The Design is the Game: Writing Games, Teaching Writing

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Abstract

This article makes both conceptual and empirical arguments for why composition scholars and teachers ought to take notice of how video games are designed and developed in such a way as to make them so compelling. Thinking about games’ design principles as an analogy for composition curricula, I argue that video game designers and developers discuss and approach their design processes in many of the same ways writing teachers do. Data presented are taken from several years’ worth of ethnographic interviews, observations, and artifact analyses from within the game design and development community. This paper demonstrates how one of the designers from this ongoing study builds on his knowledge of games as distinctly interactive meaning-making spaces, noting that this approach to game design fits well with a re-thinking of the task of designing writing and learning spaces.

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1. Introduction

From video games’ formalist, textual, and experiential properties (Aarseth, 2005; Bogost, 2006; Frasca, 2003; Juul, 2005; Mateas & Stern, 2006) to their ability to inspire a host of socio-cultural experiences (Consalvo, 2007; Jenkins, 2006; Squire, 2007; Steinkuehler, 2007), video games have been theorized and studied for their value and potential to the humanities, sciences, and social sciences. It is the nascent field of game studies that has brought to bear the very quality that makes games unique: their ability to inspire a host of interactive meaning-making experiences designed with the purpose of engaging players in immersive, cognitively and socially complex worlds and situations. Still, the “effects” literature on games continues to pervade published scholarship throughout communications research (Williams, 2003), casting a foul odor on what many now acknowledge is an established area of multi-disciplinary research (Mäyrä, 2008). As games scholar Dmitri Williams noted in his afterword to Cynthia Selfe and

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Gail Hawisher’s 2007 edited collection *Gaming Lives in the Twenty-First Century*, “it is still fair to ask about what games are doing to us, but it is equally important to ask what they are doing for us. It is surprising how seldom that question is asked” (p. 253).

The authors of this special issue of *Computers and Composition* contribute well to the collection of research building from within the field of composition studies, which is beginning to make progress in its ability to show how video games are not simply tools with the potential to make writing fun. The authors here show that games are also the subject of writing, the catalysts for multimodal creative energies, and the rule systems for participatory communities. If they are used, played, and designed well, games are good for composition and rhetoric research because of their ability to inspire a “constellation of literacy practices” (Steinkuehler, 2007, p. 298). Though research showing games’ importance to literacy learning is still in its infancy by traditional academic standards, publications such as this special issue provide increasing evidence that video games can provide a framework for thinking about writing and the teaching of writing.

Taking its cues from current user-based games research that holds games up for their potential to “reinvigorate the writing classroom,” (Alberti, 2008), this article makes both conceptual and empirical arguments for why composition scholars and teachers ought to take notice of how video games are designed and developed in such a way as to make them so compelling. I offer a way of thinking about games’ design principles as an analogy for composition curricula, arguing that video game designers and developers discuss and approach their design processes in many of the same ways writing teachers do. The data I present here are taken from several years’ worth of ethnographic work within the game design and development community. For this paper I show how one of the designers from my ongoing study builds on his knowledge of games as distinctly interactive meaning-making spaces, noting that his approach both reflects and extends the best in composition studies research.

The first step toward understanding the analogy between game development and writing is acknowledging that video games are just as much about process as they are about product. That is, an understanding of how games are made is just as necessary as an understanding of their cultural and pedagogical significance once they have been produced and played.

