



THE CENTER FOR KNOWLEDGE AND INNOVATION RESEARCH
HELSINKI SCHOOL OF ECONOMICS

FUGA

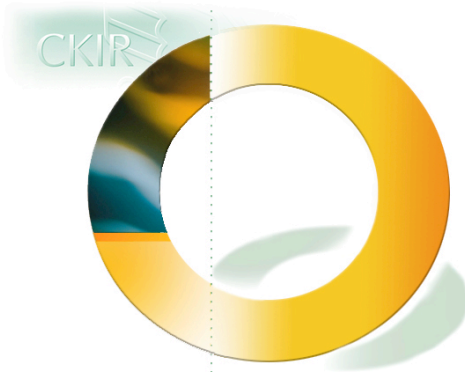
The fun of gaming: Measuring the human experience of media enjoyment

Scientific coordination:

Dr Niklas Ravaja, CKIR

Administrative management:

MSc Mikko Kontiainen, HIIT



6th Framework Program: New and Emerging Science and Technology (NEST)

PATHFINDER initiative “Measuring the impossible”

EC financial contribution to FUGA: 2,000,000 €

Duration of FUGA: 36 months

Participating Organizations

1. Helsinki School of Economics, Center for Knowledge and Innovation Research (CKIR)
2. Helsinki University of Technology, Helsinki Institute for Information Technology (HIIT)
3. Gotland University (HGO)
4. Hannover University of Music and Drama, Department of Journalism and Communication Research (HMTH)
5. University of Aachen (UKA)
6. Eindhoven University of Technology (TUE)

Main objective

- The main objective of FUGA is to **create novel methods** and **improve existing measures** in order to examine how the different dimensions of **Computer Game Experience** can be assessed comprehensively with high temporal resolution.

Measurement Methods

FUGA will employ a broad variety of innovative techniques based on

1. laboratory and mobile psychophysiological recordings (i.e., facial electromyography [EMG], electroencephalography [EEG], electrocardiography [ECG], electrodermal activity [EDA], and respiration)
2. functional magnetic resonance imaging (fMRI),
3. eye movement recordings
4. the so-called (online) implicit association test
5. tracking of behavioral indicators of emotion and motivation

Operational Goals

An important goal of FUGA is to establish the **construct validity**, **reliability**, and **predictive validity** of the different Game Experience measures.

A further goal is to develop a **prototype of an emotionally adaptive game**.

Expected Benefits

- The innovative measurement approach provided by FUGA can be applied when designing new digital games for different purposes (e.g., entertainment, education, therapy).
- In addition to its scientific impact, FUGA would be expected to contribute to the rise of the European computer games industry.