Opener #8. Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)

LDS Church to purchase Utah State University, rename it BYU-Logan, Cache Valley Insider, April 1, 2013

http://www.cachevalleydaily.com/news/local/article_7a45edfa-9ad8-11e2-9067-0019bb30f31a.html


LDS Church to purchase Utah State University, rename it BYU-Logan

BYU - Logan

BYU-Logan

Perhaps the biggest announcement the week of the 183rd annual General Conference of the Church of Jesus Christ of Latter-day Saints came late on Easter Sunday. The LDS Church announced plans to purchase Utah State University, renaming the 125 year old school BYU-Logan.

The Church cites increasing tension between Aggie fans and Cougar fans as the reason for the purchase.

"We hope this move will defuse any tension between Aggie fans and Cougar fans. Now fans from both schools can cheer for BYU, regardless if they're from Logan or Provo", said a church spokesperson.

The Vulcan Approach to Education is On The Horizon, Jarl Jonas, The EvoLLLution, March 25, 2013

http://www.evolllution.com/distance_online_learning/vulcan-approach-education-horizon/#comments

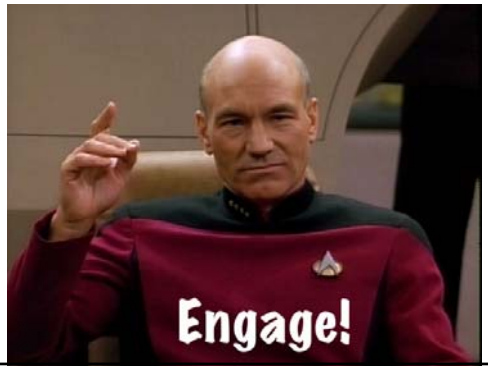

The Vulcan Approach to Education is On The Horizon

Imagine a time when students of all ages, levels and abilities would be able to receive individualized instruction designed to meet their specific learning preferences and needs, and would not be constrained by time, distance or economic status. Imagine a place where learners could be immersed in personalized learning contexts with interactive, three-dimensional content and mixed media to stimulate all of the senses. Visualize a system with such powerful artificial

In 10 years' time, online teaching and learning is likely to be far more student-centered and personalized for learners than it is today.

What did Jean-Luc Picard say?

That's right, Engage!



Winky Dink and ... Bill Gates?, Bob Greene, March 31, 2013, CNN

http://www.cnn.com/2013/03/31/opinion/greene-winky-dink-bill-gates/index.html?hpt=hp_t3

A girls uses her "Winky Dink" drawing kit to draw on a TV screen as they watch the 1950s kids program.

How Might Video Games Be Good for Us?,
Jane McGonigal, October 15, 2012, BQO (Big Questions Online)
https://www.bigquestionsonline.com/content/how-might-video-games-be-good-us

How Might Video Games Be Good for Us?,
Jane McGonigal, October 15, 2012, BQO (Big Questions Online)
https://www.bigquestionsonline.com/content/how-might-video-games-be-good-us

10 Terrific iPad Apps for Toddlers, August 2, 2012, Mashable, Allegra Tepper
http://mashable.com/2012/08/03/ipad-apps-toddlers/

10 Terrific iPad Apps for Toddlers, August 2, 2012, Mashable, Allegra Tepper
http://mashable.com/2012/08/03/ipad-apps-toddlers/

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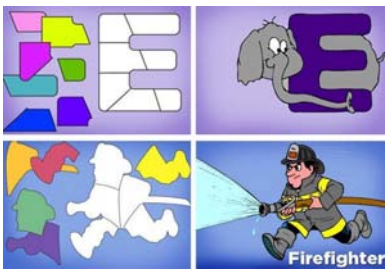
http://mashable.com/2012/08/03/ipad-apps-toddlers/



Fibonacci Final Four? Math March Madness coming, Greg Toppo, March 26, 2013, USA Today

http://www.stargazette.com/article/20130326/NEWS02/303260008/Fibonacci-Final-Four-Math-March-Madness-coming

Fibonacci Final Four? Math March Madness coming

Tim Kelley watches student Joseph Park compete live via computer in a math competition. / Jack Gruber, USA TODAY

Fibonacci Final Four? Math March Madness coming, Greg Toppo, March 26, 2013, USA Today

http://www.stargazette.com/article/20130326/NEWS02/303260008/Fibonacci-Final-Four-Math-March-Madness-coming

- **ALEXANDRIA, VA** — At 3:59 p.m. on a recent Thursday, Joseph Park entered a high school computer lab, threw off his big blue backpack and began what to many would look like a hellish online math test. A few minutes later, an underclassman named Robin Park (no relation) rushed in, grabbed a chair across the room and tackled the same nine questions.
- A closer look at their computer screens revealed a digital scoreboard at the top. On one side was the combined average score of Joseph and Robin, on the other the score of four students in Indiana.