At the heart of game design and development is the need to create interactive systems constrained by rules and generative of significant meaning-making experiences. Designers Katie Salen and Eric Zimmerman, authors of *Rules of Play: Game Design Fundamentals*, mapped out that challenge in their discussion of “games as the play of experience” (2004, p. 313). If we draw an analogy between the creative production of play and the (sometimes significantly less fun) production of writing, it is not difficult to see the parallels between game design and the design of the writing space:

> The challenge, of course, is that the experience of play is not something that a game designer directly creates. Instead, play is an emergent property that arises from the game as a player engages with the system. The game designer creates a set of rules, which players inhabit, explore, and manipulate. It is through inhabiting, exploring, and manipulating the game’s formal structure that players experience play. (2004, p. 316)

Katie Salen and Eric Zimmerman noted that the framing of the game space—its rule-bound system—can be balanced to create what they called “meaningful choices” that enhance
players’ experiences (2004, p. 30). From the context of composition pedagogy, this idea can be thought of as the development of a curriculum, a 15-week course, a well-sequenced assignment structure, or even genre constraints. A deep understanding of a rule-bound system helps set the stage for “meaningful play.” Those rules enable creativity. The trick is finding a sweet spot between a rule-based system and meaningful interactivity with that system.

Reduced to a set of design constraints, making a game involves creating a learning space that has a determined beginning and end. The goal is to move players from point A to point B while engaging them in increasingly difficult tasks and, at the same time, allow them to explore several spaces, problems, and puzzles as they do so. Video game designers and developers must give players enough agency to solve complex problems on their own but at the same time help players build upon their knowledge of the game and play space so that they can succeed with the goals presented and thereby achieve a “win” state. At the same time, designers and developers write collaboratively, generating sophisticated design documents and creative processes that must be able to communicate their visions and ideas to increasingly larger teams of people working together on a single title. All of this is done to create a multimodal, multi-dimensional, interactive, experiential “text” that will likely be interpreted in complex, often unanticipated ways. Taken together, these challenges and tasks add up to a unique writing-and-teaching process that is remarkably similar to the ways we in composition studies think about our own professional goals and tasks.

Thus, if games are designed, interactive, rule-based and achievement-bound systems that reflect and inspire rich literacy and learning practices, then we must wonder: how do game designers purposely create games to inspire these practices? After all, players’ interpretations of games are just one part of the meaning-making conversations that occur between readers and writers. If we are to understand games’ cultural significance and pedagogical potential, it is important to understand how video game developers generate ideas and philosophies for their games’ production and how they conceive of the interpretive and participatory potential of the experiences they hope to inspire.

2. What’s your game about?

Chris Novak is a game designer whose job it is to direct a team of programmers, artists, and developers at Microsoft in Redmond, Washington. Chris describes his methods of design and management and how his personal process and philosophy differ from what he saw as the “mainstream” method for development. Rather than concentrating exclusively on creating a game that is fun only in the minds of the developers themselves—a gripe shared by many in the profession—Chris’s goals are strongly player-directed.

Chris has a clear measure for what constitutes a successful game, saying that his goal is to create moments to enable players to generate meaningful social narratives as a result of their gameplay experiences. He describes his design process as one that involves writing out a statement of what he wants players to say about his game:

One of the main techniques I use to design items is to start with what I want one person to say to another when they chat about my game. I’m looking for the “you have to play this game
because X” and “yeah what I really noticed was the way that game does X” statements. Then I work backwards and build the features which support those statements. Typically I bookend my design work with one global statement about the game (its overall user goal) and various statements about experiences I want players to have and enjoy. Then I build everything between (personal communication, May, 2004)

Those social narratives—what Chris calls “stories”—are the heart and soul of the games he works on. Imagining what players say and do each time they complete puzzles and move forward, Chris develops his overall design work. He articulates what the goal of the game is by saying what he wants players to do and learn, but he supplements that framework with a series of features that directly support that statement.

In a post-secondary writing course, for example, we might decide that the goal of the course is to give students practice with writing for an academic audience. That is the “global statement.” The “stories,” then, are the series of articulated experiences we want students to have while coming to learn how to communicate to an academic audience. Once the global statement and stories are spelled out, we can use those as “bookends” to build a series of writing and reading assignments.

