

Game Design & Gamification

Unit 11

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Group work - calendar

- Week V – game ideation
- Weeks VI, VII – PACT analysis and User requirements
- Week VIII – first design
- Week IX – prototyping
- Week X – presentation
- Week XII – evaluation (from heuristics and users)
- Weeks XIII, XIV – re-design

Group work - notes

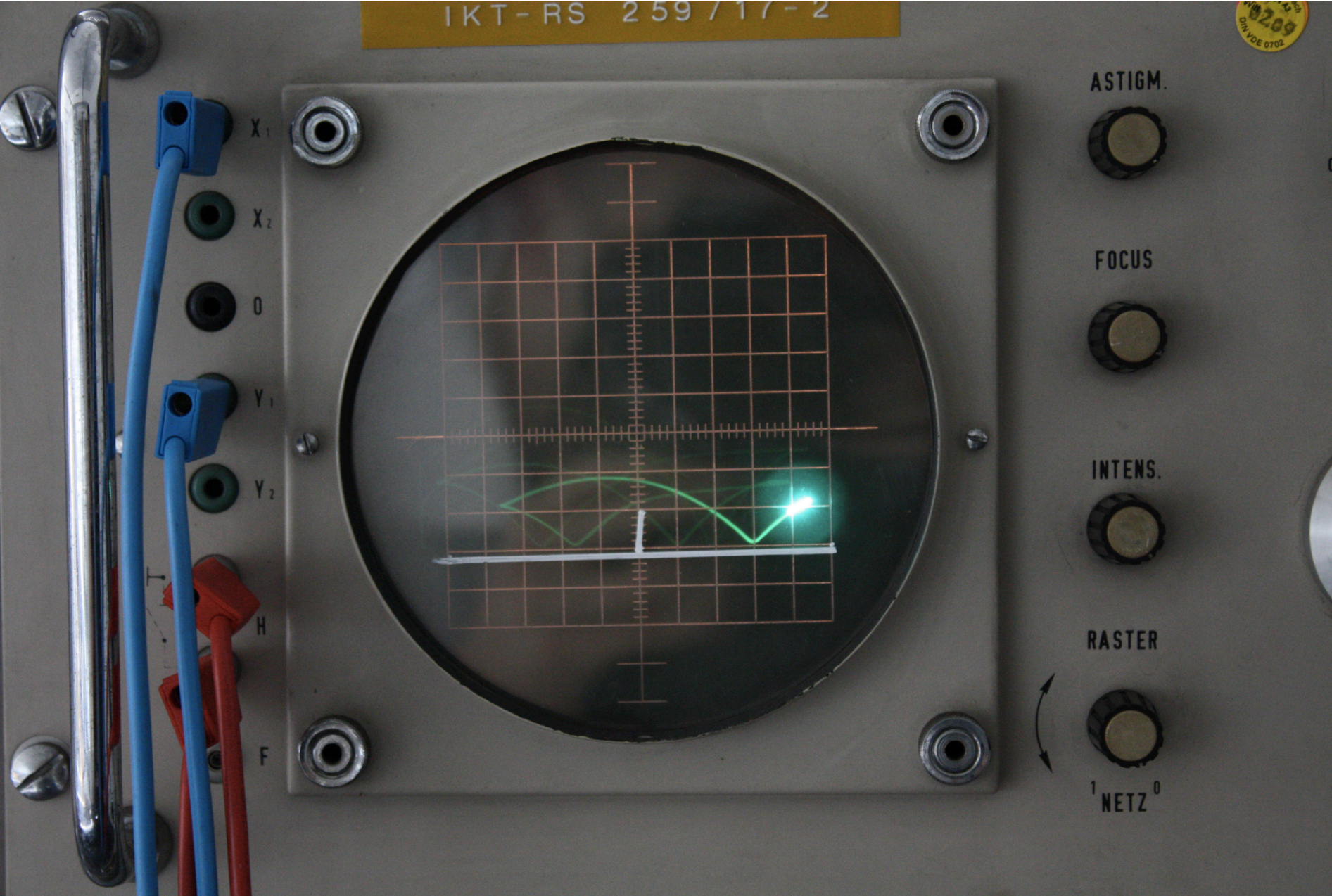
- The previous calendar is a suggestion for the management of your project
- Document everything you do, possibly when you do it
- Take care about the roles in your group

Learning outcomes

- Principles of game design
- Introduction to gamification

IKT-RS 259717-2

0209
DIVIDE 0702



TENNIS FOR TWO (1958)

No.006 15/15 Picarats Hint Coins:013

"It's so dark in the shop that I'm having trouble seeing these tiny needles and thread. Can you help me out of this jam, dearie?"

There are two threads, A and B.
How many needles' eyes does thread A
Pass through?



Professor Layton



Gran Theft Auto V

VIDEO GAME STUDIES

- ***Entertainment education:***
making learning enjoyable
- ***Digital game based learning:***
video games with educational purpose
- ***Serious games:***
a game for a purpose different than
pure entertainment



Riablo





Quit

Apple

Banana

Cookie

Doughnut

Egg

Skip

Paw Park Alphabet Bears - Game G00



Virtual Battlespace 2

VIDEO GAME DESIGN

- **broad literature (both university and industry)**
- **methods and guidelines for a well-designed games:**
 - videogame heuristics;
 - game design patterns;
 - ...

