Focus on your players*

*psychophysiological player experience logging as a powerful tool for gameplay analysis

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Who am I?
- Diplom in Computervisualistik
- Technology developer in EU FUGA project
- Game research in Sweden (PhD project)
- BTH Game and Media Arts Laboratory
  - Player experience and game usability studies
  - Researching fun in games
  - Interaction technologies
- Consulting in psychophysiological studies
Overview

- Current state of game design
- New interaction (and logging) devices
- Player experience research
- From games to entertainment experiences
- Discussion
How are games designed today?
Game Design Today 🎮

Know from experience vs.
Read a “cookbook” vs.
Design on the go vs.
Testing, testing, testing
Gameplay Mechanics

- Rules
- Structure
- Balance
- Challenge
Methods? Principles? Tools?
Before Designing a Game

- How do you design challenge?
  - Item and enemy placement
  - Damage configuration
  - Artificial Intelligence
  - and more...

- Necessary to think about
  - What interaction is possible?
  - How will gameplay impact player emotion?
Ingredients of a game

- Interaction
- Challenge
- Emotions

Game Experience
Interaction
Interaction
New interaction devices
New interaction devices
New interaction devices
New interaction devices
New interaction devices
New interaction devices

WiiFit™
New interaction devices
Future interaction devices?
Game Interaction Devices

- Human need for
  - Physical movement
  - Musical expression
  - Haptic sensation

- Ideally combined with
  - Psychophysiological logging
  - Biofeedback in the game
    - The game immediately responds to your body signals
Experience
Player Experience Research

- Study player behavior in-game
  - Data collection (events and context)
    - psychophysiological (and eye tracking)
    - self-reported
    - video-recorded

- Benefits for Developers
  - Conduct analysis of gameplay
  - Detect and be able to fix design problems
  - Unique insights into your audience
Measurements

- In-game event logs
- Self-report questionnaires
- Facial EMG
- EEG (32 channels)
- Galvanic skin response
- Eye Tracker
- Heart Rate
- Video observation
EEG, EMG and Eye Tracker
Galvanic Skin Response
Psychophysiological Responses

Event Codes have been sent to the parallel port
What can we find out?

- Galvanic skin response
  - Arousal, stress
- EMG
  - Emotions
- EEG
  - Cognitive workload
  - Brain activity
- Eye Tracker
  - Visual attention
Example cases

- Tomb Raider Eye Tracking
  - How long do players focus on Lara’s butt?

- Devil May Cry
  - Does difficulty make the player cry? Frustration?

- PopCap Games
  - Does it help you calm down?
Game Design Tomorrow

- Know your players
  - Inside out
- Measure game experience
- Design for new interactions
- Use player research data
  - QA was yesterday
- Think outside the game!
Think outside the game?
Entertainment experiences

- Games are not bound to computers
- Games become universally accessible
- Games will be played by everyone
  - Together
  - Alone

- The future of gaming are entertainment experiences
Take-home Message

- Games are about **Interaction** and **Experience**
- *Interaction is the key to new experiences*
- The world needs **game experience research**
- You can create better games
Thank you for your attention

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download at http://www.slideshare.net/acagamic
Discussion