

# What makes a game fun

Introduction to game design



**PRESS START**

Jean-Baptiste Boin

# What we won't discuss today

- Many elements are needed to make a great game
  - Story
  - Artwork
  - Genre
- We will mainly focus on the gameplay in general



# What is a game?

- A game  $\neq$  a toy  $\rightarrow$  problem solving
- A game  $\neq$  work  $\rightarrow$  playful attitude

“A game is a **problem solving** activity,  
approached with a **playful attitude**”

(Jesse Schell)



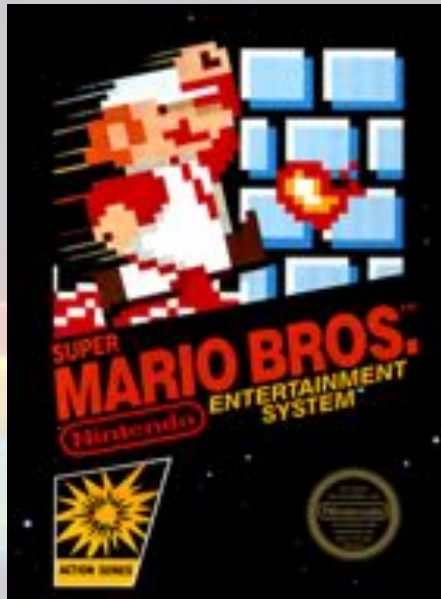
# A set of rules

- Game designer: creates/organizes these rules
- Board games vs. computer games



*Battlechess* (Amiga), 1988

# Case study: Super Mario Bros. (lvl 1)



Released in 1985 on NES

Sold 40.24 million copies  
(fourth best-selling game  
ever)

