The value of serious gaming for stimulating attitudes

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Competences consist of a mixture of knowledge (content), skills and attitudes. The bulk of e-learning is focused on content and skills and many, if not most teachers would agree that ICT may play an important role offering new types of learning to enhance the acquisition of content and the development of skills. But at the same time many teachers still resist the playing of games as a meaningful instrument with a specific added value. The fact that games are the focus of governmental concern about violence, sex and addiction isn’t helpful when it comes to making games acceptable as educational tools. In this paper we argue that the real added value of games lies in their potential as tools to stimulate the attitude-component of competences. It is precisely the basis for great negative power that is often attributed to games and gaming that also constitutes their great potential for stimulating positive attitudes. If they are properly designed, that is....

Stories and books are quintessential tools for learning about the values of humanity – values that ultimately drive attitudes. But books and stories are being replaced by fast virtual (interaction). That is where the potential catch lies. Research at the University of Southern California, lead by Antonio Damasio, shows that the perception of pain and suffering happens much faster than the perception of more positive emotions¹. This makes good evolutionary sense because it is important to recognize ‘bad’ situations as quickly as possible in order to get away from them as fast as we can. But “running away” is apparently not the default option of most people when it comes to acting on the recognition of pain, violence or other negative emotions and attitudes. ‘Fascination’ is quite often the intuitive reaction. That is why more people are interested in the attitude towards games than on the effects of games on attitudes.

Notwithstanding the obvious dangers of excessive interest in violence, there is increasing evidence of the positive effect of games on behavior. A study of 375 teens and young adults suffering from cancer in the US, Australia and Canada showed that a specifically designed video game, Re-Misson, contributed to a better attitude towards sticking to their sometimes demanding medical treatment. This lead to better level of chemotherapy in their blood and a more consistent use of antibiotics that those in the control group. Interestingly, the game also contributed to a better knowledge acquisition about cancer.²

Attitudes differ in accessibility (awareness) and ambivalence (changeability). SEE A GAME, a multilateral project funded by the European Union in the period 2009-2010 sets out to use these and other results to design a game to stimulate entrepreneurial attitudes not only in those aspiring to start their own business but also in the general population, as an essential attitude in many aspects of professional and private life.

'Serious games’ are designed to change attitudes – “get them to vote a certain way, join the army or buy hamburgers.” – says Terry Lavender who researches this emerging class of educational video games ³ His own game about homelessness was shown to make people more sympathetic towards homeless people, but it is unclear how long the effects lasts.

One of the mechanisms by which attitudes are potentially influenced by serious gaming is by the creation of multiple identities, each representing different social roles. In that sense, serious gaming
is not unlike role playing, but with the added advantage of the contacts and interactions taking place in a much more complex setting than is typical in a role play. Another advantage is the longer time dimension in serious games, which can continue over longer periods of time, thereby increasing the effect on attitudes. Finally also the greater interaction between the ‘real’ and ‘virtual’ identity must be mentioned.

We discuss the following aspects of serious games, all of which have an influence on their potential to change attitudes:

- Competences : Content, Skills and Attitudes
- Fun
- Score!
- Excel yourself
- Excel other
- Challenges
- Problem solving and creativity
- Collaboration
- Perseverance
- Quality

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\(^1\) http://www.telegraph.co.uk/scienceandtechnology/science/sciencenews/5149195/Twitter-and-Facebook-could-harm-moral-values-scientists-warn.html
\(^2\) http://digg.com/d1odN9 retrieved on 2009-04-28
\(^4\) http://www.sfu.ca/sfunews/Stories/sfunews09170809.shtml retrieved on 2009-04-29