A SUMMARY BY SONDRE STAI

PERVASIVE GAMES: BRINGING COMPUTER ENTERTAINMENT BACK TO THE REAL WORLD

ABOUT THE ARTICLE

Authors:

- Carsten Magerkurth

- Adrian David Cheok

- Regan L. Mandryk

- Trond Nilsen

Keep in mind: Published in 2005! (When I was in fourth grade)

Experience report on development and 'current' status
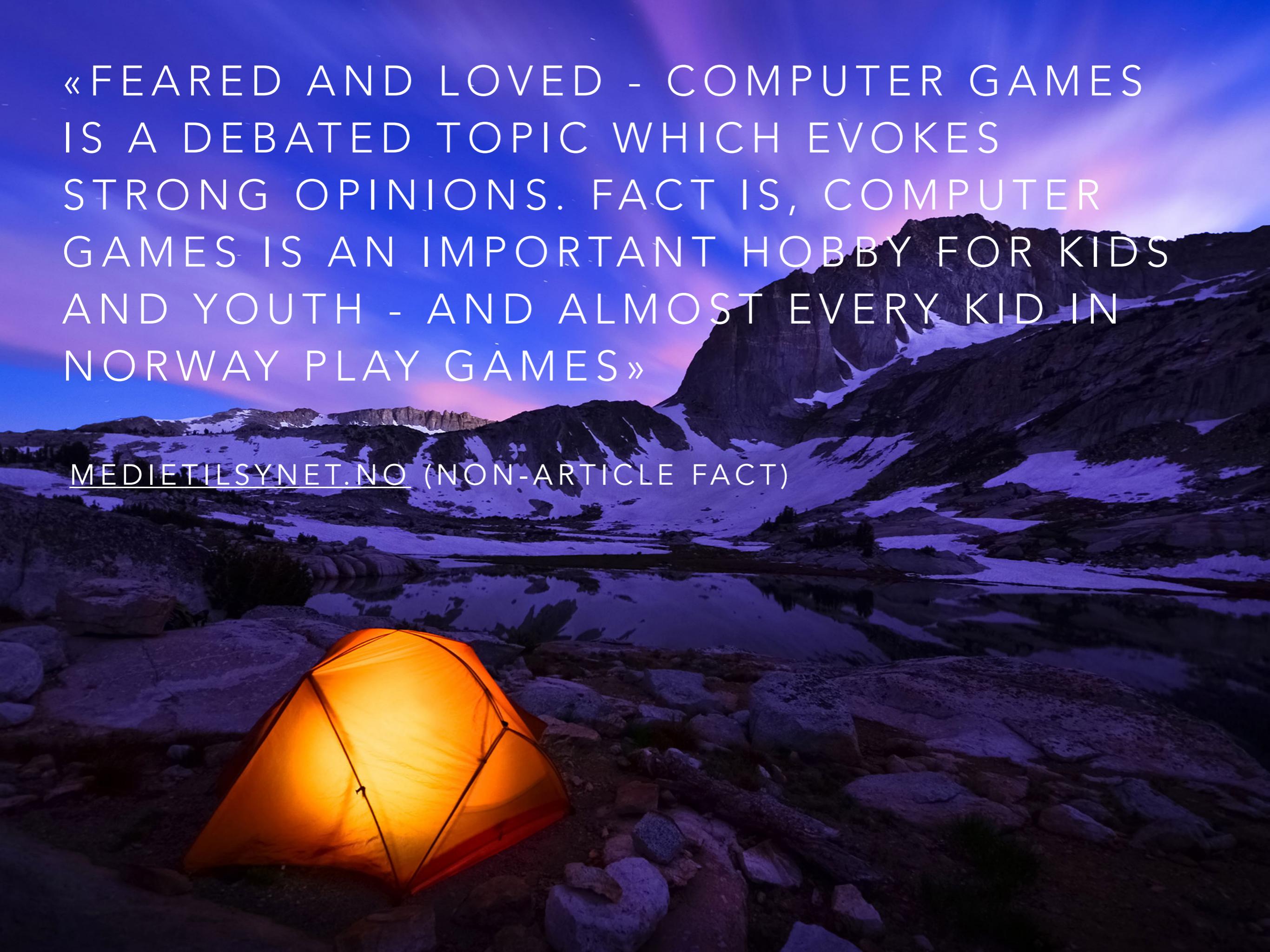
# BACK TO THE PHYSICAL WORLD

