

Simulations and Games

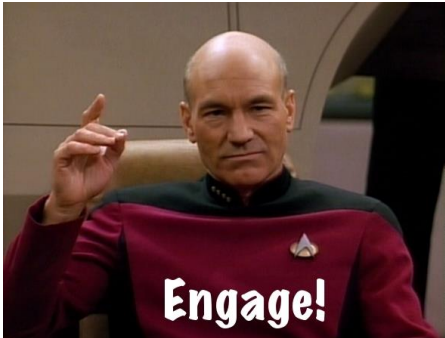
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<http://mypage.iu.edu/~cjbonk/>



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_43



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>

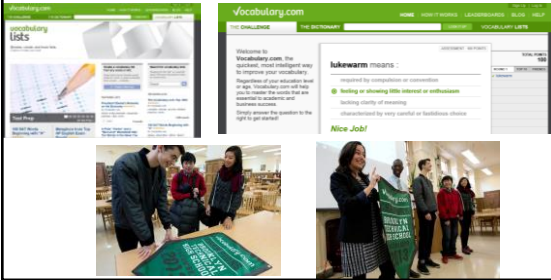


Video games How Video Games and Social Media Fuel Students' Passion for Art, Katrina Schwartz Mind/Shift, August 8, 2013

<http://blogs.education.com/blogs/mindshift/2013/08/video-games-social-media-fuel-students-art-passion/>



Vocabulary Competitions (e.g., Kids learning new words at warp speed, January 14, 2014, Greg Toppo (Georgia Scurletis, Dir of Curriculum Development, for Vocabulary.com (Thinkmap) presents a banner to Marc Williams, Brooklyn Technical High School) <https://www.vocabulary.com/>)



10 Terrific iPad Apps for Toddlers, August 2, 2012, Mashable, Allegra Tepper



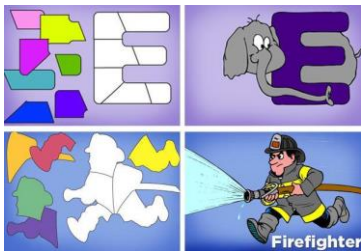
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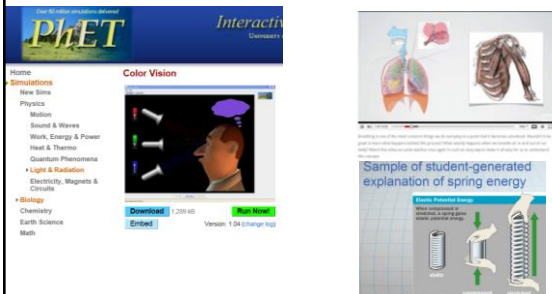


Online Anatomy and Biology



Blended Solution #5. Interactive Simulations

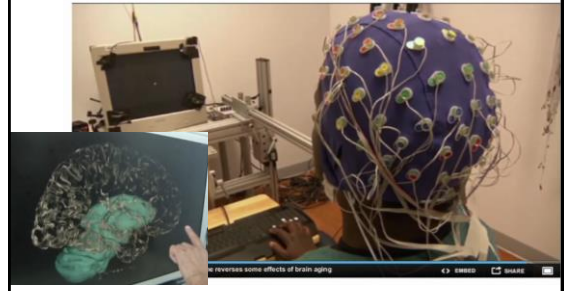
<http://phet.colorado.edu/en/simulation/energy-skate-park>



The screenshot shows the PhET website interface for the 'Color Vision' simulation. On the left is a navigation menu with categories like Home, Simulations, and Physics. The main content area displays the simulation title 'Color Vision' and a 'Download' button. To the right, there are anatomical diagrams of the human eye and a graph titled 'Sample of student-generated explanation of spring energy' showing a spring's potential energy.

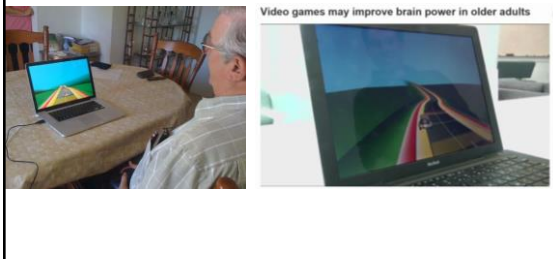
Video games may improve brain power in older adults
Video games may improve brain power in older adults, September 5, 2013
<http://www.usatoday.com/story/news/nation/2013/09/04/video-games-brain-power-dementia/2762523/>

Video games may improve brain power in older adults



Video games may improve brain power in older adults

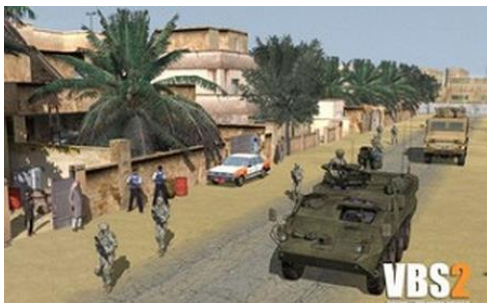
Video games may improve brain power in older adults, September 5, 2013
<http://www.usatoday.com/story/news/nation/2013/09/04/video-games-brain-power-dementia/2762523/>



