Welcome!

David A. Marca

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July 7, 2009
e-Business Design
A Shift to Adaptability

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Disclaimers

July 7, 2009
e-Business Design
A Shift to Adaptability

Part I – Business Context

- Economic Downturn
- Evaporating Mass Market
- More Niche Marketing
- Adaptive Business Needed
e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
  ● Atomic Relationships
  ● Unbalanced Designs
  ● Balanced Designs
Outline

e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
  ● Business Profiles
  ● e-Business Profiles
  ● e-Business Shifts
Outline

**e-Business Design**

A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
Part IV – e-Business Design
  - Adaptive e-Commerce
  - Adaptive e-Broker
  - e-Barter Issues
Outline

e-Business Design
A Shift to Adaptability

Part I – Business Context

● Economic Downturn
Economic Downturn

The Economic Driver – U.S. Births

Birth Wave

References:
1, 2.
Economic Downturn

Third Wave – U.S. Peak Spending

References:
1, 2.
Economic Downturn

Peak Spending Decline → Recession

Past Peak Spending Declines

Past U.S. Recessions: 1961

References:
1, 2, 3, 4.
Economic Downturn

Peak Spending Decline \rightarrow Recession

Past Peak Spending Declines


References: 1, 2, 3, 4.
Economic Downturn

Peak Spending Decline → Recession

Past Peak Spending Declines

Past U.S. Recessions: 1991

References:
1, 2, 3, 4.

Economic Downturn

Peak Spending Decline \rightarrow Recession

References:
1, 2, 3, 4.

Past Peak Spending Declines

Past U.S. Recessions: 2001
Economic Downturn

Recessions at 2015 and 2025?

Past Peak Spending Declines

Future Peak Spending Decline?

Past U.S. Recessions

Current U.S. Recession

Future U.S. Recessions?

References:
1, 2, 3, 4.
e-Business Design
A Shift to Adaptability

Part I – Business Context

- Economic Downturn
- Evaporating Mass Market
### Evaporating Mass Market

Cut Jobs + Wait for “Recovery” ...

#### References:

5, 6, 7.

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#### U.S. Job Losses in Millions

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#### Cumulative Job Loss

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Evaporating Mass Market

Cut Jobs + Wait for “Recovery” ...

References:
5, 6, 7.

Past U.S. Recession

Spending Decline Period

U.S. Job Losses in Millions

Cumulative Job Loss

Monthly Job Loss

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Evaporating Mass Market

Cut Jobs + Wait for “Recovery” …

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5, 6, 7.

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Cumulative Job Loss

Monthly Job Loss

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e-Business Design, 20
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Past U.S. Recession


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Cumulative Job Loss

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References: 5,6,7.

U.S. Job Losses in Millions

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Past U.S. Recession

Spending Decline Period

- 1982 .................. 1965 → 1985

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Evaporating Mass Market

Cut Jobs + Wait for “Recovery” ...

References: 5, 6, 7.

U.S. Job Losses in Millions

Cumulative Job Loss

Monthly Job Loss

Past U.S. Recession

Spending Decline Period


1982 .................. 1965 → 1985
Evaporating Mass Market

Wait for “Recovery” … Sound Strategy?

References: 5, 6, 7.

U.S. Job Losses in Millions

Evaporating Mass Market

Past U.S. Recession


1982 .................. 1965 → 1985

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e-Business Design
A Shift to Adaptability

Part I – Business Context

- Economic Downturn
- Evaporating Mass Market
- More Niche Marketing
More Niche Marketing

Classic Market Profile (Pareto)

Mass Market:
- undifferentiated buyers
- roughly 20% of overall market
- 50% of overall revenue potential
- relatively easy to access.

References: 8, 9.
Mass Market:
• undifferentiated buyers
• roughly 20% of overall market
• 50% of overall revenue potential
• relatively easy to access.

