We are witnessing the early, turbulent days of a revolution as significant as any other in human history. A new medium of human communication is emerging -- one that may surpass the printing press, telephone, and television in its impact on our economic and social lives. Interactive multimedia and the information highway are creating a new economy based on the networking of human intelligence.

-- Donald Tapscott
The Digital Economy
The Digital Economy

- E-Commerce
  - the online exchange of value (goods, services, and/or money) within firms, between firms, between firms and their customers, and between consumers.

- Digital Economy
  - An economy that is empowered by IT, Internet and digital technologies.
  - Individuals and enterprises create wealth by applying knowledge, networked human intelligence, and effort to manufacturing, agriculture and services – Donald Tapscott

- Impact of the Digital Economy
  - New Products
  - New Business Opportunities
  - New Business Relationships

Eras of Information Technology

Organizations Learn how to get Value from Info Technology

Network Era
Micro Era
Data Processing Era

You are here.

Adapted from Nolan
IT Share of the Economy is still Growing

2002 Estimate of global population online

World Total 605.60 million
Africa 6.31 million
Asia/Pacific 187.24 million
Europe 190.91 million
Middle East 5.12 million
Canada & USA 182.67 million
Latin America 33.35 million

Compiled by: Nua Internet Surveys
http://www.nua.com/surveys/
The Digital Divide: Shifting World Trends

- World Internet subscribers: 605.60 million (September 2002)
- Top 20% of countries by income have 90% of Internet users
- 58% of Canadians and Americans have Internet access (about 30% of world Internet users)
- About 2% of Africans have Internet access
- Internet population in Asia-Pacific follows after Europe, but growth rate is the highest

Powering Growth

1. Continued Build Out of Infrastructure
2. Delivery of Digital Goods
3. Facilitation of Traditional Commerce
4. Expansion of E-Commerce for Business
Digital Goods

- Music,
- Movies
- Podcasts
- Digital art
- Software
- Training / Edu.
- Articles
- eBooks
- Certificates
- Files

Distribution Models (Peer to Peer)
Rights Management
License Management (Open Source)
Payment Mechanisms (E-Cash, Micropayments)

Electronic Payment Mechanisms

- Traditional Merchant Accounts
- Payment Aggregators
- Micropayment Mechanisms
- Encryption Schemes
Facilitation of Traditional Commerce

- Amazon, E-Bay, Google, Yahoo

Advertising
Transaction Fees / Commissions
Fixed Price
Variable Price

Cost to Process Airline Ticker Purchase

$8.00 Travel agent books, using computer reservation system

$6.00 Travel agent books direct with airline

$1.00 Customer books e-ticket direct with airline

Source: Air Transport Association of America
11/20/97
E Commerce for Business

Cost Savings/ Cost Avoidance
- Consolidated E-Purchasing
- EDI over the Internet
- Customer Service
  - Moving the Point of Service

New Revenue
- Entering new markets/selling new products

All of the Above
- Rationalizing value chains via company cooperation

Three Sources for ROI
1. Cost Savings
2. Cost Avoidance
3. New Revenue

E-Commerce Value Chain
Example: Online Healthcare Delivery

Levels of Integration and Coordination Are Necessarily Increasing

Health Content/ Pharma Medica Ins Payor Shared Identity Portal Integration Web End-User Devices
Impact on Business

- Greater specialization
- More granular business focus
- Greater emphasis on partnerships and cross company development
- Reduced time to market
- Integration technologies such as web services

_Innovative companies recognize where core value will be most effectively delivered to customers over a network_

Latest Development Technologies focus on Integration

- XML
- Web Services
- RSS Feeds
- Portal Servers
- Enterprise Service Bus
The Digital Economy is an Information and Knowledge-Based Economy

“The new source of power is not money in the hands of a few but information in the hands of many”

John Naisbitt

Greatest Value is in Leveraging Information Content

- Physical Devices
  - Smart Cards
  - RFID Tags
  - Smart cars, Smart houses,

- Metadata
  - Authorship
  - Ownership
  - Time Stamp

- Derived Data
  - Merging data sources to create additional metadata
Shifting Economics

*A greater proportion of economic value will be created by managing the bits.*

*Being Digital, Negroponte*

A Day in the Life of the Digital Consumer in the Future

- People move freely from one environment to another
- They use whatever devices are most convenient at the time
- They automatically connect using the best network available at the time based on their personal profile
- They have access to the same personalized services automatically scaled to the device and connection they are using
- They have one service provider that manages and optimizes their service and account based on their unique needs and resources.