

Foreword

Bolstered by a number of factors, ranging from high profile commercial and critical successes like World of Warcraft to increased funding opportunities from state agencies to the entrance of the Atari Generation into the academy. Regardless, the argument over “Could we (or even should we) design video games for learning?” has been settled. There is a large, growing, diverse group of academics, developers, and government agencies pursuing video games for learning. The time for rhetoric has passed, and time for a mature interdisciplinary field of games, learning, and society has come (Squire, 2007).

This book provides an excellent snapshot of the “state of the art” of the field, particularly in regards to the very hard work of developing games that can produce meaningful learning experiences (which is not to suggest that people do not have such experiences with entertainment games). We see educators wrestling with how to integrate content and game play, something Lloyd Rieber (1996), called the problem of exogenous and endogenous games. That is, how to create game experiences that make academic forms of thinking part of the game play. This distinction, which may seem relatively banal at first, is, I would argue, potentially quite profound as it represents a shift away from *content delivery* as the goal, and toward one of generating a rich problem solving *context* for thinking (see Squire, 2006). Game-based learning environments potentially: (1) draw on learners goals, intentions, and passions, then (2) build up particularly knowledge and skills, and (3) extend their development of new identities out into the world where they become producers of meaning with digital media. This last feature is something often overlooked by educators, but is critically important to learning in everyday gaming contexts, as we see gamers forming social organizations, writing walk-throughs, designing player guides, and so forth—creating complex artifacts that embody performances of understanding.

We also see researchers wrestling with how to organize work within such fast-moving contexts. We see experimentations building interdisciplinary teams, with an eye toward the non-trivial research task of melding good game play and meaningful academic ideas. One trend emerging from this work is the importance of involving subject matter experts early, but also creating what Valve (designers of Half Life) call a design cabal – a team that understands all aspects of the design. With educational games, the job becomes even trickier as the team must digest learning theory, game theory, and content-specific pedagogical theory. We see these development teams pushing the boundaries of how we think about scoping out these projects, wrestling with how to budget and organize game-based projects, which operate on very different timescales than traditional, linear media. One approach described here is rapid prototyping, fast, iterative cycles of development and research aimed at generating product while also fleshing out theory.

For newcomers to the field, video games and learning can be fascinating and frustrating in that the research work is interdisciplinary, drawing from a number of research traditions. I believe that together, it points to an emerging paradigm that combines social and situated theories of learning with more traditional cognitive / constructivist theories of learning into an integrated environment. The potential

for using the captivating features of games – the way that they seduce us into roles, dangle challenges before us, and present new ways to be in the world draw on the best principles of situated socio-cultural learning theory. The ways that games give personalized assessments and feedback in context draw on some classic principles of cognitive (and even behaviorist) instruction. And, the ways that games provide us complex models to think with may even suggest new theories of learning that we have not yet fully explored (Gee, 2007).

Are we there yet? Not entirely. Many of us have been drawn to video games, as they seem to have “cracked the nut” of the perennial problem of designing interactive, engaging digitally mediated experiences (or at least are in the business of trying to do so). Few games for learning capture this sort of engaging academic play, enabling the kinds of choices and consequences, transgressive play, interactive narrative, construction with digital tools, participation in virtual social systems, and embodied experiences of complex systems. Games are developing very specific ways (design patterns perhaps) of achieving their goals, and as designers of learning systems, it behooves us to understand how they work.

One hope (and pleasant feature of this work) is that as a field, we will not get bogged down in the discussions of “what makes a game”, and rather, what sorts of techniques game designers use. After all, as a research community, I don’t know that we care about games, per se, but rather, how to create good learning (presumably by leveraging game design features). In other words, our goal is not just to create games but to create learning environments based on sound learning principles, many of which are best embodied by games.

This focus on designing learning environments reminds us of the importance of building on the decades of research on learning and instruction as well as in games. We need to build on the general ideas coming from the learning sciences, such as the importance of content-specific pedagogies, as well as those emerging from games. Video game-based pedagogies are somewhat curious in that they require us to leverage the best of what we know about learning and instruction, while also making possible new ways of teaching and thus enable us to explore new theories of learning. This last question – how do games change how knowledge is represented and how we think and learn should continue to be a fruitful area as new technologies and designs emerge. Indeed, like other media before them (books, film), games challenge “what is worth knowing” as they make new ways of knowing possible.

Within my own work, I find the most useful inspiration from games to be to approach problems (from game design to research methods to article writing) to be in asking the question: “How would a game designer do it?” Of course, there is no “one” way a game designer might do it, so to sharpen the focus, how might Eric Zimmerman, Doug Church, Warren Spector, Will Wright, or Sid Meier do it? To begin to think this way, learning game researchers need to interact with such game designers in meaningful ways. Fortunately, such game designers are a generally friendly, curious bunch and plenty of opportunities exist at the European Conference for Games and Learning, The Game Developers Conferences, Serious Games Summits, or at our Games, Learning, and Society Conference. Because video games are a truly global industry, opportunities abound for linking up to established or up and coming firms. Within my own work, this kind of collaboration with game designers – whether it be industry veterans like Eric Zimmerman or up-and-comers like Filament Games has been the most rewarding. I would expect to see more collaboration like this in the future.

REFERENCES

Gee, J. P. (2007). *Good Video Games and Good Learning: Collected Essays on Video Games, Learning and Literacy* (1st ed., p. 208). Peter Lang Publishing.

Rieber, L. P. (1996). Seriously considering play: Designing interactive learning environments based on the blending of microworlds, simulations, and games. *Educational Technology Research & Development*, 44(2), 43-58

Squire, K. (2006). From Content to Context: Videogames as Designed Experience. *Educational Researcher*, 35(8), 11.

Squire, K. (2007). Games, learning, and society: Building a field. *Educational Technology*, 4(5), 51-54.

Kurt Squire

University of Wisconsin-Madison, USA