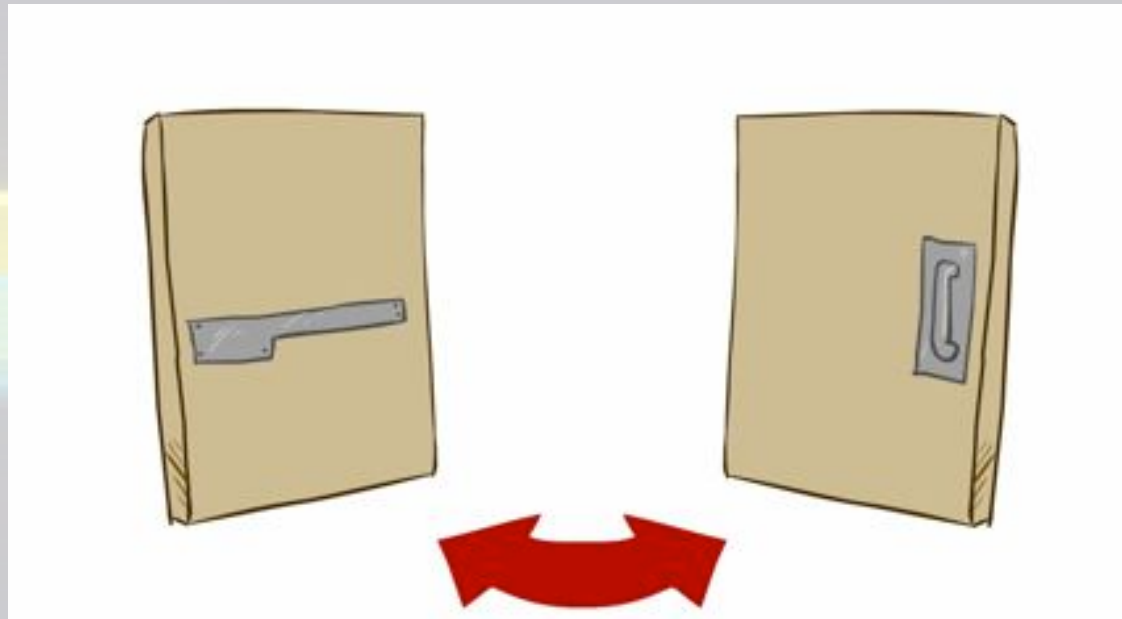


# Case study: Super Mario Bros. (lvl 1)



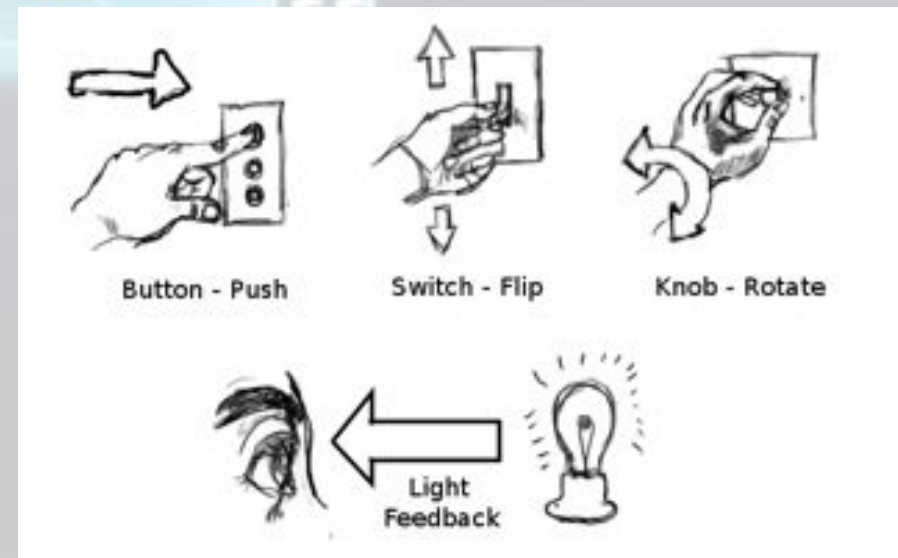
Nice article: <http://auntiepixelante.com/?p=465>

# Affordance



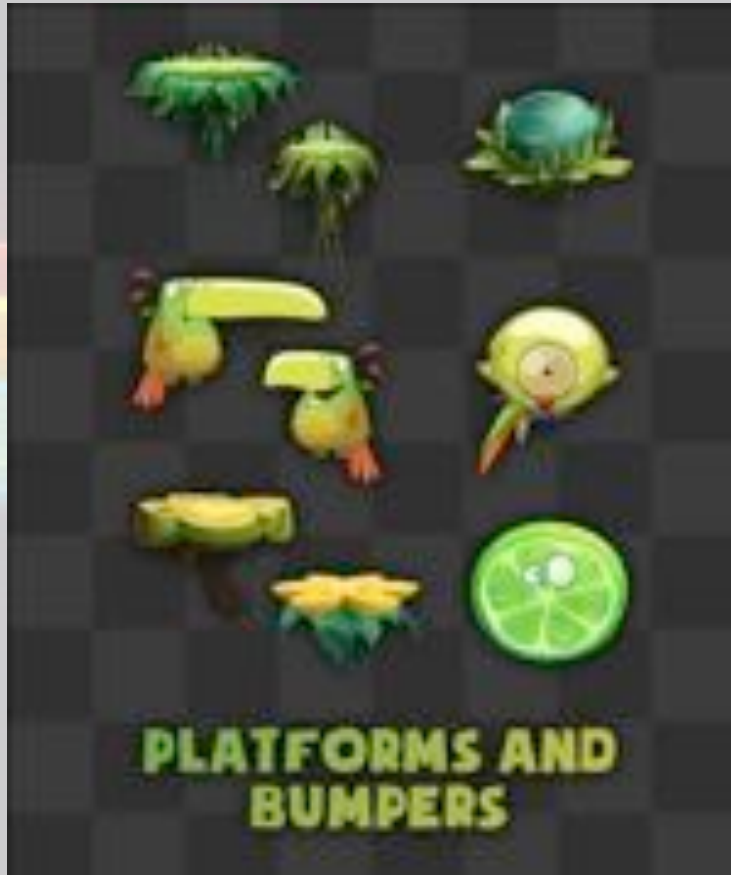
# Affordance

- Concept coming from the design world (*The Design of Everyday Things*, Donald Norman)
- Making things “obvious” to use