Niche Markets:
• highly differentiated buyers
• roughly 80% of overall market
• 50% of overall revenue potential
• much more effort to access
More Niche Marketing

Before Internet: Mass Market Dominates

Mass Market Access:
- TV
- Print
- banners
- pop-ups

References: 8, 9.
More Niche Marketing

After Internet: Profitable Long Tail

Mass Market Access:
- TV
- Print
- banners
- pop-ups

Niche Market Access:
- e-Business can profitably access
- via an Internet portal
- example: Rhapsody.com

References: 8, 9.
Mass Market evaporates:
- decrease branding
- less “push” marketing
More Niche Marketing

Mass Market evaporates:
• decrease branding
• less “push” marketing

Niche Market Access:
• direct marketing
• search marketing
• email marketing
• online communities

References:
8, 9, 10, 11.
e-Business Design

A Shift to Adaptability

Part I – Business Context

- Economic Downturn
- Evaporating Mass Market
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- Adaptive Business Needed
Industry Span

- Services, Technology
- Academia, Government
- Goods, Materials
- Utilities, Healthcare

Industries Surveyed

• Services, Technology
• Academia, Government
• Goods, Materials
• Utilities, Healthcare

References:
12.

e-Business Technology Utilization

• Proprietary Transactional System
• Web Site / Extranet / Email
• ERP System
• Commercial Transactional System
• Public Platform
Adaptive Business Needed  

Rapid + Large Market Changes…

Decrease in Business…

- Revenue from existing customers
- Number of customers
- New business wins
- Number of products / offerings
- Product / offering prices

References:
12.
Adaptive Business Needed

...Caused by the Economic Downturn

References:
12.

Decrease in Business...

- Revenue from existing customers
- Number of customers
- New business wins
- Number of products / offerings
- Product / offering prices

Caused by…

- Rapidly decreasing economic growth
- New entrants to market / industry
- Increased demand for custom services
- Pricing by existing competition
Adaptive Business Needed

Highly Adaptive Sales Channel, plus…

Front End Requirements…

• Adapt the sales channel
• Adapt offerings to meet demand
• Create / strengthen brand
• Anywhere / anytime transactions
• More competitive pricing

References:
12.
Adaptive Business Needed

...Flexible Operations + Fast Decisions

References:
12.

Front End Requirements…

• Adapt the sales channel
• Adapt offerings to meet demand
• Create / strengthen brand
• Anywhere / anytime transactions
• More competitive pricing

Back End Requirements…

• Integrate with other technology
• Standardize / automate operations
• Adapt the supply chain
• Better / faster reports / analytics
• Decrease inventory / turns
How to Shift?

• Fixed Market
• Fixed Product
• “Push” Marketing

• Slow to Adapt
• Rigid Operations
• Slow Decision Making
How to Shift?

Intend to adapt to changing markets.

• Fixed Market
• Fixed Product
• “Push” Marketing

• Slow to Adapt
• Rigid Operations
• Slow Decision Making

• Dynamic Market
• Adjustable Product
• Niche Marketing

References:
How to Shift?

Shift the business model first.

**#1 Shift Business Model**

- Fixed Market
- Fixed Product
- "Push" Marketing
- Slow to Adapt
- Rigid Operations
- Slow Decision Making

- Dynamic Market
- Adjustable Product
- Niche Marketing

References:
How to Shift?

Design the e-Business for adaptability.

#1 Shift Business Model

- Fixed Market
- Fixed Product
- “Push” Marketing
- Slow to Adapt
- Rigid Operations
- Slow Decision Making

- Dynamic Market
- Adjustable Product
- Niche Marketing
- Fast to Adapt
- Flexible Operations
- Fast Decision Making

References:
13. Jelassi, Combe, Chaffey (strategy)
How to Shift?

Shift the e-Business design second.

