

**Take:**

**Engineering**

**Innovation & Design**

**ESD.051 / 6.902**

**M,W 3-5, Spring 2011**

# **Making Your Product Rock**

# **1. The Most Important Thing**

# **2. Ten-Step Design Process**

# **3. How To Make Your Product Not Suck**

# **4. How To Win A Design Competition**

# **5. Philosophy**

# 1. The Most Important Thing

**Ask “Why?”**



***Extra Takeaway!***

**“Good” is relative  
to the objective**

# ***The 10-Step Design Process***

# Research (steps 1-6)

1) Identify Needs

What's the problem?

2) Information Phase

What exists?

3) Consumer Phase

What's wanted?

# Research (cont.)

4) Planned Research

What's realistic?

5) Hazard Analyses

What's safe? (What can go wrong?)

6) Specifications

What's required?

# Design (steps 7-9)

7) Creative Design  
Ideation

8) Conceptual Design  
Potential solutions

9) Prototype Design  
Create a version of the preferred design

# Verification (step 10)

10) Verification

Does it work? If not, redesign

End Solution

# **Design Process Exercise – Map steps to making dinner or Planning a surprise birthday party**

- 1) Identify Needs
- 2) Information Phase
- 3) Consumer Phase
- 4) Planned Research
- 5) Hazard Analyses
- 6) Specifications
- 7) Creative Design
- 8) Conceptual Design
- 9) Prototype Design
- 10) Verification

# The 10-Step Design Process...

...Can be used for  
anything



**2 People**

**Who are these 2 people?**



Dieter Rams



Johnny Ive

# Dieter Rams

- Dieter Rams (born May 20, 1932 in Wiesbaden) is a German industrial designer closely associated with the consumer products company Braun and the Functionalist school of industrial design. (Wikipedia)

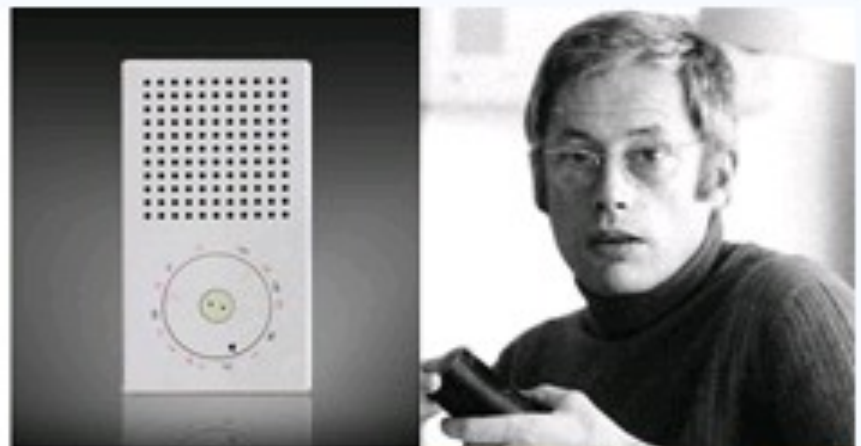


# Johnny Ive

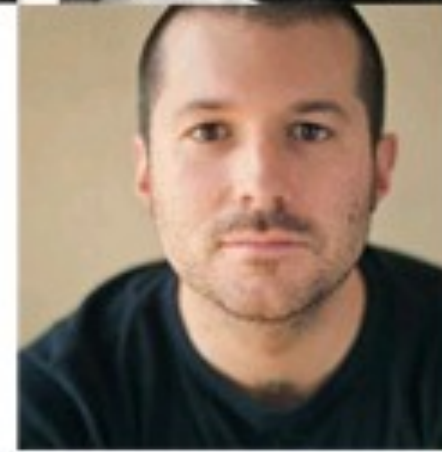
- Jonathan Paul Ive, CBE (born February, 1967) is a British designer and the Senior Vice President of Industrial Design at Apple Inc. He is internationally renowned as the principal designer of the iMac, aluminum and titanium PowerBook G4, MacBook, unibody MacBook Pro, iPod and iPhone. (Wikipedia)