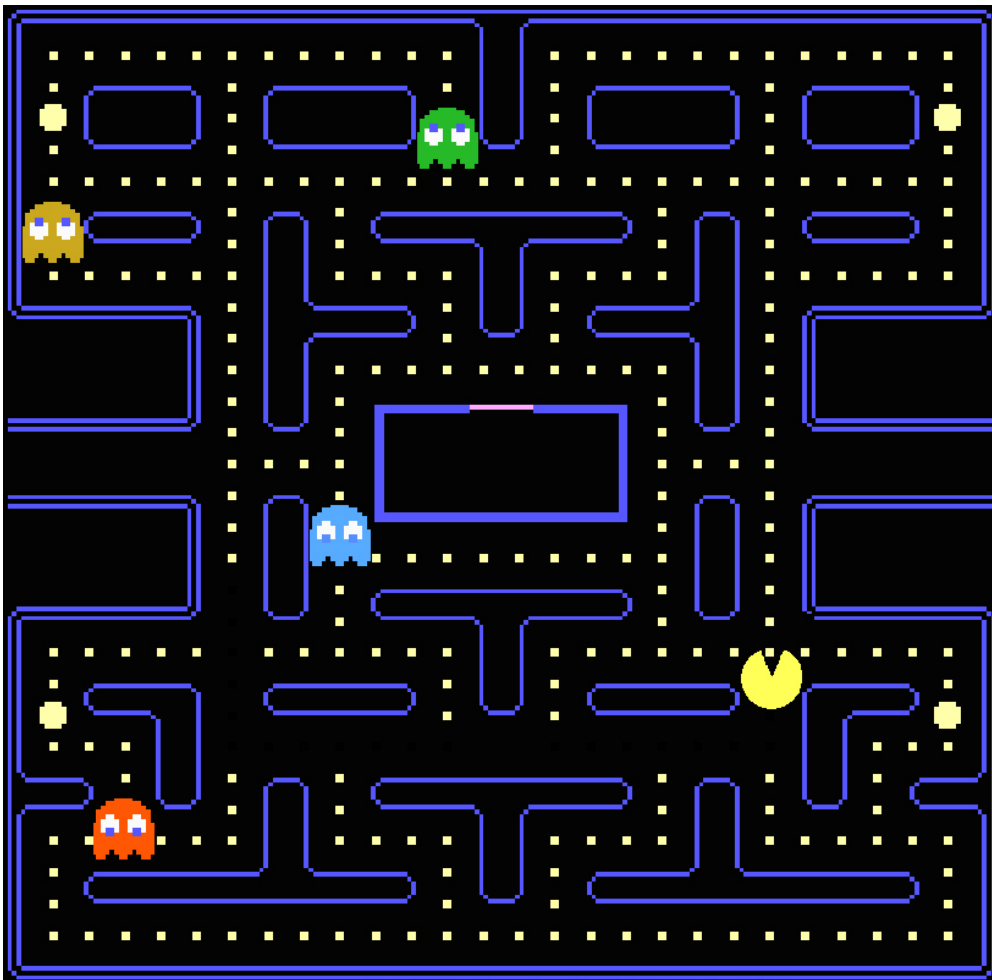
MDA Framework (Hunicke et al.)

- consumption of the game:



MDA Framework (Hunicke et al.)

- consumption of the game:
 - Mechanics -> the basic rules
 - Dynamics -> run-time emergent rules
 - Aesthetics -> emotional response



MECHANICS:

