

Design and competitive advantage

Collaborative strategies enabling radical innovation of meanings

Claudio Dell'Era

MaDe In Lab – MIP Politecnico di Milano

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- Design and competitive advantage
- Collaborative strategies: knowledge diversity and innovation

- MaDe In Lab is the laboratory of **MANagement of DEsign and INnovation** developed in the School of Management of the Politecnico di Milano
- Its mission is to educate and coach current and future managers on visioning, developing, implementing and managing **innovative strategies and processes** based on both the technological and the cognitive, emotional, experiential, symbolic dimension of products, services and brands
- It coaches managers and companies improving their capabilities to innovate. This improvement requires a **real empowerment of people and organizations**
- It offers different education formats to those people that want to valorize individual and team creative skills in order to improve the capability to use **innovation and design as tools to generate competitive advantage**

- MaDe In Lab believes that the interaction and integration of design and innovation is paramount for the **development and growth of firms** in turbulent and highly competitive business environments
- Education programs and Coaching activities are organized in the following **disciplinary areas**

Design Management

- Development of an innovation-oriented culture
- Management of individual and team creativity
- Valorization of design Scenario building
- Management of creative resources
- Communication of the project value
- Identification of socio-cultural trends
- User needs analysis
- Development of new brand identity

Innovation Management

- Strategic management of innovation
- Identification of new market opportunities
- Process innovation
- Measurement of innovation performances
- New product and service development
- Product architecture design
- Project organization
- Project planning
- Project execution and control
- Risk project management

Science, Research and Technology Transfer

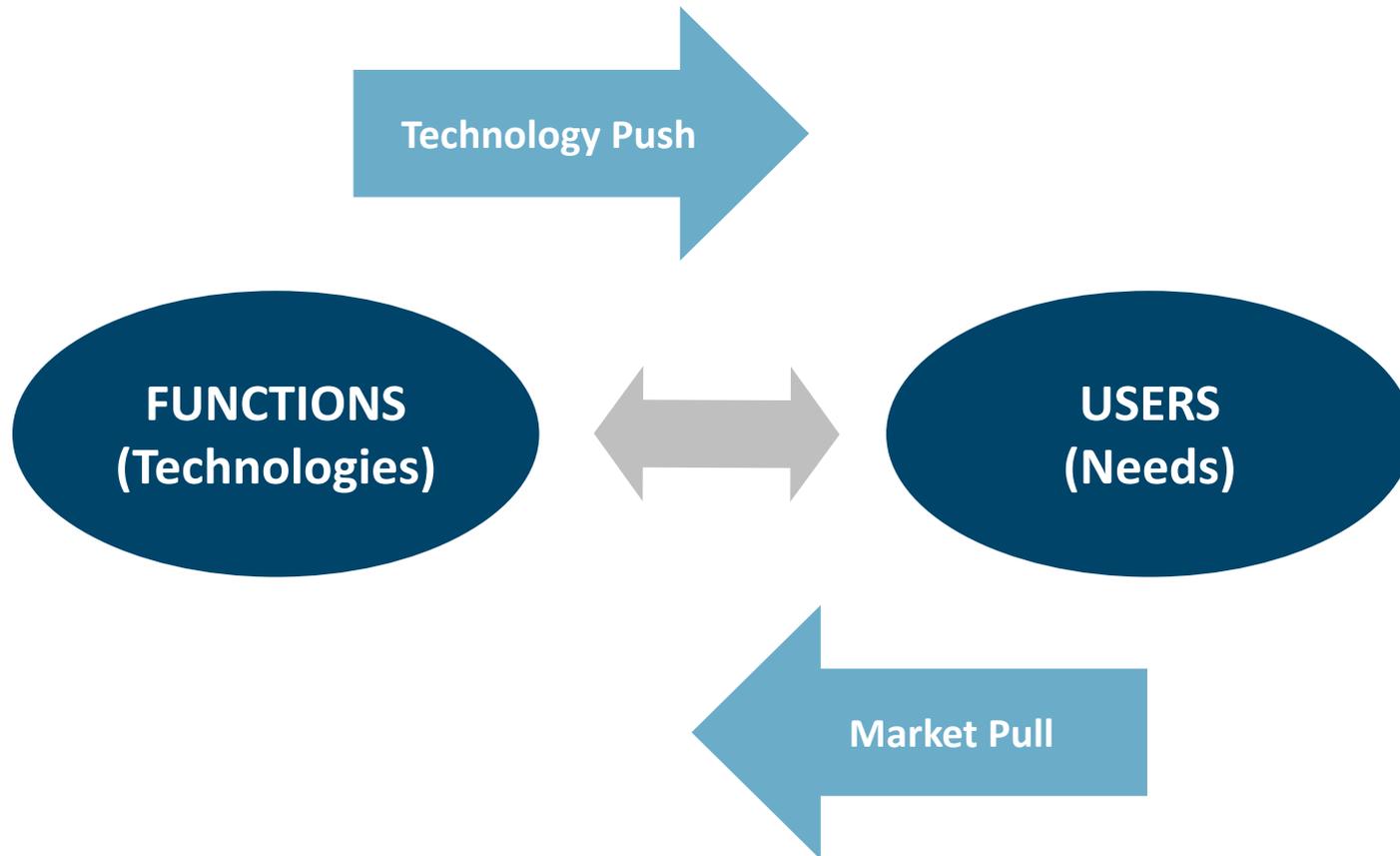
- Strategic management of research and development activities
- Organization and evaluation of research and development activities
- Technology foresight
- Development of new technological scenarios and Roadmapping
- Technology transfer
- Management of knowledge producers
- Innovation finance
- Intellectual Property Rights management
- Innovation policies

- Education programs in several formats, both dedicated to individuals and companies that want to develop capabilities on visioning, developing, implementing and managing innovative strategies and processes. The education programs are dedicated both to individuals that want to improve their capabilities in design and innovation management (**OPEN Education**), and companies that want to face concrete problems in project and innovation management adopting advanced approaches, methodologies and tools (**CORPORATE Education**)
- **CORPORATE Coaching** in collaboration with companies that want to know and adopt advanced design and managerial tools

