An Introduction to Serious Games, and (Virtual) Simulation for Health Professions Education

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MMVR 2013 Tutorial

Additional Resources and References

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Digital Game-Based Learning: Learning with Games

Miscellaneous

Web resources and videos

- Study: Playing a Video Game Helps Teens Beat Depression: http://healthland.time.com/2012/04/20/study-playing-a-video-game-helps-teens-beat-depression/#ixzz2Cmi822QQ
- James Paul Gee on Grading with Games: http://www.youtube.com/watch?v=JU3pwCD-ey0. An Arizona State University professor sees a bright future for video games in the learning process.
- Games for Learning Institute: James Paul Gee: http://www.youtube.com/watch?v=fYJpbjvcpIM. Games and 21st Century Learning: Explores how video games can organize deep conceptual understanding, and a variety of 21st century skills rarely offered in schools today. Gee discusses the different learning theories that underlie different approaches to games for learning.
- Katie Salen on Learning with Games: http://www.youtube.com/watch?v=xV_VlhV99EA. Katie Salen, a professor of design and technology at Parsons The New School for Design talks about the value of games and the empowerment of play.

Articles

Instructional Design

Curriculum development for simulation

**Articles**

Cognitive load theory, cognitive load measurement, and applications to instructional design research

**Articles**

Best practices in simulation instructional design

**Articles**

Examples of needs assessment/task analysis

**Articles**

Miscellaneous

**Web resources**
- EduTechWiki:  is about Educational Technology (instructional technology) and related fields hosted by TECFA - an educational technology research and teaching unit at University of Geneva. A good resource:  [http://edutechwiki.unige.ch/en/Main_Page](http://edutechwiki.unige.ch/en/Main_Page)
Additional References

- AGILE (Rapid Prototyping) Model - EduTech Wiki: 
  http://edutechwiki.unige.ch/en/Rapid_prototyping
- Agile Modeling (AM) Home Page: Effective Practices for Modeling and Documentation: 
  http://www.agilemodeling.com/ (A good resource)

Articles


Game Design and Gamification

Miscellaneous

Web resources and videos

- Game Design with Will Wright: http://www.youtube.com/watch?v=CdgQyq3hEPo&feature=related. Will Wright has become one of the most successful designers of interactive entertainment in the world. In this lecture, recorded in November 2003, Wright discusses various aspects of game design, human interfaces, artificial intelligence, metrics, simulation and the future of gaming.
- Penny Arcade - So You Want To Be a Game Designer: http://www.penny-arcade.com/patv/episode/so-you-want-to-be-a-game-designer (a “cute” overview of what a game designer does.
- MIT OpenCourseWare on Game Design (audio lectures only): http://ocw.mit.edu/courses/comparative-media-studies/cms-608-game-design-fall-2010/audio-lectures
- Putting the Fun in Functional: Applying Game Mechanics to Functional Software by Amy Jo Kim: http://www.youtube.com/watch?v=ihUt-163gZl (56:21). A review the psychology and system thinking behind game design, and discussion of how to use game mechanics to create an experience that's fun, compelling, and addictive (focus is on Web and mobile applications but the mechanics are applicable to all games).
- Gamification Wiki: http://gamification.org/
- Meaningful Play: Getting Gamification Right: http://www.youtube.com/watch?v=7ZGCPap7GkY. Presented by Sebastian Deterding, a user experience designer and game researcher at the
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University of Hamburg, Germany. Although the focus is on Gamification, the mechanics (and what Sebastian discusses) are applicable to all games including video games.

Articles

Instructional design vs. game design

Web resources and videos
- End-to-End Game Development: Part 1 of Instructional vs. Game Design (by Nick Iuppa): http://www.youtube.com/watch?v=hyt_oCyaFfQ (12:38). Nick Iuppa discusses the conflict between instructional design and game design. He talks about task analysis, instructional strategies and the creative process. Nick is co-author of End-to-End Game Development, published by Focal Press.
- End-to-End Game Development: Part 2 of Instructional vs. Game Design (by Nick Iuppa): http://www.youtube.com/watch?v=l3E03aTl7fl (9:43).

Assessment

Miscellaneous

Articles
References to Our Own Work Discussed in the Tutorial

Power defense

“Knee game”

Interprofessional education serious game

Serious game surgical cognitive education and training framework

Miscellaneous References

**Relevant Textbooks:**
Additional References