Leading Digital Business Transformation: Innovation Streams, Executive Leadership, and Ambidexterity

Global Empowerment Meeting
October 2014
Professor Mike Tushman
Harvard Business School
## What Do These Firms Have In Common?

<table>
<thead>
<tr>
<th>GM</th>
<th>ATT</th>
<th>Apple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodak</td>
<td>Marks &amp; Spencer</td>
<td>RIM</td>
</tr>
<tr>
<td>SSIH/Asaug</td>
<td>Lego</td>
<td>Blockbuster</td>
</tr>
<tr>
<td>Britannica/Encarta</td>
<td>Ciba-Geigy</td>
<td>U.S.Steel</td>
</tr>
<tr>
<td>Nokia/Motorola</td>
<td>NYPD</td>
<td>Polaroid</td>
</tr>
<tr>
<td>Siebel</td>
<td>RR Donnelley</td>
<td>IBM</td>
</tr>
<tr>
<td>Xerox</td>
<td>EMI (OK Go)</td>
<td>Nike</td>
</tr>
</tbody>
</table>
What Do These Firms Have In Common?

<table>
<thead>
<tr>
<th>GM</th>
<th>ATT</th>
<th>Apple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodak</td>
<td>Marks &amp; Spencer</td>
<td>RIM</td>
</tr>
<tr>
<td>SSIH/Asaug</td>
<td>Lego</td>
<td>Blockbuster</td>
</tr>
<tr>
<td>Britannica/Encarta</td>
<td>Ciba-Geigy</td>
<td>U.S.Steel</td>
</tr>
<tr>
<td>Nokia/Motorola</td>
<td>NYPD</td>
<td>Polaroid</td>
</tr>
<tr>
<td>Siebel</td>
<td>RR Donnelley</td>
<td>IBM</td>
</tr>
<tr>
<td>Acer?</td>
<td>Havas/V&amp;S?</td>
<td>NASA?</td>
</tr>
</tbody>
</table>
In the past few years…

…and more to come?
What's Gone Wrong With H-P?

A Lengthy Turnaround Plan Will Require CEO Stability, Responsible Spending and Refresh of Products

By Ben Worthen

In 2010, Hewlett-Packard Co.'s then-chief executive Mark Hurd boasted the company was "the largest IT company in the world" and said "we are still not to our full potential."

Two years and two CEOs later, H-P is stumbling. Over that time, the Palo Alto, Calif., company's market capitalization has fallen to less than $30 billion from more than $100 billion. On Friday, H-P's shares hit a new 10-year low.

Current CEO Meg Whitman has said H-P—which sells tech products including personal computers, printers, servers and consulting services—is now saddled with outdated products, poor internal processes and has "no silver bullets" for a rebound. She predicts profits will fall again next year and that H-P won't achieve meaningful growth until at least 2015.

An H-P spokesman said the company has a turnaround plan and has "put a strong leadership team in place," among other moves.

Here's a look at H-P's problems, and how the company plans to fix them:

### Bleeding Ink | Comparing Hewlett-Packard's business five years ago and today

<table>
<thead>
<tr>
<th>2007</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td><strong>Revenue</strong></td>
</tr>
<tr>
<td>+13%</td>
<td>-5%</td>
</tr>
<tr>
<td>$5.1 billion</td>
<td>$5.8 billion</td>
</tr>
<tr>
<td><strong>Billion Profit</strong></td>
<td><strong>Billion Loss</strong></td>
</tr>
<tr>
<td><strong>Long-Term Debt</strong></td>
<td><strong>Billion</strong></td>
</tr>
<tr>
<td>$4.9 billion</td>
<td>$24.1 billion</td>
</tr>
<tr>
<td><strong>Price-Earnings Ratio</strong></td>
<td><strong>Price-Earnings Ratio</strong></td>
</tr>
<tr>
<td>25x (as of Dec. 28)</td>
<td>5.5x (as of Nov. 3)</td>
</tr>
</tbody>
</table>

Note: Revenue, profit and debt are for first nine months of each fiscal year. Revenue change is from previous year. P-E ratio is for past 12 months, normalized EPS.

