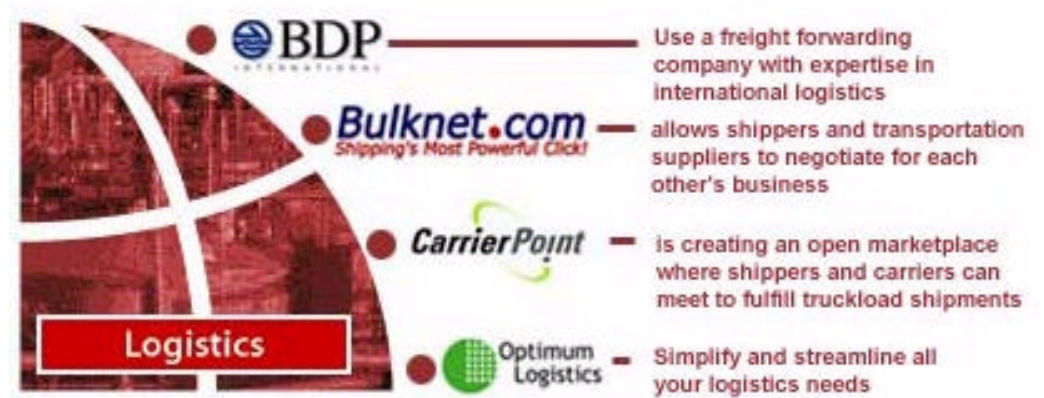
- **Internet-based financial services:** Electronic payment, electronic invoicing, credit facilities, foreign exchange, wire transfer, and automatic clearinghouse.
- **For example:** Ariba is partnering with American Express and Bank of America to develop a line of B2B online financial service

## Ariba B2B Commerce Platform



# Settlement for Delivery

- **Delivery and logistics:** Smooth information flow among multiple players in the process of delivery is the focus.
- E-markets specialized in delivery and transportation become logistics providers for other e-markets.
- **Example:** Optimum-Logistics.com is partnering with ChemConnect.com





# Expertise and Market Intelligence

---

- **Procurement expertise** is built into tools for cost calculation.
  - **Example:** An online bond market, Axess.com provides analytic and advanced modeling capabilities to help fixed income securities investors trade their portfolios
- **Market intelligence** is derived from integrated data of sales and transactions
  - **Example:** MuniCenter.com, another bond e-market, acts as an information portal for fixed income securities investors, too



MARKET AXESS the online gateway to markets

## Market Axess To Acquire trading edge, inc.

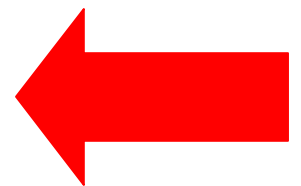
- To Add Anonymous Trading to Market Transforming Fixed-Income Platform
- 500 Institutional Investor Users, 40,000 Research Reports and More Than \$10 Billion in Inventory

Market Axess, a leading Internet-based multi-dealer research and trading platform for credit products, today announced that it will acquire [Trading Edge, Inc.](#), which owns BondLink, the premier technology for anonymous trading of fixed-income products. [\[details\]](#).

Market Axess offers one-stop shopping for new issues, trading, and research in global credit products.

We deliver the trading capabilities and insight of eight leading global securities dealers. **ABN AMRO, BANC OF AMERICA SECURITIES, BEAR STEARNS, CREDIT SUISSE FIRST BOSTON, DEUTSCHE BANK, J.P. MORGAN CHASE & CO., LEHMAN BROTHERS, and UBS WARBURG.**

Through a secure web connection, we offer institutional clients the ability to customize views of dealer new issues, inventory, and research. Clients may negotiate and trade online with our dealer partners through a single location and in a consistent format, affording straight through processing.



Expertise,  
connections



## THEMUNICENTER offers

- ③ Operational centralized b2b electronic marketplace
- ③ Customizable search functions
- ③ Completely open and flexible trading platform
- ③ Personalized on-screen trade blotter
- ③ Anonymous trading with single counter-party
- ③ Financial news and research
- ③ Live click through trading and on-screen confirmations
- ③ Professional customer help desk