1. The ghosts chase Pac-Man
2. If they touch Pac-Man, it dies

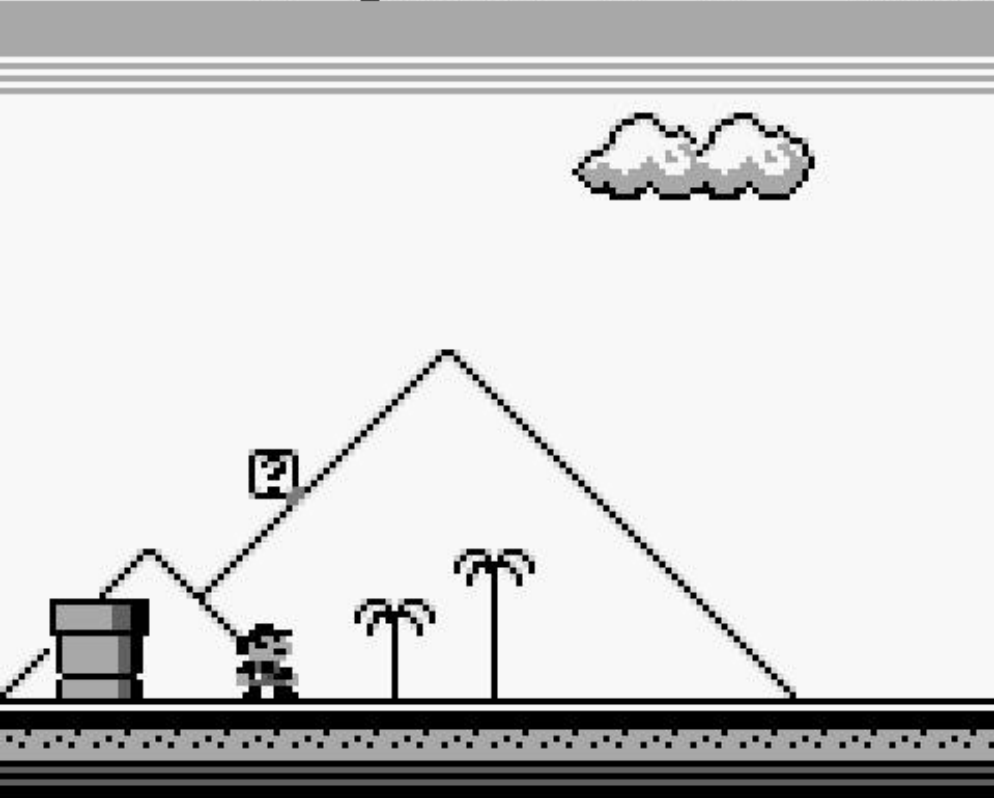
DYNAMICS

competitive play

AESTHETICS

challenge (Game as obstacle course)

MARIO x 02 WORLD TIME
0 0 x 00 1-1 394



MECHANICS:

1. There is a timer
2. If the timer reaches the zero, Mario dies

DYNAMICS

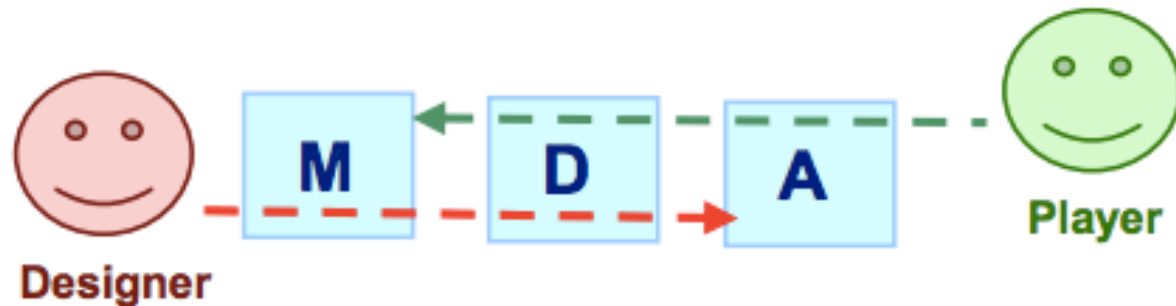
time pressure

AESTHETICS

challenge (Game as obstacle course)

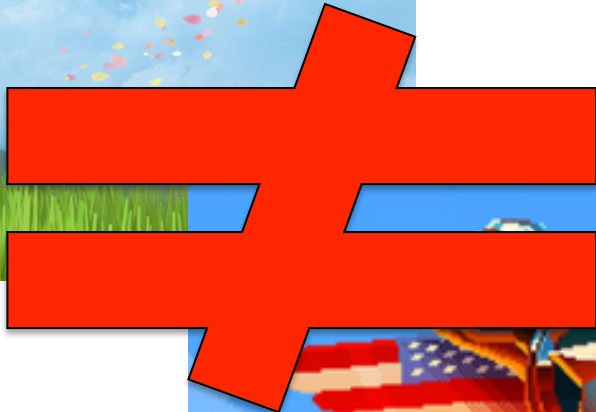
MDA Framework (Hunicke et al.)

- consumption of the game:

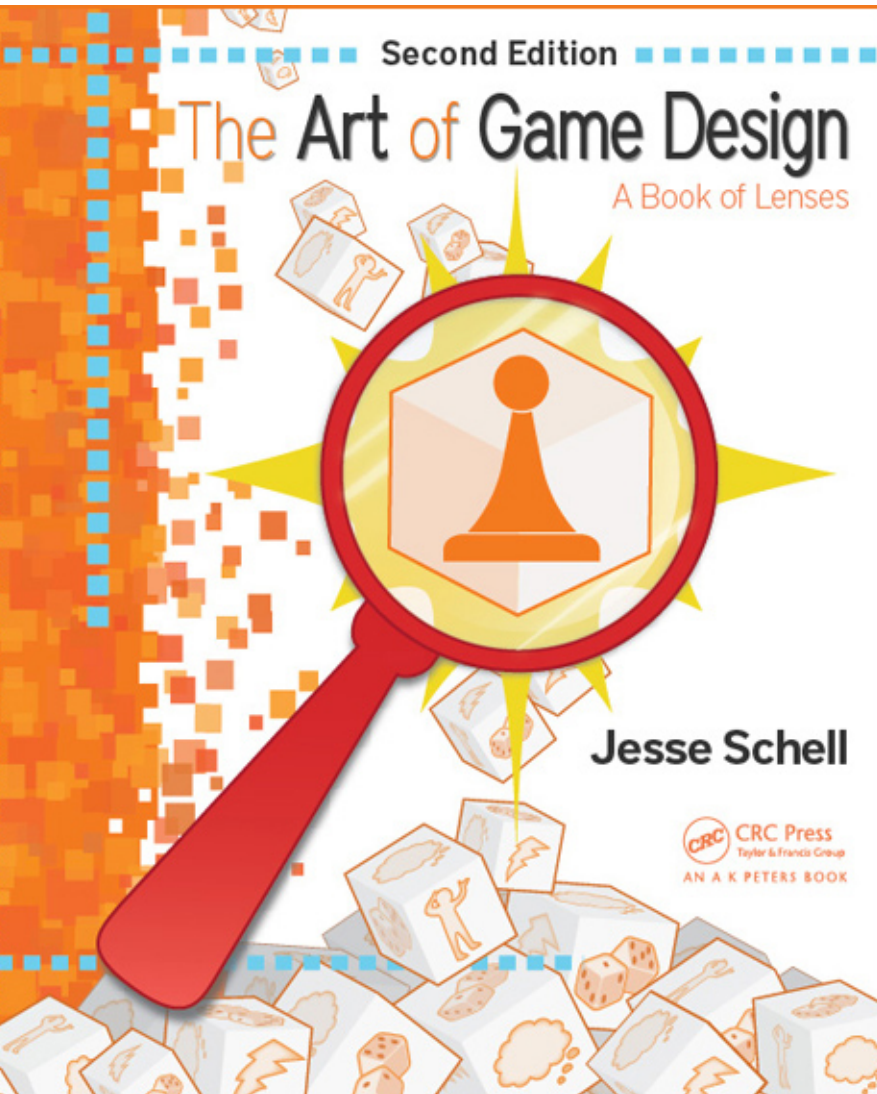


MDA Framework (Hunicke et al.)

- **From the player's perspective:**
 - Sensation (Game as sense-pleasure)
 - Fantasy (Game as make-believe)
 - Narrative (Game as drama)
 - Challenge (Game as obstacle course)
 - Fellowship (Game as social framework)
 - Discovery (Game as uncharted territory)
 - Expression (Game as self-discovery)
 - Submission (Game as pastime)



Art of Game Design (Jesse Schell)



The Lenses:

100 *points of view* on game design

LENS #1: THE LENS OF ESSENTIAL EXPERIENCE

To use this lens, you stop thinking about your game and start thinking about the experience of the player. Ask yourself these questions:

- What experience do I want the player to have?
- What is essential to that experience?
- How can my game capture that essence?

You need to clearly state the essential experience you desire, and find as many ways as possible to instill this essence into your game.

LENS #36: THE LENS OF COMPETITION

Determining who is most skilled at something is a basic human urge. Games of competition can satisfy that urge. Use this lens to be sure your competitive game makes people want to win it. Ask yourself these questions:

- Does my game give a fair measurement of player skill?
- Do people want to win my game? Why?
- Is winning this game something people can be proud of?
- Can novices meaningfully compete at my game?
- Can experts meaningfully compete at my game?
- Can experts generally be sure they will defeat novices?