Sources: the company; S&P Capital IQ; WSJ Market Data; Bloomberg News (photo); The Wall Street Journal
RIM: Leading yesterday’s business?

“We are a very secure, entrenched business”

Thorsten Heins
CEO, Research in Motion
Students Rush to Web Classes, But Profits May Be Much Later

BY TAMAR LEWIN

MOUNTAIN VIEW, Calif. — In August, four months after Daphne Koller and Andrew Ng started the online education company Coursera, its free college courses had drawn in a million users, a faster launching than either Facebook or Twitter.

The co-founders, computer professors at Stanford University, watched with amazement as enrollment passed two million last month, with 70,000 new students a week signing up for over 200 courses, including Human-Computer Interaction, Songwriting and Gamification, taught by faculty members at the company’s partners, 33 elite universities.

In less than a year, Coursera has attracted $22 million in venture capital and has created so much buzz that some universities sound a bit defensive about not leaping onto the bandwagon.

Other approaches to online courses are emerging as well. Universities nationwide are increasing their online offerings, hoping to attract students around the world. New ventures like Udemy help individual professors put their courses online. Harvard and the Massachusetts Institute of Technology have each provided $30 million to create edX. Another Stanford spinoff, Udacity, has attracted more than a million students to its menu of massive open online courses, or MOOCs, along with $15 million in financing.

All of this could well add up to the future of higher education — if anyone can figure out how to make money.

Coursera has grown at warp speed to emerge as the current leader of the pack, striving to support its business by creating revenue streams through licensing, certification fees and recruitment data provided to employers, among other efforts. But there is no guarantee that it will keep its position in the exploding education technology marketplace.

“No one’s got the model that’s going to work yet,” said James Grimmelmann, a New York Law School professor who specializes in computer and Internet law. “I expect all the current ventures to fail, because the expectations are too high. People think something will catch on like wildfire. But more likely, it’s maybe a decade later that somebody figures out how to do it and make money.”

For their part, Ms. Koller and

Continued on Page A10
## Worldwide Watch Production

### Number of Firms and Workers in the Swiss Watch Industry, 1950-1985

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Firms</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>2,500</td>
<td>80,000</td>
</tr>
<tr>
<td>1950</td>
<td>1,863</td>
<td>60,239</td>
</tr>
<tr>
<td>1955</td>
<td>2,316</td>
<td>70,026</td>
</tr>
<tr>
<td>1960</td>
<td>2,167</td>
<td>74,216</td>
</tr>
<tr>
<td>1965</td>
<td>1,927</td>
<td>83,922</td>
</tr>
<tr>
<td>1970</td>
<td>1,618</td>
<td>89,448</td>
</tr>
<tr>
<td>1975</td>
<td>1,169</td>
<td>62,567</td>
</tr>
<tr>
<td>1976</td>
<td>1,083</td>
<td>55,182</td>
</tr>
<tr>
<td>1977</td>
<td>1,021</td>
<td>54,825</td>
</tr>
<tr>
<td>1978</td>
<td>979</td>
<td>52,669</td>
</tr>
<tr>
<td>1979</td>
<td>867</td>
<td>46,716</td>
</tr>
<tr>
<td>1980</td>
<td>861</td>
<td>46,998</td>
</tr>
<tr>
<td>1982</td>
<td>730</td>
<td>38,200</td>
</tr>
<tr>
<td>1985</td>
<td>600</td>
<td>32,000</td>
</tr>
</tbody>
</table>

### Export of Watch Movements and Completed Watches, 1951-1980 (thousands of units)

<table>
<thead>
<tr>
<th>Year</th>
<th>Japan</th>
<th>Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>31</td>
<td>33,549</td>
</tr>
<tr>
<td>1955</td>
<td>19</td>
<td>33,742</td>
</tr>
<tr>
<td>1960</td>
<td>145</td>
<td>40,981</td>
</tr>
<tr>
<td>1965</td>
<td>4,860</td>
<td>53,164</td>
</tr>
<tr>
<td>1970</td>
<td>11,339</td>
<td>71,437</td>
</tr>
<tr>
<td>1975</td>
<td>17,017</td>
<td>65,798</td>
</tr>
<tr>
<td>1980*</td>
<td>68,300</td>
<td>50,986</td>
</tr>
</tbody>
</table>