#1 Shift
Business Model

• Fixed Market
• Fixed Product
• “Push” Marketing

#2 Shift
e-Business Design

• Slow to Adapt
• Rigid Operations
• Slow Decision Making

• Dynamic Market
• Adjustable Product
• Niche Marketing

• Fast to Adapt
• Flexible Operations
• Fast Decision Making

References:
13. Jelassi, Combe, Chaffey (strategy)
e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
● Atomic Relationships
## Atomic Relationships

### #1 – Control

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References:
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**Control**

Hierarchy + Rules
## Atomic Relationships #2 – Cooperation

### Control

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- Teamwork + Process

References:
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Atomic Relationships

#3 – Autonomy

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Cooperation

Control

Autonomy

References:
13.

Innovation + Skill
Atomic Relationships

Design is a Tradeoff Among All Three

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References:
13.
Outline

**e-Business Design**

A Shift to Adaptability

Part I – Business Context

Part II – Design Framework

- Atomic Relationships
- Unbalanced Designs
Unbalanced Designs

#1 – Over Prioritize One Element

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<tr>
<td>1. Overdo Top Priority</td>
<td>Cut cost + sacrifice flex, quality, learning.</td>
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U.S. Post Office: 1975 + 2009

References:
13.
Unbalanced Designs

#1 – Over Prioritize One Element

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References:
13.

People Express Airline: 1987
Unbalanced Designs

#1 – Over Prioritize One Element

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References: 13, 14.

IBM copiers unit sold to Kodak: 1988
Unbalanced Designs

#2 – Under Prioritize One Element

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<td>Cut cost + sacrifice flex, quality, learning.</td>
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<tr>
<td>2. Underdo Bottom Priority</td>
<td>No hierarchy or boundary. Deregulation.</td>
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References:
13.

U.S. railroads: 1870s
Unbalanced Designs

#2 – Under Prioritize One Element

- Cause
  1. Overdo Top Priority
  2. Underdo Bottom Priority

- Control
  2. No hierarchy or boundary. Deregulation.

- Cooperation
  1. Consensus decisions. No structure.
  2. No teamwork. No projects.

References:
13.

C-level groupthink, bad customer service
Unbalanced Designs

#2 – Under Prioritize One Element

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References:
13.

1st PC firms: Osborne, GM Research
### Unbalanced Designs #3 – Set No Priorities

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<th>Autonomy</th>
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References:
13.

Stopped matrix management: HP, AT&T
Outline

e-Business Design
A Shift to Adaptability

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Balanced Designs

#1 – Control Bias

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<td>Control</td>
<td>Vertical Functional Franchise</td>
<td>Humanistic hierarchy</td>
<td>Division</td>
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Examples:
- Manufacturing ............ High Tech
- Process Engineering ... Control Systems
- Auditing .................. Financial Firms

McDonald’s (fast “food”)

References:
13.
Balanced Designs

#2 – Cooperation Bias

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<th>Bias</th>
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<th>Autonomy</th>
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<tbody>
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<td>Control</td>
<td>Vertical Functional Franchise</td>
<td>Humanistic hierarchy</td>
<td>Division</td>
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<td>Cooperation</td>
<td>Humanistic hierarchy</td>
<td>Team-based Process-based Project-based</td>
<td>Hybrid teams</td>
</tr>
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</table>

Examples:
- Applied R&D ......... Auto Supply Chain
- Marketing ............ “Marcom” Firms
- Human Resources ... Staffing Industry

Starrett (gauges and screws)

References:
13.

