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# GAME DESIGN AND DEVELOPMENT

Composite

Instituto Superior de Engenharia do Porto



GAMES
INTERACTION AND
LEARNING TECHNOLOGIES











### Game and Play

ISEP Instituto Superior de Engenharia do Porto

GAMES INTERACTION AND LEARNING TECHNOLOGIES

Defining Play
Meaningful Play
Defining Games



























### What is Play?





"Play is a voluntary activity involving active often physical engagement that is pleasurable for its own sake", Lloyd P. Rieber











### What is Play?





Play is an integral (if not the most important) part of cognitive development and socialization.



























### Johan Huizinga in Homo Ludens

Play is a necessary (though not sufficient) condition of the generation of culture.



Play is a free activity but absorbs intensely the player

Play is not undertaken to achieve some material interest or profit

Play is necessarily different from every day's life (context, times, locations)





### Play



Play is voluntary Play is intrinsically motivated Play implies escaping from the reality Play implies active participation Play is enjoyable and for recreation







## What is Play?











### Game



"A game is an activity among two or more independent decision-makers seeking to achieve their objectives in some limiting context.",

Clark C. Abt

"A formal game has a twofold structure based on ends and means",

**David Parlett** 









A game is a system in which players engage in an artificial conflict, defined by clear rules, that results in a quantifiable outcome

• Salen and Zimmerman





### Game





Rule-based context
Goal-oriented
Involve decision-making
Imply conflict or contest
Voluntary























Jane McGonigal:

## Gaming can make a better world

TED2010 · 20:03 · Filmed Feb 2010

33 subtitle languages @

Harman View interactive transcript











## Why do we play games?











### Why do we play games?

		<u> </u>	
	are a form of FUN	That gives us ENJOYMENT AND PLEASURE	
	are a form of PLAY	That gives us INTENSE AND PASSIONATE INVOLVEMENT	
	have RULES	That gives us STRUCTURE	
	have <b>GOALS</b>	That gives us MOTIVATION	
	are INTERACTIVE	That gives us DOING	
GAMES	are ADAPTIVE	That gives us FLOW	
	have OUTCOMES AND FEEDBACK	That gives us LEARNING	
	have WIN STATES.	That gives us EGO GRATIFICATION	
	have CONFLICT/COMPETITION	That gives us ADRENALINE	
	have PROBLEM SOLVING	That sparks our CREATIVITY	
	have INTERACTION	That gives us SOCIAL GROUPS	
	have REPRESENTATION AND STORY	That gives us <b>EMOTION</b>	























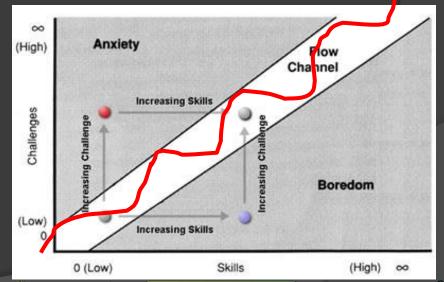




### **Flow**



"A state of concentration or complete absorption with the activity at hand and the situation. It is a state in which people are so involved in an activity that nothing else seems to matter", Mihaly Csikszentmihalyi







## Maslow's Hierarchy of Needs





#### Reiss Motivation Profile

#### The 16 Basic Desires of Human Nature



Acceptance: the desire for positive self-regard



Order: the desire for structure and stability



Beauty: the desire for aesthetically appealing experiences



Physical Activity: the desire for muscle exercise



Curiosity: the desire for understanding



Power: the desire for influence of will



Eating: the desire to consume food



Saving: the desire to collect things



Family: the desire to raise children and spend time with siblings



Social Contact: the desire for companionship with peers



Honor: the desire for upright character



Status: the desire for respect based on social standing



Idealism: the desire for social justice



**Tranquility:** the desire to avoid experiencing anxiety and pain



Independence: the desire for self-reliance



Vengeance: the desire to confront those who frustrate or offend us





What is your favourite game? Why do you like to play it? Can you relate it to the Reiss profile? And to you?







### **GAMER MOTIVATION MODEL**















Action "Boom!"	<b>Social</b> "Let's Play Together"	<b>Mastery</b> "Let Me Think"	Achievement "I Want More"	Immersion "Once Upon a Time"	Creativity "What If?"
Destruction Guns. Explosives. Chaos. Mayhem.	Competition Duels. Matches. High on Ranking.	Challenge Practice. High Difficulty. Challenges.	Completion Get All Collectibles. Complete All Missions.	Fantasy Being someone else, somewhere else.	<b>Design</b> Expression. Customization.
Excitement Fast-Paced. Action. Surprises. Thrills.	Community Being on Team. Chatting. Interacting.	Strategy Thinking Ahead. Making Decisions.	Power Powerful Character. Powerful Equipment.	Story Elaborate plots. Interesting characters.	Discovery Explore. Tinker. Experiment.













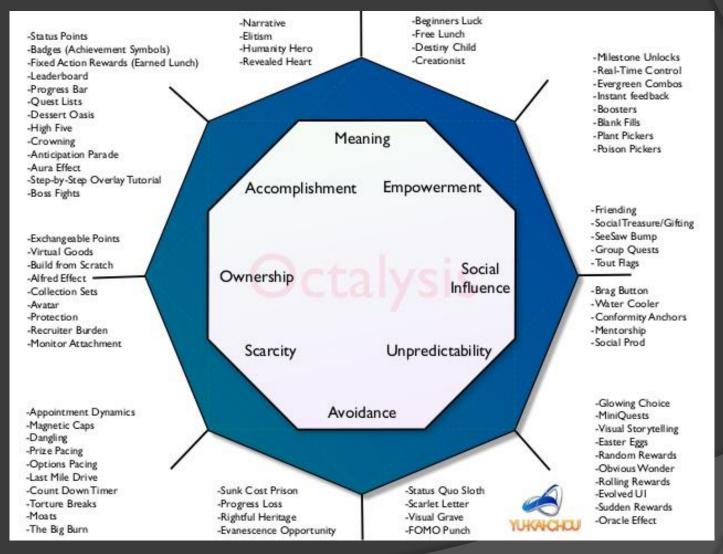






































### Who are the gamers?







