Design Driven Innovation

Changing the Rules of Competition by Radically Innovating What Things Mean

(Based on the Book by Roberto Verganti)

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DESIGN-DRIVEN INNOVATION
Changing the Rules of Competition by Radically Innovating What Things Mean

HARVARD BUSINESS PRESS

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How should a company devise new meanings and create the designs to embody them? Mr. Verganti suggests that companies form relationships with "interpreters"—individuals and organizations looking at settings similar to the one in which the company's products would be used. For Mr. Verganti, it might be said, if life imitates art, corporate life should imitate the making of art.

**The Wall Street Journal**

One of the Design Primers for Businesspeople. Eschewing the received wisdom that the customer is always right, Politecnico di Milano professor Verganti focuses on game-changing designs that up-end expectations and create entirely new markets... Verganti also includes a useful section on how executives can attempt to instigate their own programs of radical innovation. One of the Best Innovation and Design Books of 2009.

**BusinessWeek**

One of the best books of the year is undoubtedly “Design-Driven Innovation”. In it Verganti attacks one of the central mysteries of innovation—how can a company successfully create a product that is a radical break from the past, and which shows the way to a new future?

**John Caddell on The Customer Collective**

If you follow Mr. Verganti’s advice, it may take a while, but your competition will be left wondering how it was you managed to redefine (and capture) their business.

**San Francisco Book Review**
What is design driven innovation?
Why is it important/why should you care?
How do you do it
How do YOU get to do it?
Radical innovation is risky
Major source of long term competitive advantage
Radical *technology* innovation
People don’t buy products, they buy *meanings*

Every product has a meaning
After all, we are humans. We spend our entire lives looking for meaning. Who really believes that we can smile at our spouse and children or cheer our colleagues, and then, after a millisecond, switch off our limbic system and become inhuman when we drive our cars or buy the next peripheral for our offices?
Products and Meaning

Are meanings a given, or a subject for innovation?
Innovation Strategies

1. Quantum Leaps in Product Performance enabled by breakthrough technologies
2. Improved product solutions enabled by better analysis of users’ needs
Innovation Strategies

1. Quantum leaps in product performance enabled by breakthrough technologies

2. Improved product solutions enabled by better analysis of users’ needs

3. Design-driven innovation: Radical innovation of meaning
Old Meaning:
Game consoles as entertainment gadgets for children who were great at moving their thumbs. Passive immersion in a virtual world.

Change In Meaning:
Stimulates active physical entertainment, in the real world, through socialization. An active workout for everyone.
Nintendo Wii
Framework for innovation strategy

Performance (technology)

Radical improvement

Incremental improvement

Adaptation to the evolution of sociocultural models

Generation of new meanings

Meaning (language)
The three innovation strategies

- **Technology push**
  - Radical improvement
  - Adaptation to the evolution of sociocultural models

- **Market pull (user-centered)**
  - Incremental improvement
  - Generation of new meanings

- **Design-driven (design push)**
  - Performance (technology)
The interplay between technology-push and design-driven innovation

- **Technology push**
  - Radical improvement
  - Market pull (user-centered)
  - Adaptation to the evolution of sociocultural models

- **Technology epiphany**
  - Generation of new meanings

- **Design-driven**
Comparison of the innovation strategies of Nintendo, Sony, and Microsoft in the game console industry
Design-Driven Innovation

Why Care?

Why is Design Driven Innovation Important?
Nintendo Wii Adoption
### March 2010 US Hardware Sales

<table>
<thead>
<tr>
<th>Platform</th>
<th>Unit Sales</th>
<th>Year-to-Date</th>
<th>Lifetime-to-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nintendo DS</td>
<td>613,200</td>
<td>1,035,400</td>
<td>39,762,000</td>
</tr>
<tr>
<td>2. Nintendo Wii</td>
<td>557,500</td>
<td>1,421,200</td>
<td>28,555,000</td>
</tr>
<tr>
<td>3. Microsoft Xbox 360</td>
<td>338,400</td>
<td>1,093,200</td>
<td>19,924,190</td>
</tr>
<tr>
<td>4. Sony PlayStation 3</td>
<td>313,900</td>
<td>950,900</td>
<td>12,079,200</td>
</tr>
<tr>
<td>5. Sony PlayStation Portable</td>
<td>119,900</td>
<td>353,400</td>
<td>16,190,000</td>
</tr>
<tr>
<td>6. Sony PlayStation 2</td>
<td>118,300</td>
<td>261,800</td>
<td></td>
</tr>
</tbody>
</table>
Model of the value of design-driven innovation

Unique value for people
Longevity

Design-driven innovation

Direct connection with brand
Definition of competitive field
Definition of new archetypes of meaning and languages (hardly imitable)
Learning from people's interpretation
Early access to key resources (interpreters)
Marginal investment in the project

Volume
Margins
Profits from the radically innovative product

Price
Cost

No nonmeaningful features

Profits from other products
Halo
Appropriability

Shareholder value

Investments

Cumulative investments

Assets

Brand equity
Competitive position
Customer loyalty
Knowledge
Network position
iPod + iTunes + iTunes Store
Comparison of innovation strategies in the portable audio player industry in the late 1990s through the early 2000s

