

Serious Games

Hauptseminar "E-Learning – Sommersemester 2008



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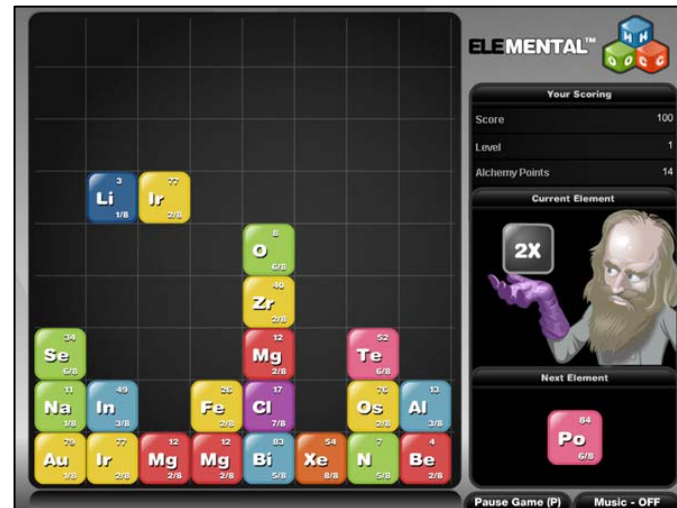
23.07.2008

Agenda

- ≡ Definition
- ≡ Potentials
- ≡ Characteristics
- ≡ Quality Principles
- ≡ Examples

What is typical for a serious game?

- ≡ a mental contest
- ≡ it is played with a computer in accordance with specific rules
- ≡ it uses entertainment
- ≡ to further government or corporate training, education, health, public policy and strategic communication objectives