LENS #7: THE LENS OF THE ELEMENTAL TETRAD

7 The Lens of The Elemental Tetrad

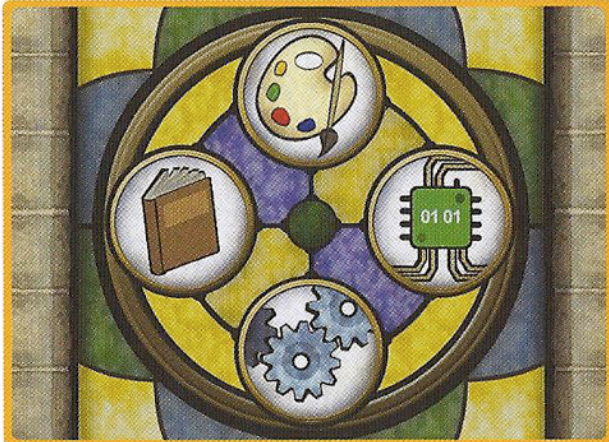


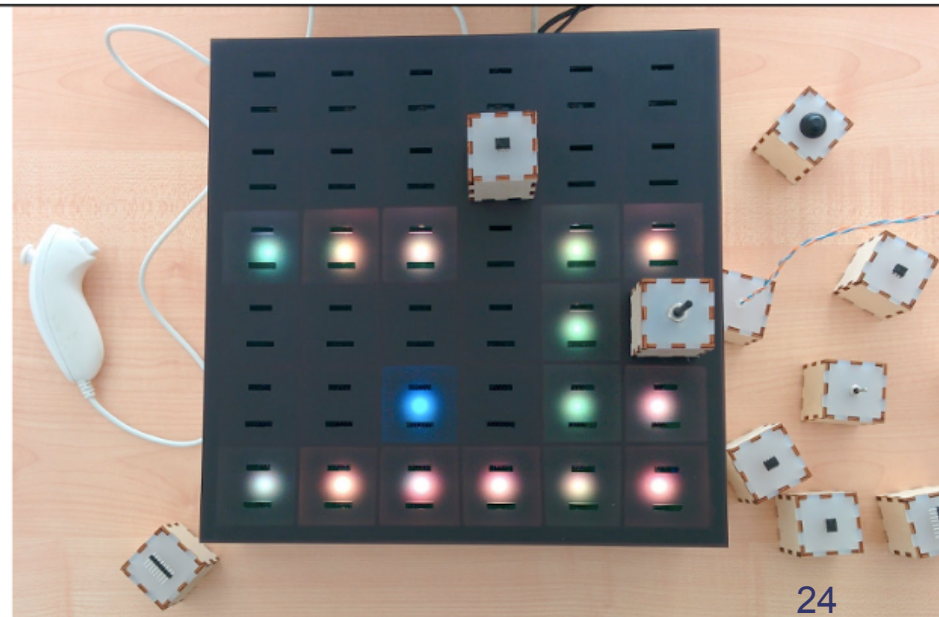
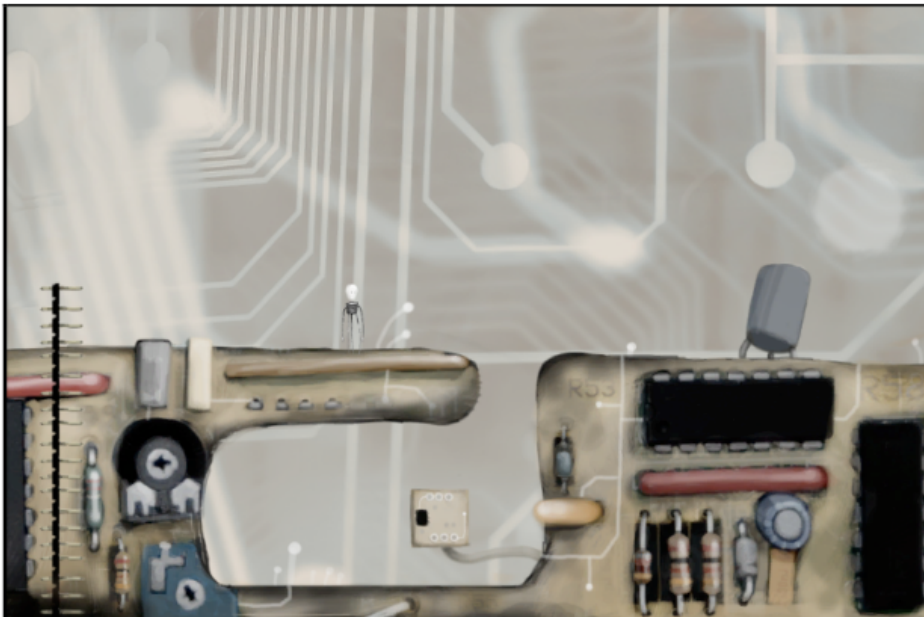
Illustration by Reagan Heller

To use this lens, take stock of what your game is truly made of. Consider each element separately, and then all of them together as a whole. Ask yourself these questions:

- Mechanics -> the basic rules
- Story -> sequence of events
- Aesthetics -> visual and acoustic content
- Technology -> technological environment (e.g., controller)

OHR + RADIANT2

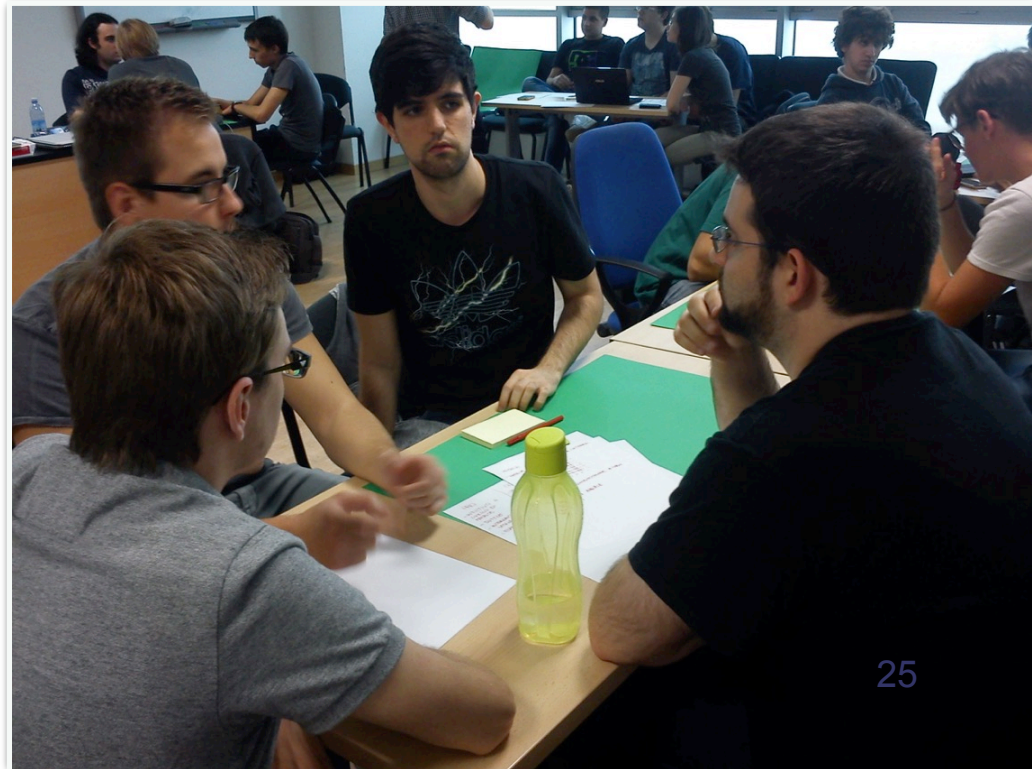
- OHR: adventure/puzzle game
- RADIANT2: electronic board based on tangible interaction