Login and **TRADE NOW!**

Not Registered? **Sign Up Today!**

**Trade Now!**

Highlight the category  
that best describes the  
type of user you are. >>>

Market  
intelligence

Registered Representatives

Broker/Dealers

Institutional  
Investors

Underwriters/Issuers

## News at the Center

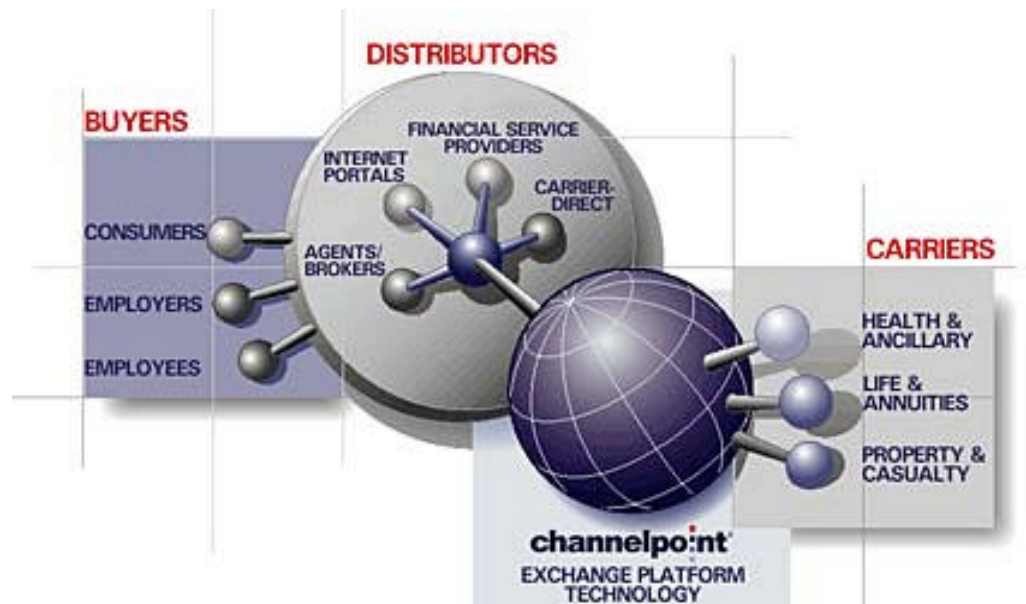
### March

- ③ Over 100 firms offering bonds.  
**offer yours now!!!**
- ③ Trade US Treasuries at  
TheGovtCenter
- ③ Industry Updates, New Issues,  
Economic Calendar at our  
**News** site
- ③ Call 1-866-MUNI-CTR with  
further questions

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# Online Business Process Support: Streamline Workflow

- **Workflow management:** In document or information-intensive industries, business models are built to streamline business processes.
- ChannelPoint  
“streamline[s] and automate[s] the insurance distribution process”







# E-Markets Function As Adapters

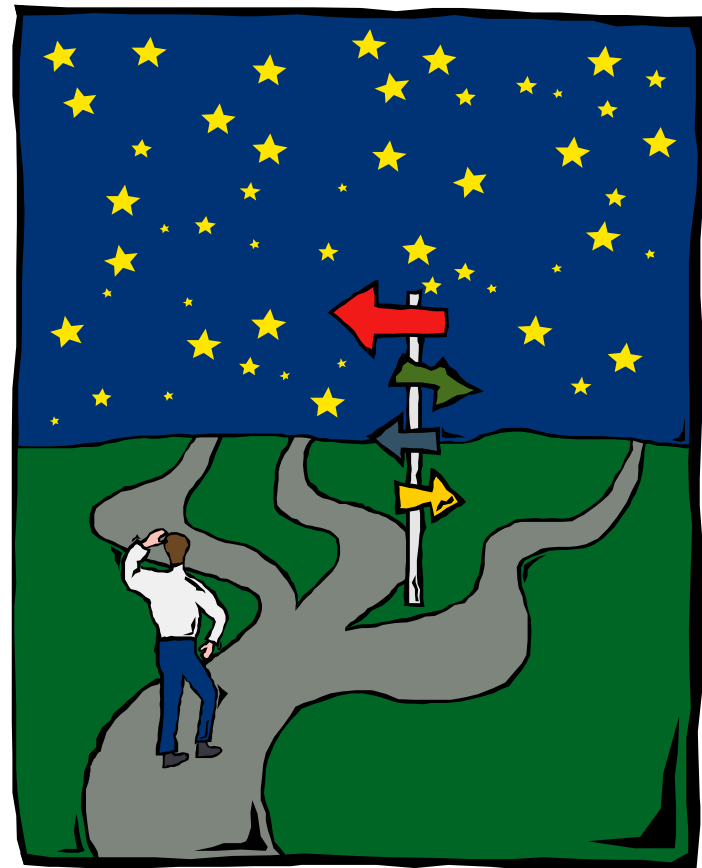
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- E-markets connect buyers and sellers; form **networks** of participating firms.
- **Network externalities** – the value of an online market increases as more firms join it, attracting further more participants.
- **Compatibility** between different technologies promotes network adoption.
- **Adapters** set up interfaces between different technologies to enable at least partial compatibility.



