

Digital games

Game research is a relatively new and very multidisciplinary research area. It focuses on what a game is, why people play games and what they do when playing, the role of games in culture and learning, game design, and the role of technology (in particular computer technology) in creating new gaming experiences. At DSV we focus primarily on two areas of research, namely game accessibility and believable game characters. At DSV we explore games from both perspectives.

Creating new gaming experiences

We work primarily with an experimental and empirical approach. We study play as a practice in many different environments and contexts, and carry out experimental development of games, and create tools for supporting game design, development, and the study of games.

Game Accessibility

Research on computer game accessibility is based on the principle that all humans should be provided equal opportunity to be included in the digital culture. Experiences from other application areas show that solutions for increased accessibility make computer interfaces better for everyone. Computer games are traditionally seen as entertainment, thus there has been less emphasis on accessibility for games than for, for example, the web. With the increased use of games in other contexts such as in schools, the requirements on accessibility also increase.

At DSV we conduct research on issues of accessibility for games. One of our projects concerns a generic model for how accessibility can be implemented in games.

Believable game characters

A large part of the attraction of playing games is a challenge. The challenge might be to solve riddles and puzzles in the game, to conquer the game-internal environment and its challenges, or beat opponents. The opponent can be computer generated opponents, human opponents or both. In this research we focus on computer generated opponents (NPCs) and the believability of their behaviour. More in particular we try to model, design, and analyze NPC behaviour with a focus on the interplay between game-related actions, emotions, and social interaction between the game participants (NPC or human).

Applications of computer games

Apart from the game related research aimed at exploring game characteristics, expanding design possibilities, or analyzing gaming behaviour we also apply our findings to the use of games for other purposes than entertainment or relaxation, namely games for learning.



Contacts

Harko Verhagen

Kjell Näckros

Magnus Johansson

Focus areas

Game accessibility

Believable game characters

Applications of computer games

Ongoing projects

Analysing the Game café as a social phenomenon

Socially believable game AI – The Model Social Game Agent

Meaningful play in Educational War-gaming

Game Design Practices