WHAT GAMES HAVE TO TEACH US ABOUT CREATING ENGAGING LEARNING EXPERIENCES

Book Reviews: *Digital Game-Based Learning* and
What Video Games Have to Teach Us about Learning and Literacy

Academic learning and corporate training are frequently characterized as high in meaningful content, but often lacking when it comes to engaging learners. By contrast, computer and video games are commonly viewed as highly engaging but lacking in substantive content. Various observers have naturally been intrigued by the notion of having the best of both worlds—high content and high engagement. Online learning practitioners intent on creating more engaging learning experiences will find Marc Prensky (*Digital Game-Based Learning*, hereafter DGBL) and James Paul Gee (*What Video Games Have to Teach Us about Learning and Literacy*, hereafter WVGT) to be kindred spirits in this quest, and their books to be worth a look.

For online learning practitioners in higher education, finding value in DGBL is not the easiest task. Higher education-related examples and applications are secondary in DGBL, which is geared primarily toward persuading corporate training decision makers and trainers that digital game-based learning is The Next Big Thing. As such, DGBL is often long on exhortation and short on evidence, in ways that will try the patience of knowledgeable online learning practitioners. Perhaps the most trying aspect of DGBL is its excessive reliance on positioning digital game-based learning as *the* antidote to traditional "tell-test" education, which is hopelessly and ineffectively boring (DGBL, 13), and e-learning without "gameplay," which is basically no better (DGBL, 13, 14). DBGL conveys a mixed message at best about the efficacy of other alternatives, despite numerous acknowledgements that digital game-based learning is not for everyone in every situation and that other effective approaches to online learning may indeed exist (DGBL, 7, 8, 18, 33, 65). Instead, DGBL's relentless and occasionally over-the-top boosterism, for instance an assertion that digital game-based learning will someday "be totally taken for granted as the way people learn" (DGBL, 3), creates a somewhat different impression.

Although DBGL focuses its disdain for traditional "tell-test" instruction and its e-learning counterpart on the corporate sector, Prensky's disdain extends to higher education and its current online offerings as well. This disdain is relatively muted in DGBL, for example when Prensky dismissively derides certification and continuing education as "those pesky little requirements" for which digital game-based learning would be a sweet solution (DBGL, 253). It is much more obvious in a more recent article ("The Motivation of Gameplay: The Real Twenty-First Century Learning Revolution," *On the Horizon*, 10(1), 2002, pp. 5-11; hereafter Gameplay), with statements such as "most 'e-learning' is more than just soporific, it is downright torture!" (Gameplay, 6) and that online courses offered by academic institutions are "deadly dull 'page turners' with tidbits of generally boring 'interactivity' and rudimentary eye candy" (Gameplay, 9). Such assertions will be off-putting to knowledgeable online learning practitioners who are familiar with the growing body of research evidence indicating online learning's effectiveness (see, for example,

http://www.alnresearch.org) and whose own personal experience with online learners has been much more positive.

Having set up 'tell-test' teaching and its e-learning counterpart as twin straw men, DGBL makes its case for joining the 'gameplay revolution' in rather less than convincing fashion. Research and evaluation evidence meaningful to higher education practitioners is rather meager. For instance, DGBL's evidence base relies heavily on impressive gains found in hundreds of studies produced by The Lightspan Partnership; however, these results pertain to standardized test scores in reading and math for K-8 students (DGBL, 381-82) and so are very limited in scope. Most of the other examples cited as evidence (DGBL, 382-85) don't amount to much either; a notable exception is the extensive research conducted by the U.S. Department of Defense on the efficacy of digital game-based learning. The DOD results cited pertain largely to skills-based training, however, so it is difficult to know how relevant these results are to academic learning environments.

After approvingly describing examples of applications in higher education (DGBL, 197-98) and encouraging its readers that 'anyone can do it' (DGBL, 340), DGBL's plan for making the business case for digital game-based learning development will stymie the individual practitioner. Geared toward the corporate environment, it requires a fairly complex approach, such as forming a design committee ("You do have a design committee, don't you?" [DGBL, 362]), involving the IT department as early as possible, et al. (DGBL, 361-71). DGBL offers several other disturbing examples of possible pitfalls: inability to deal with higher-order pedagogical approaches, as in a game in which "gray area case studies...were abandoned in favor of black and white letter-of-the-policy accuracy" (DBGL, 251-52), the dubious staying power of many financial games that disappeared when management support vanished (DBGL, 239-240), and a paucity of games that support reflection and critical thinking (DGBL, 50-51), all indicate current shortcomings that are as yet unresolved. DBGL's treatment of the issue of gender preferences (DGBL, 140-42) is also less than satisfying; more women playing satisfying computer games plus designers working hard to develop more of these types of games does not equal a closed gender gap.

