Beyond the New Normal
How Retailers Can Thrive in a Rapidly Changing World

Cisco Internet Business Solutions Group (IBSG)
Jon Stine
May 2011
Agenda

1. Inflection points and market transitions
2. The personal technology revolution
3. When inflection points, market transitions, and new technologies intersect
4. Influence of the age wave
5. What it all means: four implications for retailers
6. Achieving success in a rapidly changing world

Source: Cisco IBSG, 2011
1 Inflection Points and Market Transitions
When the Rules Change

Only the Paranoid Survive

“An inflection point occurs when the old strategic picture dissolves and gives way to the new.”

―An inflection point occurs when the old strategic picture dissolves and gives way to the new.‖
―Focus on market transitions, not competition.‖

Andrew Grove, Former Intel Chairman

John Chambers, Cisco Chairman, CEO

Inflection points and market transitions create new winners and new losers

Source: Cisco IBSG, 2011
How the Transistor Created Rock ‘n’ Roll

Moore’s Law Drives Down Prices

Regency TR-1: 4 transistors, 1954

Teens can afford their own radios

First transistor

Rock ‘n’ roll explosion

Teens listen to music almost anywhere

First Apple iPod: “1,000 songs in your pocket” for $400

Tween sensation Justin Bieber: more than 533M YouTube views of “Baby” video

Mobility Leads to Personal Independence

Sources: Cisco IBSG, 2011; Wikipedia, 2011; YouTube, March 2011
Moore’s Law: The number of transistors that can be placed inexpensively on an integrated circuit doubles approximately every two years.

Sources: Intel, 2010; Wikipedia, 2011; Cisco IBSG, 2011
The human brain has the raw computational power of 100 trillion operations per second, and memory capacity of about 2.5 petabytes.

Sources: Hans Morovec, Robotics Institute, Carnegie Mellon University; Northwestern University; Cisco IBSG, 2011
The Coming Data Flood

Challenge for Retailers: Management and Analysis

- 1 exabyte = $10^{18}$ or 1,000,000,000,000,000,000 bytes
- All words ever spoken by human beings up to 1999 could be stored in approximately 5 exabytes of data

Source: Cisco IBSG, 2011; Human Productivity Lab, 2010
The Internet of Things Is Already Here

<table>
<thead>
<tr>
<th>World Population</th>
<th>Connected Devices</th>
<th>Connected Devices Per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3 Billion</td>
<td>500 Million</td>
<td>0.08</td>
</tr>
<tr>
<td>6.8 Billion</td>
<td>12.5 Billion</td>
<td>1.84</td>
</tr>
<tr>
<td>7.2 Billion</td>
<td>25 Billion</td>
<td>3.47</td>
</tr>
<tr>
<td>7.6 Billion</td>
<td>50 Billion</td>
<td>6.58</td>
</tr>
</tbody>
</table>

Sources: Cisco IBSG, 2011; Forrester Research, 2003; U.S. Census Bureau, 2010
The Ever-Increasing Pace of Innovation

Time Required To Reach an Audience of 50 Million

- Radio: 38 years
- Television: 15 years
- World Wide Web: 4 years
- Facebook: 2 years
- Twitter: 1 year

What's next?

Source: The Economist, 2010
The Personal Technology Revolution
The Ubiquitous Internet Is Changing Consumer Expectations

Everywhere and Normal

- 1.96B Internet users worldwide (June 2010)
- 294B emails sent daily by 1.9B users
- Google: 34K searches per second; 121M per minute; 3B per day
- 79% of U.S. adults use Internet daily (95% for 18- to 29-year-olds)
- 79% of female Internet users research products online
- 21% of adults search for product information online on a typical day
- 17% of U.S. couples married last year met online

Implications

- A normative part of daily life
- Reshaped expectations
- Smartphones bring Internet everywhere

Sources: Internet World Stats, 2011; Radicati Group, 2011; comScore, 2010; searchengineland.com, 2011; Pew Research, 2010; Match.com, 2010
E-Commerce Is Changing Competition, Real Estate, and the Customer Journey

No Slowdown in Sight

- Global e-commerce to grow 19% in 2011
- 184M U.S. online shoppers in 2011
  - 76% of U.S. Internet population
  - $204B revenue forecast for 2011 (+13% from 2010)
- Amazon writing the rules:
  - 85.1M unique views per month, Q4 2010
    (83% more than No. 2 Walmart; up 22% vs. 2009)
- E-commerce is 7% of all U.S. retail sales:
  - Computer products: 50%
  - Consumer electronics: 15–25%
  - Baby products, jewelry, apparel / footwear >10%

Sources: JPMorgan Chase, 2011; U.S. Department of Commerce, 2011; comScore, 2011; National Retail Federation, 2010

Implications

- Reassess overall store strategy
  - Fewer, different stores?
- Global expansion of e-commerce?