- Radical improvement
  - MPMAN, Rio PMP300, PJB100
  - Digital audio encoding
  - User interface
  - iTunes
  - iTunes Store
  - Generation of new meanings
  - Meaning (language)

- Incremental improvement
  - Portable music playing
  - Seamless personal music production
  - Adaptation to the evolution of sociocultural models
  - Performance (technology)

- Walkman, minidisk, or CD music players
  - MP3
  - Apple iPod
Comparison of strategies to manage breakthrough technologies: purely technology push or interwoven with design-driven innovation
Why Care

Mobile Internet Outpaces Desktop Internet Adoption

iPhone + iTouch Users = 8x AOL Users 9 Quarters After Launch

iPhone + iTouch vs. NTT docomo i-mode vs. AOL vs. Netscape Users
First 20 Quarters Since Launch

Note: *AOL subscribers data not available before Q3:94; Netscape users limited to US only. Morgan Stanley Research estimates ~39MM netbooks have shipped in first eight quarters since launch (10/07). Source: Company Reports, Morgan Stanley Research.
Why Care

Momentum Favors Apple iPhone + iTouch Ecosystem – Fastest User Growth in Consumer Technology History

Global Cumulative Unit Shipments in First 10 Quarters
iPhone + iTouch vs. Wii / DS / PSP / iPod / BlackBerry

Note: iPhone launched in Q2:07; iTouch launched in Q3:07; iPod launched in Q4:07; Wii launched in Q4:06; DS launched in Q4:04; PSP launched in Q1:05; Blackberry smartphone launched in 2002. Source: Apple, Nintendo, Sony, RIM, Katy Huberty, Morgan Stanley Research.
Days to 1 Million Sales

74
Days to 1 Million Sales

28
Why Care

Apple Revenue By Segment (Billions of Dollars)

- iPhone
- Mac
- iPod
- iTunes
- Software
- Peripherals

Source: Company Reports
Why Care

Microsoft Operating Profit By Division

Billions of Dollars

Source: Company reports
Why Care
Why Care
Why Care
Why Care?

Radical shifts in meaning always occur.
The Process

How to

How do companies successfully engage in design-driven innovation?
“Market? What Market! We do not look at market needs. We make proposals to people.”

Ernesto Gismondi, Chairman, Artemide
The process of design-driven innovation as research and its position relative to other phases of innovation.

- **Focus of design-driven innovation**
  - Design-driven research
    - (implies definition of radical new meanings)
  - Technological research
    - (implies analysis of needs of specific targeted users)
- **Focus of user-centered design**
  - Concept generation
    - (implies analysis of needs of specific targeted users)
  - Product development
    - (implies definition of product style, interface, and ergonomics)
- **Focus of traditional industrial design**
User-centered design versus design-driven innovation

User-centered design

Firm

User

Current context of use

Design-driven innovation

Firm

Person

Envisioned context of life

Interpreter
The Interpreters

Interpreters in a collective research laboratory

- Cultural production
  - Artists
  - Cultural organizations
  - Sociologists, anthropologists, marketers
  - Research and educational institutions
  - Technology suppliers
  - Developers of pioneering projects
  - Firms in other industries
  - Designers
  - Retail and delivery firms
  - The media
  - People

- Technology

- Firm
Barilla

Leading manufacturer of pasta and other flour based products

Innovation Project: understanding people’s unmet aspirations in preparing and eating food in their homes.

Interpreters:

- Innovation unit of Whirlpool
- R&D manager, Snaidero
- Design manager, Alessi
- Designers, IDEO
- Chef - explored the merging of two culinary cultures (Italian and Japanese)
- Food columnist from Stern
Home Cooking - Life Context
The design discourse
Nintendo Wii

Technology Change: MEMS Accelerometer

Interpreter: STMelectronics - MEMS manufacturer
PCs in 1998
Language Brokering in the Apple iMac G3
The skewed distribution of key interpreters in the design discourse

Number of interpreters

Key interpreters

Quality of the interpretation for \textit{radical} innovation of meanings
What Early Stage Interpreters Care About

- Exploration, Not Exploitation
- Share Knowledge
- Your Interpretive Skills and Your Vision
- Your Capabilities
- Your Seductive/Addressing Powers
- Your ability to convene, your network
The process of design-driven innovation
Alessi
Alessi
“I’m always very grumpy when I get up in the morning. But when I get up now, I put the tea kettle on, and when it starts to sing it makes me smile - goddamn you!”

A french poet in a postcard to Michael Graves
Alessi’s Tea and Coffee Piazza research project and the development of Kettle 9093

Global design discourse in postmodern architecture

Alessandro Mendini (mediator)

Alberto Alessi’s immersion

Design discourse in Milan (Memphis, Alchimia)

Tea and Coffee Piazza (design-driven research)

New language
New talents

Concept generation and product development

Kettle 9093

Addressing the design discourse:
- Exhibitions
- Limited series
- Books
Apple is great at this

Addressing
Design-Driven Innovation

How Can I Do It?
How can I engage in Design-driven innovation?

Convincing the boss

Start with the vision - make a proposal

The right company

Build your own network

Immerse yourself in the design discourse
Wrap-Up and Dialog

Thank You.

Questions, dialog about design-driven innovation