*Includes movements
Percentage of Tires Shipped by Construction Type: 1961-1989


Citation:
Disk Drive Industry Evolution: 146 firms founded; 125 failures

Market Size

- 14” Control Data, IBM, Memorex, Diablo, DEC, Ampex
- 8” Seagate, Miniscribe, Maxtor, Micropolis, Computer Memories
- 5.25” Shugart, Micropolis, Priam, Quantum
- 3.5” Conner, Quantum, Maxtor, Western Digital, Seagate
- 2.5” Prairietek, Quantum, Conner, Western Digital

Year:
- 1976
- 1981
- 1986
- 1991
- 1996

Kirin’s share of market

Asahi’s share of market

Higuchi commits to dry beer

The Wal-Mart Tsunami

1971
The Wal-Mart Tsunami

1974
The Wal-Mart Tsunami

1977
The Wal-Mart Tsunami

1981
The Wal-Mart Tsunami

1985
The Wal-Mart Tsunami

1990
The Wal-Mart Tsunami

1992
The Wal-Mart Tsunami

2004
Goals
1. Enable corporate capacity to build 300 stores per year
2. Deliver 1st 1,000 stores
Defenders Eventually Lose

Expected years in S&P 500

Many Pathologies…

– Cultural lock-in
– Blindness to disruptive technologies
– Strategic-operational imbalance
– Limitations of operating organization
– Low genetic diversity
The Pace of Change is Increasing

Source: IBM’s Global Innovation Outlook, Joseph Jacobsen, Organizational and Individual Innovation Diffusion, 2004
The Encyclopedia Britannica Story

244 Years In, Encyclopedia Britannica Went Out of Print in 2012

 Encyclopedia Britannica Hard Copy Sales vs. Wikipedia Monthly Active Users (Different Scale), 1990 – 2012

- 1990 – Britannica Sales Peaked at 120K/year
- 1993 – Microsoft Introduced Encarta Encyclopedia for PC @ $99
- 2008 – Microsoft Shut Down Encarta
- 2012 – Encyclopedia Britannica Announced End of Print Editions

Note: *as of 9/12, per comScore global data.
Source: Kellogg School of Management, Shane Greenstein and Michelle Devereux, “The Crisis at Encyclopedia Britannica.”
OK Go Goes Viral
U.S. Recorded Music Revenue - 2011 Dollars Per Capita

Source: Recording Industry Association of America; Analysis; Michael DeGusta (Feb 2011)
Bell Labs: A Hive of Invention

A selection of its most important innovations in the decades leading up to the breakup of its parent company, AT&T, in 1984, and how they helped lead to some of the latest technologies.

- **1920s**
  - 1925 First high-fidelity sound recording
  - 1925 Fox service
  - 1927 Negative feedback amplifier
  - 1927 First long-distance television transmission

- **1930s**
  - 1932 Radio astronomy
  - 1933 First transmission of stereo sound
  - 1934 Digital transmission

- **1940s**
  - 1940 First long-distance computing
  - 1943 Touch-tone telephone
  - 1947 The transistor
  - 1948 Information theory
  - 1949 Tunnel diode
  - 1949 Bell Labs radar

- **1950s**
  - 1951 Direct distance dialing
  - 1955 Analog-to-digital conversion
  - 1955-62 First communications satellites
  - 1956-62 Switching first digital transmission

- **1960s**
  - 1966-69 Bell Labs work on VAX
  - 1967 First transatlantic telephone cable
  - 1967 Digital music
  - 1968 Charge-coupled device

- **1970s and ‘80s**
  - 1969-72 UNIX operating system
  - 1971-80 Fiber-optic network
  - 1972-80 Digital cellular phone
  - 1976-80 Digital cellular phone

Source: Alcatel Lucent
Welcome to the NASA Innovation Pavilion, which provides Solvers the opportunity to develop innovative solutions to the unique challenges faced by NASA in achieving its mission to pioneer the future of space exploration, scientific discovery, and aeronautics research. Solutions to these challenges will not only benefit space exploration, but may also further the development of commercial products and services in the fields of health and medicine, industry, consumer goods, transportation, public safety, computer technology, and environmental resources.