BOTTOM LINE

TRADITIONAL GAMES

- Computer games have been taking over the world

  - Immersive

  - Interactive

  - Varied gameplay

  - Optimal level of information complexity

«FEARED AND LOVED - COMPUTER GAMES IS A DEBATED TOPIC WHICH EVOKES STRONG OPINIONS. FACT IS, COMPUTER GAMES IS AN IMPORTANT HOBBY FOR KIDS AND YOUTH - AND ALMOST EVERY KID IN NORWAY PLAY GAMES»

MEDIETILSYNET.NO (NON-ARTICLE FACT)

CLAIMS BY AUTHORS

- «[…] the development of computer games has often decreased the users' physical activities and social interactions.»

CATEGORIES OF PERVASIVE GAMES

SMART TOYS

«traditional physical toys equipped with simple sensing technology linked to computer logic»


Fig. 1. A Zowie smart toy.
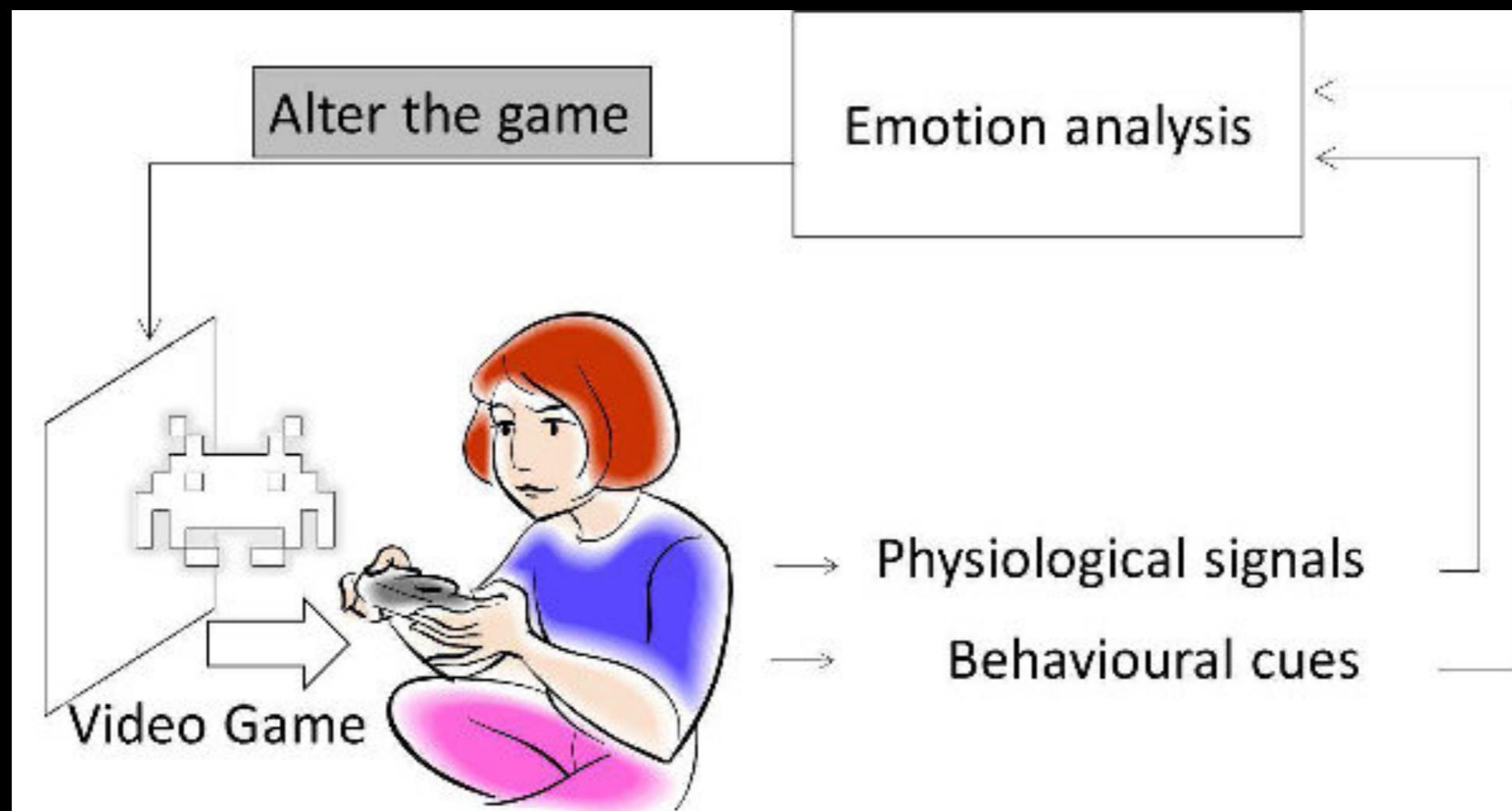
ANKI OVERDRIVE