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e-Business Design, 60
Balanced Designs

#3 – Autonomy Bias

<table>
<thead>
<tr>
<th>Bias</th>
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<td>Division</td>
<td>Hybrid teams</td>
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Examples:
- Basic R&D ............... Pharmaceuticals
- Sales .................. Common Brands
- Commodities ........... Agribusiness
- Genzyme (disease therapy)
Outline

e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
  ● Business Profiles
Control Bias – Traditional Sell–Buy

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<td>Directives</td>
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<td>Steep</td>
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<td>Operation……</td>
<td>Programmed</td>
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<td>Data Flow……</td>
<td>Sequential</td>
</tr>
<tr>
<td>Rewards……</td>
<td>Hierarchic</td>
</tr>
<tr>
<td>Meetings……</td>
<td>Managed</td>
</tr>
<tr>
<td>Decisions……</td>
<td>Mandated</td>
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Examples:
- Manufacturing ………… High Tech
- Process Engineering … Control Systems
- Auditing ……………….. Financial Firms
- Cisco (network technologies)

References: 13, 15
Cooperation Bias – Deliver Services

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<th>Control</th>
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<td>Flat</td>
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<td>Data Flow……</td>
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<td>Mutual</td>
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<td>Decisions……</td>
<td>Mandated</td>
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</table>

Examples:
- Applied R&D ……… Auto Supply Chain
- Marketing ………….. “Marcom” Firms
- Human Resources … Staffing Industry

Brady (marketing and communications)
Business Profiles

Autonomy Bias – Customer Focus

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<td>Mutual</td>
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<td>Decisions……</td>
<td>Mandated</td>
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</table>

Examples:
- Basic R&D ............... Pharmaceuticals
- Sales .................... Common Brands
- Commodities ............ Agra Business
- Schlumberger, Bruker (instrumentation)

References: 13.
e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
  ● Business Profiles
  ● e-Business Profiles
e-Business Profiles

Control Bias – Sell to Mass Market

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<td>Market</td>
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<td>Atomic Model</td>
<td>B2B/B2C</td>
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<tr>
<td>Solution</td>
<td>Product</td>
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<tr>
<td>Features</td>
<td>Standard</td>
</tr>
<tr>
<td>Delivery</td>
<td>Portal</td>
</tr>
<tr>
<td>Information</td>
<td>Workflow</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Client-Server</td>
</tr>
<tr>
<td>Integration</td>
<td>Constrained</td>
</tr>
</tbody>
</table>

Examples:
- Mass Market ........ Amazon.com
- Standard Product .... Zappos.com
- Cross Sell ............ Continental Air
- Target.com (clothing, household items)
e-Business Profiles

Cooperation Bias – Broker Services

References:
13,16,17,18,19.

Closest Examples:
- Broker Services ...... Mortgage.com
- Intelligent Agent ...... SORMA
- Social Network ...... Dooce.com
- Priceline.com (discount travel)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Control</th>
<th>Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic</td>
<td>Commerce</td>
<td>Broker</td>
</tr>
<tr>
<td>Market</td>
<td>Mass</td>
<td>Niche</td>
</tr>
<tr>
<td>Solution</td>
<td>Product</td>
<td>Services</td>
</tr>
<tr>
<td>Features</td>
<td>Standard</td>
<td>Configured</td>
</tr>
<tr>
<td>Delivery</td>
<td>Portal</td>
<td>Agent</td>
</tr>
<tr>
<td>Information</td>
<td>Workflow</td>
<td>Network</td>
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<tr>
<td>Infrastructure</td>
<td>Client-Server</td>
<td>Grid/Cloud</td>
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<tr>
<td>Integration</td>
<td>Constrained</td>
<td>Standard</td>
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**Autonomy Bias – Barter + Exchange**

<table>
<thead>
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<td>Information…..</td>
<td>Workflow</td>
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<td>Client-Server</td>
<td>Grid/Cloud</td>
<td>P2P</td>
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<td>Integration………</td>
<td>Constrained</td>
<td>Standard</td>
<td>None</td>
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</table>

**Closest Examples:**
- Exchange ............ eBay.com
- e-Money ............. PayPal, Visa Cash
- Recommender ........ eBay, Amazon

**References:**
- Gruen, et. al. 2005 (MOA theory)
Outline

e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design

• Business Profiles
• e-Business Profiles
• e-Business Shifts
**e-Business Shifts**