Centers Participating in the NASA Innovation Pavilion

The Johnson Space Center has been home to all U.S. human space flight programs. Our scientists and engineers are engaged in research and technology development projects encompassing human health and performance, life sciences, and aerodynamics, mechanical, electrical, industrial, propulsion, chemical, and computer engineering. We are seeking new and creative ideas to enable our success as we venture beyond low Earth orbit and further explore the universe.
## InnoCentive Pilot: Challenge Data and Statistics

<table>
<thead>
<tr>
<th>Challenge Title</th>
<th>Ctr</th>
<th>Posted</th>
<th>Deadline</th>
<th>Proj Rms</th>
<th>Sub</th>
<th>Award Date</th>
<th>Award Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Barrier Layers ... Keeping Food Fresh in Space</td>
<td>JSC - SLSD</td>
<td>12/18/2009</td>
<td>2/28/2010</td>
<td>174</td>
<td>22</td>
<td>5/7/2010</td>
<td>$11,000</td>
</tr>
<tr>
<td>Medical Consumables Tracking</td>
<td>GRC</td>
<td>5/17/2010</td>
<td>7/27/2010</td>
<td>365</td>
<td>56</td>
<td>in progress</td>
<td>$15,000 (3)</td>
</tr>
</tbody>
</table>
2900 Solvers – 80 Countries
Ad Agency Video
Lego

Self organized brick design
Mindstorm: components and software
Emerging New Product Identity Challenges: Existing Organizational Identity

Organizational identity

- Dominant closed & introverted
- Subcultures: "Wild Men"
- Fans: "Shadow Market"

Disruption


Brick Systems       Interplay Bites & Bricks

Emerging new product identities
LEGO Mindstorms: LEGO gives fans “the right to hack”

Adult Fans of LEGO (AFOL) generated on-line/off line communities

Antorini, 2008
Schultz et al. 2005
THE MYTH OF CORPORATE REINVENTION

The key is knowing when to give up—and just spin off the sexier parts of the business

AT&T

- OPERATING CASH FLOW
  $11.6 billion last year, mainly from consumer long distance
- PINNING HOPES ON
  Broadband fixed and wireless connections to consumers and businesses
- PROGNOSIS
  Unclear whether AT&T can move its long-distance customers onto new cable TV-based network. Customers are defecting to Baby Bells

XEROX

- OPERATING CASH FLOW
  $1.2 billion last year, mainly from copiers
- PINNING HOPES ON
  Printing
- PROGNOSIS
  Xerox sees growth in low-end printers and high-end publishing systems. But it needs results soon. It just suffered its first quarterly loss in 16 years and had to draw on its bank line of credit

EASTMAN KODAK

- OPERATING CASH FLOW
  $1.9 billion last year
- PINNING HOPES ON
  Digital photography, including prints
- PROGNOSIS
  Kodak hopes digital photography will represent half its revenue and a quarter of profits by 2005. But it's having trouble making money in a market marked by low profit margins and short product cycles

Adapted from Business Week, Oct. 30, 2000, pp. 80-81
During these 132 years, the company has made four distinct transformations.
“It is not the strongest of the species that survive, nor the most intelligent, but the one that is most responsive to change.”

“Those who live by the sword... will be shot by those who don’t.”
The Innovation Paradox

Why Do Winners Become Losers?

• Not A New Phenomenon
• Common Across Industries
• Seen Around The World
Why Do Successful Firms Fail?

• WRONG STRATEGY?
• WRONG TECHNOLOGY?
• STUNTED EXECUTION?
• BAD LUCK?
The young Assistant Secretary of the Navy stands with Admirals McKean, left, and Sims in 1919.

