A. Introduction
1. Self-intro
2. Context & needs
3. 1st task

B. Serious Games
1. Defining the domain
2. Main tracks
3. Current SG studies @ HE-Arc-imagerie

C. Mini workshop
1. 5 min to think about an issue ...
2. Roundtable
3. Brainstorm

D. Discussion
A. Intro

Introduction

⇒ What’s the issue here?

1. Self-intro
   • You & me 😊
2. Context & needs
   • forth power
3. 1st task

Short self-intro

Research interests: Serious Games, Computer Graphics, 3D reconstruction, Real-time Visualization, Virtual Reality

Job: Teaching CS — applied math, computer graphics, game tech. — and leading the Image processing & Computer Graphics R&D group

What about you? 😊
Context & needs
The 4th power

Long long time ago...

*Since first empires*

*Since bank and Poti$i*

*Since CS*

**Strenght**  **Lands & titles**  **Money**  **Information**

Context & needs
the main issue
1st task

Think!

About you!...

... and especially about issues @ your daily work.

Main subject

⇒ What are we talking about?

1. Defining the domain
   • What's not a Serious Game
   • SG short definition
   • Interaction, device, entertainment & rule
   • Lvl of interactions: knowledge, skills, behaviour

2. Main tacks
   • Education
   • Social sciences
   • Health
   • Silver tech

3. Current studies
1. Defining the domain
Accumulation of vocabulary

Simulation!
e-Learning!
Serious Games!
Gamification!

These fellows represent computer scientists
1985~
1995~
2005~
2015~

1. Defining the domain – what’s not a Serious Game
Simulation

⇒ Modeling the real
- Training
- Testing
- Understand
1. Defining the domain – what’s not a Serious Game

**e-Learning**

- About learning with an electronic device
  - A costly trap
  - Try replacing teachers

**Gamification**

- A concept
  - Real + Score
- Should include
  - Rules
  - Learning aspect
1. Defining the domain

Serious Game (SG)

Defining SG

A SG is a game where the entertainment is used for a serious achievement such as to train, to search or to promote at knowledge, skill, or behavior levels.

How defining a SG?

But entertainment implies poor job!?
1. Defining the domain

**What’s a game?**

- Scoring & threshold
- Rules/ mechanics
- Interaction
- Environment/ Context
- Levels/ progression

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1. Defining the domain

**SG implies computer science...?**

- Context
- Rules
- User interaction
- Scoring
- Threshold
- Reward
1. Defining the domain

Level of interactions: knowledge, skills, behavior

- **Knowledge**: TO KNOW \(\rightarrow\) *Savoir*
- **Skills**: TO KNOW HOW \(\rightarrow\) *Savoir faire*
- **Behavior**: TO KNOW TO BE \(\rightarrow\) *Savoir être*

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**Interaction, device, entertainment & rule**

<table>
<thead>
<tr>
<th></th>
<th>Simulation</th>
<th>e-Learning</th>
<th>Serious Game</th>
<th>Gamification</th>
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<td>(\checkmark) (\checkmark)</td>
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<td>(-)</td>
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- Unusually have
- Usually have
- Should have
- Must have!
2. Main Tracks
Growth and prospect

“Serious Game market worth $5’450 millions by 2020”

2. Main Tracks
Domaines d’appli actuels?

- Training
- Human resources
- Marketing
- Product development
- Sales
- Emergency services
2. Main Tracks
What about Switzerland?

Future?

- Advertising
- Health
- Education
- Gerontology
2. Main Tracks
Gerontology

SG type#1
SG type#2
SG type#3
SG type#4

3. Current SG studies @ imagerie//HE-Arc

Emergency situations [Bootstrap]
+kindergarten& ARC-santé

Leg rehabilitation PF [hes-so, I2]
+CHUV & HEIG-Vd & hepia

Neuro-training [CTI-draft]
+private company +CHUV

Muco/asthme [Bootstrap]
+ARC-santé

Energy saving & health food [CTI+CTI2-draft]
+private company

Intergenerational stimulation [draft]
+Uni-NE + Arc-gestion + senior asso.

Health@work-TMS [InterReg, EU]
+14 instituts, sociétés et hôpitaux

End of Life [Bootstrap]
+ ARC-santé + soins palliatifs

7-11 yo educational platform [draft]
+HEP-Lausanne
C. Workshop

Mini workshop

⇒ Finding out practical examples

1. Five minutes to think
2. Roundtable & selection
3. Brainstorm
D. Endings words

Discussion

1. What’s left for you and me?
2. Short intro to GSGS 2017

What’s left?

Over 16 persons

<table>
<thead>
<tr>
<th>I did not clearly understood...</th>
<th>This is something I already knew</th>
<th>Interesting but I not really concerned</th>
<th>I’ve got some new ideas of project</th>
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Perspective
Gamification & Serious Games 2016 → 2017

Thanks! Questions?

Image processing and Computer graphics group, HE-Arc-ING, hes-so

Serious Games, Computer Graphics, 3D reconstruction, Real-time Visualization, Image Processing, Virtual reality