# Affordance

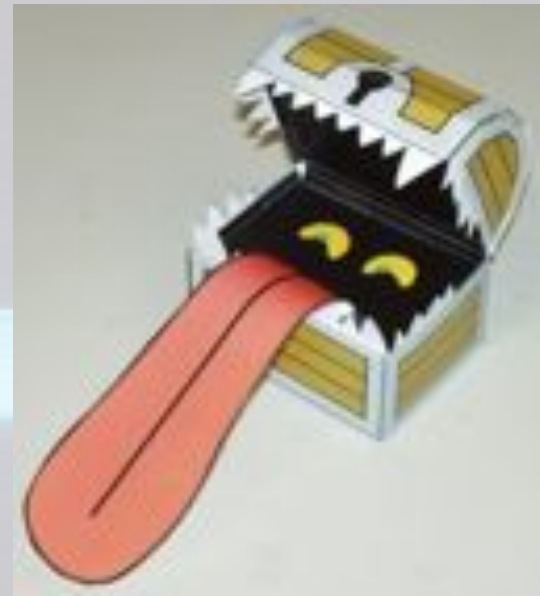


*Rayman Origins* (PS3, Xbox360, Wii), 2010

# Affordance



*Fantasia* (Mega Drive), 1991



# Core mechanics

- One core gameplay



*Super Mario Bros. (NES), 1985*



*Sonic the Hedgehog (Mega Drive), 1991*

# Core mechanics

- One core gameplay



*Gran Turismo Sport (PS4), 2017*



*Mario Kart 8 (Wii U), 2014*

# Core mechanics

- One core gameplay



*Call of Duty: Black Ops*  
(Xbox 360, PS3, Wii, Windows, Mac), 2010



*Pokemon Snap* (Nintendo 64), 1999

# Core mechanics

- Dual-core



*Tomb Raider* (Windows, Mac, PS3, Xbox360), 2013



*Final Fantasy VII* (PS), 1997

# Core mechanics

- Multi-core



*The Legend of Zelda: The Wind Waker (GameCube), 2002*

# Core mechanics

- “Many”-core



*Mario Party 9 (Wii), 2012*



# Gameplay loops

Micro



Medium



Macro



*The Legend of Zelda: Skyward Sword (Wii), 2011*

# Gameplay loops

Objective



Challenge



Reward



*Super Mario Bros. (NES), 1985*

# Gameplay loops

- Specificity of “sandbox games”



