Editorial

Josef Wiemeyer

Stefan Göbel

Institute of Sport Science

Multimedia Communications Lab (KOM)

Technische Universität Darmstadt

Technische Universität Darmstadt

Playing games is a ubiquitous and fascinating activity all over the world being performed by young and old, rich and poor. Whereas playing games in general has a positive connotation regarding leisure, learning and development, this is not equally true for digital games – unfortunately often exclusively associated with negative associations about violence, addiction, and sedentary life style.

Since the 1990ies a new label has entered the stage: Serious Games (SG). SG denote video/digital games that are played not only for fun, enjoyment, and entertainment, but also for other purposes like learning, education, prevention, and therapy. SG can be defined as digital games and game-based applications going beyond fun, including gaming concepts and/or technologies plus further technologies and (domain-specific) methodologies (see fig. 1). Hence, SG have a great potential for many application areas – our bold hypothesis is that Serious Games are useful for virtually all possible application domains and markets.

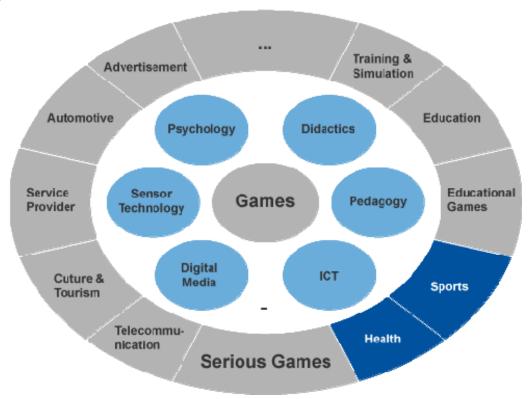


Figure 1. Understanding of Serious Games.

During the GameDays 2010 discussions focussed on two very important application areas: Sports and Health. Applying SG to Sports and Health is on the one hand very promising because of great significance of sport, exercising, and health-related behaviour like physical activity, nutrition, smoking, sexual behaviour, or social behaviour to name but a few. On the other hand fig. 1 illustrates that reconciling true gaming experience and changing behaviour is not at all trivial. A dynamic balance has

to be established between fun, enjoyment, flow etc. on the one hand and achieving the serious goals and purposes on the other hand.

In this Special Edition of the International Journal of Computer Science in Sport selected papers are published that contribute substantially to the discussion of SG in Sport and Health.

The topics of the scientific papers range from fundamental issues of SG in Sports and Health to concrete applications in the fields of Sports and Health-related behaviour. The editors feel confident that this selection of papers confirms that high-quality research and development (R&D) is going on in the SG realm. The papers also show that despite some successful proofs of concept R&D concerning SG in Sports and Health is still in its infancy. The key problems like sustainability, sound scientific substantiation, adequate balance of reality and virtuality and appropriate settings are still to be solved. To be successful R&D projects require interdisciplinary cooperation of experts in technology, psychology, pedagogy, and the application fields like Sports and Health. The editors also hope that more researchers and developers are inspired by the papers to start engaging in this interesting and challenging field. Needless to say, that high-quality R&D has its price.