**e-Commerce: More Balance**

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<td>Trigger</td>
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<td>1995</td>
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<td>Scope</td>
<td>Macro</td>
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<td>Majority</td>
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<tr>
<td>Intent</td>
<td>Nice to Have</td>
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<td>Model</td>
<td>Statistical</td>
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<td>Platform</td>
<td>Computer</td>
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<td>Enabler</td>
<td>Multi-Media</td>
</tr>
<tr>
<td>Connection</td>
<td>Network</td>
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**Examples:**
- C2C Forum .......... c2c Rail Info (UK)
- Personalization .... Dell (corp clients)
- Whole Solution ....... Continental Air

**Examples:**
- BuyBookShop.com (buyer forum)
e-Business Shifts

References:
13,25,26,27.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Control</th>
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<tr>
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<td>1995</td>
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<td>Macro/Micro</td>
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<td>Group/Swarm</td>
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<td>SOA</td>
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<tr>
<td>Connection………</td>
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Closest Examples:
- Web Services …….. Amazon suite
- Intelligent Agent …….. e-Negotiation
- Social Network …….. Dooce.com

Watson: CauseWired (virtual coalition)
e-Business Shifts

References: 13, 28, 29, 30, 31.

Closest Examples:
- Exchange: Craig’s List, eBay
- e-Money: PayPal, TimeBank
- Recommender: eBay, Amazon

TimeBanks.org

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e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
Part IV – e-Business Design
- Adaptive e-Commerce
## Adaptive e-Commerce

### Sell-Buy Portal (Zappos.com)

<table>
<thead>
<tr>
<th>INTERNET</th>
<th>EXTRANET</th>
<th>INTRANET</th>
<th>INFORMATION</th>
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<td>Customers buy direct (B2C)</td>
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<td>Transaction Database</td>
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References:
24.
Adaptive e-Commerce


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<th>INTERNET</th>
<th>EXTRANET</th>
<th>INTRANET</th>
<th>INFORMATION</th>
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</thead>
</table>

Customers talk before they buy (C2C)

Customers buy direct (B2C)

Personalized buying (B2C)

Transaction Database

References:
16, 25, 32, 33, 34, 35, 36, 37, 38, 39.
### Adaptive e-Commerce

<table>
<thead>
<tr>
<th>INTERNET</th>
<th>EXTRANET</th>
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<td>Personalized buying (B2C)</td>
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<tr>
<td>Sales Partners + Suppliers (B2B)</td>
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<td>Transaction Database</td>
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</table>

References: 16, 25, 40.

(Booz - Allen - Hamilton, 2007)
Adaptive e-Commerce

“Open” CRM (SalesLogix, 2000)

INTERNET

EXTRANET

INTRANET

INFORMATION

Customers talk before they buy (C2C)

Customers buy direct (B2C)

Personalized buying (B2C)

Sales Partners + Suppliers (B2B)

Employees service partners directly

Employees service customers directly

Transaction Database

Customer Analytics

Customer Database

All employees see all customers
Adaptive e-Commerce

Management Decision (SEI Smart Grid)

**INTERNET**
- Customers talk before they buy (C2C)
- Customers buy direct (B2C)
- Personalized buying (B2C)

**EXTRANET**
- Sales Partners + Suppliers (B2B)
- Employees service partners directly

**INTRANET**
- Employees service customers directly
- All employees see all customers
- Management decision making

**INFORMATION**
- Decision Database
- Product Analytics
- Transaction Database
- Customer Analytics
- Customer Database

References:
25, 40.
e-Business Design

A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
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Part IV – e-Business Design

- Adaptive e-Commerce
- Adaptive e-Broker
## Adaptive e-Broker

### Conversation Develops (Dooce.com)

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<tr>
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<th>EXTRANET</th>
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<th>INFORMATION</th>
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Social Network Conversation Point (C2C)

References: 25.
## Adaptive e-Broker

### Like-Minded People (MySpace.com)

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<th>INTERNET</th>
<th>EXTRANET</th>
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<th>INFORMATION</th>
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<td>Dynamic Niche Market Formation</td>
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References: 25, 42, 43.
### Adaptive e-Broker