Fibonacci Final Four? Math March Madness coming, Greg Toppo, March 26, 2013, USA Today

http://www.stargazette.com/article/20130326/NEWS02/303260008/Fibonacci-Final-Four-Math-March-Madness-coming

- Joseph and Robin, a senior and freshman, respectively, at Thomas Jefferson High School for Science and Technology, were piloting a curious piece of software that someday could change how students feel about academics. Its creator wants to build NCAA bracket-style competitions in every subject, pitting class against class, school against school and, someday, nation against nation.

Fibonacci Final Four? Math March Madness coming, Greg Toppo, March 26, 2013, USA Today

http://www.stargazette.com/article/20130326/NEWS02/303260008/Fibonacci-Final-Four-Math-March-Madness-coming

- On the Thursday afternoon last month, the Indiana students narrowly beat Joseph and Robin, the two Thomas Jefferson students. Both boys answered seven of the nine problems correctly.
- Kelley hopes to offer Interstellar this fall to 1,000 high schools, which would pursue a place on a 64-team bracket. It'd be offered for free at first, but he'd eventually charge $5 to $10 per student per season.

Top brain scientist is 'philosopher at heart', Elizabeth Landau, CNN, March 31, 2013

http://www.cnn.com/2013/03/31/health/boyden-brain-map/index.html?hpt=hp_c1

Top brain scientist is 'philosopher at heart'

By Elizabeth Landau, CNN

updated 7:20 AM EDT, Sun March 31, 2013

Top brain scientist is 'philosopher at heart', Elizabeth Landau, CNN, March 31, 2013

http://www.cnn.com/2013/03/31/health/boyden-brain-map/index.html?hpt=hp_c1

Top brain scientist is 'philosopher at heart'

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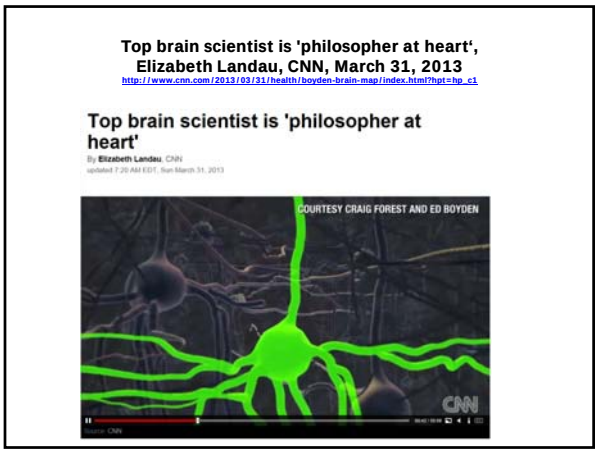
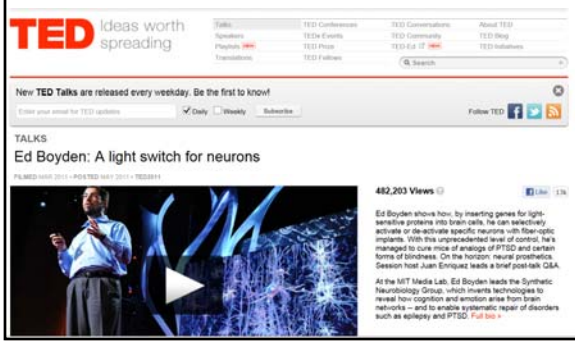


Top brain scientist is 'philosopher at heart', Elizabeth Landau, CNN, March 31, 2013
http://www.cnn.com/2013/03/31/health/boyden-brain-map/index.html?hpt=hp_c1

