

## **Project Contributors**

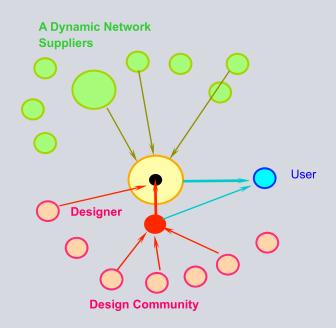
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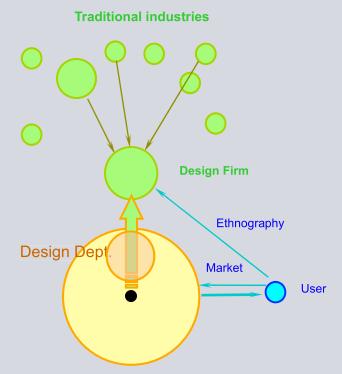
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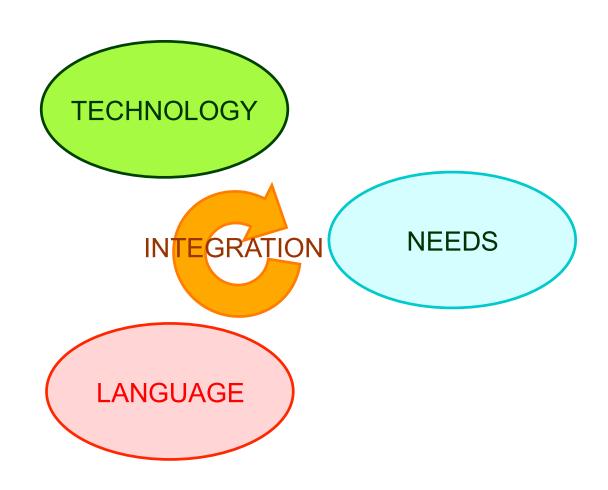
\*Academic Editors

## **Networks and Brokering**





## Innovation as the Generation and Integration of Knowledge



## Propeller Design's Saddle



## for both rider

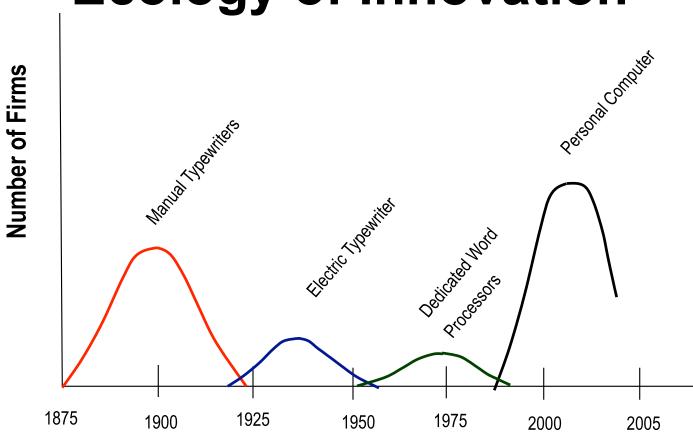


## and horse





## **Ecology of Innovation**



Time

Source: Utterback, 2004 unpublished

## SONY Walkman Apple iPod





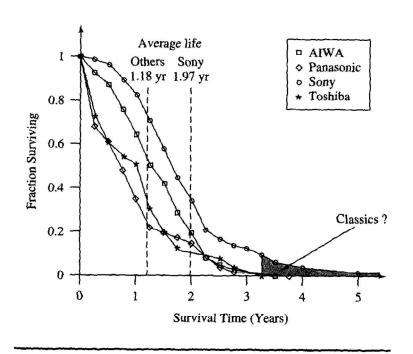
## **Topological Change**







## **Model Longevity**



A. Survival of persona	stereos in	U.S.	market
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Firm	Model	Entered	Left	
AIWA	HSP02	Aug-82	Nov-84	
PANASONIC	RX1936	Aug-86	Nov-88	
	RXSA80	Nov-86	May-89	
	RXSA60	Feb-87	May-89	
	RXSA73	May-88	*	
SONY	TPSL2	Sep-80	Nov-83	
	WMF2	Aug-81	Aug-83	
	WMR2	Aug-81	Nov-84	
	WM3	Aug-81	May-85	
	WMF1	Feb-83	May-85	
	WMF5	May-83	Nov-85	
	WMDC2	Aug-84	Aug-86	
	WMD6C	Aug-84	*	
	WMF100	May-86	May-89	
	WMF45	Feb-87	May-89	
	WMF73	Aug-87	Aug-90	
	WMAF64	May-88	*	
TOSHIBA	KTR2	Aug-81	Nov-83	
	KTS1	Aug-81	Feb-84	
	KTS3	Aug-81	Aug-84	
* Still on market in last period of study				