With so much not to like, why bother with DGBL then? Because despite all of these shortcomings, DBGL has a lot to offer. DGBL is thought-provoking in many important respects; understanding the nature of 'learning as fun' vs. 'learning as suffering,' or addressing the need to deal with an emerging "Games Generation" which learns differently, even if it's not clear how many learners fit this label, are just two of many examples. The evolution of game-based learning also has many parallels with that of online learning; both are efforts to address the same problems of improving education and training and have arrived at some of the same operating principles, for instance that learners are more important than technology. Perhaps most importantly, game designers know a lot more about making engaging experiences because that is their principal aim and measure of success (DGBL, 131-35; Gameplay, 6). DGBL's case studies (Chapters 9 and 10) and information about game design (Chapters 5 and 6) will reward practitioners who want to learn more about the theory and practice of making learning more engaging. These are all reasons why digital game-based learning may very well be a wave, if not exactly *the* wave, of the future.

If DGBL is useful for stimulating thought about the role of "fun" in learning and interest in figuring out how to make online learning more engaging, Gee's book is more useful as a starting point for crafting some of the answers. WVGT is focused on one simple argument: that what people "are doing when they play good video games is often good learning"

(WVGT, 199). More specifically, learning theory as embodied in good video games fits much better with the best learning theories currently available—for example, those found in cognitive science or employed in effective science instruction—than learning theories commonly exemplified by today's "skill-and-drill," standardized testing-driven schools (WGVT, 7).

The heart of WGVT is 36 learning principles which comprise the focus of the book (and are also conveniently listed in the Appendix). Although Gee's book is more oriented toward a K-12 audience, online learning practitioners in higher education who are versed in learning theory will find familiar territory in Gee's principles. Each chapter of WGVT focuses on a related cluster of these learning principles and describes how video games (and by extension, other learning environments) can incorporate these elements into a powerful learning process. For example, the Identity Principle (#8 of the 36) describes how video games can enable learners to adopt, play with, and reflect on three types of identities (real-world, virtual, and projective) and how these skills are the ones people use to learn how to become scientists (WGVT, 59-67). Through the Probing, Multiple Routes, Situated Meaning, and Text Principles (#s 15-18), Chapter Four deftly makes the connections among video games, situated meaning and learning, and other effective learning environments (WGVT, 73-108). Other chapters illustrate how video games can embody storytelling and other forms of telling, learning by doing, cultural models, and even social learning principles in ways that do, in fact, teach us much about good learning and literacy. The sum effect is an intriguing case for video games exemplifying a richer learning environment than the typical K-12 classroom.

Unfortunately, Gee's book does not directly address several of the key questions that naturally arise from his cogent argument. As Gee points out, video games *can* be powerful and effective learning experiences, but that doesn't mean they necessarily *are*. How does one ensure that a video game is an effective learning experience? Should schools, colleges, and universities begin using video games as a learning tool? If so, how? Should video games replace, supplement, complement traditional pedagogical techniques?

Gee does address some of these questions to some extent in other fora, in the process offering a much more compelling argument for game-based learning than DBGL does:

...Parents must ensure that kids play games proactively, that is, that they think about the design of the game, the types of thinking and strategies it recruits, its relationship to other games, books, movies, and the world around them...

Do you feel that schools, colleges and universities should begin using video games as a learning tool, through discussion and literature or actual game-playing assignments?

Yes. But most companies making games for school don't get it. They think that pointing and clicking is what makes a game or that what's different is that kids operate at "twitch speed." What makes a game is an interactive world that the player partly creates through his or her actions and decisions. Also, people are too hung up about learning "content" in the sense of facts. What we need people to learn is how to think deeply about complex systems (e.g., modern workplaces, the environment, international relations, social interactions, cultures, etc.) where everything interacts in complicated ways with everything else and bad decisions can make for disasters. Games—not as stand-alone entities—but as

part of whole curricula—will eventually be crucial to this. People will live in multiple worlds, leading multiple lives, learning in the powerful, but informal ways that everyday life has always involved. But such powerful, informal learning will, for the first time, come to school and marry formal learning. (Retrieved December 1, 2003 from: http://www.gamezone.com/news/07_03_03_06_17PM.htm)

Gee also explicitly ignores the issues of gender and violence relative to video games, noting that they have been "well discussed elsewhere" (WGVT, 10). This omission hardly detracts from the book's value, though; WGVT is a fascinating and highly rewarding read for any educator interested in understanding learning theory more deeply and in learning how to make more engaging learning experiences as a result.

Book: Digital Game-Based Learning

Author: Mark Prensky

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Related Web Site: http://www.twitchspeed.com/site/news.html

Book: What Video Games Have to Teach Us about Learning and Literacy

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