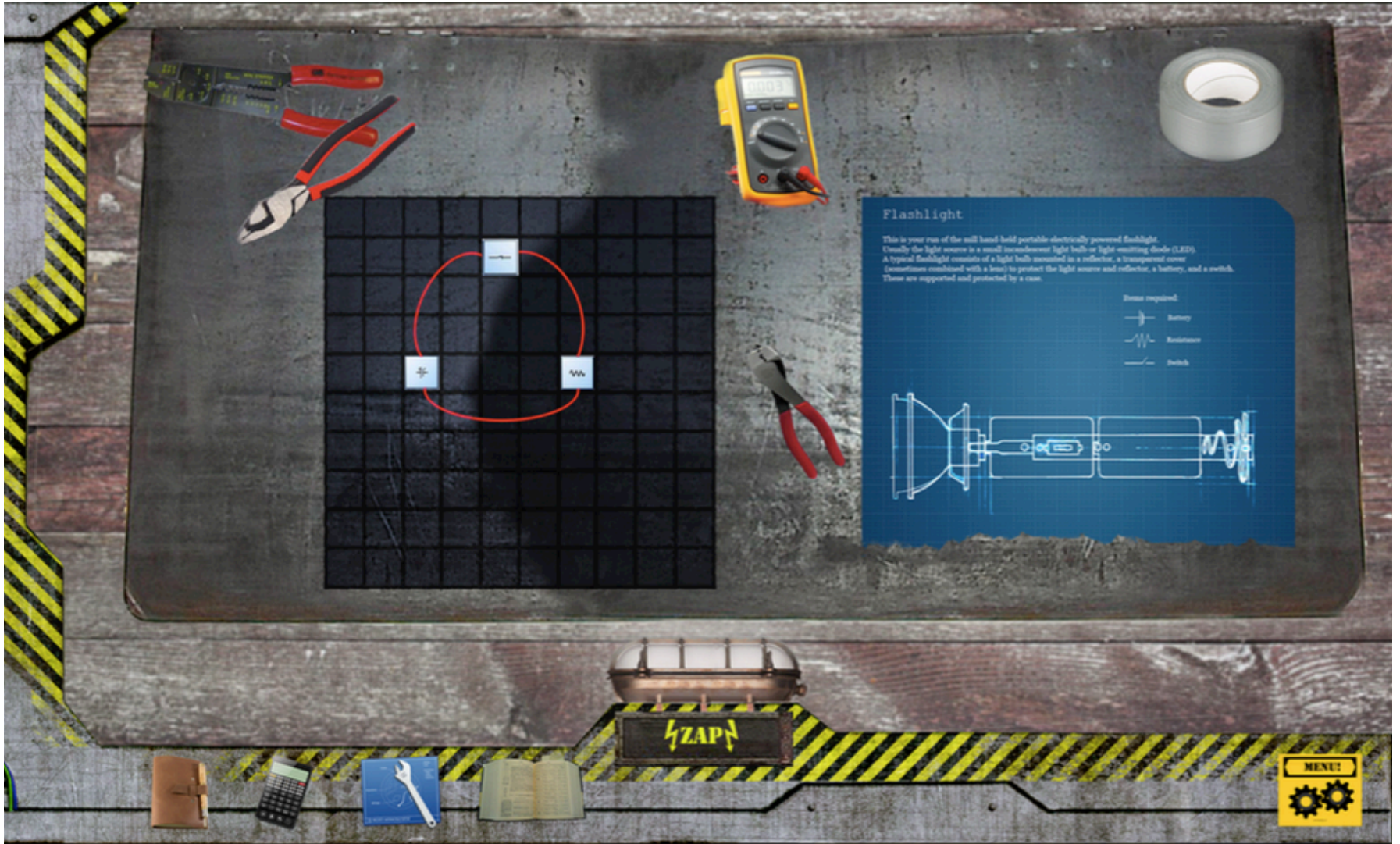


HCI '14

learning by playing:

- Radiant2
- educational purpose
- involvement of the users in the design





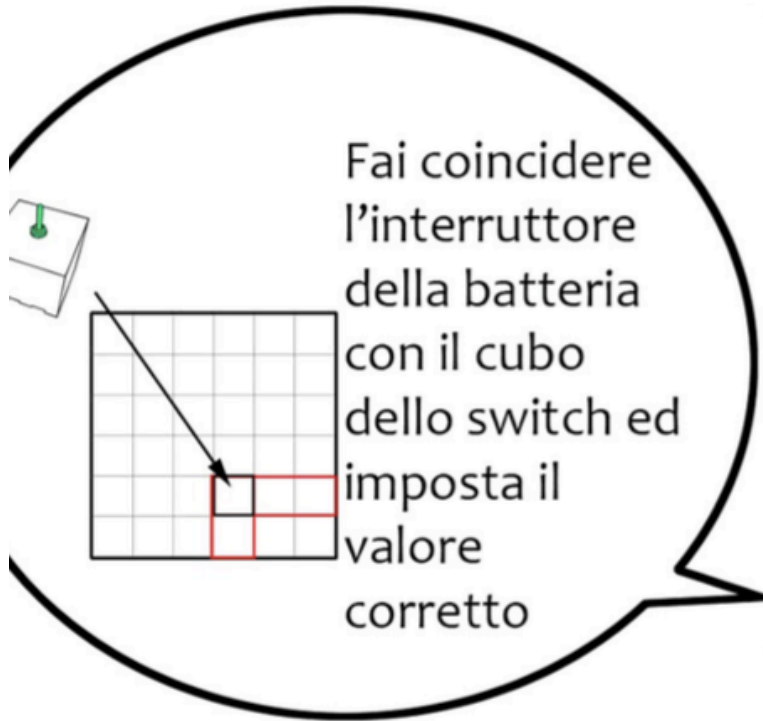
Flashlight

This is your run of the mill hand-held portable electrically-powered flashlight. Usually the light source is a small incandescent light bulb or light-emitting diode (LED). A typical flashlight consists of a light bulb mounted in a reflector, a transparent cover (sometimes combined with a lens) to protect the light source and reflector, a battery, and a switch. These are supported and protected by a case.

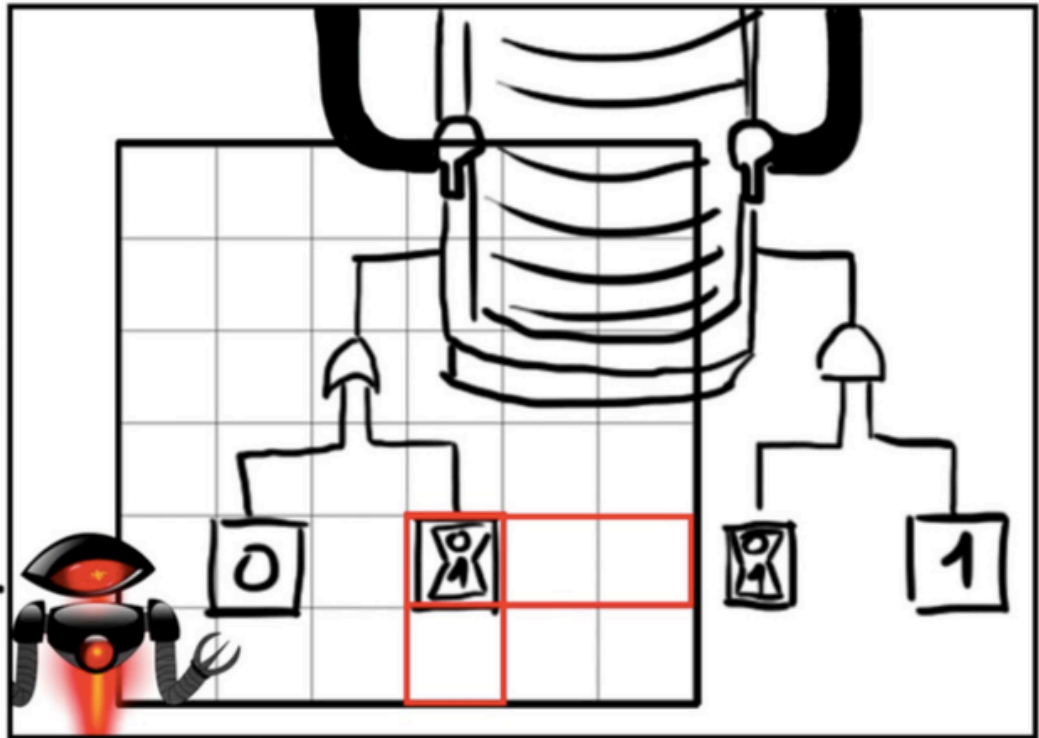
Items required:

-  Battery
-  Resistor
-  Switch





Fai coincidere l'interruttore della batteria con il cubo dello switch ed imposta il valore corretto





Pay attention to users

Game design is not just about game developers making games

- What's working / What isn't?
- What have you not considered?
- Is the game personal enough for your players?
- Do they feel that it's tailored to their own unique personality & desires?
- What is going to keep it interesting in 10 weeks time? In 8 months time?



Players' involvement

- Involve our players in the design process;
- Understand better what they like;
- Include these information in your design.



GAMIFICATION

Gamification is the process of using game thinking and game mechanics to solve problems and engage users.

CATEGORIES

- *Engagement* - using game mechanics to draw consumer attention
- *Incentives* – using game mechanics for more productivity or for training, incentives, etc.
- *Collaborative Work* – to encourage teams to discover solutions.
- *Social Change* – using game mechanics to enact social change.

PURPOSE

- Motivation & long term user engagement.
- Making things more pleasurable in an interaction
- Builds complex systems for motivation that meets people's intrinsic desire
- What are the motivations of our actions? What drives a community to act or users to act?

PLAYERS - WHO

- Who are your players?
- What are their needs and goals? Why are they playing?
- What is their primary player style – solo, competitive or cooperative?
- Who are they playing with?

PLAYERS - MOTIVATION

- achievement of goals OR enjoyment of experience.
- structure and guidance OR freedom to explore.
- control of others OR connect with others.
- self-interest in actions OR social Interest in actions.