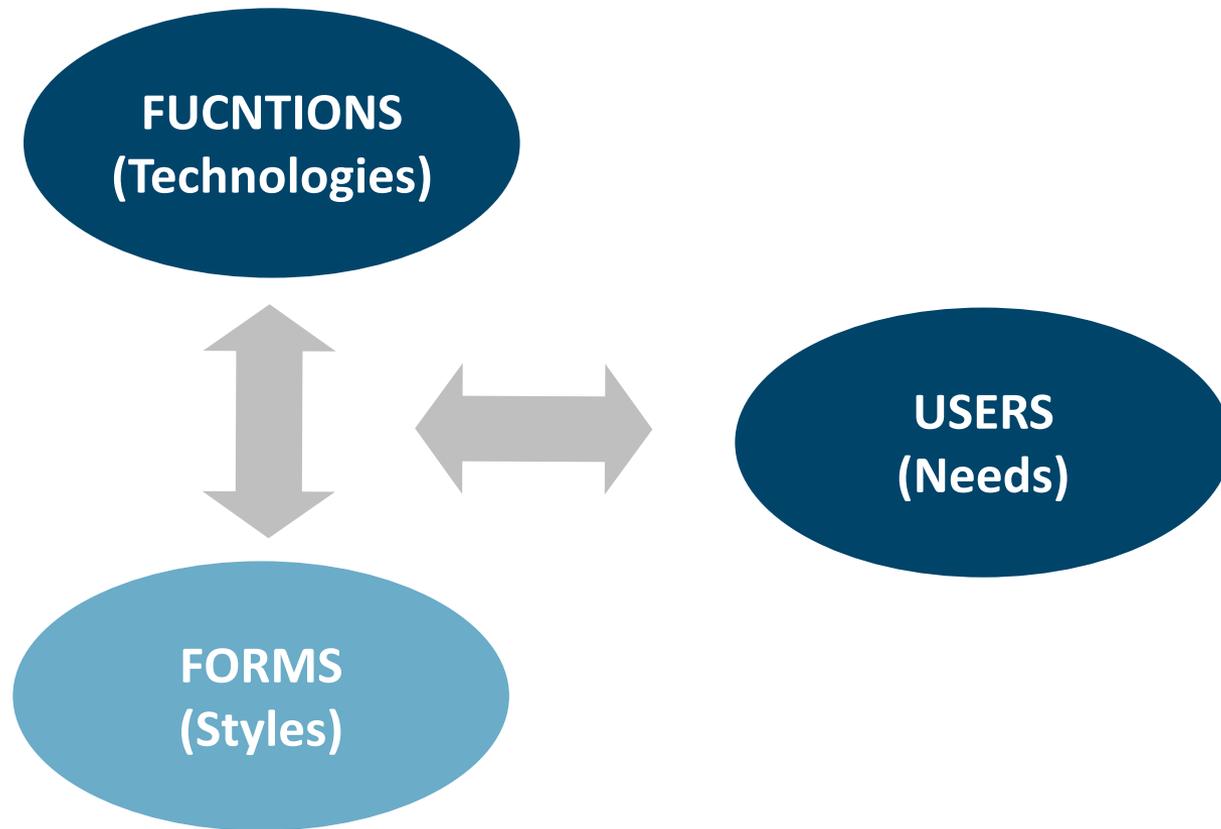


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Traditional dichotomy



Growing relevance of aesthetic aspects



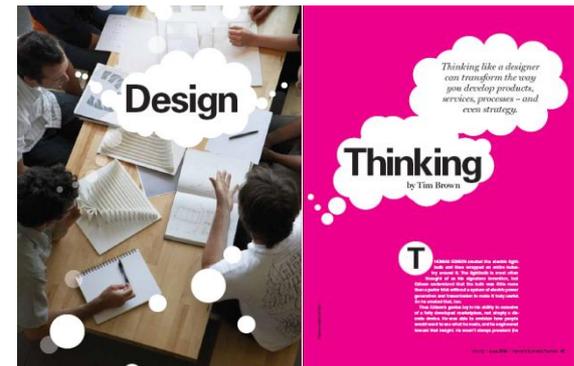
Relevance of design management



Harvard Business Review



Harvard Business Review

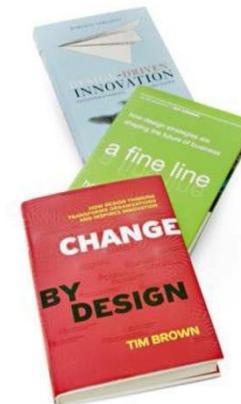


BusinessWeek

DESIGN PRIMERS FOR BUSINESSPEOPLE | The latest trend in design is books on design thinking

 <p>Change By Design Tim Brown</p> <p>Businesses can devise radical yet realistic ideas by first looking for patterns in customers' behavior.</p>	 <p>A Fine Line Hartmut Esslinger</p> <p>Companies that focus on producing creative, attractive goods are more likely to profit. Just look at Apple.</p>	 <p>Design-Driven Innovation Roberto Verganti</p> <p>Smart executives align with "interpreters" of technology and culture—industrial designers—to help sell inventions.</p>	 <p>The Design of Business Roger Martin</p> <p>Corporations can boost productivity by asking managers first to observe problems then imagine solutions.</p>
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THE WALL STREET JOURNAL

