

SGD

Design of Serious Games



TALLINN UNIVERSITY





What are your goals?

For this course

Course Objectives

- Understand the concept of **serious games**
- Learn the process and techniques of **game design**
- **Connect people** who are interested in serious games

What are games?

What characteristics games have?

Game is a **activity** of play in the **pretended** reality where participants try to achieve **challenging goal** by acting in accordance with **rules**

Ernest Adams (2009) Fundamentals of game design

What are serious games?

What makes them serious?

Serious Games

Games with a serious objective

Not only for entertainment

E.g.: **education**, defense, health care,
scientific exploration, emergency
management, urban planning, engineering,
religion, politics, ...

Game Based Learning Digital Game Based

Learning **Serious Games**

Learning Games Edutainment

Gamification

What is gamification?

and why it is different than serious
games?

Gamification

Gamification is the use of game design elements or creating game like emotions in non-game context

What is game based learning?

and why it is different than serious
games?

Game Based Learning

The implementation of
(entertaining or learning) games
as learning tools or activities

What components serious games have?

What do we need to design?

Achievements Actions **Aesthetics** Altruism Art Atmosphere Attitudes Autonomy
Autotelic Avatar Badges **Balance** Boss **Challenges** Characters Cheating Cognition
Collaboration Communication Community Competences Competition **Concentration**
Conditions **Control** Creativity Culture Curiosity Decision_Making **Difficulty** Dimensions
Discovering **Emotions** Empathy **Engagement** Engrossment **Enjoyment** Environment
Ethics Events Experience Expressions Fairness Fantasy **Feedback** Fight **FLOW** Followership
Fun Gameplay **Goals** Group Identity Imagination Immersion Importance **Interaction** Interest
Involvement Knowledge Levels Location **Loosing_Self** Loyalty Luck Meaningfulness
Merging Messages **Motivation** NPC Opponent Performance Physiology Player Points
Preferences Progress Psychology Recruiting Relatedness Relations Reputation Resources **Reward**
Risk Roles Rules Scoreboard Skills **Socialization** Sound Space Status Stile **Story** Support Surprise
Teamwork Time **Time_Transformation** Turns Uncertainty Unknown Utility Voluntariness
World

Course Content

- Game **idea**
- Serious **goals**
- Game **concept**
- **Gameplay** - challenges and actions
- Core **mechanics** - objects, events, connections, conditions
- **Assets** - backgrounds, characters, story
- **Prototype**

Why we should create serious games?

What's the benefit of playing serious games?

Games can **teach** you

Decision making

Teamwork

Strategic planning

Tactical thinking

Courage to try and fail

Logical thinking

Lateral thinking (out of box)

Creativity

Self expression

Self evaluation

Hand and eye coordination

The **main purpose** of serious game
design

Engage users

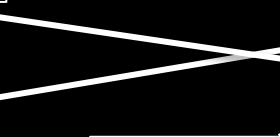
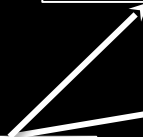
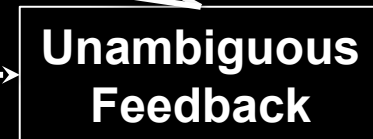
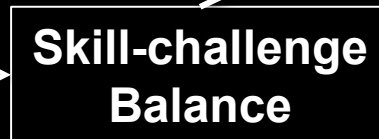
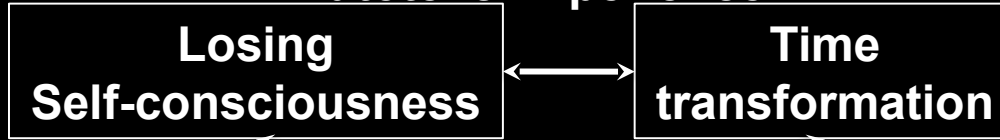
Motivation, activity

Flow

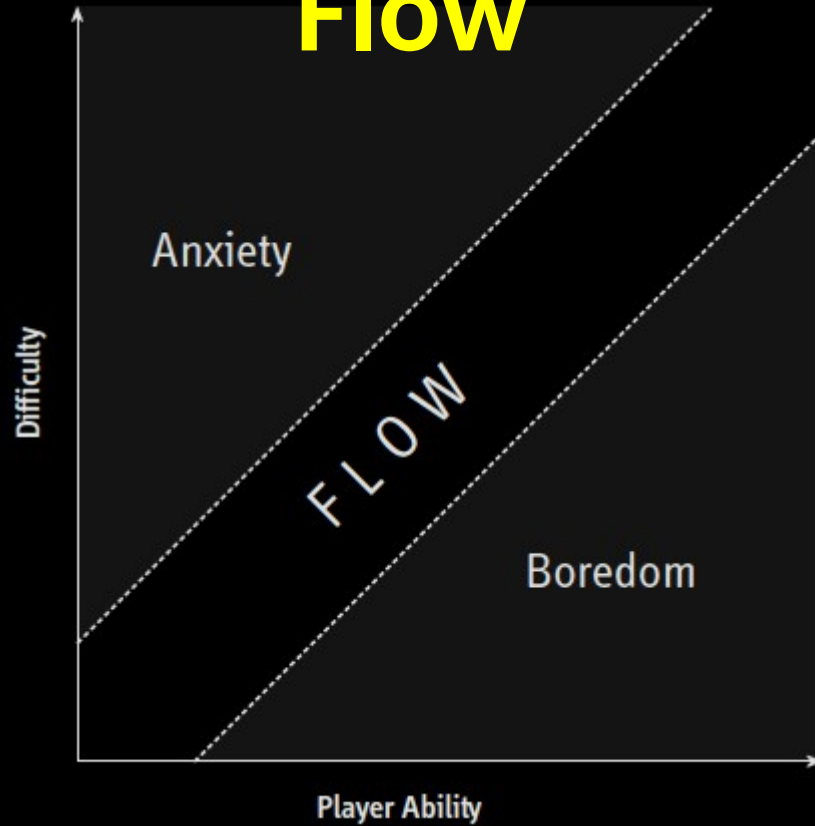
State of mind where one is so deeply **concentrated** in the task in hand that she loses the sense of **time** and stop worrying about **self**

Flow

Autotelic Experience



Flow



Mihaly Csikszentmihalyi 1990

What are the serious game categories?

What type of serious games you
know?

Serious Games Classification

- **Educational** games - youth education, adult education, learning at the workplace
- **Exergames** - physical training
- **Advergames** - marketing
- **Research** tools - data collection
- **Healthcare** games
- **Military** games
- **Recruitment** games
- **Security** games
- ...

Recommended Reading

