

eCommerce and eLogistics

What Defines the “New Economy”

- Collapse of the learning curve
 - Knowledge as an asset
- Global markets, consumers get the best value
- Networking
- Strategic Thinking, “The Big Picture”
- Innovation and implementation
- Advanced capacity management
- “Beyond the Knowledge Worker,” Paul Romer
 - equipment
 - training
 - Systems
 - methodology

MIX

Changes to the Economy

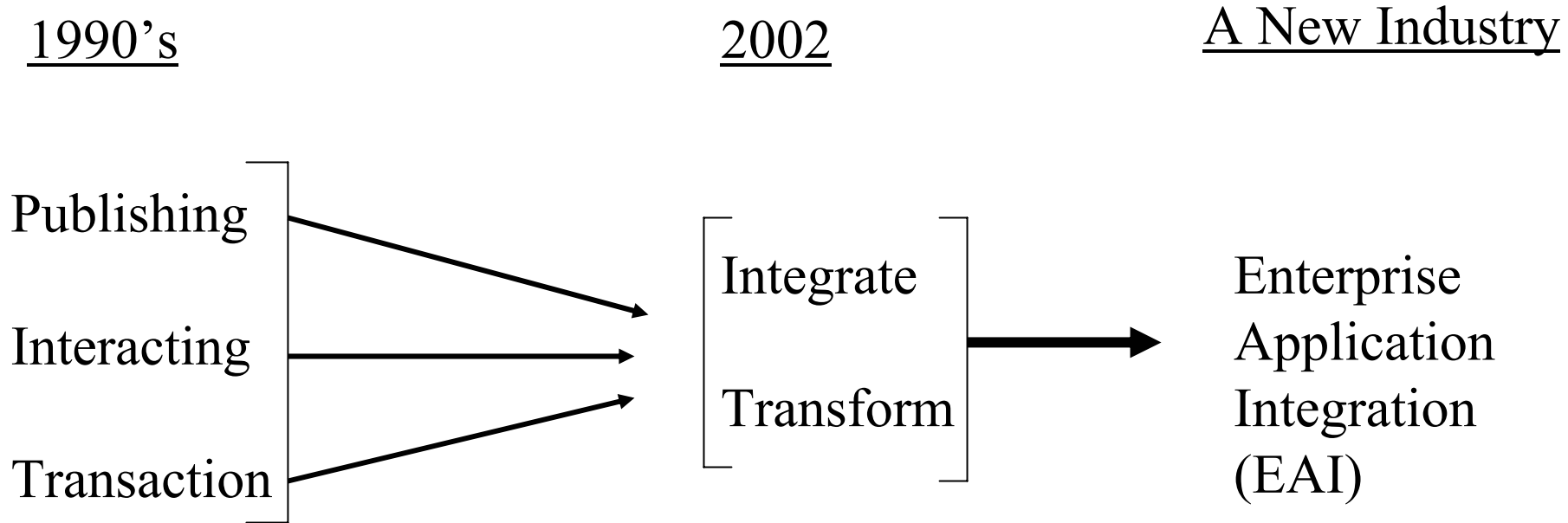
- Manufacturing...Service...Information
 - Roman roads and religion, invasion
- Deregulation, Global Monetary System, Balanced United States Budget
- Much better “sense and respond” capability
 - Order point...MRP...MRPII...JIT...ERP (and APS)
 - Logistics.com
- “New Growth Theory”
- The “Long Boom”
- Questions about the Economic Cycle
 - Finite resources vs.. free market (NYC and horses 1900)
- Information Backbone (ATT vs. Level 3 Comm.)

Remember:

“Every large company was once a small company.”

“The smaller the company the bigger the risk.”

The Basic Work of E-Commerce



Job Titles In The New Economy

- Cognitive Architect (Cognitive and Neural Sys.)
- Interaction Designer
- Data Visualization
- Visual Analyst
- Knowledge Manager
- Data Mining

New Ways of Management

- System dynamics
- Coordination Science
- Logistics thinking
- Modeling as an academic discipline

New Methods of Computation

- Parallel versus serial
- Brain versus integrated circuit
- Biological computing
- Virtual web based computing

The Pace of Change

- Manual order entry to EDI
 - Shift from 20% to 80% in 2 – 3 years
- Manual purchasing to “Exchanges”
 - 40 food manufacturers
 - 2 weeks, Price Coopers
- Gomez.com – online info. by channel
 - Autos
 - Home and garden (Furniture.com, 2d to 3d)
 - Shopping
- Project Management – WBP, Strategic Simulation Sys.
- Enron!!!!!!!!

Some Developments

- Online Grocery Delivery Business
 - 1998 \$235 million
 - 2003 \$10.8 billion
 - “Not projected to put stores out of business”
(AOL scenario?)
- High Technology Agriculture (sensing)
 - Growtech, Inc.
 - Emerge, Inc.

New Methods of Customer Service

- Customer Relationship Management
 - Aspect Communications
 - Echomail, General Interactive, Inc.
- Continuous Replenishment Systems
- Collaborative Forecasting, Planning and Replenishment (CFPR)
 - Knowledge creation through “team work”

Thinking in terms of Networks

- Static versus dynamic networks
- Simple visual representation
- Mathematical procedures for solution
- Under utilized in business problem solving

Grocery Home Delivery Shoplink

- The best business model among online grocery retailers
- Out of business
- Customer service policy the most reasonable in the business
- Ignored customer density
- No model for service, cost and density
- Ihan Chen's work at MIT

The Economics of Information

- Do we know anything about this area?

“Brains have become far more important than bricks and mortar in the post-industrial economy.”

The New Math, Barron's

- The price of information:
 - What the market can bear
 - The cost of creating information
 - **Search Cost**
- **Paul Romer and New Growth Theory**

The Value of Information (Continued)

- The Network Effect
 - Value proportional to the square of the nodes
- Sabre....\$40 mm to start...
...Sold for \$3.3 Billion
- Dell's web-based distribution system, which accounts for over 40% of sales, does not appear on the balance sheet
- Productivity:
 - Equipment
 - Training
 - Systems
 - Methodology