SimCity



Simulation Games



Video Animations and Simulations



**December 24, 2010:
Social Networking Gaming**

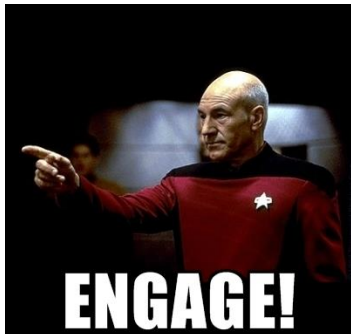
CityVille 16.8 million daily users, *FarmVille*'s 16.4 million. *CityVille* 61.7 million monthly users, *FarmVille* 56.8 million users. Mashable.



What was it that he said?



That's right, Engage!



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. *Journal of Virtual Worlds Research*, 4(2), Retrieved September 14, 2011, from <http://journals.tdl.org/jvwr/article/viewArticle/2113>



Figure 1. 1943 September Attack Control Bridge Prototype Evaluation. Navy personnel and contractors collaborate using virtual machines before construction. These machines were used.

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. *Journal of Virtual Worlds Research*, 4(2), Retrieved September 14, 2011, from <http://journals.tdl.org/jvwr/article/viewArticle/2113>



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

Navy Requirements for a Virtual Concept of Operations Exercise Environment

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/215203?tm_source=UW&tm_medium=email&utm_campaign=UW2013-02-21



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



Massive Multiplayer Online Games (MMOGs)



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



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)



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



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

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>

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/programme/learning/movation/gamingreport_v3.pdf

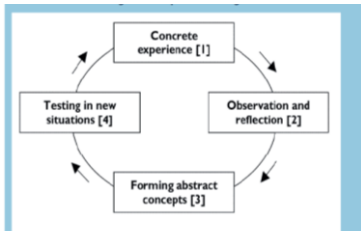


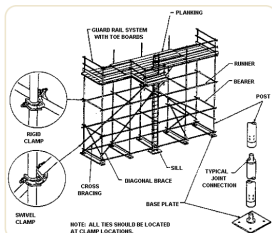
Figure A1: The experiential learning cycle. Source: Kolb, 1984.

An, Y.-J., & Bonk, C. J. (May/June 2009). Finding that SPECIAL PLACE: Designing digital game-based learning environments. *TechTrends*, 53(3), 43-48.



An, Y.-J., & Bonk, C. J. (May/June 2009). Finding that SPECIAL PLACE: Designing digital game-based learning environments. *TechTrends*, 53(3), 43-48.

1. Scaffolding



An, Y.-J., & Bonk, C. J. (May/June 2009). Finding that SPECIAL PLACE: Designing digital game-based learning environments. *TechTrends*, 53(3), 43-48.

2. Problem-Driven Activities



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3. Exploration



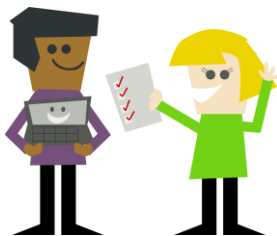
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4. Context



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5. Interaction



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6. Agency



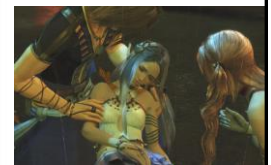
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7. Learning Through Doing



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8. Pause to Reflect



An, Y.-J., & Bonk, C. J. (May/June 2009). Finding that SPECIAL PLACE: Designing digital game-based learning environments. *TechTrends*, 53(3), 43-48.

9. Learning through Failure



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10. Adaptivity



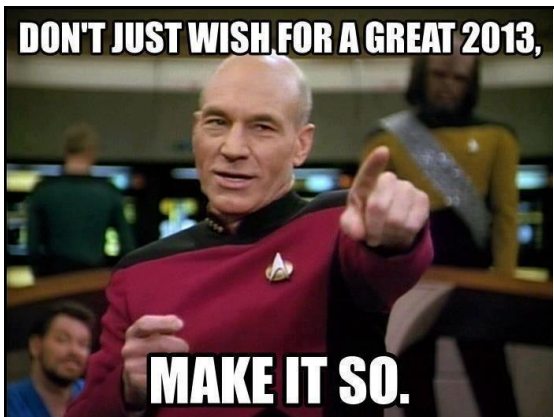
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11. Character



An, Y.-J., & Bonk, C. J. (May/June 2009). Finding that SPECIAL PLACE: Designing digital game-based learning environments. *TechTrends*, 53(3), 43-48.

12. Engagement



Any Questions?

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😊 Papers: PublicationShare.com
😊 Book: <http://worldisopen.com/>
😊 Email: curt@worldisopen.com