AFFECTIVE GAMING

«computing that relates to, arises from, or deliberately influences emotions»

S.M.A.R.T. BRAINGAMES

- Combine PlayStation with NASA technology

- Measures brainwaves using EEG

- If the user maintains the desired brain state, he or she gains full control of the game controller. If not, the speed and steering control decrease

AUGMENTED TABLETOP GAMES

- Adding face-to-face interactions to the gaming domain

- Combining different technologies: vertical displays, PDAs (lol), RFID antennas

- STARS platform

CRITIC

- Where is the border between an augmented game and an augmented tabletop game?

- E.g. augmented Age of Empire

- Authors intention: digital boardgames in a physical setting

- Current trend: convergence. AR + MR + VR = XR

LOCATION AWARE GAMES

- When the entire world is your playground

- User location via GPS, mobile data, wifi

- Exchange data between players

CONTEMPORARY EXAMPLE
INGRESS

AUGMENTED REALITY GAMES

- «Users see their view augmented with 3D objects registered such that they appear to exist in real space»

- Devices: Headmounts, projections, hand-held devices

CHARACTERISTICS OF AR GAMES

- World domain <-> game domain

- Both virtual and face-to-face

- Enhanced with visualization layer

- Stapleton's Mixed Fantasy Triad: «the ideal entertainment experience comes from the combination of physical experience, virtual content, storytelling, and the imagination of the user.»
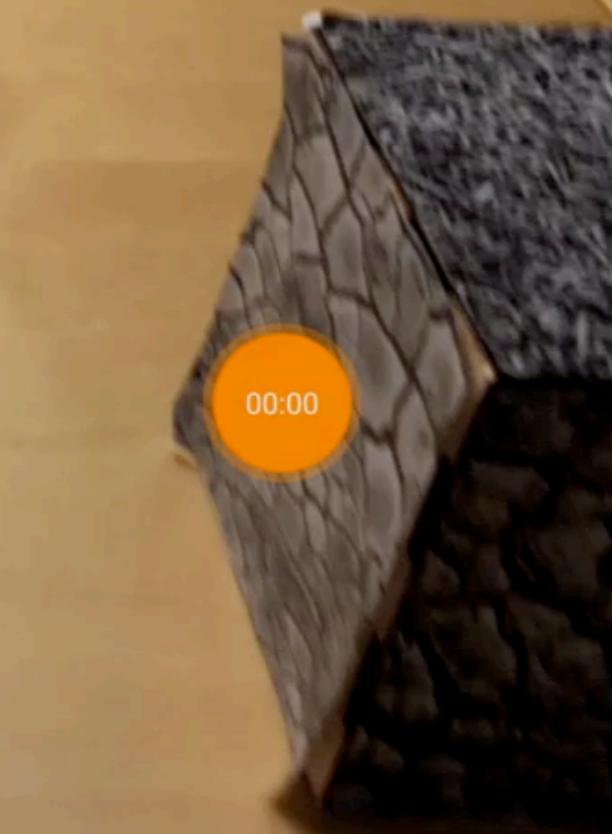
EXAMPLES FROM THE ARTICLE
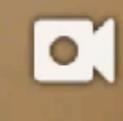
- AR Hockey

- ARQuake

- Human Pacman

PERSONAL PROJECT

Simple game made with Unity + Vuforia