The Omni-Channel Future
The Smartphone Is Changing Where and How the Internet Impacts Retail

Personal Smart Technology

- More smartphones than PCs sold in 2011
- Smartphones: >50% of U.S. HH’s in 2013
- 40% of smartphone users compared prices via mobile device while in store
- >40% of top e-commerce sites provide product information via mobile.com
- U.S. mobile commerce: $28.7B by 2015

Implications

- Smartphone: the central, essential personal device
- With 3G/4G/LTE, Internet access is everywhere
  - Including store aisles

Sources: Consumer Electronics Association, January 2011; eMarketer, January 2011; comScore, February 2011; Cisco IBSG Economics & Research Practice, 2009; Cisco IBSG Global Mobility Study, 2009; Forrester Research, 2009
The Internet Is Invading Stores: Showrooms for Amazon?

<table>
<thead>
<tr>
<th>Mobile Internet</th>
<th>Location-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>iPhone users do...</strong></td>
<td><strong>48% of smartphone owners have shopped using a mobile device</strong></td>
</tr>
<tr>
<td>▪ 4.3 times more web search</td>
<td>▪ 40% compare pricing in stores</td>
</tr>
<tr>
<td>▪ 4.1 times more social networking</td>
<td>▪ 28% have purchased</td>
</tr>
<tr>
<td>▪ 3.2 times more instant messaging</td>
<td></td>
</tr>
<tr>
<td>...than average mobile users</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Desktop Internet</th>
<th>Invasion by Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Morgan Stanley estimate:</strong></td>
<td><strong>Bar code + camera + web access + GPS = lowest price, closest location</strong></td>
</tr>
<tr>
<td>▪ By 2014, there will be more mobile Internet users than desktop Internet users</td>
<td>▪ ShopSavvy: 7 million users, 20 million SKUs</td>
</tr>
</tbody>
</table>

**Sources:** Morgan Stanley, April 2010; ShopSavvy, January 2011; comScore, February 2011; In-Stat, November 2010

**Smartphones:**
30% of all phones, 2011
46% of all phones, 2015
Social Networking Is Changing the Spheres (and Reach) of Brand Influence

A Communications Revolution

- Facebook “3rd-largest country in world”
  - 600M unique visitors (year-end 2010)
  - 68% of users check at least once per day
  - >50% of U.S. online shoppers frequent Facebook; 61% “friend” 5 or fewer brands
  - 60M status updates posted daily
  - 20M videos uploaded per month
- 50 million+ Groupon subscribers
- 22 million Groupons sold in North America
- 64M tweets per day (June 2010)
- >9M Twitter followers of Lady Gaga

Implications

- It’s where the daily eyeballs are
- Social network “mavens,” “connectors” shape attitudes well before brand advertising
- It’s more than a page—it’s how the brand develops a relationship

Sources: Impact Lab, 2011; eMarketer, June 2010; Facebook, 2010; Abelavista, 2011; comScore, 2009; Retail Customer Experience, 2010; MTV U.K., 2011
Internet-Based Video Is Changing Consumer Behavior

A Communications Revolution

- 1.2B videos viewed daily on YouTube
- 2 times the prime-time audience of ABC, CBS, NBC combined
- 78% of U.S. 12- to 17-year-olds now stream/download video (92% by 2015)
- >533M views of Justin Bieber’s “Baby”
  – More than 3,754 human years
- YouTube Mobile: >100M daily views
- “United Breaks Guitars”: >10.3M views
- 85% of Internet users view online video

Implications

- It’s where the eyeballs are
- New content forms
- Democratized content

Sources: YouTube, April 25, 2011; comScore, 2010 and 2011; Viral Blog, May 2010; Impact Lab, March 2011; YouTube, 2010; eMarketer, March 2011
3 When Inflection Points, Market Transitions, and New Technologies Intersect
The Tablet: A Plethora of Digital Content on a Single, User-Friendly Device

Source: Cisco IBSG, 2011
IPTV: The iPad for Your Wall

Broadcast TV

Satellite / Cable TV

Internet TV

Late 1920s

1970s

2010

Source: Cisco IBSG, 2011
Augmented Reality: A New Way to See

Mashing Up the Physical and Virtual Worlds

IKEA’s Augmented Reality Mobile Phone Application

Sources: IKEA, 2009; L’Oréal, 2010; Encyclopedia.com, 2011
Mobile Payments: The Digital Wallet Becomes a Reality

Tap and Go

- Range: 1.5 inches or less
- No Bluetooth “pairing”
- Connects in 1/10th of a second

Now

- Card emulation (like a contactless card)
- RFID reads
- Device-to-device

Tomorrow

- Mobile payments
- Mobile ticketing
- Smart posters
- Electronics

Example: ePort Connect

- Mobile cashless payment system
- Supports Nokia, Samsung, LG, Motorola, Android, iPhone
- Current trials in Europe, North America, China, India, South Asia, Japan, Latin America, and the Middle East

Source: USA Technologies, 2011
Influence of the Age Wave
For Millennials, It’s About Friends, Interaction, and the Digital Life

