



“Serious Games” in health care: a review

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Technological advances meet changing social needs



- Sample game: www.thegreatflu.com



Technological advances

- “Health 2.0” – a rhetorical indication of technical and social changes in health care; follows business jargon related to:
 - Increasing availability of web applications that allow end-users to produce information
- These web applications:
 - Cut out steps in publication processes and **lower the use threshold**
 - Make new **combinations** of media genres possible; **less text + more images and interaction**
 - Moves the web away from the desktop – **mobile interfaces**



Changing social needs

- Low socio-economic status is associated both directly and indirectly with poor health outcomes
 - Families who need health information and services most, access them least
 - Poor self-management of disease
 - But also the normative problem of “us-them”
- The potential value of new media for groups in deprived areas has been signaled
 - However, barriers to use:
 - No technological access
 - Limited skills to use what is available
 - Low (health) literacy levels



Suggests the need for alternatives...

- ... to text-based education
- ... to use only in a treatment setting
- ... to how materials are created and distributed
 - Who is involved and when
 - Dissolution of the us-them divide
- ...



Are games a viable alternative?

- Simple games have been used for much longer
- Enable non-text-based education
 - Potential to **personalize** through feedback mechanisms
- Have been successful in treatment settings
 - E.g.: the Playmancer project and Dutch diabetes care
 - Can track individual and cohort progress (**monitoring**)
 - Lessons learned can be transferred to other health education settings (public health promotion, disease prevention)
- Enable **co-creation** of materials and reaching a variety of different groups
- Can also be provided in a format for mobile phones
 - Access and skill are still important, but on a smaller scale



Perhaps, but...

- Serious games are very **expensive** to develop and sustain
- Are not yet taken seriously
 - Must be seen as integral part of treatment or education process
 - Not as a “game”
 - Not as something that stands alone/replaces process
 - Some games have a steep learning curve!
- May not be viable for everyone
- **Normative implications** of content and idea of constant monitoring are underexplored
- More developments are taking place than are reported in academic literature
 - Unclear if effective in **reaching** and **improving health outcomes** for specific populations