## Combine Elegant Interfaces, Software and Services for User Delight



## **Portable Digital Music Players**



March 98



Oct. 98



Nov. 99



Oct. 01

# Portable Players Emulate iPod in Features and Design



Sansa e200



**iPod** 



**Microsoft Zune** 

### **Write Scenarios**

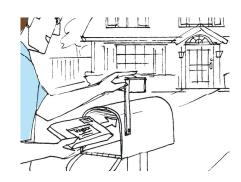












## **Quickly Build Prototypes**



#### **Form Factor**



### **Engineering Brain Strom**







## **Test Prototypes and Systems**



#### No-Moving-Parts Dispensing System (international patent submitted)



#### **Engineering**

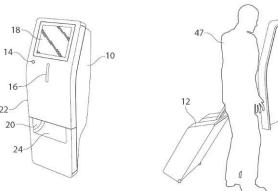






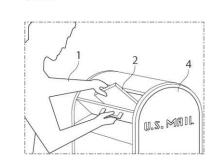
#### Intellectual Property (international patent submitted)

CartridgeSwap System

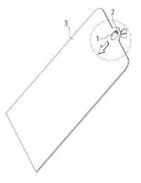


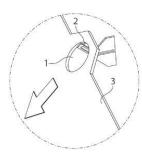
BusinessModel: Rent inKiosk Return byMail Process

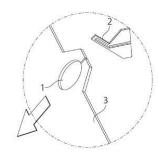




No Moving PartsDispensing System







#### **Fully Operational Pilots / Boomerang Movies**













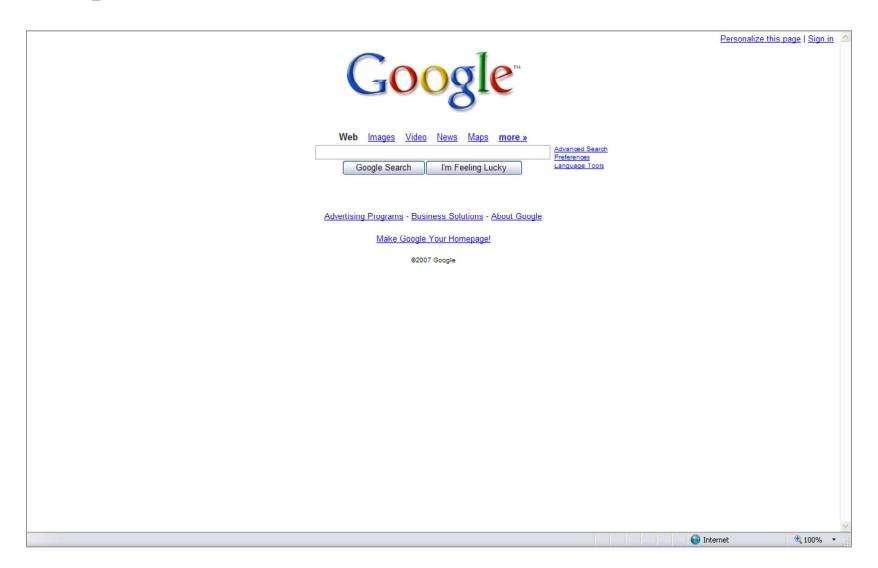
#### Yahoo! = > 9 different main menus?

#### 23% of searches



Public Since 1998 (Google was not even incorporated then)

#### Google = > 1 search box, 1 main menu 54% of searches

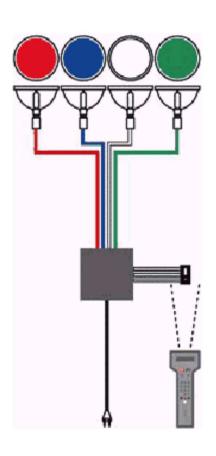




#### Move Beyond the Initial Concept or Brief



## **Enable Users to Experiment**





#### **Engage Users**

Esperia (1996)

Ernesto Gismondi

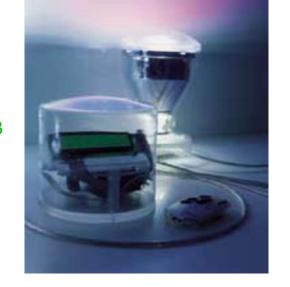


"...Color in life is everything. However, it should be subtle. Hence I have designed the machine to be as compact, simple and minimal as possible"