# Risk and reward



*Pacman* (arcade), 1980



Credit: Edmund McMillen

# Risk and reward

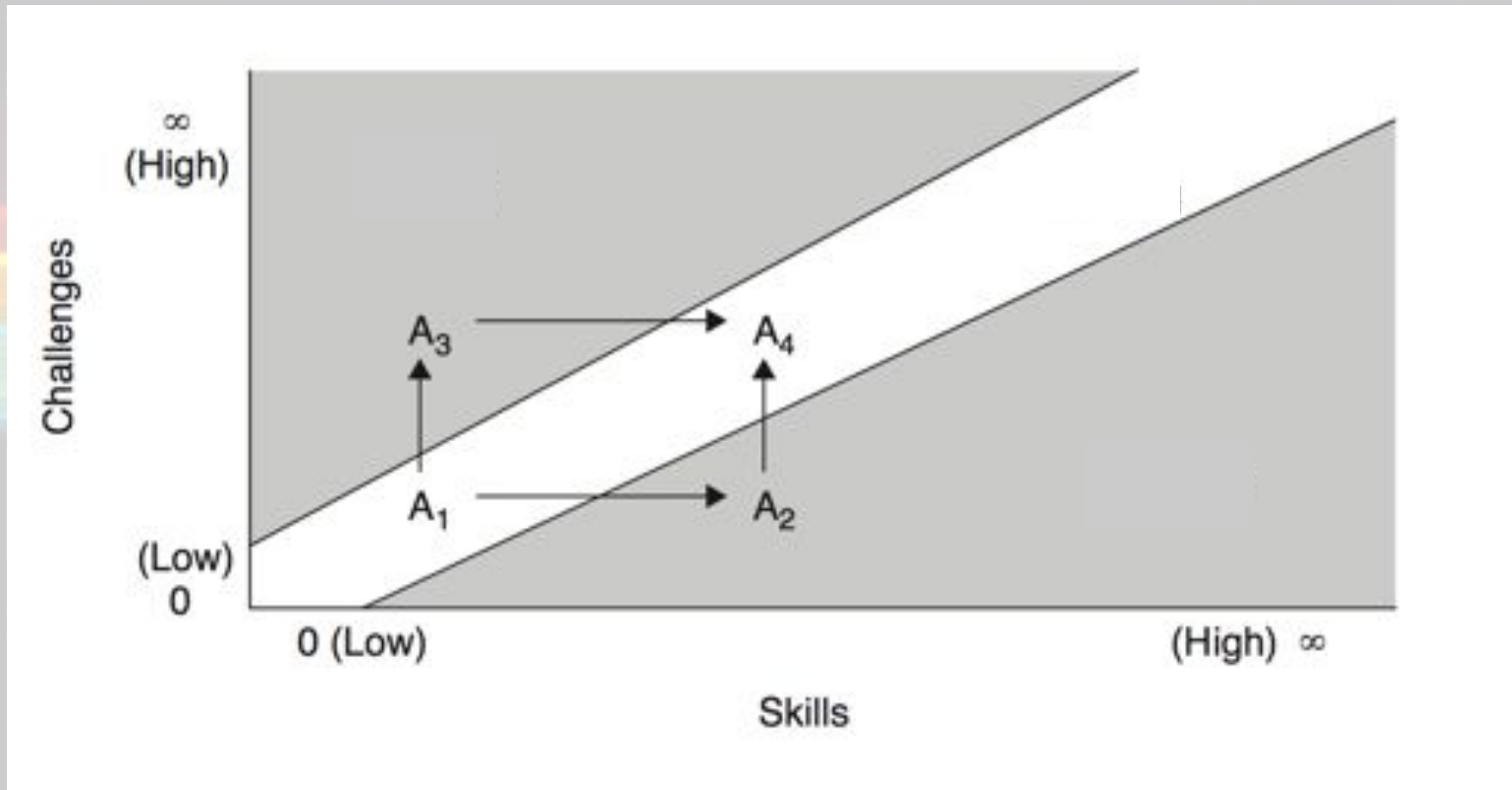


Super Meat Boy (Xbox, Windows, Mac), 2010



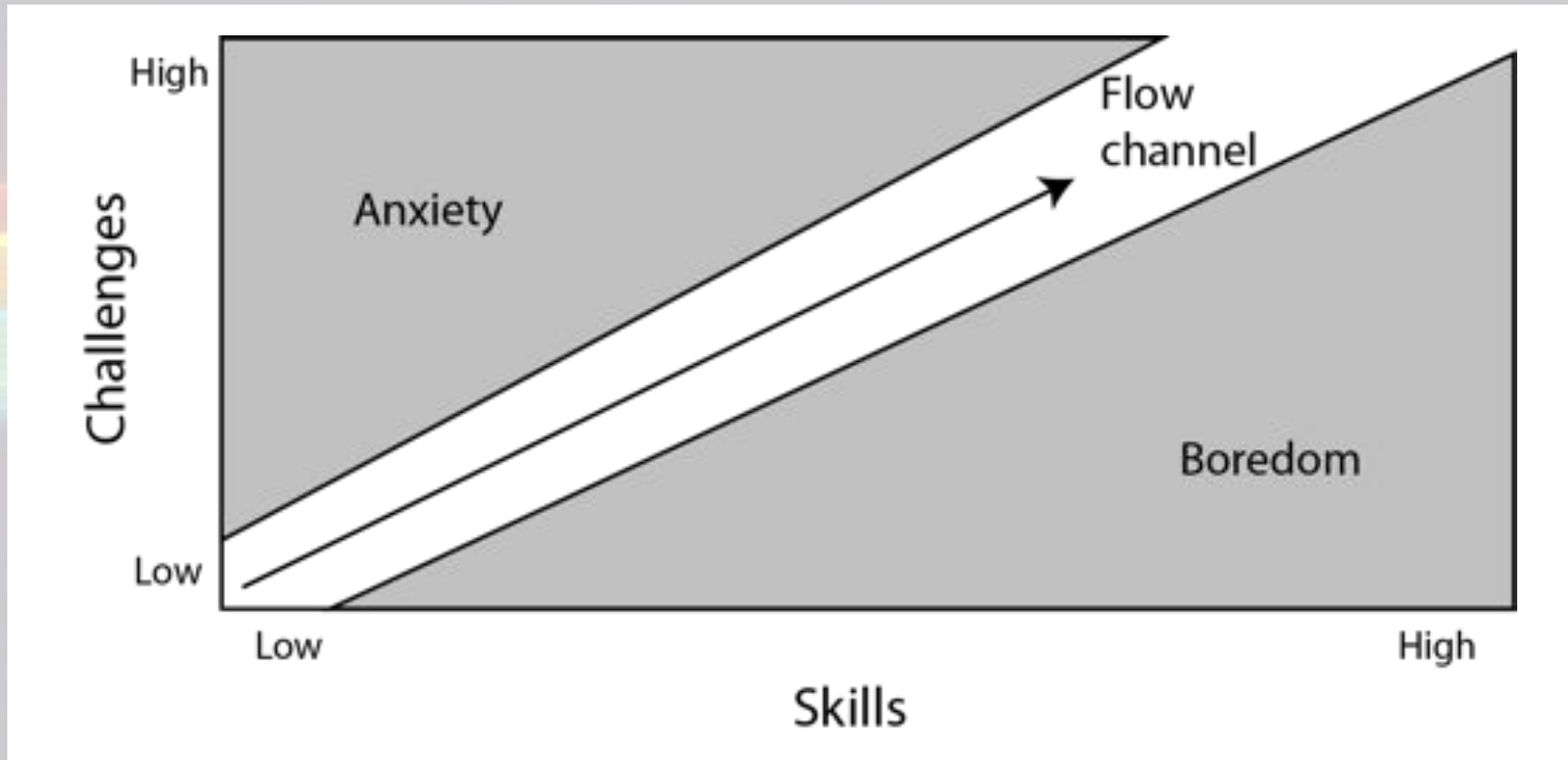
Credit: Edmund McMillen

# Managing difficulty



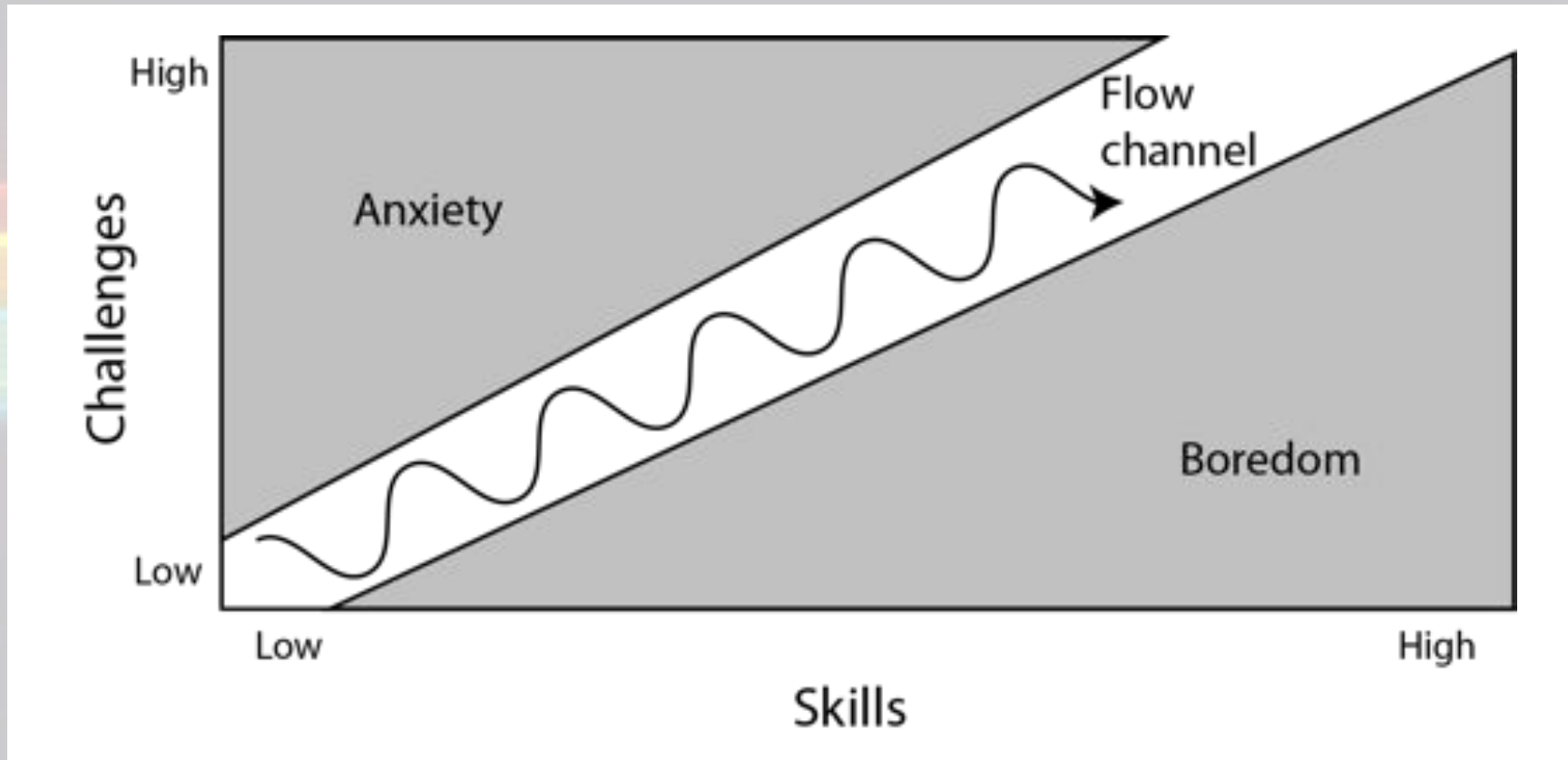
Credit: Jesse Schell

# Managing difficulty



Credit: Jesse Schell