## IV. Firm Strategy in the Market

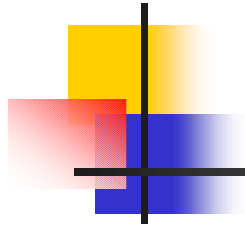
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# What You Can Do ...

- **Face it:** You may not be able to do it all on your own, if you haven't been early to market for e-business opportunities
- Partner for:
  - Content
  - Access
  - Application development
- License technology you need
- Continuously innovate





# Partner for Content

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- Figure out a way to partner with an “aggregator” for selling products and services in your industry: don’t let others do it first!
- Competitive advantage sources:
  - You can customize and brand the content
  - You can retain control over your customers’ transactions

Address  http://www.expedia.com/daily/deals/ETN\_vacation.asp



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Partnering for content at Microsoft Expedia: providing links to vacation booking engines

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## Vacation Packages

### FEATURING



Check out our great new site, now with even more fabulous vacation packages and hot specials at amazing prices! You'll find the best deals on quality air/hotel vacations to exciting destinations like Orlando, Hawaii, Mexico, Las Vegas, the Caribbean and Europe. Wherever you want to go Vacation Outlet can get you there for less!



### TravelRes Direct

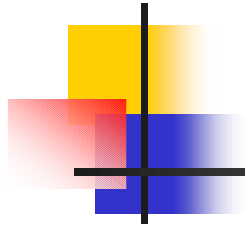
Book vacations and cruises online! Vegas from \$83 per night. 3 night Bahamas from \$174.



### Continental Airlines Vacations

Cool Vacations is the online vacation package expert for your travel needs.





# Partner for Access

---

- Work with an electronic intermediary that provides services for other agents involved in e-commerce
  - B2B portal providers
- Competitive advantage sources:
  - You can try to partner with a leading B2B portal provider with whom you or the intermediary has an exclusivity agreement



http://www.autotrader.com/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help



Back



Forward



Stop



Refresh



Home



Search



Favorites



History

Address http://www.autotrader.com/

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click here!

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Interested in  
Collector Cars, Boats,  
RV's and  
Motorcycles?

Visit our partner's sites.

**TRADER  
ONLINE**

**Collector  
Cars**



# Partner for Application Development

---

- Aggressively establish alliances with established e-commerce industry participants
- Sources of competitive advantage:
  - Gather the right combination of assets (technological and industry-specific expertise) in a way that is otherwise not possible

# Amex Travel Related Services' Recent Partnerships

- Microsoft, for online travel booking
- Portable, for expense mgmt





# License Technology

---

- Find a competent provider from which to buy the “right” technology
- Share in the profits result from transactions that are referred to you by other web sites
- Sources of competitive advantage:
  - The technology is complex enough such that it cannot be copied easily
  - No industry standards are established yet

# Technology Licensing at ITN.Com

## ITN Partner

---

### **Put The World's Most Widely Used Travel Booking System To Work On Your Web Site.**

For companies that want to offer online travel booking services on their Web sites and let ITN provide turnkey ticket fulfillment, the ITN Partner Site Program is the ideal solution.

Adding travel reservation capabilities to your Web site is a great way to attract more visitors and new business - and gives customers a good reason to return to your site more often. It can also be a source of incremental revenue generated from travel purchases and advertising placed on your ITN Partner Site booking pages.

Whether they're business travelers who need to get to their next meeting, or people just shopping for a great vacation, visitors to your ITN Partner Site will have access to more than 500 airlines, 50 car rental companies, and 33,000 hotels. ITN handles worldwide ticketing and fulfillment with full service available 24 hours a day, 7 days a week.

## ITN Products

### **[ITN Global Manager](#)**™

Used by corporations for employee travel.

### **[FlightRez](#)**™

The booking engine that lets airlines serve travelers directly.

### **[ITN Partner](#)**

**Used by third-party public Web sites to provide travel services.**

Note: ITN.com is now known as GetThere.com



# Acknowledgements

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This presentation was prepared as the keynote address for the *Workshop on E-Commerce and Agricultural Markets*, held at the Economic Research Service (ERS) of the United States Department of Agriculture in Washington, DC on May 28-29. The author offers his thanks to Professors Terry Roe and Hamid Mohtadi of the Applied Economics Department, University of Minnesota, for suggestions on the contents. He also thanks his research colleagues at the Carlson School of Management for all the encouragement they have offered over the years with my thinking and interpretation of developments in the marketplace and directions in e-commerce research.





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