Express



Compete



Explore



Coop

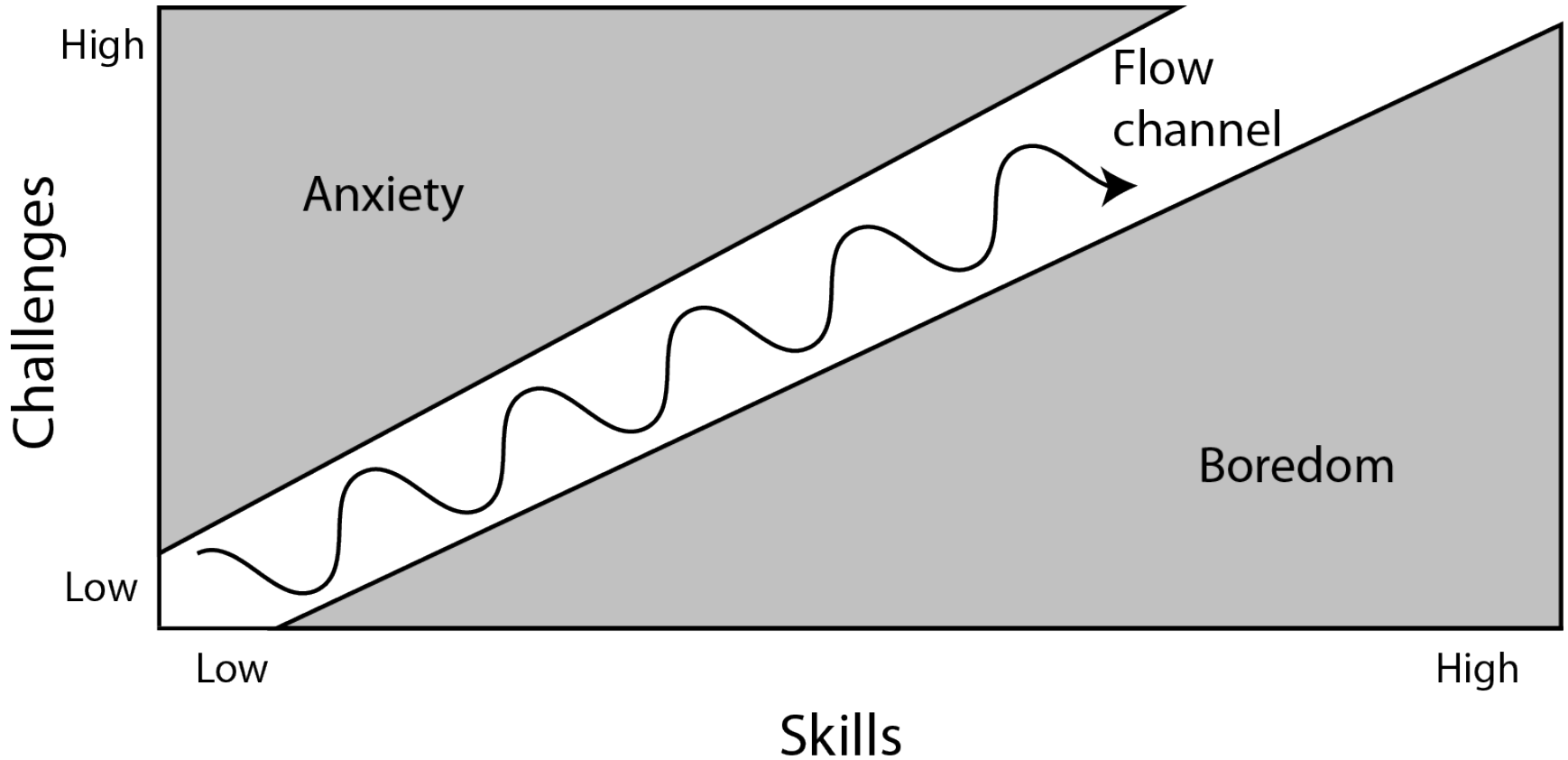


PLAYERS - SKILLS

Consider what abilities are necessary to succeed

- Physical Skills – walking, running, typing, using a chefs knife, etc.
- Mental Skills – pattern recognition, memory, spatial logic
- Social Skills – presentation, conversation

FLOW (Csikszentmihalyi)



PLAYERS – INTERESTS (1)

- Competition Types: Player vs Player, Player vs System, Self Directed.
- Time Pressure: Relaxed explorative play or brash tactics get things done play.
- Scarcity: Scarcity can add a level of challenge and strategic game play.
- Puzzles: Problems that promise the existence of a solution.

PLAYERS – INTERESTS (2)

- Levels: Provide roadmap of progress.
- Currency: Anything that can be exchanged for something of value will be sought.
- Renewals & Power-ups: “Unstick” players & redirect from dead-ends.



Badges



Social Triggers



Leaderboards



Social Integration



Virtual Currency



Challenges



Virtual Gifts



Organisational Goals



Friends



Recommended readings

- Hunicke, Robin; LeBlanc, Marc; Zubek, Robert
MDA: A Formal Approach to Game Design and Game Research
- Chapter 4 of *The Art of Game Design* (Jesse Schell)