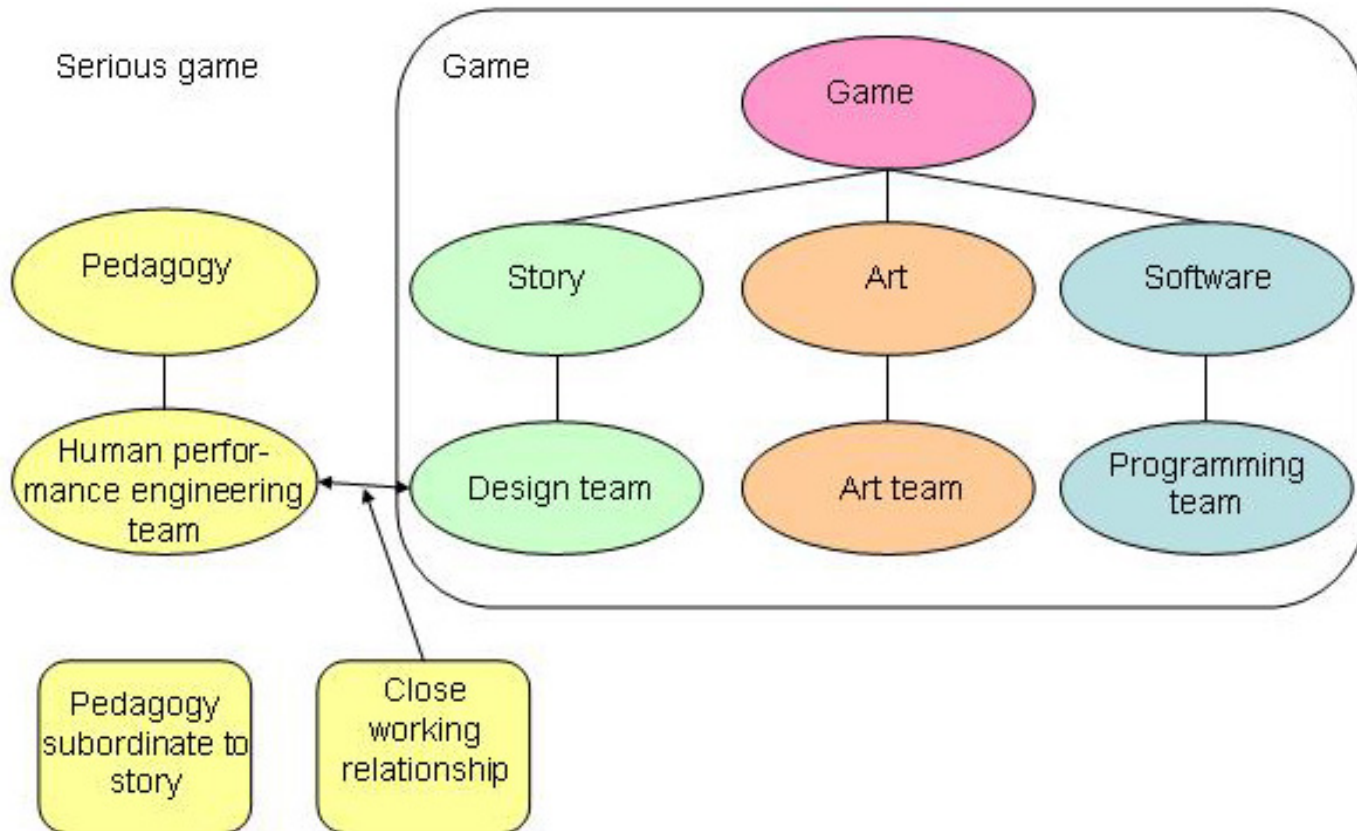


Zyda, M., 2005. From visual simulation to virtual reality to games. No. 9. IEEEComputer Society, pp. 2532.

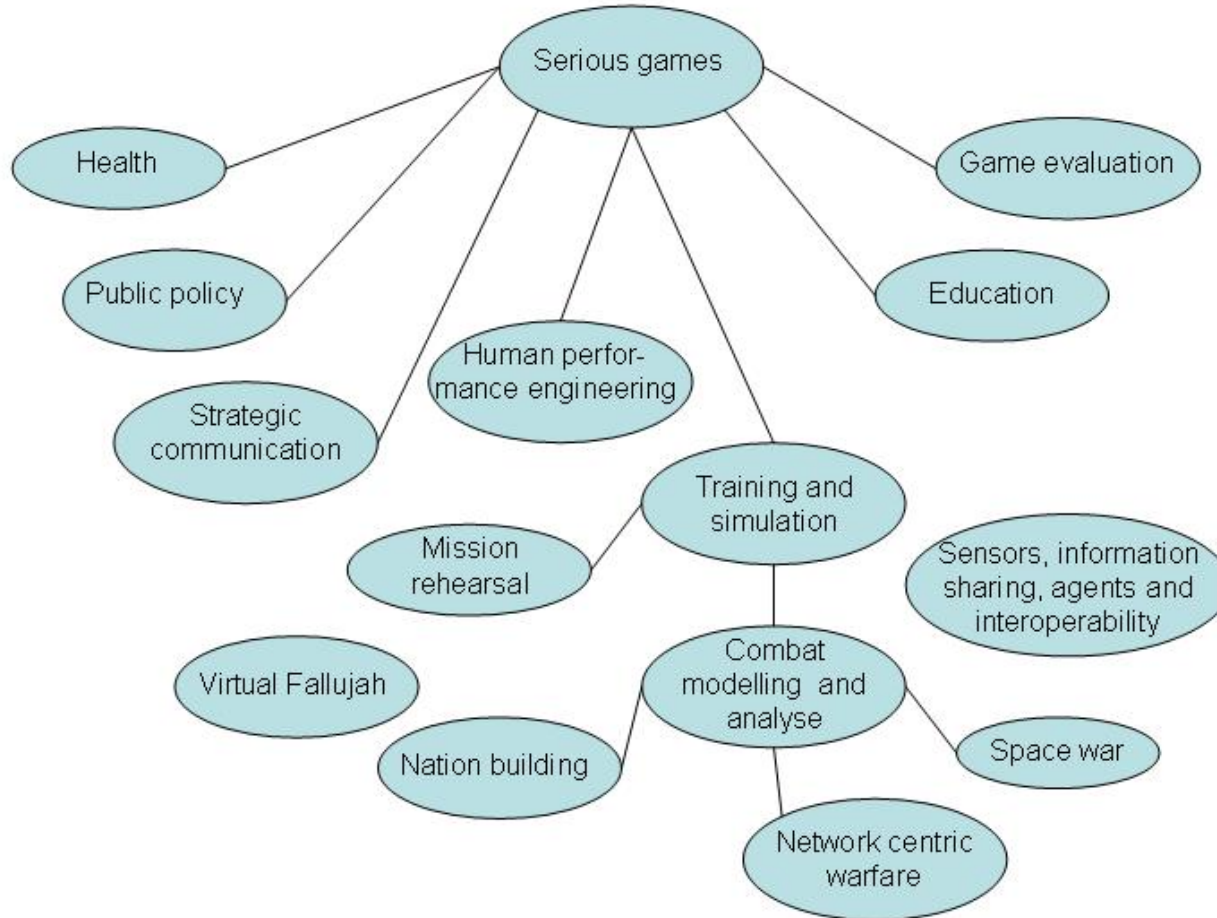
Elemental, 2008. Elemental. <http://www.persuasivegames.com/games/game.aspx?game=elemental>, last visited 07.2008.