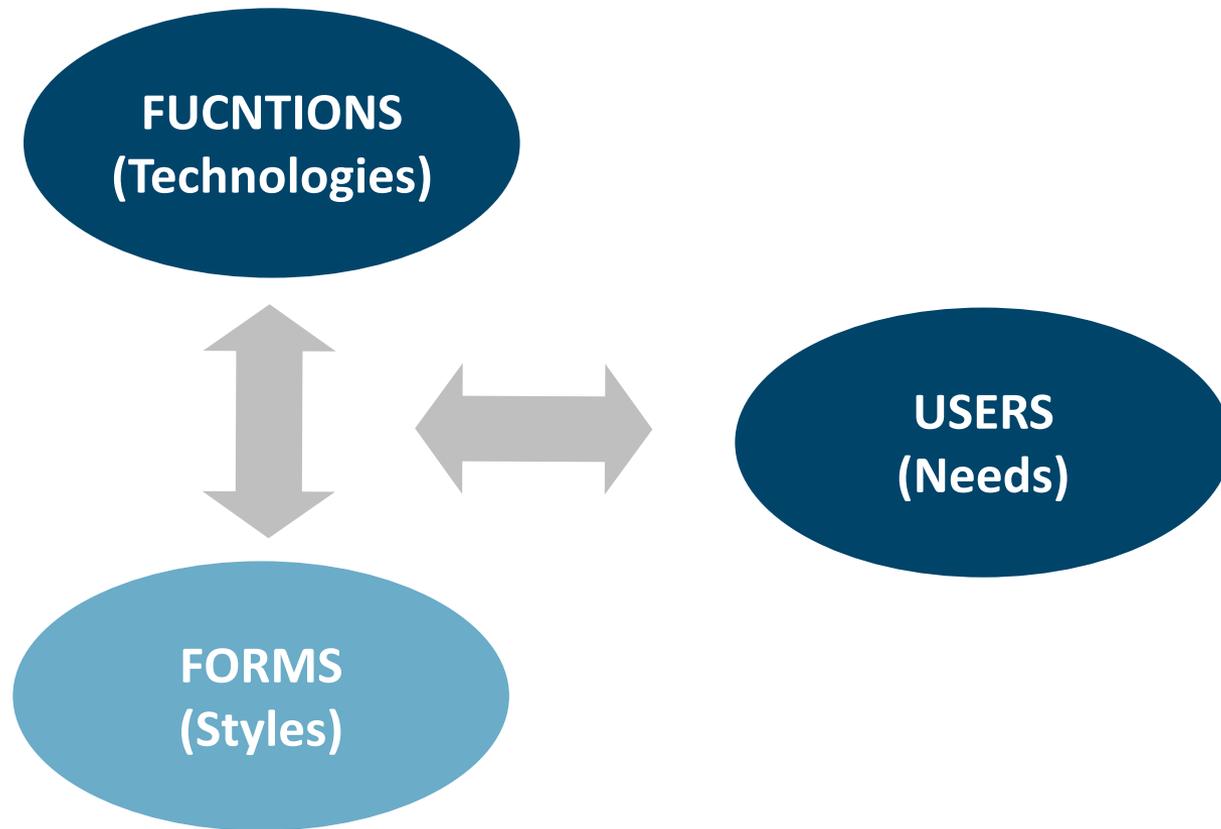


User-Centered



**Ideas
(creativity)**





An interesting case study: console game industry



Nintendo Wii, 2006

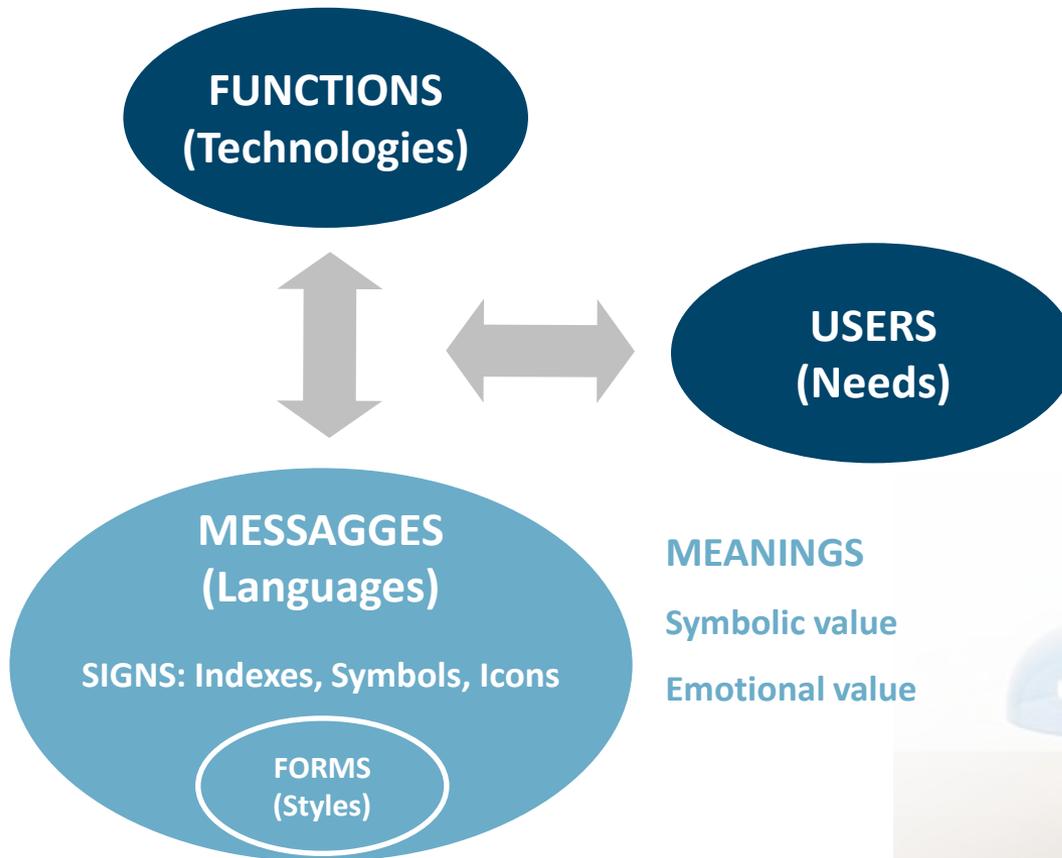


Sony Playstation 3, 2006



Microsoft Xbox 360, 2005

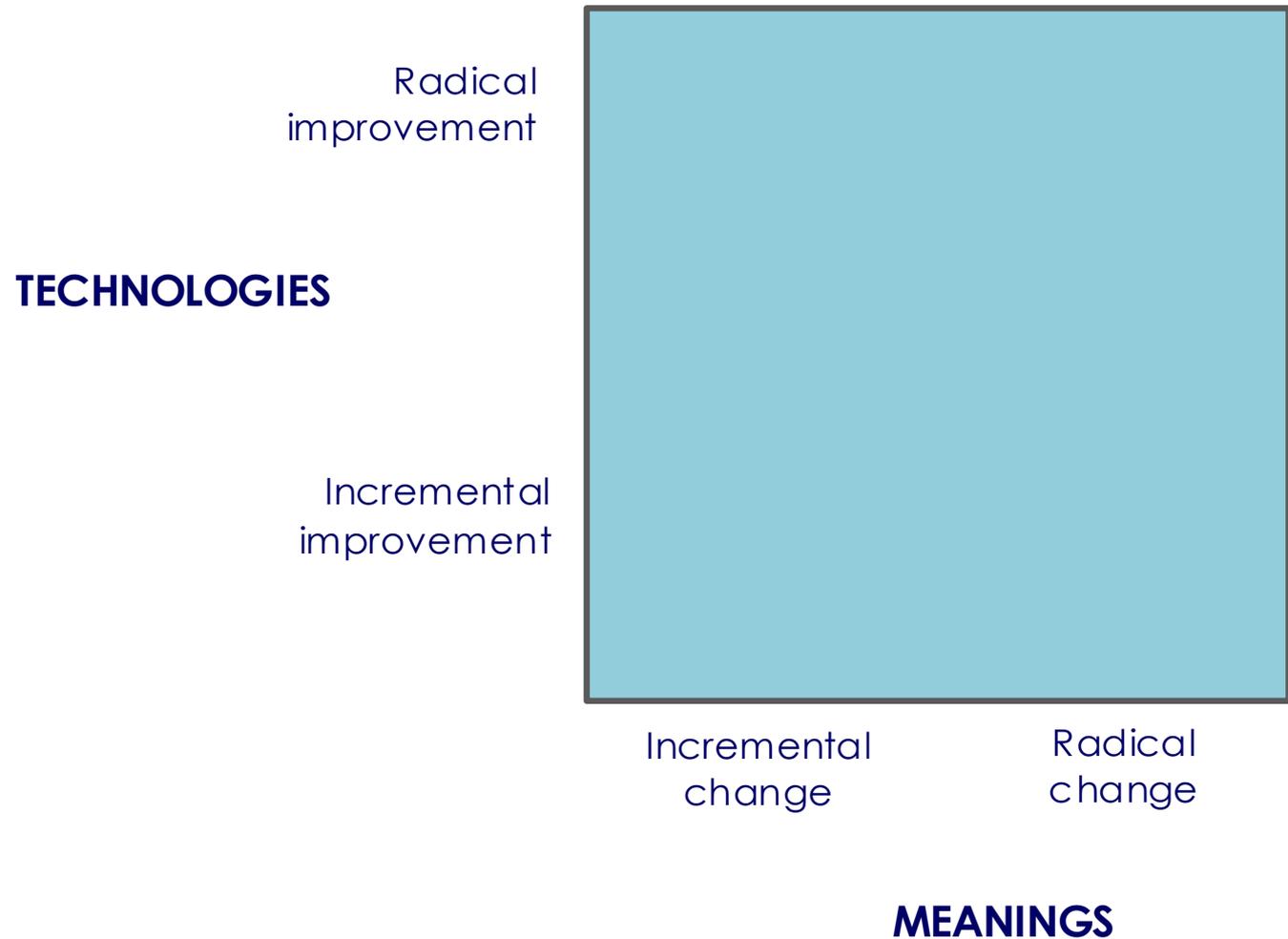
Radical innovation of product meanings

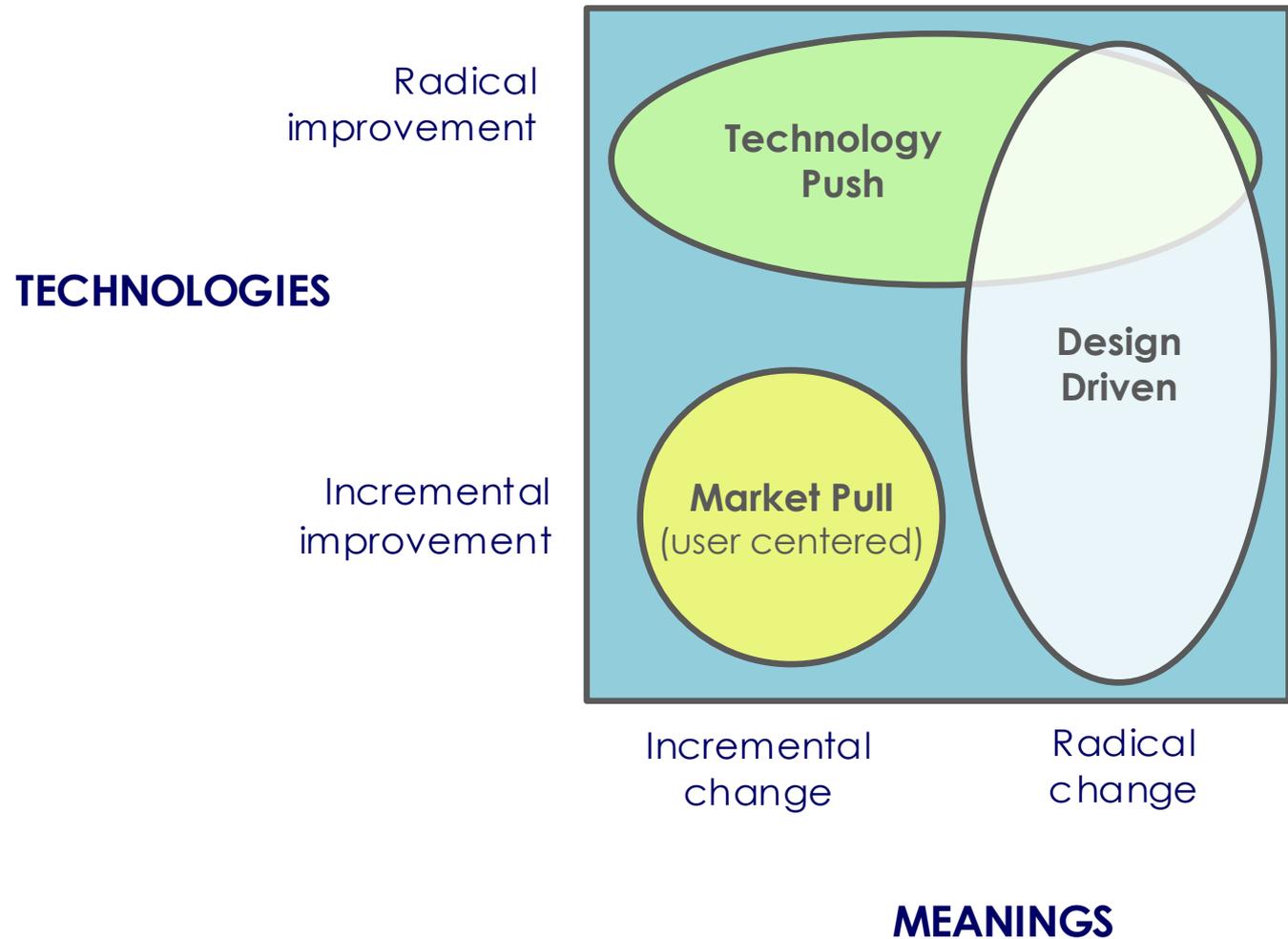


*“The etymology of design goes back to the Latin **de + signare** and means making something, distinguishing it by a sign, giving it significance, designating its relation to other things, owners, users or goods. Based on this original meaning, one could say: **design is making sense (of things).**”*

