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Module 4 - Serious Games in VET

Reading Materials



Ecological Thinking!

Think before printing, if it is necessary. In case something needs to be printed, it is worth thinking about where to print it (e.g., local print shop, ecofriendly online print shop, etc.), on what kind of paper (e.g., recycled paper, grass paper, other alternatives to usual white paper) and with what kind of colors.

Let's protect our environment!





Reading Materials

Module 3

In this document, you can find different sources of information on which the content videos of this module have been based. Under each title, you will find a brief summary of its content to know what they are about.

- Parisi, T. (2015). *Learning Virtual Reality*. O'Reilly Media (US), (12). ISBN: 9781491922835

As virtual reality approaches mainstream consumer use, a vibrant development ecosystem has emerged in the past few years. This hands-on guide takes you through VR development essentials for desktop, mobile, and browser-based applications. You'll explore the three go-to platforms-OculusVR, Gear VR, and Cardboard VR-as well as several VR development environments, programming tools, and techniques. If you're an experienced programmer familiar with mobile development, this book will help you gain a working knowledge of VR development through clear and simple examples. Once you create a complete application in the final chapter, you'll have a jumpstart on the next major entertainment medium.

Learn VR basics for UI design, 3D graphics, and stereo rendering Explore Unity3D, the current development choice among game engines Create native applications for desktop computers with the Oculus Rift Develop mobile applications for Samsung's Gear VR with the Android and Oculus Mobile SDKs Build browser-based applications with the WebVR Javascript API and WebGL Create simple and affordable mobile apps for any smartphone with Google's Cardboard VR Bring everything together to build a 360-degree panoramic photo viewer.

- McGonigal J. (2011). *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*. The Penguin Press (New York). ISBN: 1-101-46715-0

Practical Advice for Gamers by Jane McGonigal *Reality is Broken* explains the science behind why games are good for us-why they make us happier, more creative, more resilient, and better able to lead others in world-changing efforts. But some games are better for us than others, and there is too much of a good thing. Here are a few secrets that aren't in the book to help you (or the gamer in your life) get the most positive impact from playing games. This practical advice-5 key guidelines, plus 2 quick rules-is scientifically backed, and it can be summed up in a single sentence: Play games you enjoy



no more than 21 hours a week; face-to-face with friends and family as often as you can; and in co-operative or creator modes whenever possible.

- Swink S. (2009). *Game feel: a game designer's guide to virtual sensation*. Elsevier, Inc. ISBN: 978-0-12-374328-2

"Game Feel" exposes "feel" as a hidden language in game design that no one has fully articulated yet. The language could be compared to the building blocks of music (time signatures, chord progressions, verse) - no matter the instruments, style or time period - these building blocks come into play. Feel and sensation are similar building blocks where game design is concerned. They create the meta-sensation of involvement with a game.

The book covers topics like the role of sound, ancillary indicators, the importance of metaphor, how people perceive things, and a brief history of feel in games.

- Chou Y. (2015). *Actionable Gamification: Beyond Points, Badges and Leaderboards*. CreateSpace Independent Publishing Platform. ISBN: 978-1511744041

The new era of Gamification and Human-Focused Design optimises for motivation and engagement over traditional Function-Focused Design. Within the industry, studies on game mechanics and behavioural psychology have become proliferated. However, few people understand how to merge the two fields into experience designs that reliably increase business metrics and generate a return on investment. Gamification Pioneer Yu-kai Chou takes readers on a journey to learn his sixteen years of obsessive research in creating the Octalysis Framework, and how to apply the framework to create engaging and successful experiences in their product, workplace, marketing, and personal lives.

- Nicholson, S. (2015). A RECIPE for Meaningful Gamification. In Wood, L. & Reiners, T., eds. *Gamification in Education and Business*, New York: Springer. 1-20. http://dx.doi.org/10.1007/978-3-319-10208-5_1

Meaningful gamification is the use of gameful and playful layers to help a user find personal connections that motivate engagement with a specific context for long-term change. While reward-based gamification can be useful for short-term goals and situations where the participants have no personal connections or intrinsic motivation to engage in a context, rewards can reduce intrinsic motivation and the long-term desire to engage with the real world context. If the goal is long-term change, then rewards should be avoided and other game-based elements used to create a system based on concepts of meaningful gamification. This article introduces six concepts - Reflection, Exposition, Choice, Information, Play, and Engagement - to guide designers of gamification systems



that rely on non-reward-based game elements to help people find personal connections and meaning in a real world context.