Pulse!!, 2008. Pulse!! Screenshots. <http://www.sp.tamucc.edu/pulse/info-multimedia.asp#screenshots>, last visited 07.2008.

The pedagogy makes a game serious



There is a huge application area of Serious Games



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Serious Games have the potential to support the process of learning

≡ Learning is an active process

- ≡ make own decisions and get direct feedback
- ≡ experiment in an safe environment

≡ Learning is a constructive process

- ≡ get individual experiences, knowledge and interpretations
- ≡ explore the offer of information and try things in a playful way

≡ Learning is a self-directed process

- ≡ enjoy more freedom in learning
- ≡ see different ways to play and to get feedback

≡ Learning is an emotional process

- ≡ involve the player deeply in the story
- ≡ identifies himself with the pawn or role in a game

Serious Games need more characteristics than a normal video game

☰ Motivation to learn

- ☰ actions have direct consequences
- ☰ by playing a new role
- ☰ fascinating or thrilling situations and their dissolving
- ☰ attractive graphics, environments and funny, ironic or exorbitant characters

☰ Accuracy

- ☰ mistakes can initiate large socio-economic and financial consequences

☰ Intuitive Interfaces

- ☰ users spend time to understand and to control the interfaces

☰ The design is different to normal games

- ☰ knowledge about pedagogics and learning topics

Christoph Meier, S. S., 2003. Game-based learning: Erfahrungen mit und Perspektiven für digitale Lernspiele in der betrieblichen Bildung. In: Grundlagen der Weiterbildung Praxishilfen (GdW-Ph). No. 53,7.40.20.39. Wolters Kluwer, Neuwied.; Bergeron, B., 2006. Developing serious games, historical perspective. In: Developing Serious Games. Thomson Learning, pp. 122.; Peter J. Werkhoven, J. B. F. v. E., 2007. Serious gaming requires serious interfaces. Brainplay, Netherlands.

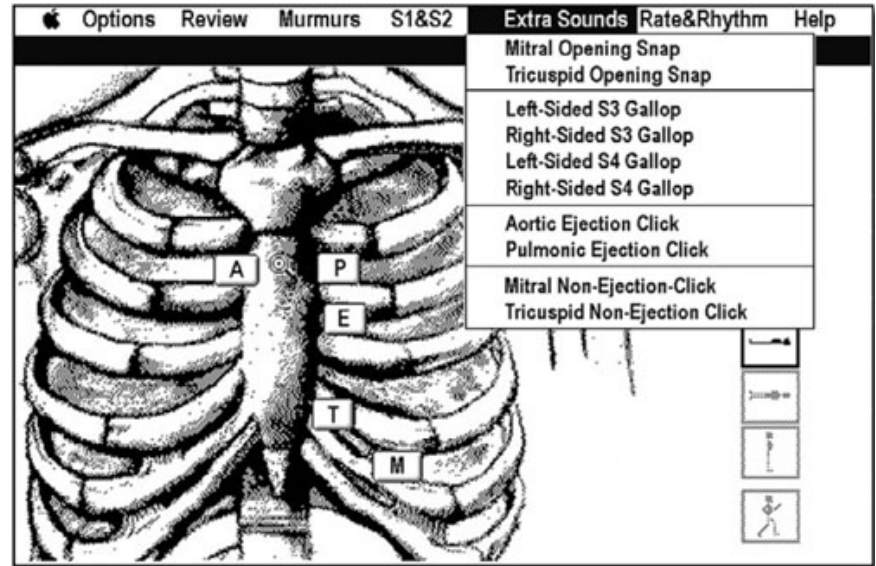
A well made Serious Game needs the following characteristics