Krippendorff, 1989

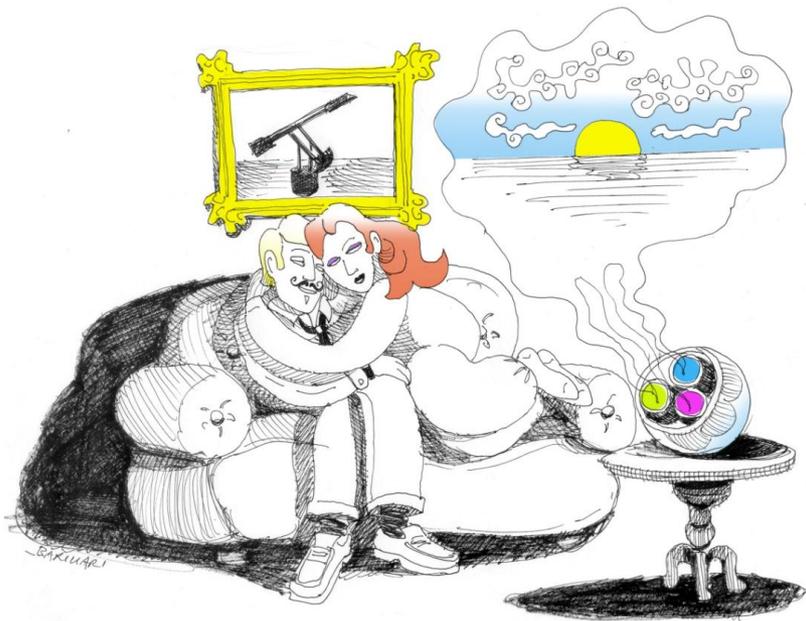






*Market? What Market? We do not look at market needs. We make **proposals to people***

Ernesto Gismondi, President of *Artemide*



Alessi: Family Follows Fiction

*Working within the meta-project
transcends the creation of an object
purely to satisfy a function and necessity.*

*Each object represents a tendency, a
proposal and an indication of progress
which has a more cultural resonance*

Alberto Alessi, CEO of Alessi





*We have a lot of customers, and we have a lot of research into our installed base. But in the end, for something this complicated, it's really hard to design products by focus groups. A lot of times, **people don't know what they want until you show it to them***

Steve Jobs, CEO of Apple

Nintendo Wii wins proposing new meanings: reality vs virtuality, socialization vs individualism, ...