The Millennial Generation

- 12% larger than baby-boomer population by 2015
- 2.2M millennial households will earn >$100,000 per year by 2015
- Most ethnically diverse group in history
- Spend 30% less time reading newspapers / magazines than 28- to 40-year-olds
- Highest ownership of personal technology
  - >50% laptop ownership
- Already number-one U.S. retail employee demographic

2015 Age Pyramid

Implication:
- Their norms become **the** norm

Sources: U.S. Census Bureau, 2010; Cisco IBSG, 2011; Grown Up Digital, 2008; Forrester, 2008-2009

They’ve always had computers
5 What It All Means
Four Implications for Retailers

1. Exceed new customer expectations
2. Utilize the most valuable real estate in retail
3. Create the omni-channel future
4. Build “mashops” that combine physical and virtual worlds

Source: Cisco IBSG, 2011
Implication 1: Exceed New Consumer Expectations

Retail Brands Must Meet and Exceed the Experience Expectations of Internet-Shaped Consumers

- **Finding:** Thousands of responses
- **Speed:** In a broadband instant
- **Control:** Time-shifted
- **Abundance:** Endless availability / selection
- **Interaction:** Equal parts consumer / creator
- **Community:** Peer advice most important
- **Transparency:** All relevant knowledge accessible

### Implication 2: Utilize the Most Valuable Real Estate in Retail

#### The Six-Screen Life: High-Value Square Footage Now Measured in Centimeters

<table>
<thead>
<tr>
<th></th>
<th>Mobile</th>
<th>Home</th>
<th>Computing</th>
<th>Media</th>
<th>Public</th>
<th>Dashboard</th>
</tr>
</thead>
</table>

Source: Cisco IBSG, 2011
### Implication 3: Create the Omni-Channel Future

#### Now: Disparate Channels

<table>
<thead>
<tr>
<th>Store</th>
<th>Data</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Product</td>
<td>- Merch.</td>
</tr>
<tr>
<td></td>
<td>- Inventory</td>
<td>- Operations</td>
</tr>
<tr>
<td></td>
<td>- Customer</td>
<td>- Fulfillment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E-Commerce</th>
<th>Data</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Product</td>
<td>- Merch.</td>
</tr>
<tr>
<td></td>
<td>- Inventory</td>
<td>- Operations</td>
</tr>
<tr>
<td></td>
<td>- Customer</td>
<td>- Fulfillment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M-Commerce</th>
<th>Data</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Product</td>
<td>- Merch.</td>
</tr>
<tr>
<td></td>
<td>- Inventory</td>
<td>- Operations</td>
</tr>
<tr>
<td></td>
<td>- Customer</td>
<td>- Fulfillment</td>
</tr>
</tbody>
</table>

#### Next: Omni-Channel Shoppers

**Retailer Brand**

<table>
<thead>
<tr>
<th>Data</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Product</td>
<td>- Merch.</td>
</tr>
<tr>
<td>- Inventory</td>
<td>- Operations</td>
</tr>
<tr>
<td>- Customer</td>
<td>- Fulfillment</td>
</tr>
</tbody>
</table>

- Single source of customer “truth”
- Data anytime, anywhere, any device
- Any SKU, any site

Source: Retail Systems Research, 2011
Implication 4: Build “Mashops” that Combine Physical and Virtual Worlds

Physical (stores) + Virtual (web) = “Mashop”

- Physical availability
- See, touch, smell
- Try it, use it
- Human interaction

- Peer reviews / ratings
- Feature and functionality comparisons
- Price comparisons
- Detailed product information, specifications, videos
- Recommendations

Source: Cisco IBSG, 2011
Mashop Experiences Empower Shoppers in Your Store

Leading Retailers Testing Mashops

Best Buy Connected Store

John Lewis (U.K.)

Home Improvement Retailer

Ideas in Test or Development

- Personalized product offers
- Shelf-edge access to deep, net-like knowledge
- Virtual expert adviser
- One-click mobile payments
- Multi-touchpoint social media customer care

Sources: Best Buy, 2010; John Lewis, 2010; Cisco IBSG, 2011
Achieving Success in a Rapidly Changing World
# Cisco’s Guide to Winning Amidst Retail’s New Rules

<table>
<thead>
<tr>
<th>Past Orthodoxy</th>
<th>New Playbook</th>
</tr>
</thead>
</table>
| - Multichannel: separate channels, prices, product delivery, internal compensation | - Store is a living website  
- Website is a virtual store |
| - Knowledge: product / price / benefit | - Expertise: context, usage, ecosystem |
| - Retailer of physical SKUs: win on merchandising momentum, wide assortment, high traffic | - Retailer of expertise-SKU bundles: win on conversion of customers with products of integrity, expertise, content, and services |
| - Traffic: spend customer acquisition money to boost traffic | - Convert customers across all channels and touchpoints |
| - Push advertising / promotion: traditional media and markdowns | - Social net and semantic web: peer assessment and intelligent search |
| - Big-box expansion | - Urban, small footprints: convenience |

Source: Cisco IBSG, 2011