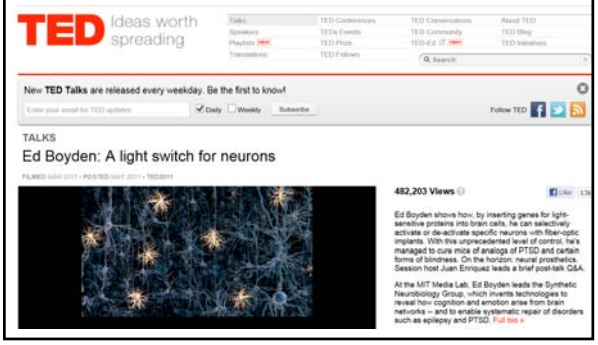
Why we're making a map of the brain, July 2011, TED
http://www.cnn.com/2012/02/19/opinion/jones-map-brain

Why we're making a map of the brain, July 2011, TED
http://www.cnn.com/2012/02/19/opinion/jones-map-brain

Ed Boyden: A light switch for neurons, TED, March 2011
http://www.ted.com/talks/ed_boyden.html



Ed Boyden: A light switch for neurons, TED, March 2011
http://www.ted.com/talks/ed_boyden.html



Cyber-Anatomy

http://www.cyber-anatomy.com/

email at: tom.nicknish@cyber-anatomy.com or Skype: oatnick

Cyber-Anatomy

http://www.cyber-anatomy.com/

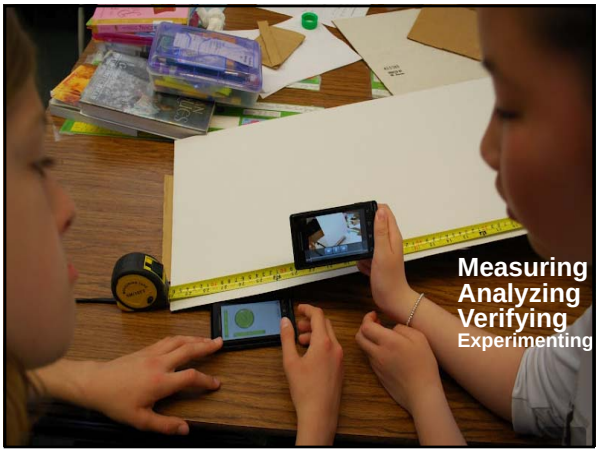
https://www.dropbox.com/sh/78dwz2f5m35sg2q/cHCRL64toB#/ (Dropbox)

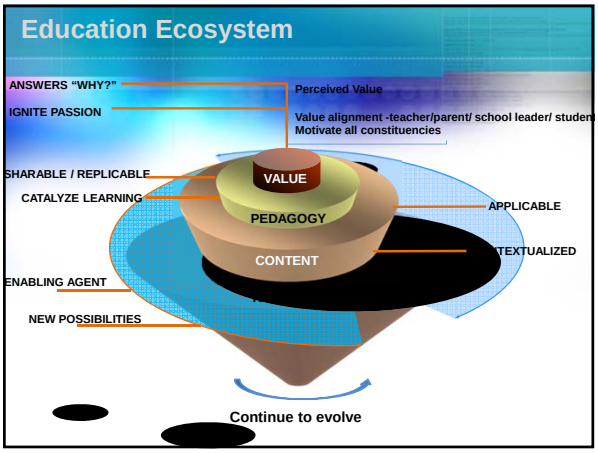
Cyber-Anatomy

http://www.cyber-anatomy.com/

https://www.dropbox.com/sh/78dwz2f5m35sg2q/cHCRL64toB#/ (Dropbox)

S. Korea. Medical University - BYOD
Moving from lecture-centered to student interaction centered model
Developed local evaluation rubrics





SimCity

Massive Multiplayer Online Games (MMOGs)

Second Life

(business, law, education, English, medicine)

Second Life

(business, law, education, English, medicine)

Second Life

(business, law, education, English, medicine)

Second Life

(business, law, education, English, medicine)

Second Life
(business, law, education, English, medicine)