Nintendo Wii, 2006

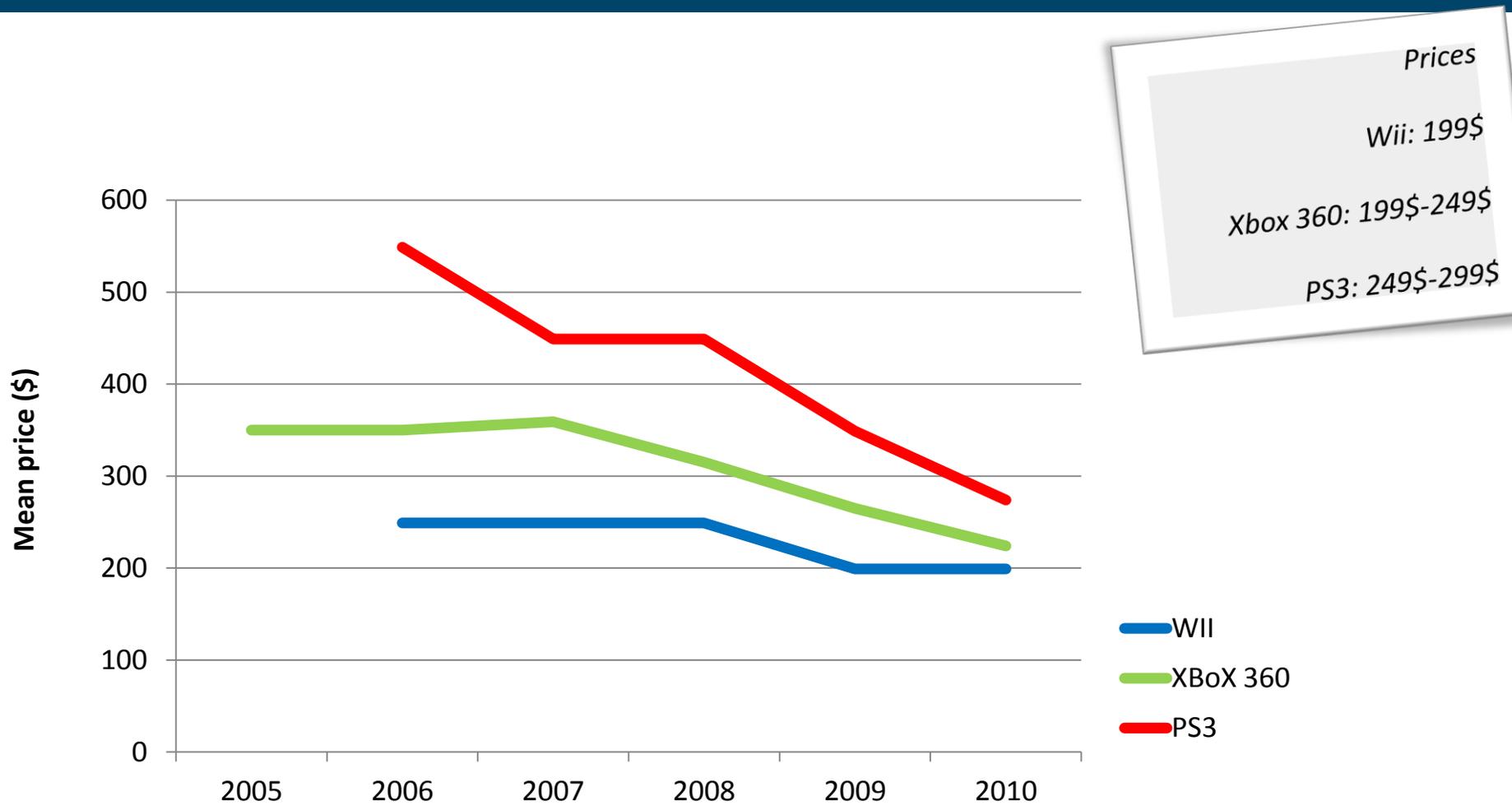


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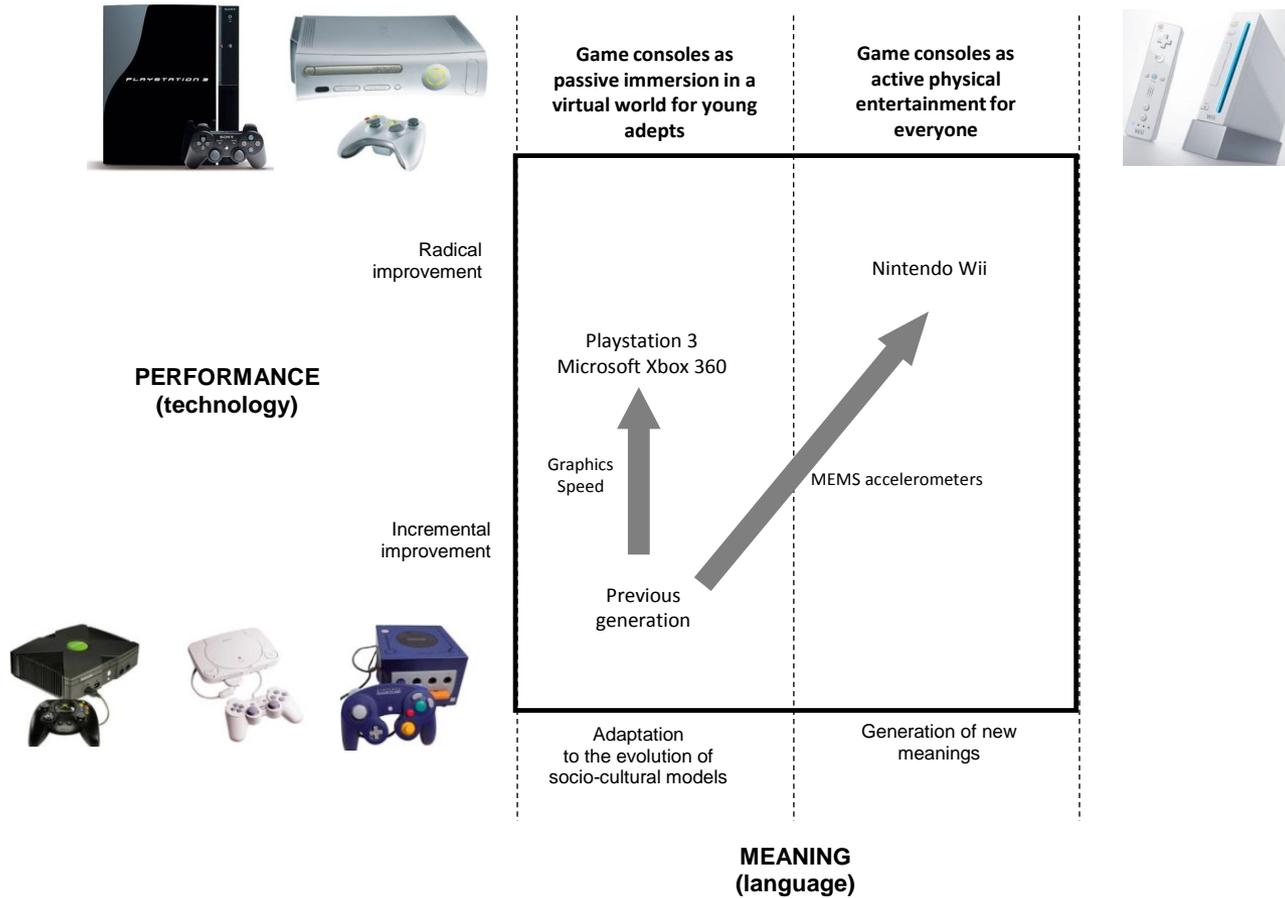
Nintendo Wii wins using simple technologies: price



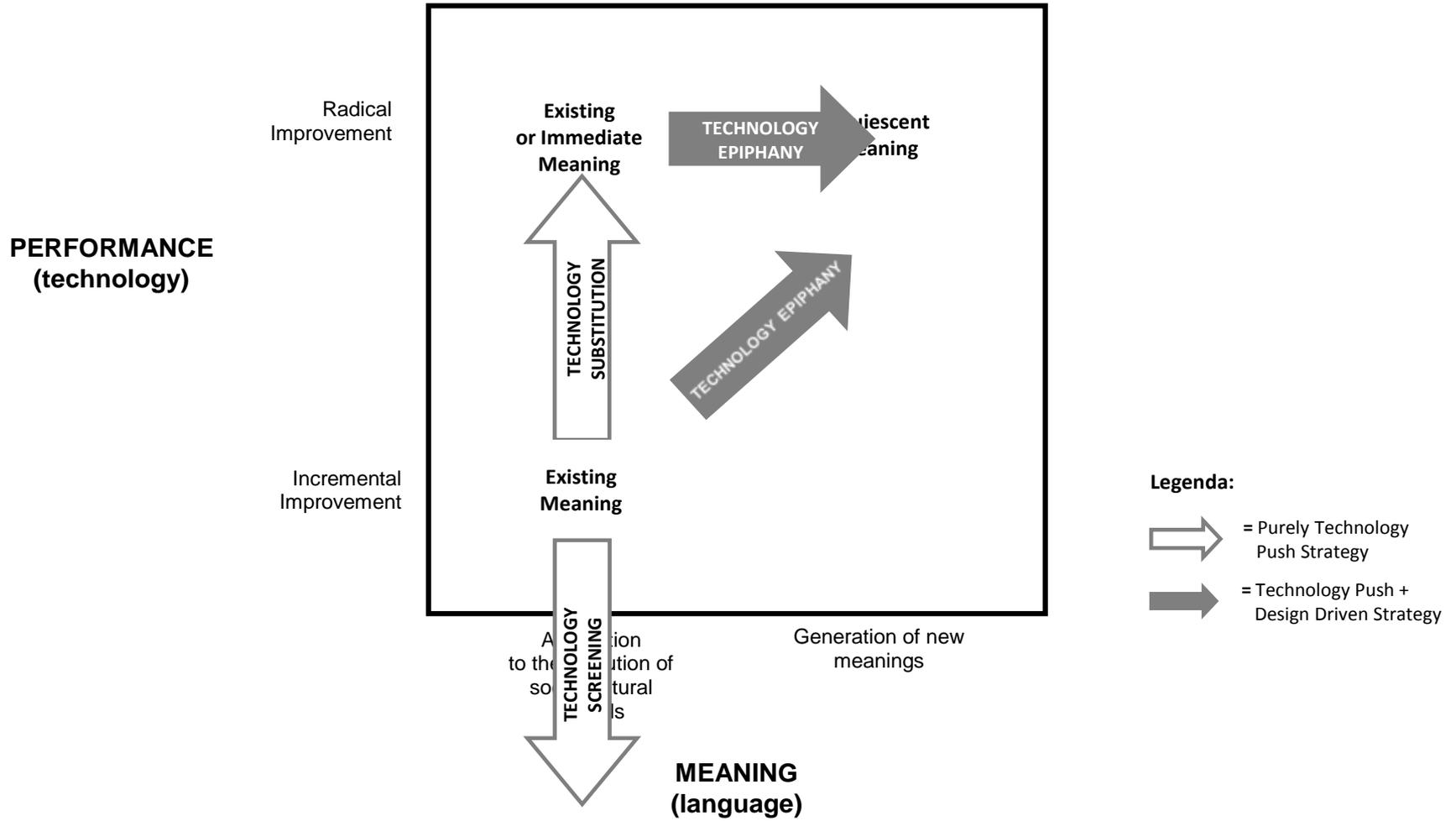
Nintendo Wii wins generating an ecosystem: sales of games (millions)

	Console	Game	Company	Total
1	Wii	Wii Sports	Nintendo	61,34
2	Wii	Wii Play	Nintendo	27,10
3	Wii	Wii Fit	Nintendo	22,57
4	Wii	Mario Kart Wii	Nintendo	21,65
5	Wii	Wii Sports Resort	Nintendo	14,46
6	Wii	New Super Mario Bros. Wii	Nintendo	13,23
7	Wii	Wii Fit Plus	Nintendo	11,02
8	XBox360	Halo 3	Microsoft	10,90
9	XBox360	Call of Duty: Modern Warfare 2	Activision	10,20
10	Wii	Super Smash Bros. Brawl	Nintendo	9,39