#### Broker Agent (Mok + Sundarraj, 2007)

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</table>

References: 25, 44, 45, 46.
Adaptive e-Broker

Negotiate Value (Priceline.com)

**INTERNET**

- Social Network Conversation Point (C2C)
- Dynamic Niche Market Formation
- Electronic Broker (C2B)

**EXTRANET**

- Product Function, Feature, Price

**INTRANET**

- Sales Partners + Suppliers (B2B)

**INFORMATION**

- Transaction Database

References:
25, 40.

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Adaptive e-Broker

Dynamic Learning (Araman, 2005) ...

<table>
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<td>Employees become niche market experts</td>
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<td>Sales Partners + Suppliers (B2B)</td>
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<td>Employees service partners directly</td>
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<td>Product Function, Feature, Price</td>
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References: 25, 40.
Adaptive e-Broker

INTERNET

Social Network Conversation Point (C2C)

Dynamic Niche Market Formation

Electronic Broker (C2B)

EXTRANET

Management decision making

Product Function, Feature, Price

Sales Partners + Suppliers (B2B)

Employees service partners directly

Employees become niche market experts

INTRANET

All employees see all negotiations

INFORMATION

Decision Database

Product Analytics

Transaction Database

Customer Analytics

Customer Database

References: 25, 40.

Electronic Broker (C2B)

Management decision making

Social Network Conversation Point (C2C)

Decision Database

Product Analytics

Transaction Database

Customer Analytics

Customer Database

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Product Function, Feature, Price

Sales Partners + Suppliers (B2B)

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All employees see all negotiations

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… Including Management (Li, 2008)
e-Business Design

A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
Part IV – e-Business Design
  ● Adaptive e-Commerce
  ● Adaptive e-Broker
  ● e-Barter Issues
Adaptive e-Broker

Economic Forces (farmer’s market)

Transact within Local Community
Adaptive e-Broker

Markets Forces (Pouwelse, P2P Barter)

References:
25.

- Transact within Local Community
- Need For Sustenance
- Need For Sustenance
Adaptive e-Broker

Partner Matching (CLAAS Logistics, 2007)

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Need For Sustenance

Electronic Barter (C2C)

References:
25.

Need For Sustenance

Electronic Barter (C2C)

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Adaptive e-Broker

Trade $\rightarrow$ Trust (Ahuja 2000, Erez 2001)

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Trade Outcomes

Need For Sustenance

Electronic Barter (C2C)

Trade Outcomes

References:
25.
Adaptive e-Broker

Fair Trading (MommySavers.com)

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

References:
25.

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes
Adaptive e-Broker

Reciprocal Exchange (Stoddard, 2000)

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

References:
25.
Adaptive e-Broker

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

e-Credit

References:
25.

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Adaptive e-Broker

Privacy Loss (Kraus + Grosz, 2007)

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

e-Credit

Community Dialog about Members

References:
25.
Adaptive e-Broker

Gossip + Repudiation (Onieva, 2008)

INTERNET

Transact within Local Community

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

Need For Sustenance

Electronic Barter (C2C)

Trade Rules

Trade Outcomes

e-Credit

Community Dialog about Members

References:
25.
Outline

e-Business Design
A Shift to Adaptability

Part I – Business Context
Part II – Design Framework
Part III – Business Design
Part IV – e-Business Design
Summary
Summary

**e-Business Design**
A Shift to Adaptability

**NOW**
Electronic Commerce

**SOON?**
Electronic Broker
Summary

e-Business Design
A Shift to Adaptability

NOW

Electronic Commerce
Triggered by Internet
Mass Market Dominance

SOON?

Electronic Broker
Triggered by Spending
Niche Market Dominance
## Summary

### e-Business Design

A Shift to Adaptability

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Thank you!

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References

References