# GameFlow: A Model for evaluating Player Enjoyment in Games

Luan Breton and Yauhen Yavorski

## Importance of Players Enjoyment

- Players enjoyment is central to game design
- Games are played to enjoy the process rather than the reword
- Game development heuristics

## Flow Theory

- Flow
  - Complete immersion
  - Altered perception of time
  - Enjoyable

#### - Elements of Flow state

- The task that can be completed
- The ability to concentrate on a task
- That concentration is possible because the task has clear goals
- That concentration is possible because the task provides immediate feedback
- The ability to exercise a sense of control over actions
- A deep but effortless involvement that removes awareness of the frustrations of everyday life
- Concerns for self disappears
- The sense of duration of time is altered

## The GameFlow model

- The eight elements of game enjoyment
  - Concentration: the game must be able to hold the players attention
  - Challenge: The game must be sufficiently challenging
  - Player Skills: The game must support players skill development
  - Control: The player should feel the sense of control over their actions
  - Clear Goals: The game should have clear goals
  - Feedback: The game must give feedback (e.g. state, actions or goal progression)
  - Immersions: Player must experience deep involvement
  - Social Interaction: The game should create opportunities for social interactions (e.g. cooperation, communication)

# Gameflow model in practice: RTS games



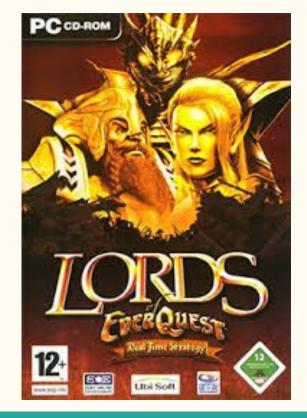
#### Warcraft III

 ${\it Release:2002}$ 

Rating: 94%

### **Lords of EverQuest**

Release: 2003 Rating: 61%



	Warcraft III		Lords of EverQuest	
Concentration	<ul> <li>High quality stimuli</li> <li>Each race has a different theme</li> <li>Only focus on interesting tasks</li> </ul>	5	<ul> <li>Visually good</li> <li>Each unit has only 2-3 phrases</li> <li>Missions: repetitive and limited</li> <li>Focus unimportant tasks (micro managing)</li> <li>Game is slow</li> </ul>	2.5
Challenge	<ul> <li>Good progression in campaign difficulty</li> <li>PvP or against AI too hard</li> </ul>	4.5	<ul><li>Campaign too easy (no strategy)</li><li>Each faction has the same playstyle</li></ul>	2
Player Skills	<ul> <li>Play immediately, optional tutorial</li> <li>Races and buildings added gradually</li> <li>Simple game interface</li> </ul>	5	<ul> <li>Play immediately, obligatory tutorial</li> <li>Poor game interface</li> <li>Text hard to read</li> </ul>	3.1

	Warcraft III		Lords of EverQuest	
Control	<ul><li>Control every aspect</li><li>Simple interface</li></ul>	4.8	- Players don't have full control	2.3
Clear Goals	- Cutscenes present goals	5	<ul><li>No clear introduction</li><li>No story (game tells what to do but not why)</li></ul>	1.5
Feedback	<ul><li>Notification goal / mission</li><li>Map guides players</li></ul>	5	<ul> <li>If a mission is failed, notification at the end of the mission</li> </ul>	2.7
Immersion	- Concentrate, tasks, graphic, sound	5	- Too slow	1
Social Interaction	<ul><li>Multiplayer simple</li><li>Free online</li></ul>	4.3	<ul><li>Chat + multiplayer</li><li>Too small community</li></ul>	3.7
TOTAL		4.8 = 96%		2.4 = 48%