FUGA - Fun of Gaming

PIONEERING GAMES RESEARCH PROJECT LAUNCHED IN EUROPE

Digital games attract hundreds of millions of players on a regular basis, have created revenues that built a substantial new branch of the ICT industries, and impose new research challenges to many scientific disciplines. Surprisingly enough, although the players certainly know that gaming may be fun, game developers and scientists are lacking established methods to measure the "fun of gaming" or Game Experience. The FUGA research project, unifying six top-class European partners, is devoted to test and establish a set of scientific Game Experience measures.

Digital (computer and video) games have emerged as one of the most popular forms of mass mediated entertainment in many countries among a range of people. In addition to entertainment, digital games are more and more used for therapeutic, educational, and work-related purposes. "The prevalence of digital games is only increasing with the new generation of game consoles and the continually growing popularity of massively multiplayer online games," Dr. Ravaja, the coordinator of the FUGA research project says. "Gaming is changing the way how we use our free time, but in the future games might also emerge in new frontiers and have impact on how we conduct business, do physical exercises, or arrange education."

However, there are no established methods to measure dynamically changing Game Experience. Being able to measure Game Experience during game play with high temporal resolution will be very important from the perspective of game designers, media psychologists, and those who are concerned with the potential adverse effects of games.

The main objective of the FUGA project is to create novel methods and improve existing measures in order to examine how the different dimensions of Game Experience (e.g., different emotions and cognitions) can be assessed comprehensively with high temporal resolution. An important operational goal of FUGA is to establish the validity of Game Experience measures that are based on different innovative measurement techniques (e.g., laboratory and mobile psychophysiological recordings, functional magnetic resonance imagining); it will be examined

how the measurements predict game playing in the long run, for example. A further goal is to develop a prototype of an emotionally adaptive game that dynamically changes its behavior based on the player's emotional state as indexed by psychophysiological measures.

In addition to the scientific impact of cutting-edge methodological research done in the FUGA project, the innovative measurement approach provided by FUGA can be applied when designing new digital games for different purposes (e.g., entertainment, education, therapy). The utilization of the new measurement approach by the games industry will improve competitiveness and reduce the number of market failures with new games, which represent significant risks for companies and jobs in times of tremendous financial effort per game.

Chaired by Center for Knowledge and Innovation Research, Helsinki School of Economics (FIN), six top-class European research partners, including Helsinki Institute for Information Technology (FIN), Gotland University (SWE), Hannover University of Music and Drama (GER), University of Aachen (GER), and Eindhoven University of Technology (NL), cooperate to achieve the objective of FUGA.

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