# Managing difficulty



Credit: Jesse Schell



# A cautionary tale



US



UK

**Direct feedback!**

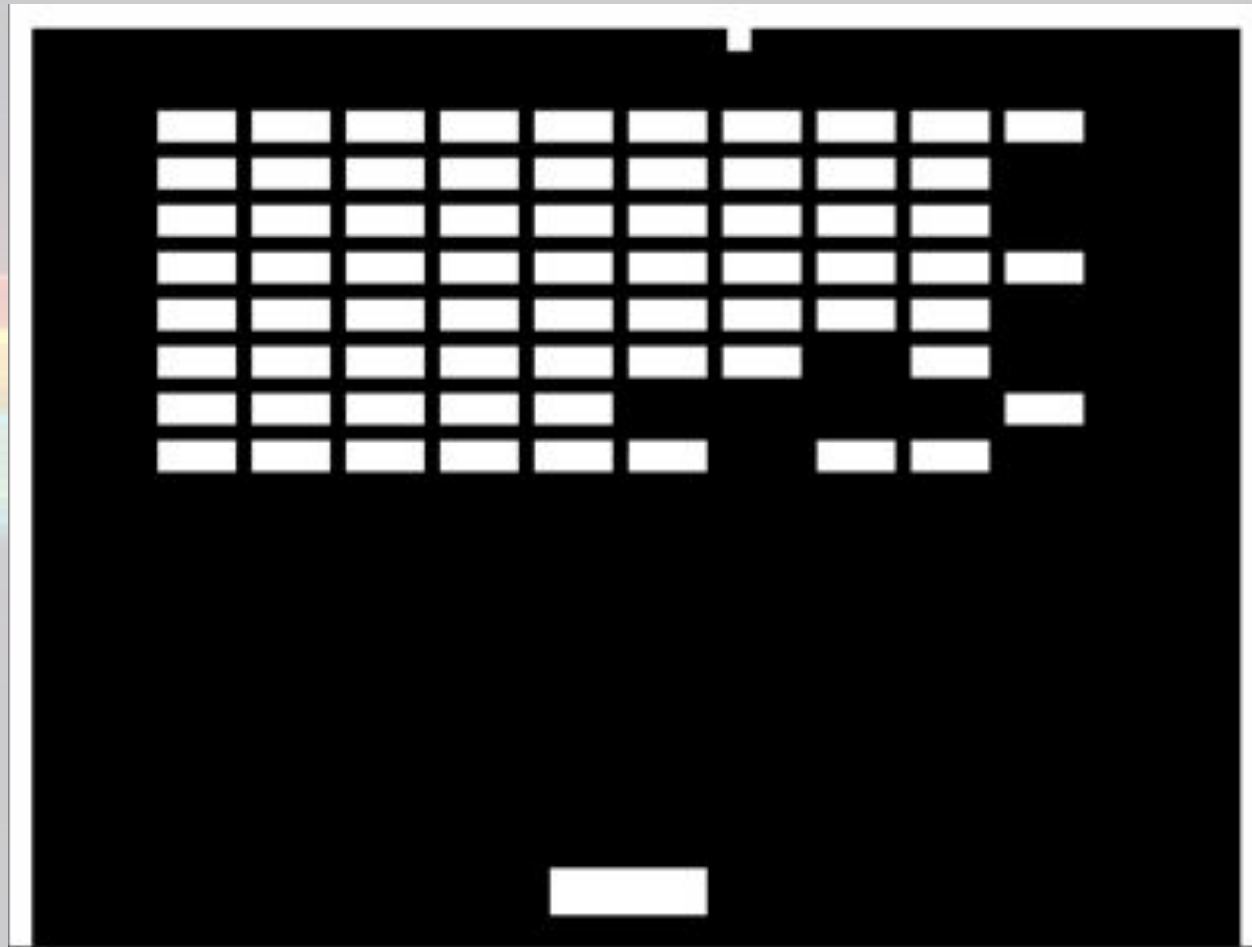
# Feedback

- Used as a reward
- Hierarchy in actions



*Super Street Fighter IV (PS3, Xbox 360), 2010*

# Feedback: make your game juicy!



Credit: M. Jonasson, P. Purho

# Bad feedback



*Link: Faces of Evil (Philips CD-i), 1993*

