



The Entertainment Computing Group, member of the Department of Computer Science and Applied Cognitive Science at the University of Duisburg-Essen, is Germany's leading expert group researching digital games and entertainment technology. Founded in 2008 by Prof. Dr. Maic Masuch, the group works on innovative playful concepts and investigates how other fields of application, e.g. education or medicine, can benefit from research findings about digital games. Core areas of interest include 2D/3D interaction design, user experience design, playful interaction design, 3D stereoscopic gaming and serious games.

Close collaboration in interdisciplinary teams and with industrial partners fosters both scientific and practical work. Besides the Smart Gaming project, the Entertainment Computing Group is currently engaged in a couple of different projects. For example, the initiative Wolkenlos ("cloudless") comprises approaches to support children and adolescents diagnosed with cancer by the development of a Germany-wide, comprehensive, interconnected media implementation that provides reliable information, social communication, assistance and playful entertainment. Furthermore, the application of playful interaction concepts and gamification in the context of company processes and learning environments is a core theme of current research. In general, the team is always looking for interesting further scientific and industrial collaborations.



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#### **Contact**

University of Duisburg-Essen

**Entertainment Computing Group** 

Department of Computer Science and Applied Cognitive Science

Forsthausweg 2 D-47057 Duisburg

Prof. Dr.-Ing. Maic Masuch

Telephone: +49 (0) 203 379 1341 Email: maic.masuch@uni-due.de

For more information about our projects and our team, we invite you to visit us at CeBIT 2014, Hall 9, Booth D24.

Or visit our website:

medieninformatik.uni-due.de



### SCIENCE SUPPORT CENTRE

If you have questions regarding the University of Duisburg-Essen's research or collaboration potential, please contact the Science Support Centre (SSC).

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# Doubled fun: Second Screen Gaming

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## Doubled fun: Second Screen Gaming

### The Smart Gaming Project

The Entertainment Computing Group and their partner Nurogames explore new game concepts for second screen settings. The ad hoc connection of mobile devices such as smartphones and tablet PCs, which are nowadays widely spread and integrated into everyday life, is in the focus of interest: The resulting second screen/multiscreen scenarios are supposed to

allow for novel interaction concepts

foster both planned and spontaneous co-located multiplayer sessions among family members and friends

Server/Second Screen

HDMI

Clients/First Screens

The core idea: One device functions as a server and is connected to a TV screen to create a common playground. Every person around can participate in the game by connecting his or her personal smart device. Thus, positive social game experiences are aroused. Our research question is: How can these experiences be optimally designed? The main objective of the project thus is the creation of an attractive technology and knowledge base to develop innovative game experiences for the living room.

Both conceptual and technological issues have to be considered:

For one thing, the novel setting and related research findings are analyzed. Thus, appropriate interaction paradigms and innovative game design concepts can be derived, resulting in scientifically sound conceptions. Furthermore, a cross-platform technology is developed which supports the production and distribution of future smart gaming applications. In this context, an uncomplicated connection process of devices and a steady communication without latency are especially important. Knowledge and expertise regarding those aspects are generated and proven by a playable proof-of-concept prototype.

### **The Project Partner: Nurogames**



Nurogames GmbH is an independent games company founded in 2006 by experts of the games and media industry, with offices in Cologne, Berlin and Barcelona. Nurogames covers the entire chain of game development – from the initial idea to final production – and has a wealth of experience in developing mobile and cross-platform games, especially for iOS, Android, Windows Phone, PC and consoles. Other fields of expertise include the development of e-learning games, game-based e-learning solutions and the integration of social networking services (Facebook, Google+, etc.). By participating in research & development projects within national and international research consortia, Nurogames ensures that its projects will always utilize the most advanced state-of-the-art technology.

The year-long project is supported within the scope of the NRW operational program Objective 2 "Regional Competitiveness and Employment" co-financed by the European Regional Development Fund.