- ≡ some different styles of learning
- ≡ new identities which the player likes or in which he becomes well invested
- ≡ the problems have to be well ordered
- ≡ a player is always challenged
- ≡ information *On Demand* and *Just in Time*
- ≡ a simplified system for the tutorial (e.g. fish tank)
- ≡ a sandbox which simulates the real world as a safe place without real risks

Historical development



Link blue box 1929



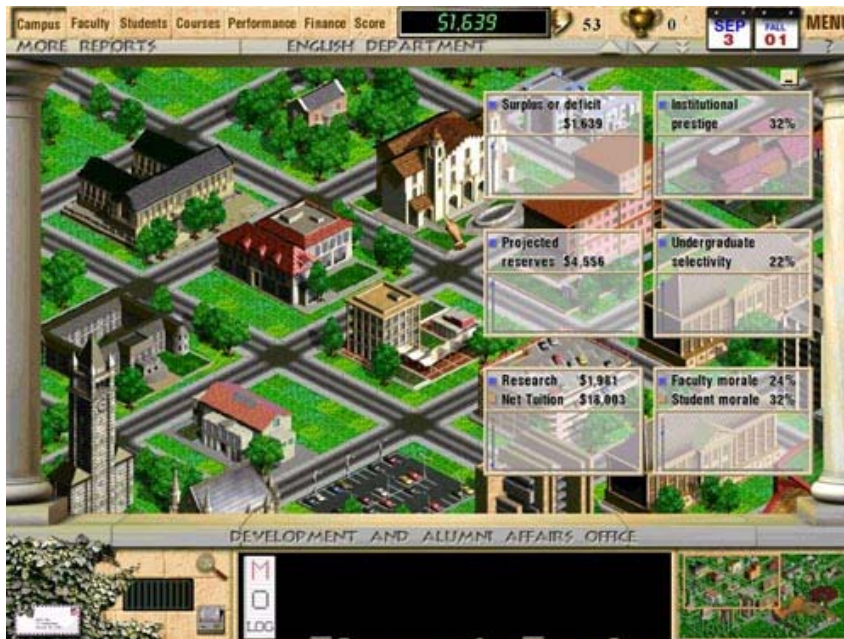
Heartlab 1986

Current examples – America's Army



Army, A., 2008. Training and mission screenshots. <http://www.americasarmy.com/media/>, last visited 06.2008.

Current examples – Virtual University

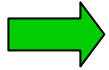


Current examples - Phobias

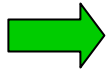


Wiederhold, B. K., 2004. Using videogames to treat mental health disorders. <http://www.seriousgames.org/caseblasts/vrphobia.ppt>, last visited 06.2008.

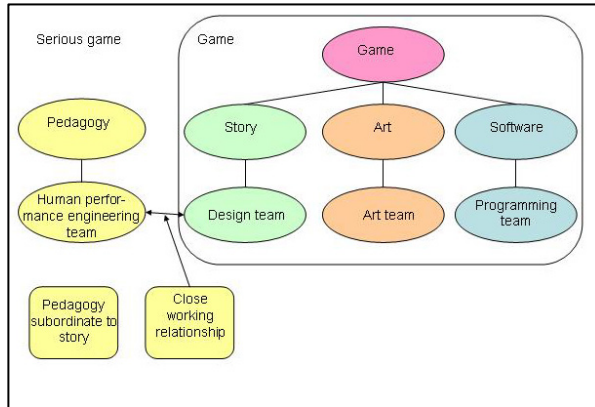
Conclusion



Serious games are not a magic bullet against people who do not want to learn.



A well made serious game has just the potential to motivate people to learn more.



Any Questions ? ? ?



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