# Great feedback



*Fruit Ninja* (mobile), 2010



*Angry Birds* (mobile), 2009

# Great feedback

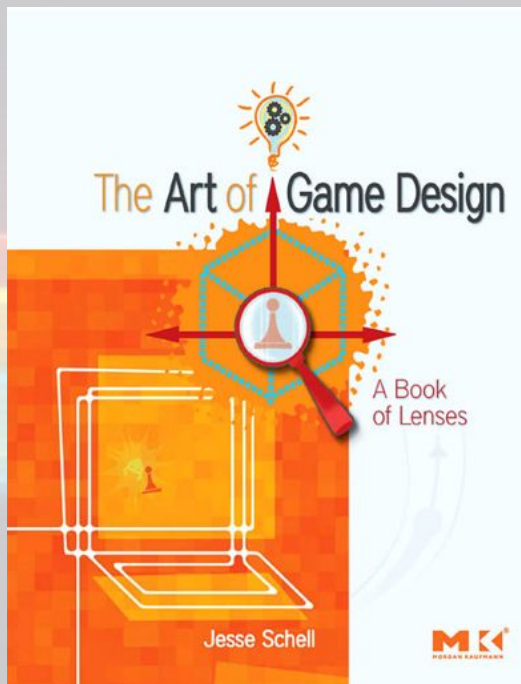


*Rayman Legends* (Wii U, PS3, Xbox 360, Windows), 2013

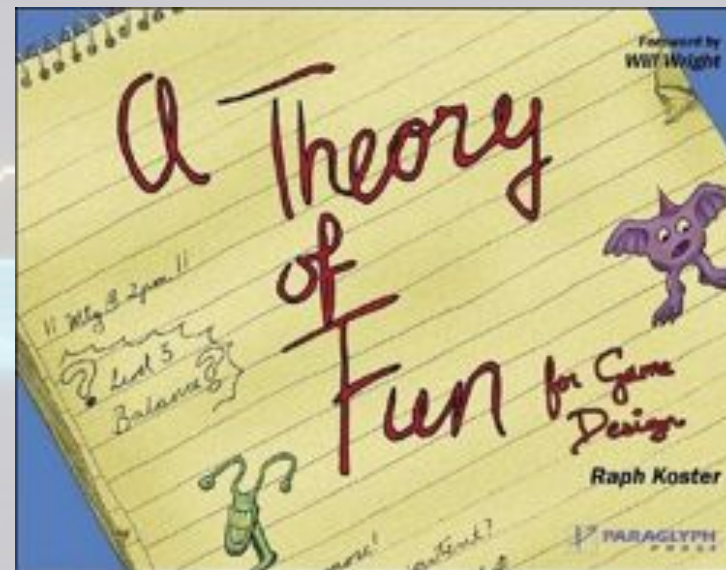
# Tips for a successful game

- Easy to understand rules/world
- Polished core gameplay
- Work on different level of achievements
- Nice difficulty curve
- Feedback

# For going further



*The Art of Game Design: A Book of Lenses, Jesse Schell*



*A Theory of Fun for Game Design, Raph Koster*



# Last words

- The human brain is not so evolved
- Play games!
- Bad games can teach a lot too



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**GAME OVER**

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