#### Yin (2001) and Yang (2000) Carlotta de Bevilacqua



"...I thought of this lamp as an object that could speak using only of the color of light. An object that could speak through its natural materials and a minimal form"

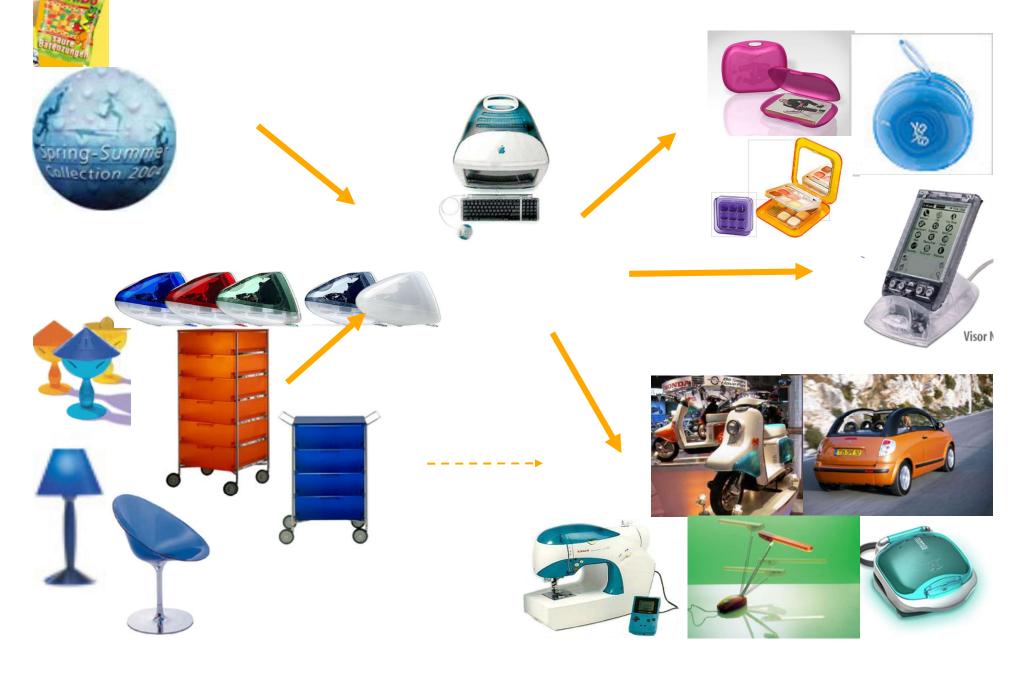


Metamorfosi Kit 3

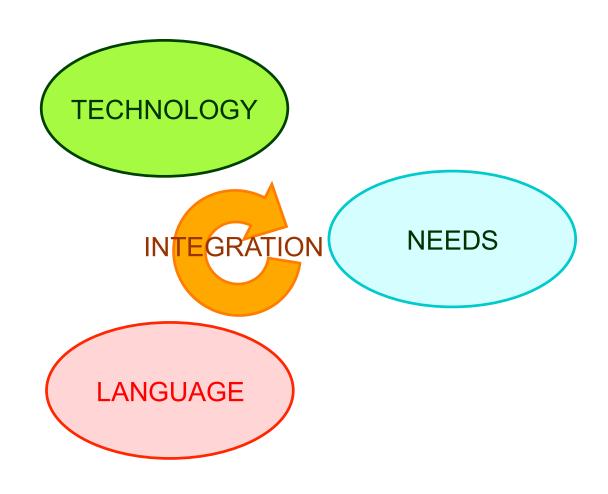
#### Move Beyond the Initial Concept or Brief



### **Broker Ideas across Platforms**



## Innovation as the Generation and Integration of Knowledge



### Time Invention of the Year



## **Added Material**

#### **VISUALIZE!**

Multi sport wheelchairs at an exhibition in Athens 2005 Developed and designed by engineering/design students, Mälardalen University













## Work closely with Users - Here Jenny Lundblad, one of the world's best female athletes in wheelchair racing



"Sport has given me the joy of life back again."

"I am stronger now in many ways and more independent in my daily life thanks to my sport."

"The wheels are my legs and therefore the design is extremely important for me."

(Interviewed by Sten Ekman in October 2003 at The Munktell Sports Arena, Eskilstuna, Sweden)

## Use New Materials titanium chairs and wheels of carbon fiber







Source: www.newhalls.com

#### Create a Platform and Product Family





"G-Force" 1983