Designers like Chris understand the importance of the dynamic process of being able to anticipate players’ game experiences without being able to predict them. Chris knows that his games might not be played exactly as he intended: each player’s experience with a game is slightly different, either because of what he or she brings to the situation, what the game was designed to do, or a combination of both. The more progressive developers in the industry are similarly aware that because games are interactive, player-driven experiences, they are unique media that require wholly new methods for development, interpretation, and analysis. Like Chris, many developers know that games must be created in such a way that audiences necessarily co-write the narrative, meaning, and experience of their games.

In this view, the principles of video game design are surprisingly similar to the principles of creating any successful curriculum, but especially in the area of written composition. Even with our best efforts as writing instructors, our students frequently renegotiate the end goals of the assignments we spend an often enormous amount of time writing (witness the common plea, “what do you want?”). Writing assignments are interactive systems with win states and expected outcomes. But how often are those goals and outcomes made transparent to students? Even more, how can an assignment measure a student’s progress throughout the writing process? How is that assignment tied to the overall curriculum? How does the assignment change as a result of a student’s renegotiation of the rules of the game?

There is no doubt an enormous range of writing in post-secondary American learning environments, and because of that it is nearly impossible to repeat Chris’s method of writing out an overall experiential goal at the start of a course. It might be a good start, however. Chris might take that approach—write out that overall design or outcome statement—knowing that the results he gets depend on how his players interact with those goals. Just as a game designer would think it foolish to assume that he could predict at the outset how his game will be played, so too would it be foolish to assume at the start of a writing class that students will or should respond to any kind of immobile curriculum or pedagogical approach. But that does not mean that the design statements should not be written. Again, as Salen and Zimmerman pointed out
(2004, p. 213), the system the designers create does not necessarily guarantee a meaningful experience. Instead, designers create the potential for emergent experiences that result from interactivity with the system. And so like video game designers, writing instructors are faced with creating the potential for learning without being able to guarantee that learning will take place. Writing instructors—like video game designers—must be able to specify a plan that will allow them to anticipate what they cannot predict.

A major theme of the game development process is the problem of articulating what makes a game a fun experience. And while most in the industry will say that it is rare that a development team can pinpoint what “fun” means, it is nevertheless hugely important to try. This is where the design document—in essence, a game’s blueprint—factors into the process of designing the game system and therefore the potential for meaningful play. In Chris’s case, a design document would be written by the team after the design statement has been articulated. In other words, if Chris’s process is to write out a thesis or mission statement based on what he wants players to say about their experiences playing his game, then he has to also work with a team to craft an outline that acts as a checklist and plan for every part of the game.

Everything that is generated by the team for a design document is centered on a precise articulation of their vision for each aspect of a game’s rules, puzzles, characters, story, mechanics, levels, and so on. And all the while, the team has to think about how the game will be interpreted and played and how those interpretations and play experiences change what their game is about. Being able to balance all of those considerations is tricky, but it helps his development team find a focus for their work, which Chris explains is an important part of any development team’s process.

At the same time, there are many paths to crafting a development process; not all developers follow a “top-down” strategy. There are those development teams who have “good solid execution and good game design—high levels of polish,” while others, Chris says, because of a luxury of time in production and consistent user testing are able to craft successful games “because they’ve been iterated enough” (personal communication, May, 2004). Chris describes these two options as in contrast with one another, whereby one theory of design is based in a strong, “top-down” approach in which a central theme or idea underlies every path the development team may take. Chris’s method of crafting an overall statement based on what players say about his game is exemplary of such an approach. On the other hand, the more “bottom-up” style involves combining a selection of interesting puzzles and challenges that, taken together, serve to develop a framework for what the game is about as a whole:

There are some [processes] which function exceptionally well kind of bottom-up. And there are some which function very well top-down. And so the bottom-up design teams tend to talk about little snippets of experiences, like moments. So they’ll talk about, you know, ‘this game is going to bring you the moment where you crest the hill and there’s five hundred people on the other side of the hill who are all your arch rivals, you know, they’re your enemy. It’s that moment of realizing you’re screwed’.