Technology epiphanies



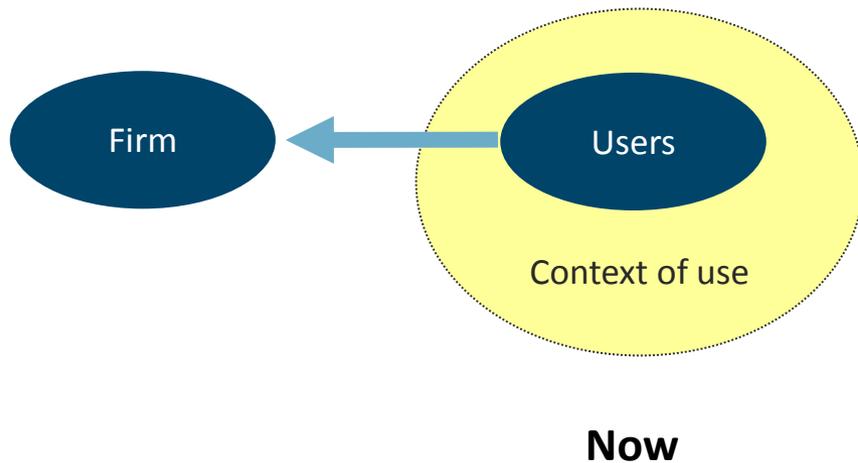
Technology epiphanies



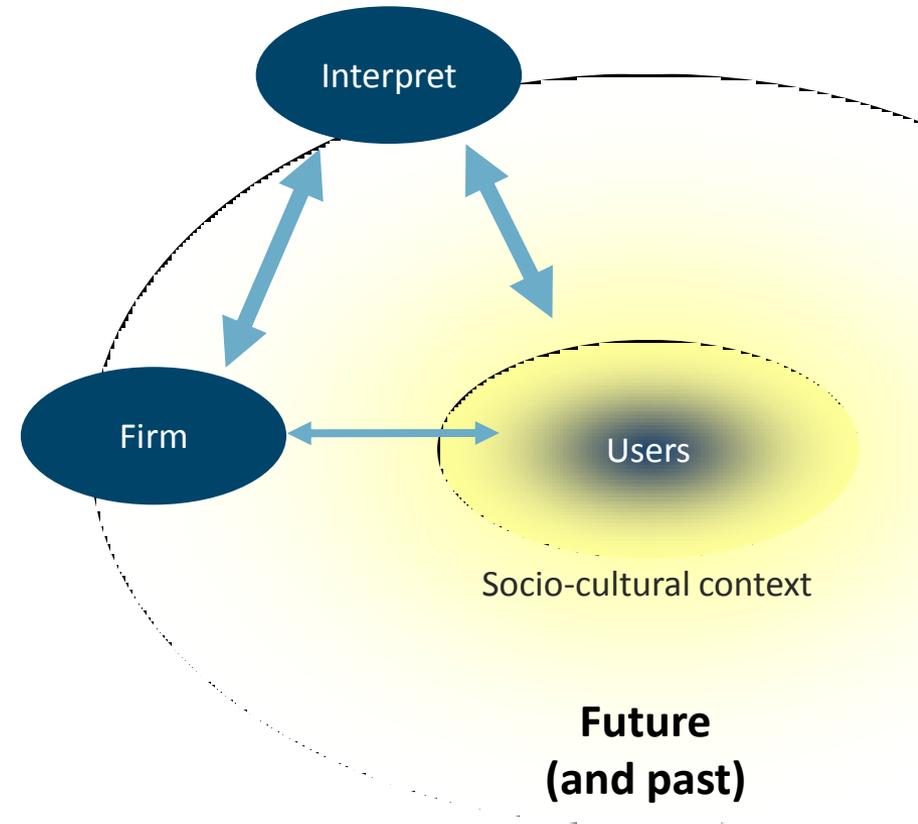
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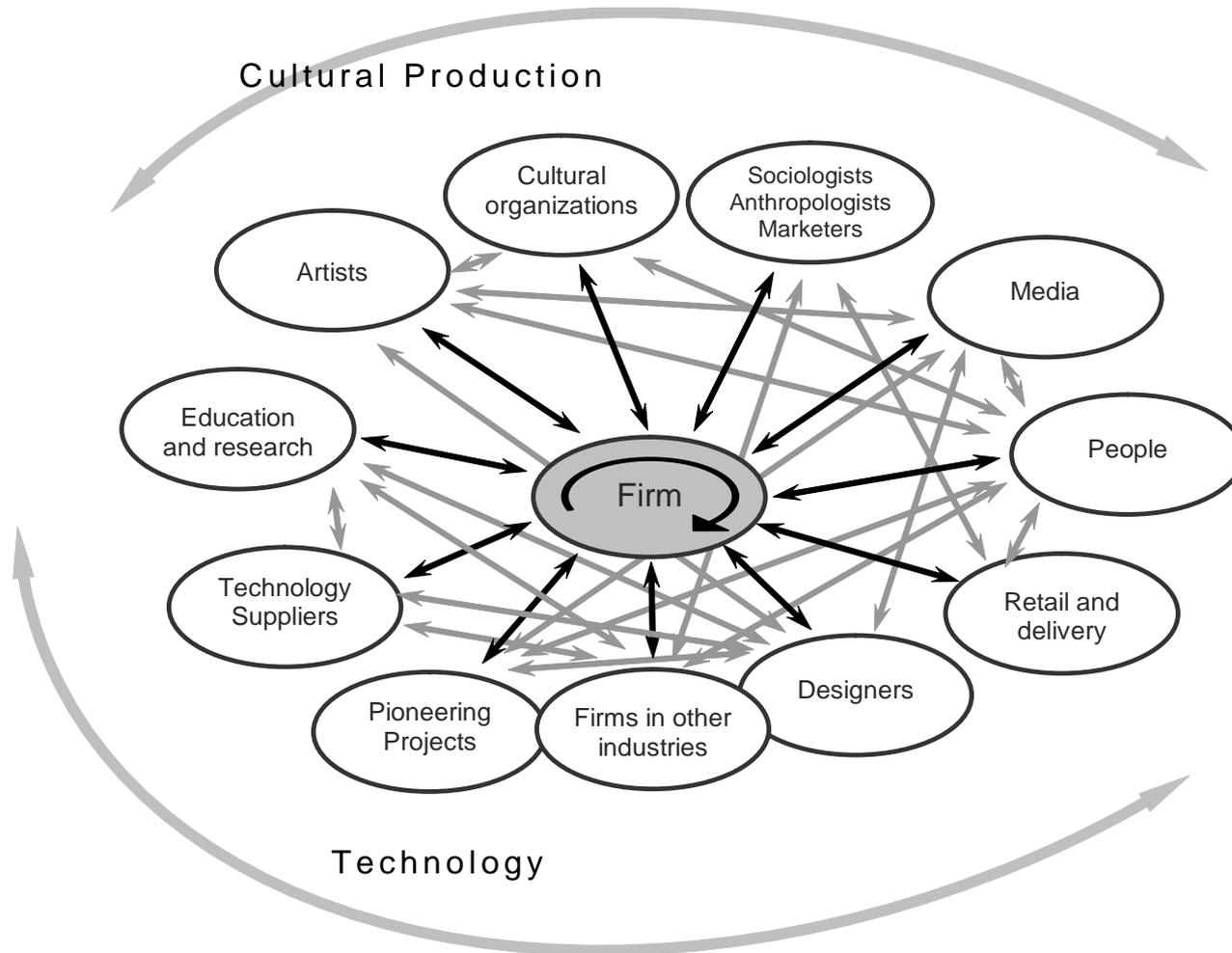
User centered design vs. Design driven innovation

User centered design



Design driven innovation



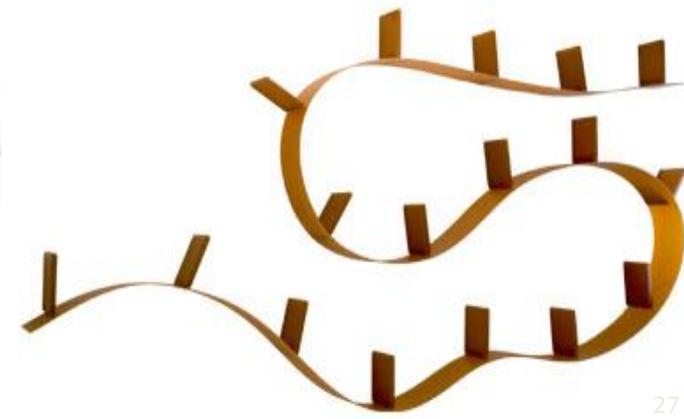


*I believe that Italy, or more specifically Northern Italy, is still the centre of the design world, and I must say that it is not just because of the design that comes from Italy, but, above all, it is because of the **manufacturing culture**; there is no other place in the world where you can find such a **vast array of craftsmen and manufacturers** for all intents and purposes who know the value of design ...*