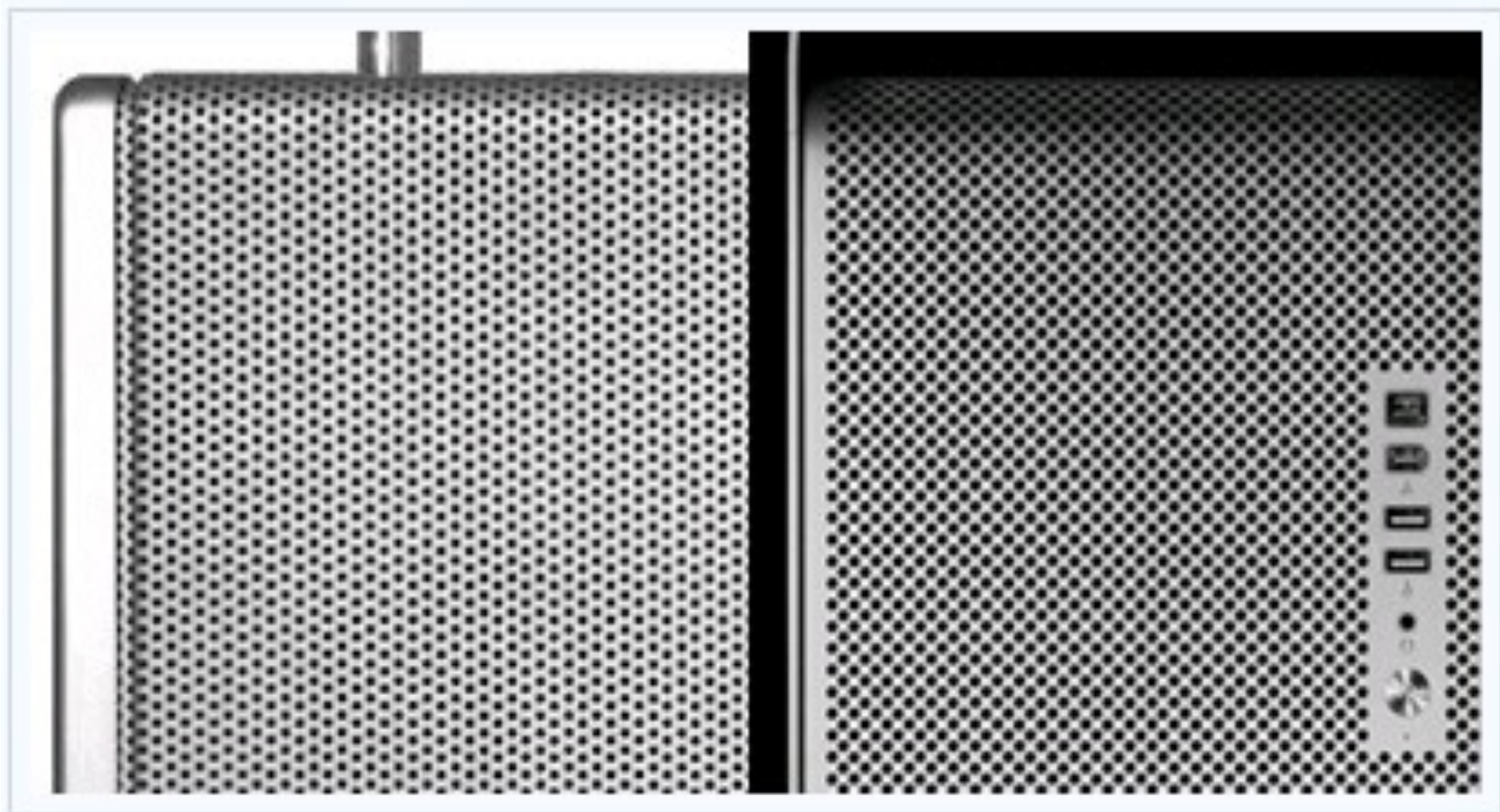
# Dieter Rams & Johnny Ive



# Dieter Rams & Johnny Ive

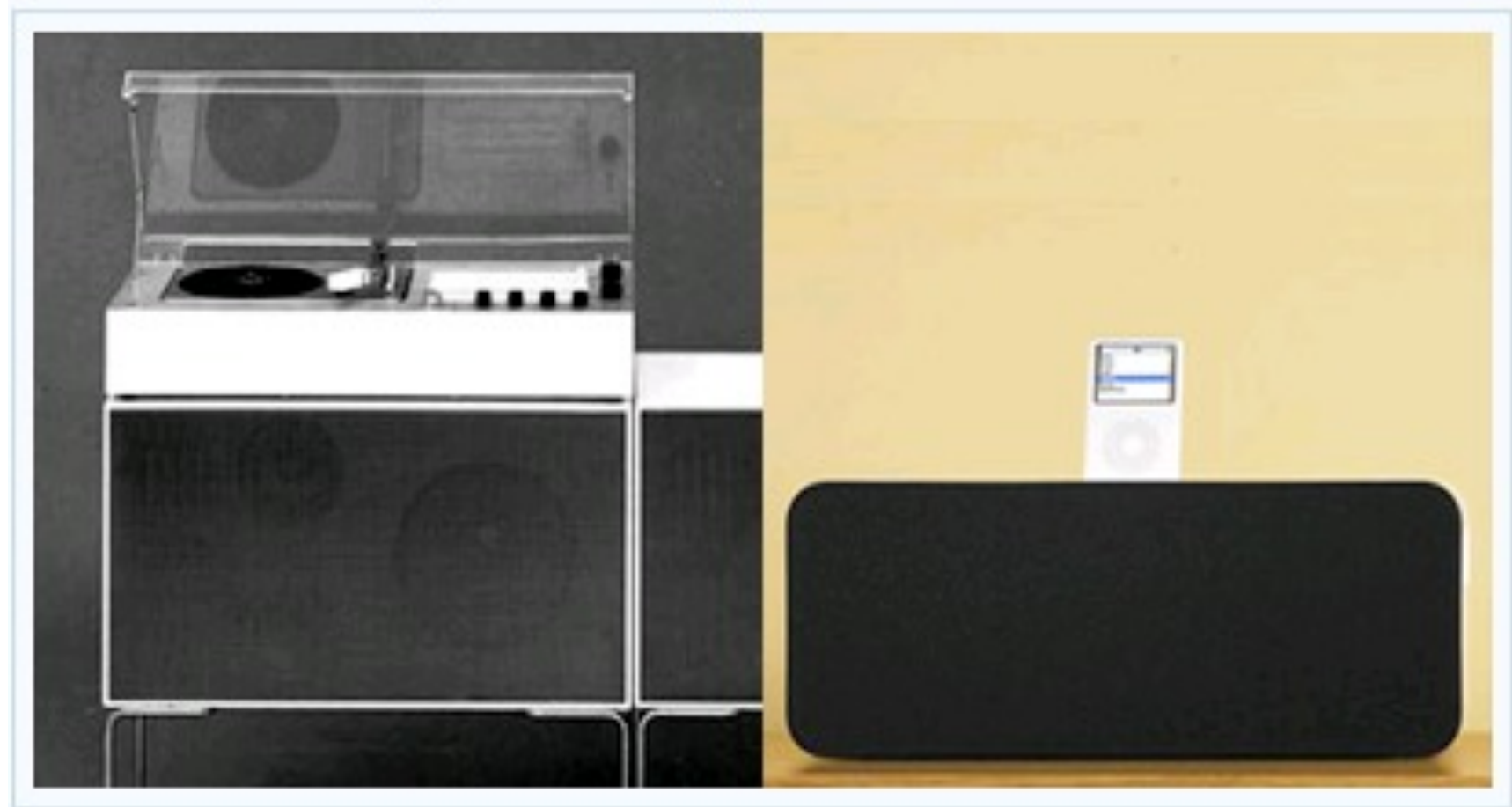


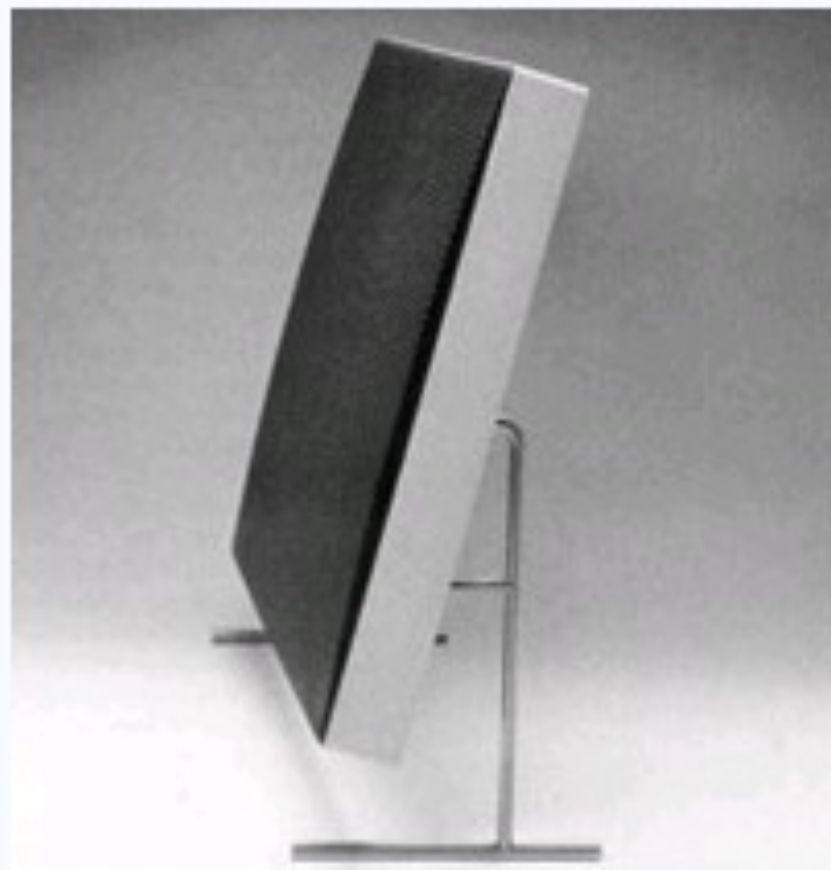














***Extra Takeaway!***

**Good design is  
timeless**

**Awesome  
Products Are  
Obvious**

# 5 Elements of Great Products

1. You know what the product does
2. Easy to see how it fits into your life
3. Users aren't overwhelmed with features (even if there are a lot)
4. Style is one important element of design
5. The product isn't only the object: it's also the words used to describe it, the box it's in, the





***Extra Takeaway!***

**Simple and clean  
is very hard.**