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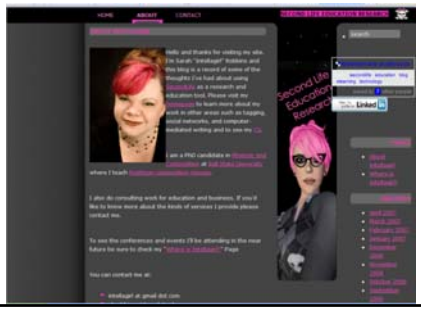
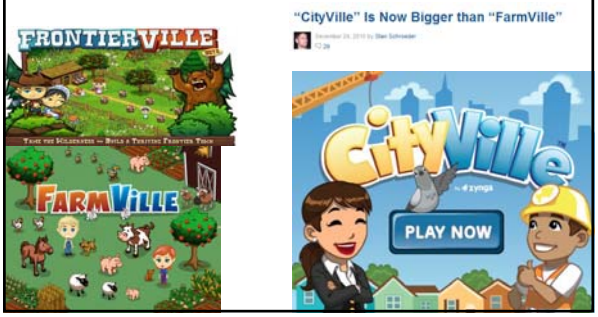
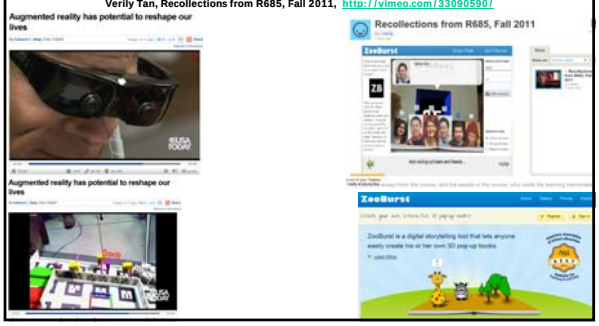


April/May 2011
Dr. Monica Rankin's class
UT Dallas, Cuban Revolution
http://www.youtube.com/watch?v=ocQMf1kPo98

December 24, 2010:
Social Networking Gaming
CityVille **16.8 million daily users, *FarmVille*'s 16.4 million. *CityVille* 61.7 million monthly users, *FarmVille* 56.8 million users. Mashable.**



Augmented Reality, May 17, 2011:
USA Today, Edward Baig, Augmented reality has potential to reshape our lives.
(e.g., ZooBurst , Craig Kapp, NYU, pop-up books)
Verily Tan, Recollections from R685, Fall 2011, http://vimeo.com/33090590/



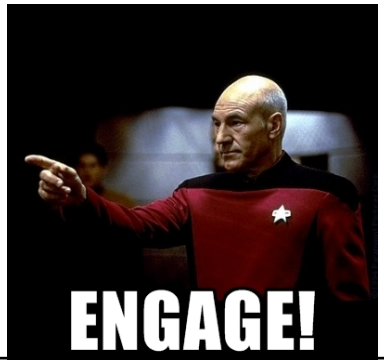
University of Texas: 50 Islands, Nov 2009
http://archive.treet.tv/metanomics-campus-life

University of Texas: 50 Islands, Nov 2009
http://archive.treet.tv/metanomics-campus-life

University of Texas: 50 Islands, Nov 2009
http://archive.treet.tv/metanomics-campus-life

What was it that he said?

That's right, Engage!



Douglas Thomas and John Seely Brown (2009, January). Why Virtual Worlds Matter. *International Journal of Media and Learning*, Vol. 1(1).
http://www.johnseelybrown.com/needvirtualworlds.pdf

Douglas Thomas and John Seely Brown (2009, January). Why Virtual Worlds Matter. *International Journal of Media and Learning*, Vol. 1(1).
http://www.johnseelybrown.com/needvirtualworlds.pdf

Guilds in *World of Warcraft* or other MMOGs have such a strong presence in players' lives that they frequently talk about their guilds as homes or families, even though most of the players may have never met one another face to face and could not recognize each other in person. Understanding the richness of the experience of play and the complexity of problem solving that occurs in guilds and around games, leads us to what we feel may be one of the most pressing issues for the 21st century.

Douglas Thomas and John Seely Brown (2009, January). Why Virtual Worlds Matter. *International Journal of Media and Learning*, Vol. 1(1).
http://www.johnseelybrown.com/needvirtualworlds.pdf

How do people learn how to create and participate in networks of imagination and how can our theories of learning adjust to account for this rich and powerful phenomena? We cannot answer this question adequately by looking solely at game mechanics, player culture, or discourse communities. We need to look at virtual worlds as space that embody both the physical and virtual simultaneously, as spaces which allow for, and even demand, and *imaginative* bridge between the two.