Ron Arad



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Identification and selection of creative resources

Network of interpreters

Debates

Bridges

Élite circles

Management Practices

Multiple voices

Brokers and mediators

Attract interpreters by acting as an interpreter

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Moroso's designers portfolio



Ron Arad
9 products
Free-lance designer
Israel
Other
Not only furniture
3 Sub-Sectors



Tord Boontje
2 products
Free-lance designer
Netherland
Industrial Design
Not only furniture
1 Sub-Sector



Carlo Colombo
4 products
Free-lance designer
Italy
Architecture
Not only furniture
1 Sub-Sector



Tom Dixon
1 product
Free-lance designer
Tunisia
High School
Not only furniture
2 Sub-Sectors



For Use
1 product
Free-lance designer
Germany, Croatia
Industrial Design
Only furniture
3 Sub-Sectors



Enrico Franzolini
18 products
Free-lance designer
Italy
Architecture
Only furniture
3 Sub-Sectors



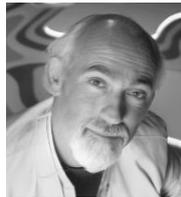
Alfredo Häberli
2 products
Free-lance designer
Argentina
Industrial Design
Only furniture
2 Sub-Sectors



Massimo Iosa Ghini
11 products
Free-lance designer
Italy
Architecture
Not only furniture
2 Sub-Sectors



Roberto Lazzeroni
1 product
Free-lance designer
Italy
Architecture
Not only furniture
3 Sub-Sectors



Ross Lovegrove
3 products
Free-lance designer
Wales
Industrial Design
Only furniture
4 Sub-Sectors



Javier Mariscal
6 products
Free-lance designer
Spain
Other
Not only furniture
2 Sub-Sectors



Moroso Design Center
5 products
In-house designers
Italy
Industrial Design
Only furniture



Marc Newson
2 products
Free-lance designer
England
High School
Not only furniture
3 Sub-Sectors



Ludovica e Roberto Palomba
1 product
Free-lance designer
Italy
Architecture
Not only furniture
1 Sub-Sector



Marco Piva
1 product
Free-lance designer
Italy
Architecture
Not only furniture
1 Sub-Sector

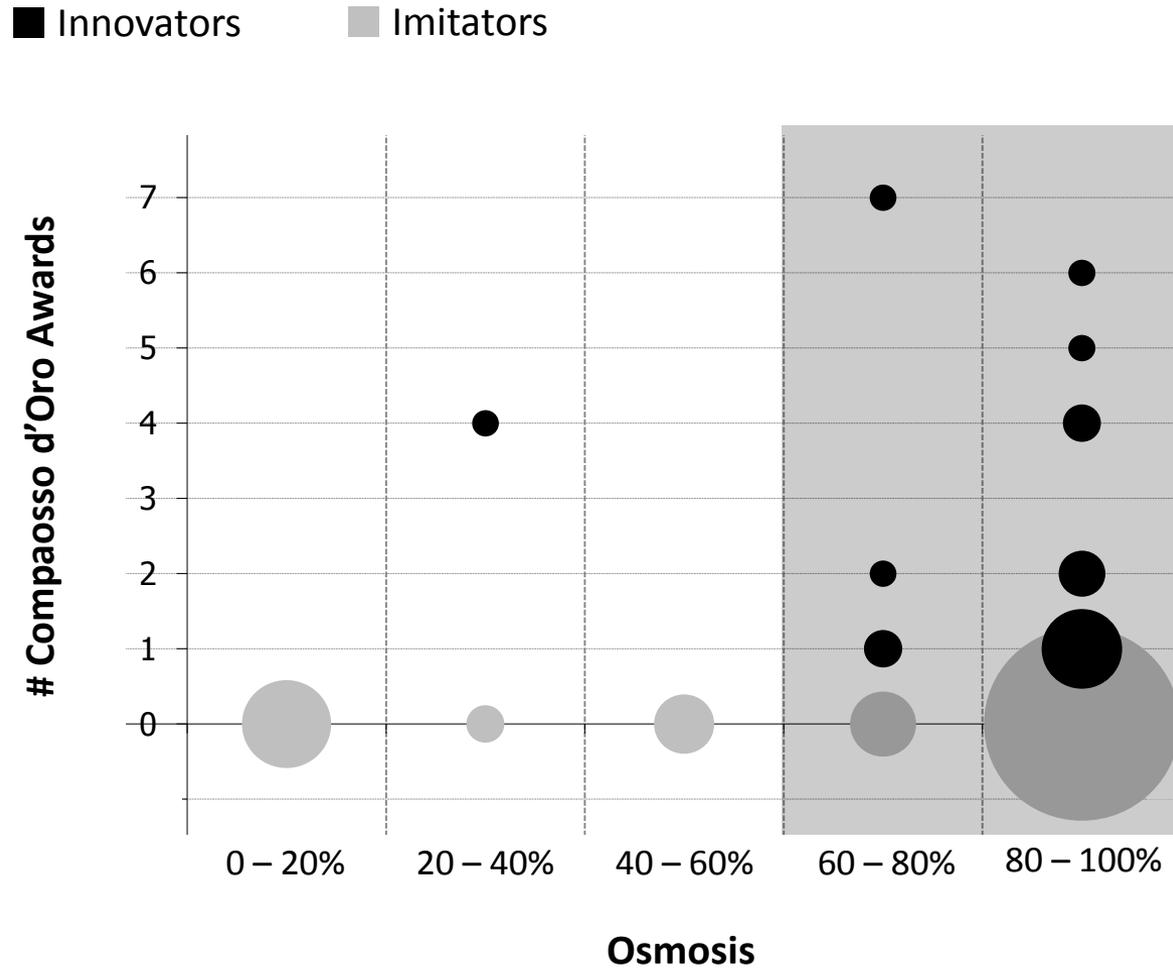


Patricia Urquiola
23 products
Free-lance designer
Spain
Industrial Design
Only furniture
3 Sub-Sectors