Photo courtesy of Franklin D. Roosevelt Library.
Innovation and Organizations

Leadership

Strategy
- Marketplace Insight
- Strategic Intent
- Business Design
- Innovation Focus

Execution
- Talent
- Critical Tasks/Interdependencies
- Formal Organization
- Culture

Values
- Strategic Insight
- Strategic Execution

Market Results

- Gap
  - Performance
  - Opportunity
Performance and Opportunity Gaps

• **Performance Gap**: Our revenue growth over the past 10 years has lagged the market (4% vs. 8%). Our goal is to break out of this pattern of low growth and achieve 10% profitable revenue growth in the next 24 months. Achieving this will result in an estimated $5 billion in top line growth.
  - **Business Owner**: VP of Line of Business

• **Performance Gap**: The firm has grown dramatically over the past 5 years. During this period the quality of our products has declined. Our attempts at introducing six sigma have failed and we have lost 5 points in market share in the past 12 months. Each point lost represents roughly $500 million in revenue.
  - **Business Owner**: VP Quality

• **Opportunity Gap**: Current revenue growth per customer in our existing markets is growing only slowly (5% per annum) and customer expectations are increasing. If we are able to move up the stack and provide solutions rather than point products, we should be able to increase revenues and profits by 20% over the next 3 years.
  - **Business Owner**: Division GM
Strategic Innovation and Change

Strategy → Fit → Performance

- people & skills
- formal organization
- critical tasks
- culture

execution
Informal Organizations (Culture)

- Norms...dress, working late, conflict resolution
- Values
- Communication and influence patterns
- Climate...collaborative, teamwork, standards
- Core beliefs...what we believe in
- Power/politics
- Key roles

Conduct multiple levels of analysis, e.g., unit, inter-unit, organization
Informal Communication Networks
Align Employee Objectives to Strategic Priorities

**Customer Example**
- Customer Satisfaction
- Customer Retention
- On Time Delivery
- First Pass Yield
- Schedule Adherence

**Financial Example**
- Operating Margin
- Operating Margin
- Variable Costs
- Period Expenses
- Variable Costs
- Mfg Overhead
- Scrap rate
- Labor/Unit
- Line Availability
- Schedule Adherence

**Individual Strategic Objectives and Measures Should Support Higher Levels in the Organization**
8. Institutionalize the New Culture: A New Strategy
Management Office Coordinates the Six Stage Management System

**Plan the Strategy: Develop, Translate and Align**
(Stages 1-3)

**Execute the Strategy:**
Link to Operations, Monitor, Learn and Test
(Stages 4-6)
Principles of TQM

1. Customer focus
   Ensure that customers drive quality

2. Visible leadership & empowerment
   Involve everyone
   Small group activities

3. Process mapping & benchmarking
   Treat everything as a process

4. Aggressive improvement goals
   Defect reduction
   Cycle time reduction
   Customer satisfaction

5. Build in quality from the start
   Tanguchi methods
   Robust design

6. Solve problems using facts and data
   Common measurement system
   The tools of TQM

7. Common values and language
   Education/training (prerequisite)
   Motivation & recognition

8. Creation and diffusion of “success stories”
   Start a critical few TQM projects

9. Action being taken
   TQM is an executive’s responsibility
We then repeat the process, factoring new knowledge gained into the next generation of the plan. PDCA is an ongoing iterative process aimed at systematic improvement through each cycle.

The basic philosophy of PDCA is to make continuing incremental improvements rather than major one-time breakthroughs. Some organisations use terms like "leapfrogging the competition" to illustrate the concept of the quantum leap improvement.

**PDCA "PHILOSOPHY"**

WIN WITH MANY SMALL GAINS,

NOT BY A FEW "MIRACLES"

Unfortunately such improvements (often driven by high technology or radical business changes) are seldom realised. The slower (but surest) approach of learning from experience and developing successes built on past experience leads to many small gains which accumulate over time into major improvements.