Douglas Thomas and John Seely Brown (2009, January). Why Virtual Worlds Matter. *International Journal of Media and Learning*, Vol. 1(1).
http://www.johnseelybrown.com/needvirtualworlds.pdf

Communities such as guilds or external web sites structure the meaning of activity within the game world. They also serve as the primary conduit of information between and among players, determining what has value and providing contexts for puzzle solving, organization, and social and task interaction.

Douglas Thomas and John Seely Brown (2009, January). Why Virtual Worlds Matter. *International Journal of Media and Learning*, Vol. 1(1).
http://www.johnseelybrown.com/needvirtualworlds.pdf

Rather than asking how dispositions might be transferred from the game to the world, conceptual blending defines the spaces as both virtual and physical simultaneously. There is no transfer to speak of, because the player is neither situated in only the game or only the world, she co-exists in both.

Douglas Thomas and John Seely Brown (2009, January). Why Virtual Worlds Matter. *International Journal of Media and Learning*, Vol. 1(1). http://www.johnseelybrown.com/needvirtualworlds.pdf

Entering into a virtual world, then, is quite different from a typical game. Where traditional games have clear (even if complicated) narratives, the ability to stop, pause, and restart, and a set of rules which guide narrative progression, virtual worlds are persistent and ongoing. They cannot be paused or repeated. What happens in virtual worlds have persistent consequences and effects.

February 20, 2013

UW-Madison to expand distance learning with Massive Open Online Courses, Kari Knutson, University of Wisconsin-Madison News
http://www.news.wisc.edu/21520?utm_source=iUW&utm_medium=email&utm_campaign=iUW2013-02-21

More Than a High Score: Videogames and Learning, February 19, 2013, University of Wisconsin-Madison News
http://edinnovation.wisc.edu/moocs/more-than-a-high-score-videogames-and-learning/

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

Figure One a night elf priest

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

Figure Two. Finding a battleground

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

- **In World of Warcraft, learning in conversation is event-driven with no planned curriculum. It is spontaneous, erratic, serendipitous, and contextual.**

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

- **However, the situated curriculum comprises a sequence of tasks for students to complete with appropriate instruction as the student engages in the tasks. In WoW, learning in conversation is driven by small events such as players asking questions or receiving advice during play.**

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

A goal of this paper is to point out the presence of emotion in learning conversations, to focus beyond the informational content of the conversations, and to suggest emotion as an important topic for future research.

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

- **Our goal in this paper was to examine conversational activity in the zone of proximal development to investigate the nature of learning in World of Warcraft. We observed what Vygotsky predicted—that learners accomplish more with the aid of experienced peers than they could on their own. We described the contours of the learning experience in the ZPD as it unfolded in event-driven, erratic, spontaneous, emotionladen conversations closely tied to the context of activity.**

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

- **Through interviews with Acquaa, Coldnight, and other players we documented that the learning conversations that took place actually affected their ability to play, teaching them to play more effectively.**

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

A surprising finding from our research was the emotionally inflected discourse in many learning conversations. Not every learning conversation involved emotion, but the drama, humor, and intimacy in conversations were unmistakable.

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

The zone of proximal development is generally taken to imply the acquisition of deeper understandings, new ways to integrate and make coherent concepts and ideas. It appears to us that the zone of proximal development is also about motivation and support as Vygotsky hinted

Bonnie A. Nardi, Stella Ly, & Justin Harris (2007). Learning conversations in World of Warcraft. *forthcoming in* Proc. HICSS *2007*. Retrieved on June 25, 2010, from http://darrouzet-nardi.net/bonnie/pdf/Nardi-HICSS.pdf

The responsiveness players experience as they get fast answers to questions is part of what creates a supportive environment for learning. This seems to us to be part of the emotional aspect of the ZPD—positive encouragement, the avoidance of frustration, and a sense of moving forward.

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Traditional schools	Future schools
50 minute classes	Four hour periods
Subject specific content	Interdisciplinary themes
Classrooms for 30 students	Areas for 90 to120 students
Age-based groups based on yearly cohorts	Continuing individual learning paths

Table 4: Comparison of current and future schools from Wim Veen (2006).

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

GPS Games

Figure CS4: Savannah being played by students. Source: Futurelab.