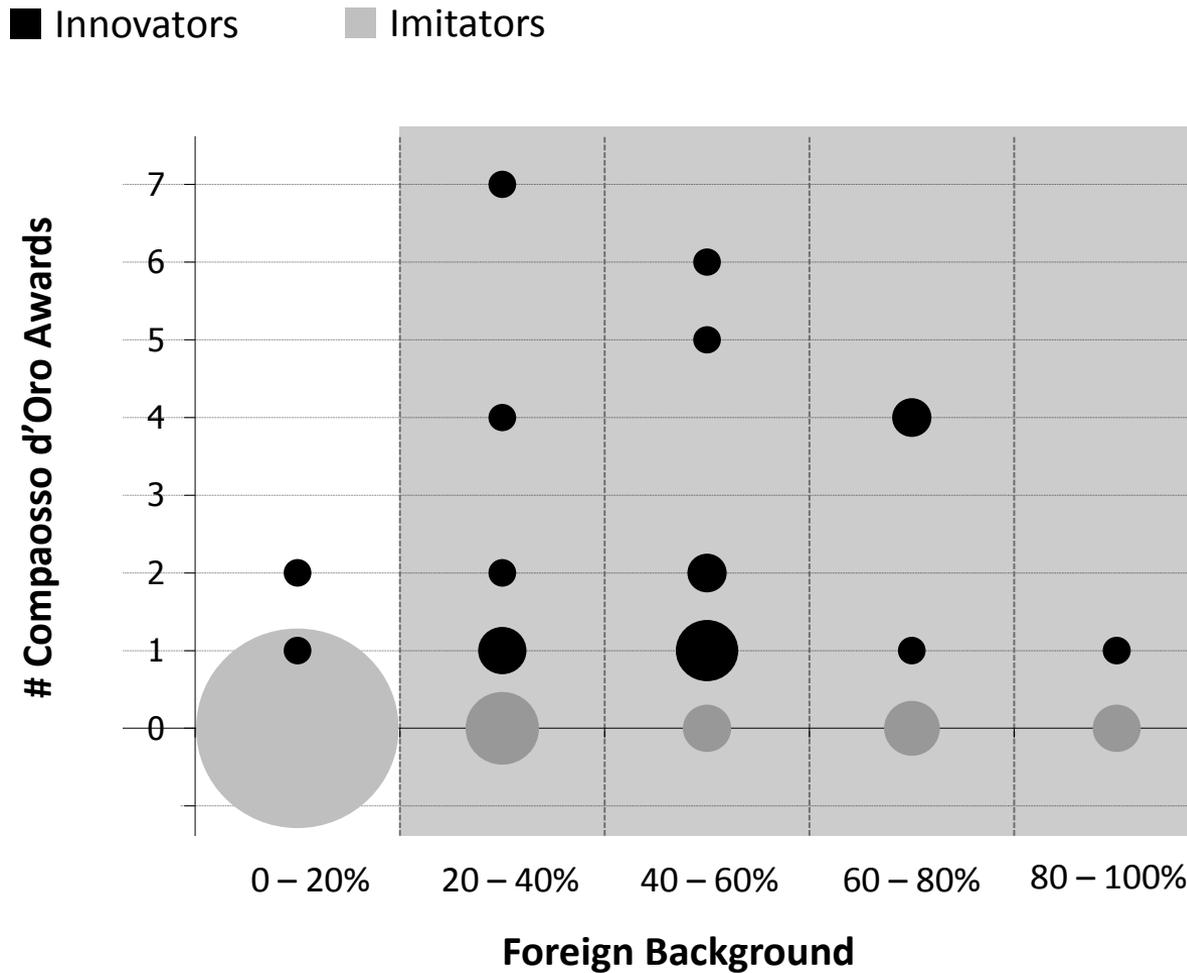


Marcel Wanders
1 product
Free-lance designer
Netherland
Other
Not only furniture
4 Sub-Sectors

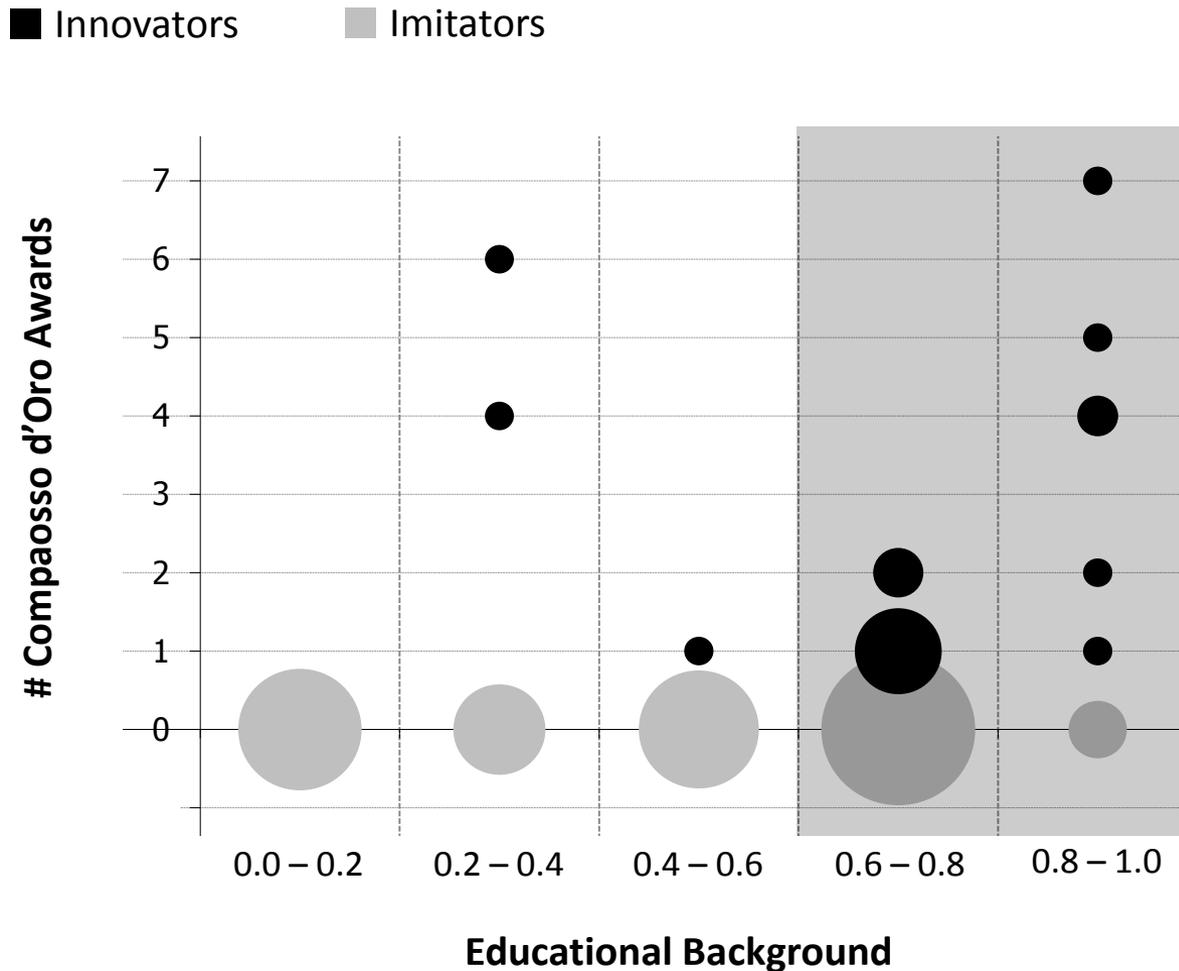
Knowledge diversity and Innovation: Osmosis



Knowledge diversity and innovation: Foreign Background



Knowledge diversity and innovation: Educational Background



Knowledge diversity and innovation: Educational Background

	Innovators	Imitators
% of products developed with external designers	90%	77%
Mean number of external designers	11,9	4,4
% of products developed with designers who have a degree in architecture	45%	33%
% of products developed with designers who have a degree in industrial design	31%	52%
% of products developed with designers who have a degree in engineering	6%	0%

Identification and selection of creative resources

Network of interpreters	Management Practices
Debates	Multiple voices
Bridges	Brokers and mediators
Élite circles	Attract interpreters by acting as an interpreter

Identifying creative collaborators



*Very often design is the most immediate way of defining **what products become in people's minds**. It is important to understand that our goal wasn't just to differentiate our product, but to **create products that people would love in the future***

Jonathan Ive, VP of Industrial Design, *Apple*



Identification and selection of creative resources

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*Development paradigm of B&B Italia imposes that initial ideas must be **independent from any firm specific constraints** [...]. Every new idea has to come from outside the firm in order to be fresh and to be a challenge for the Centre Research and Development*

Federico Busnelli, Director of *B&B Italia* R&D Centre

Attracting creative collaborators

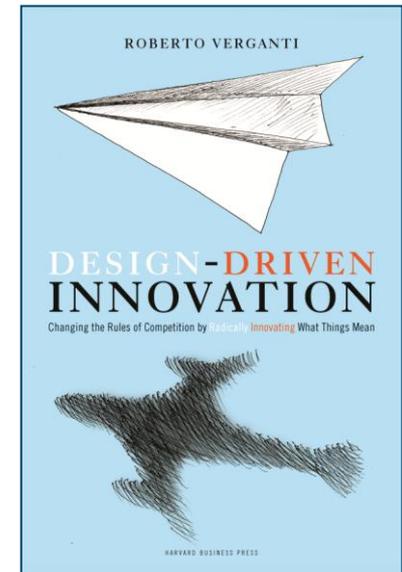


*Alessi doesn't make us feel as if we work for Alessi.
Rather, we feel as if Alessi is working for us!*

Alessandro Mendini, Designer



- The education programs proposed by MIP in the Management of Design and Innovation Area are based on **advanced research projects developed by MaDe In Lab in the last 15 years**. The relevance of these projects is demonstrated by the several publications on leading international journal such as Harvard Business Review, Management Science, Journal of Product Innovation, Long Range Planning, etc.
- The international quality of the research developed by MaDe In Lab has been recently appreciated by **Harvard Business Press** that on August 2009 has published the book *Design Driven Innovation - Changing the Rules of Competition by Radically Innovating what Things Mean* by Roberto Verganti (www.designdriveninnovation.com)



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