The PDCA cycle is often characterised by a wheel turning through the Plan, Do, Check and Act phases, resulting in continuing improvement, moving upward toward a goal. We will refer to this concept as "turning the PDCA wheel".
Congruence is a double-edged sword: The failure of success

- Size leads to structural inertia
- Age leads to social inertia
- Success leads to pride and arrogance
Inertia dangerous in a rapidly changing environment

When environmental situation changes dramatically, managers typically:

- Increase commitment to the status quo
- Decrease vigilant information search
- Increase conformity pressures

Or, do more of what we do best!
Examples

<table>
<thead>
<tr>
<th>Existing technology</th>
<th>Threat</th>
<th>Response (percent increase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice</td>
<td>Refrigeration</td>
<td>300%</td>
</tr>
<tr>
<td>Gas Lamps</td>
<td>Incandescent Lamps</td>
<td>500%</td>
</tr>
<tr>
<td>Telegraph</td>
<td>Telephone</td>
<td>150%</td>
</tr>
<tr>
<td>Vacuum Tubes</td>
<td>Transistors</td>
<td></td>
</tr>
<tr>
<td>Existing technology</td>
<td>Threat</td>
<td>Response (percent increase)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Ice</td>
<td>Refrigeration</td>
<td>300%</td>
</tr>
<tr>
<td>Gas Lamps</td>
<td>Incandescent Lamps</td>
<td>500%</td>
</tr>
<tr>
<td>Telegraph</td>
<td>Telephone</td>
<td>150%</td>
</tr>
<tr>
<td>Vacuum Tubes</td>
<td>Transistors</td>
<td></td>
</tr>
</tbody>
</table>
Figure 2-5  Project Performance as a Function of Team Age (45 Chemical Industry Projects)
Colorado Portland Cement Company Executive Team Structure

Year

Structure

Mean Team Tenure
Size
Turnover

H A R V A R D  |  B U S I N E S S  |  S C H O O L
Innovation Streams

**MARKETS**

**New**
- Fashion Lens (Ciba)
- Ciba/Tilt (Wheat)

**Existing**
- Analog Devices
- USAToday
- ASIC/IBM
- Ciba/Tilt (Corn)
- Ciba Vision (Soft Lens)
- Flat Bed Scanners (HP)

**TECHNOLOGY**

**Incremental**
- Disk Drives

**Architectural / Modular**
- Network Chip/IBM
  - Continuous Aim Gunfire
  - HP/Lobo, Condor

**Radical**
- Analog Devices (MEMS, DSP)
- Vysodine (Ciba Vision)
- Knitting (HP)
- USAToday.com
- Analog Devices (DSP)
- Firestone/ Radial
- Analog Devices (IC)
- Ciba / Seeds
- Disposable & Extended Wear Lens (Ciba Vision)
Ambidextrous Designs, Innovation Streams & Dynamic Capabilities

Ciba Vision / Vysodyne, Daily Disposables
Seiko/Quartz
USAToday.com
IBM Network Tech/Transport
HP Scanner/Zorro

Tasks
Individuals
Organization Arrangements

Executive Team
Multiple strategies
Single vision
Few Core Values

Mgmt. Team
Informal

Ciba Vision/Conv. Lens,
Seiko/Mechanical,
USAToday
IBM Network/ASIC
HP Flat Bed Scanner

Exploration: Multiple failures, experiments, variants

Exploitation: Consistency, incremental change, and continuous improvements

Strategic Re-orientations, Discontinuous Change
Characteristics of Ambidexterity

- Structural differentiation of explore/exploit units
- Integration at senior team level
- Investment by ‘Meta Manager’
- Targeted integration of functional resources
- Common fate rewards system
- Overarching vision of senior team including both explore and exploit
- IM internal/external, staff external

VISION: # 1 Supplier of Network Technology chips by 2000

J. Kelley
(Meta Manager)
Group Executive

Chris King
(Ambidextrous Manger)
Network Technologies

Tactical Integration

ASIC
(Exploitation)

Network
(Innovation Manger)

Transport
(Innovation Manger)

Exploration

Senior Team

Wireless
The Ambidextrous Organization

- A single general manager and team
- A common vision and values
- Strong decentralization
- Multiple strategies, structures, processes, and cultures -- each separately aligned

Examples:
- J&J
- H-P
- CibaVision
- USA Today
- IBM
- P&G
- 3M
- ABB
- Mettler-Toledo
- Hattori-Seiko
- Schwab
- Fujikura

Variation | Selection | Retention
---|---|---
Exploration | Growth | Exploitation
[Horizon 3] | [Horizon 1] | [Horizon 2]
The Ambidextrous Organization