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Myst (literacy ages 9-11)

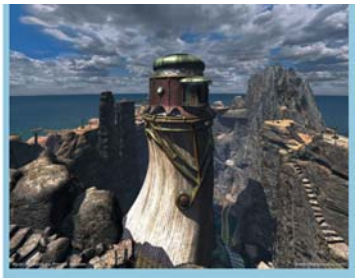


Figure CS1: Screen shot from Myst

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Figure 8: Screen shot from the Business game at University of Glamorgan. Source: Martin Lynch

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Figure 12: Screen shot from Oaklands game

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Figure CS5: Student survivor. Source: Unaid.

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

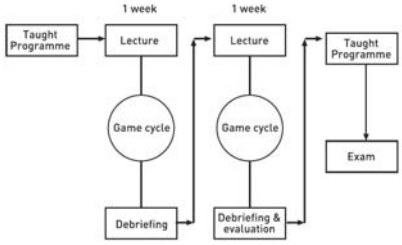


Figure 9: How the game was embedded into the course

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

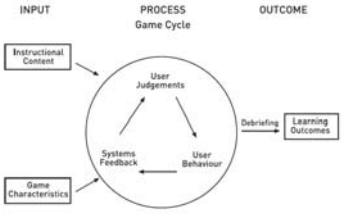


Figure 10: Input-Process-Outcome Game Model
Source: Adapted from Garris, R., Ahlers, R., Driskell, J., 2002

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

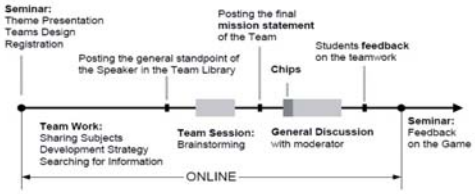


Figure 11: Blended learning approach taken to using game-based learning with Unigame. Source: Unigame.

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Figure 13: Screen shot from Neverwinter Nights

Neverwinter Nights is an interactive and immersive adventure-style game set in the mythical worlds with Barbarians and Wizards. The *Neverwinter Nights* game, developed by Bioware for Atari, has been modified (see Call out box on Modding) to include dedicated learning resources for key skills learners, as well as providing supplementary functionality for reflection during game play, including a journal facility that can be used for making notes. While instances of CDTS games being used effectively have not been widely supported in studies; developers have modified the *Neverwinter Nights* game - to include dedicated learning resources and activities.

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Figure 14: Screen shot from *Revolution*

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

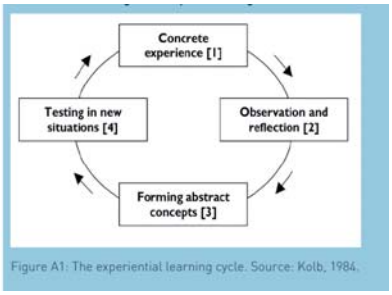


Figure A1: The experiential learning cycle. Source: Kolb, 1984.

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

specific business needs, for example one demonstrator will aim to train medical staff in infection control (de Freitas and Jarvis, 2006). While the *Making Games* project evaluated how learners with literacy challenges were supported through the use of game-based learning (Pelletier, 2005b) see Figure 18, the *Serious Games* project aims to explore the development of generic frameworks and tools to inform serious games design and produce empirical data to interrogate assertions that targeted user groups can be best supported by dedicated games for learning (de Freitas and Jarvis, 2006).

Figure 18: Screen shot from Making Games Project.

Figure 19: Screen shot from the Institute of Creative Technologies-developed Post-Traumatic Stress Trainer

Sara de Freitas (2007). Learning in Immersive worlds a review of game-based learning. JISC. Retrieved August 17, 2008, from
http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Figure 20: Screen shot from Campus: *Second Life*

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http://www.jisc.ac.uk/media/documents/programmes/elearninginnovation/gamingreport_v3.pdf

Key trends	Selected implications for education sector (e.g. usage patterns)
Widespread use of games technologies and serious games movement	▪ Wider use of games technologies in the home is increasing the interest of use of games in educational contexts, this is leading to increasing use of games particularly in schools and colleges, but also in universities ▪ The serious games movement is a trend towards designing and analysing the use of games (and simulations) for supporting formal educational objectives and outcomes. The movement aims to meet the significant challenge of bringing together games designers and educationalists to ensure fun, motivation and educational value.
Authoring and development of immersive worlds (e.g. development of content creation tools)	▪ Through modifying existing games applications for educational purposes there is great potential for learning with games. This approach may have implications upon instructional / constructional learning design, as well as changing the traditional role of the tutor towards one of facilitator, collaborator, producer or author. The approach of self-authored content may also promote greater opportunities for team and cross-disciplinary teaching.
Growth of online gaming and online gaming communities	▪ The growth of online gaming and their communities may have uses for formal education, producing greater support for learning outside of formal learning contexts, and providing support for distance, lifelong and distributed learning groups. ▪ This trend may also produce more seamless learning experiences – lessening