# **On Making Awesome Products**

# Questions to answer when designing anything

1. What is the SINGLE thing my product does?
2. Why would anyone care about that?
3. What secondary things does my product do?
4. Do all the functions support the primary goal?
5. Do I need to have all of those things? Like, really, really need them? (Most of the time = “no”)

# 3 Steps to Articulate Your Design Clearly

1. Use simple phrases to describe it (Twitter length)  
“The World’s Thinnest Laptop”
2. Use passionate words “Coolest” “Awesome”  
“Funnest” “Miraculous”  
“The coolest thing about iPod is your entire music library fits in your pocket”
3. Be specific with your claims  
“iTunes now offers over eight and a half million songs”

*From The Presentation Secrets of Steve Jobs, Carmine Gallo*

***How to make your  
product not suck:***

**Be able to answer  
“So what?”**

# **How to Win A Design Competition**

**Follow Above Steps**

**Follow Above Steps  
And...**



**Be excited about what you make, **while** you make it.**

**The larger the team, the harder it is to express a single vision. **Choose a leader.****

**Make something that connects to people intellectually **and** emotionally.**

# Blade's Design Philosophy

## **Books to get:**

**The Presentation Secrets of Steve Jobs, Gallo**

**Design Driven Innovation, Verganti**

**Staying Power: Six Enduring Principles for Managing strategy and Innovation in an Uncertain World (Lessons from Microsoft, Apple, Intel, Google, Toyota, and More), Cusumano**