Ciba Vision

Examples:
- J&J
- H-P
- CibaVision
- USA Today
- IBM
- P&G
- 3M
- ABB
- Mettler-Toledo
- Hattori-Seiko
- Schwab
- Fujikura

Variation        Selection       Retention

Exploration     Fashion Lenses

Extended Wear, IOL

Growth

Soft Lenses

Exploitation

General Manager
Senior Team Challenges

• **Clear strategic intent** that justifies the importance of the ambidextrous form

• **Overarching vision** and HR practices to emotionally engage everyone

• **Aligned senior team** with common rewards that communicates a consistent message

• **Organizational architecture** that promotes exploration and exploitation with targeted integration to leverage firm-wide assets

• **Ambidextrous leadership** that tolerates the contradictions of multiple alignments and can resolve the trade-offs required
Ambidextrous Leadership Skills.

- Hold Paradox, Be Consistently Inconsistent
- Manage a portfolio of related experiments or projects
- Establish and communicate a clear vision
- Establish a Few Overarching Core Values
- Create an extended team for advice and counsel
- Balance opposing factors to imagine future possibilities that are currently unrecognized market needs

  ▶ Recognize when to continue and when to abandon an idea
  ▶ Build and Coach a senior Team that can deal with paradox
Leadership Teams: Four Ironies

(from Wageman and Hackman, 2010)

**Irony I:** Leadership teams are composed of powerful people—yet they tend to be under-designed, under-led, and under-resourced.

**Irony II:** Membership is important and coveted—but members often don’t know who is on the team, and they do not really want to come to team meetings.

**Irony III:** Members are overloaded—but they tend to waste enormous amounts of time in team meetings.

**Irony IV:** Authority dynamics pervade leadership teams and complicate team processes—but members won’t talk about them.

**Irony V:** These dynamics are accentuated the more senior the team…. 
How do Organizations Evolve?

• Through incremental change in exploitative unit
• Proactive discontinuous change in exploratory unit
• Or, periods of convergence with increasing congruence punctuated by re-orientations, often requiring new top management teams

Examples
  ▶ Ciba Vision
  ▶ IBM Middlewear
  ▶ USAToday
  ▶ HP Scanner
  ▶ IBM Network Tech
Organization Evolution:

- Incremental and punctuated change or Periods of incremental change punctuated by discontinuous change
- Executive team succession often associated with discontinuous organizational change
- Managing discontinuous change fundamentally different than managing incremental change
Corporate Ambidexterity at IBM

Variation  Selection  Retention

Exploration  Exploitation

Life Sciences  Hardware  Consulting Services

General Manager
# Varieties of Open Innovation: Communities and Contests

| Distributed | | Community or Contest |
|-------------|-------------------------|
| External Selection (e.g., Voting and Approval Contests) | (LuLuLemon; OK-GO) | (Lego, Doritos) |

| Concentrated | | Solution Generation Knowledge |
|-------------|-------------------------|
| Internal Firm Effort (EMI, Lego, NASA, Havas) | Internal Selection (e.g., Tournaments and Prizes) | (NASA; V&S) |
Innovation and Organization Design Logic in Networked Information Economy (Benkler, 2006)

Logic of Communities, Peers

Autonomous, self-selected, decentralized action

Decentralized coordination; emergent social structure

Intrinsic (and extrinsic?) motivation

Non-market production; share resources and outputs

Peer, non-proprietary innovation

Open, shared IP

Social, emergent, distributed architectures
Modularity, Knowledge Distribution, and Locus of Innovation

- **High (Modular)**: Strategic Partner(s)
  - Contests
- **Low (Integrated)**: Intra-Firm
  - Community
- **Narrow**: Multi-Firm Collaboration (e.g., alliances, consortia, JV, patent pools)
- **Broad**: Open Innovation

**Structural Ambidexterity**

- **Task Decomposition**: Strategic Partner(s)
  - Contests
- **Problem Solving Knowledge Distribution**: Multi-Firm Collaboration (e.g., alliances, consortia, JV, patent pools)
  - Open Innovation
The Increasing Intrusion of Open Innovation on Incumbents