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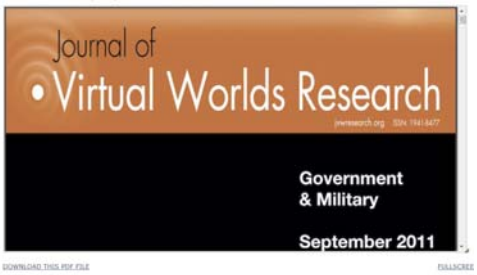
http://journals.tdl.org/jvwr/article/viewArticle/2113



Douglas Maxwell, Steven Aguiar, Philip Monte, Diana Nolan, NAVSEA Division Newport, Rhode Island - Combat Systems Department (2011, September). Two Navy Virtual World Collaboration Applications: Rapid Prototyping and Concept of Operations Experimentation.
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Figure 1. 1983 Submarine Attack Center Design Prototype Evaluation. Navy personnel and engineers collaborate using physical mockups before construction. These mockups were non-

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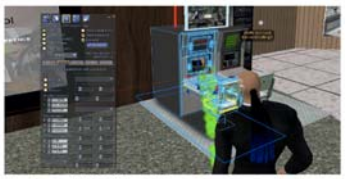

Figure 2. Second Life building tools being used to construct a submarine attack center console. Engineers, scientists, and fleet users have the ability to log in as avatars. The idea is to bring the end user of a product earlier into the design phase and possibly catch errors earlier, producing an overall improved output.

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Figure 3. Information Flow inside the virtual USS Virginia Virtual Attack Center.

Navy Requirements for a Virtual Concept of Operations Exercise Environment

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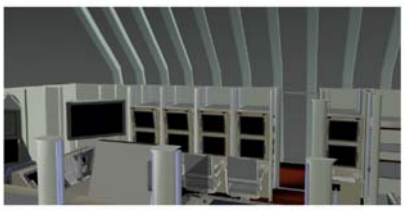

Figure 4. Virginia CACC inside the Qwaq/Teleplace Forums Virtual World.

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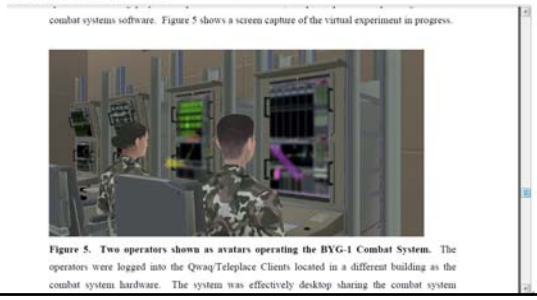

combat systems software. Figure 5 shows a screen capture of the virtual experiment in progress.

Figure 5. Two operators shown as avatars operating the BYG-1 Combat System. The operators were logged into the Qwaq/Teleplace Clients located in a different building as the combat system hardware. The system was effectively desktop sharing the combat system

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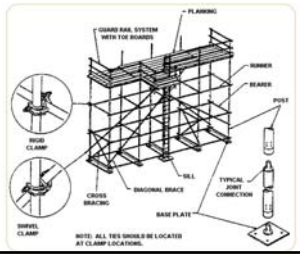
1. Scaffolding



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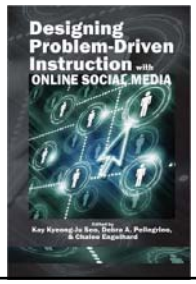
2. Problem-Driven Activities



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3. Exploration

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4. Context

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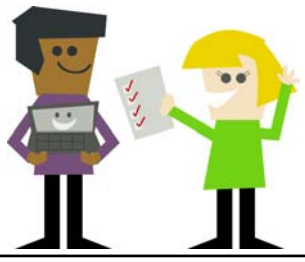
5. Interaction



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6. Agency

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7. Learning Through Doing

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8. Pause to Reflect

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9. Learning through Failure

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10. Adaptivity

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11. Character

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12. Engagement

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