![Diagram showing the increasing intrusion of open innovation on incumbents. The diagram illustrates the relationship between internal firm effort, strategic partner(s), contests, community, ambidextrous design, and problem-solving knowledge distribution. Examples include NASA: Open Innovation Contests, Apple: Open Source Community, LEGO: AFOL & NXT Hackers, LEGO MUPS & Ambassadors.]
Strategic Renewal at IBM (1999-2008)

Gerstner’s Innovation Challenge; Palmisano’s Aspiration to Reinvent IBM

**EBO’s and SLF’s**
- Common Language
- Joint Executive Sponsorship
- Growth and Innovation Focused
- Intact Teams by:
  - Country
  - Business unit,
  - Functions
  - Cross-unit
- Gaps, Diagnosis, and Action

**Top Down Challenge and Executive Sponsorship**
- High Expectations; Substantive and Symbolic Involvement
- Fact based dialog and conversations across communities
- Idiosyncratic root causes
- Action and follow-up
- Learning about leading change shared across units

**Bottom Up Systemic Themes**
- Community dialog on common root causes
- Common culture, metrics, interdependencies, leader behaviors
- Systemic, integrated action owned by corporate executives

Punctuated Change at unit level 1999 to 2008

By 2008, strategic renewal at IBM level
1. Select growth aspirations that connect with people emotionally
2. Treat strategy as a dialogue as opposed to a ritualistic, document-based planning process
3. Use experiments to explore future possibilities
4. Engage a leadership community in the work of renewal.
5. Apply execution disciplines to the effort.
LCOR in Action: Content of Change

LCOR Model helps leaders make decisions about why change (strategy), what to change (execution) and outputs (gaps).

Executive Task Forces apply model to diagnose and solve strategic problems in the business.

All executives trained in the method; used for business planning process. Use to stand-up new businesses.

Each employee has a ‘mouse mat’ with the model completed for their business – explained strategic goals.

---

Source: Harreld, O’Reilly, Tushman, 2007
LCOR in Action: Process of Change

LCOR as a ‘Leadership Forum’ provides a process for accelerating transformation efforts by engaging large groups of leaders.

‘Strategy as dialogue’ – 5k executives participated in SLFs

IBM

LexisNexis™

Transformation to support $650M capital investment; 8 sessions, 500 executives

Shire

R&D team use as method for building plans for new, disruptive projects

Strategic Leadership Forum
- ~2.5 days
- Up to 100 people and up to 8 work teams
- 2-3 faculty from HBS, Stanford and others
- Tailored education content and cases
- Team consultants for each work team
- Off-site venue with appropriate classroom design

Strategic Issues
- Teams bring key opportunity gaps or current business performance gaps

Education
- Professors provoke insights and provide tools to understand what it takes to execute

Dialogue
- Teams apply the Strategic Execution Framework and determine the key issues to work on

Execution
- Teams and executives commit to a plan of action to close on the opportunity
LCOR in Action: Value of Method

LCOR Method tackles both the tangible – logical, managerial concerns – and intangible – human, leadership – dimensions of transformation.

**Tangible**
- Business goal/output driven approach
- Strategic alignment integrates disparate leadership agendas
- Discipline of root cause analysis
- Research-based approach

**Intangible**
- Leadership Forums create common purpose
- Transparent method, enables openness about tough issues
- Dialogue enables issues to be solved, rather than find someone to blame
- Leadership and culture embedded, not an add-on to business conversations
EXTREME TOYOTA

Radical Contradictions That Drive Success at the World’s Best Manufacturer
Extreme Toyota

A state of disequilibrium in which radical contradictions coexist, propelling Toyota away from its comfort zone and creating healthy tension and instability within the organization
Key Words for Understanding Toyota

Contradictions
Opposites
Paradoxes
Toyota’s Contradictions

• Cultivating frugality while spending huge sums
• Operational efficiency as well as redundancy
• Cultivating stability and a mindset of paranoia
• Bureaucratic hierarchy and freedom to dissent
• Moving gradually and also taking big leaps
• Relatively low executive pay but self-actualization