Chris laughs and follows up by saying, “you know, that is this game. So they’ll talk about those little brief snippets and they’ll put together samplings of those things.” By this method
of collecting descriptive game moments, a game is built on a series of smaller experiences that the designers describe as moments that players would want to encounter. “That’s what the game is gonna bring you and it’s gonna be, you know, turning around and running like mad while they all chase you down and then you crest the next hill and it’s your army of two thousand players,” Chris says. That “bottom-up” method might be useful for a design team struggling to verbalize a game concept. Simply describing a series of fun moments in a game as a string of enjoyable puzzles or activities might be enough to help a team reach their goal of articulating what a game is about and what makes it fun.

3. What makes your game fun?

Chris knows that leading his design team toward thinking is not just about creating the potential for fun moments in their games. They also need to think critically about what makes those moments fun, communicating why they might be fun, and then exploring the implications of what it would take to actually put together those moments so that they cohere as an overall play experience. As a teacher and manager of the team, it is his job to ensure that each of them is thinking about both the “bottom” (i.e., the strung-together snippets of compelling moments in the game) and the “top” (the overall design statement that expresses a concise view of the game as a whole), all while they are conceiving of what it will take to actually generate a piece of software. Chris says that most teams he works with approach design from either of the two perspectives but rarely both at the same time. “And so you start pinging them from the other direction,” he says, explaining how he plays both sides of the net, so to speak.

Chris remarks that the approach of helping design teams think about both theoretical approaches to building games—the singular conceptual approach and the “collection of moments” approach—makes for a better overall design process:

It just strengthens [it] because it makes [the development team] kind of think and respond and get real clarity on what they’re trying to broadcast. And often times you’ll have some hour long discussion about some point with somebody and you feel like you’re close but you’re still not quite getting each other and then all of a sudden somebody will say, “right but what the important thing is BLANK.” And it’ll be some just, tiny thing and you’ll go, “aha.”

Chris laughs as he thinks about those “aha” moments in the creative process: “It’s that moment where you go ‘NOW we know exactly what we’re talking about.’ Then you build back up from there. So you really have to pare things down until you find out what you’re both talking about and then you go ‘ding.’ And you work back up from there.” What becomes important then is that the collaborative development process requires the team to come to a collective understanding of the theory that informs their design choices. Through a process of discussion and iteration, the team arrives at a clear vision—a thesis—that points to what the goals of the game might be.

Using his own games to exemplify his point, Chris discusses what it is like to communicate a vision for what seems to be a straightforward event: a driving simulation. The game does not have to involve just driving the fastest. Chris suggests another way of envisioning that the game is about:
So it’s not just you know, ‘oh you need to get to the finish line first.’

But, ‘hey you know in this type of event, driving with style really is what’s gonna win it.’
And in this type of event, you know, driving with speed is gonna win it. And in this other type of event it’s that balance between the two. You know if you are the lead you can earn more [points] by hanging the tail out but you also run the risk of smashing the wall and having everybody pass you. So it’s kinda like, how much are you willing to risk? And that tension—that is a good part of the game play.

Chris insists that being able to talk about and show your game idea in this way is significantly more important that generating the game idea to begin with. Without a precise explanation of both the game rules and the play activity, the design process itself is stunted. Then when a game with a collection of moments (rather than an overall vision) is put in front of players it may be difficult for a consistent vision to emerge. “People just go, ‘I don’t know, you know you didn’t really do anything well but there were these kinds of things that were cool, but I don’t know’,” he says. In other words, a poorly articulated vision of a game begets a poorly articulated play experience for the user. Instead, Chris prefers “a very focused effort” where “everything supports a vision.” He says that players are much more able to understand the overall goals laid out for them so that “it’s easy for them to start discovering the kind of subtleties of it.” A more conceptually precise design allows players to envision their priorities as players and therefore they can feel free to explore the game space and be able to speak clearly about what makes the game compelling.

Breaking down a design problem, finding common ground, and building the steps toward creating a product they can all be happy with is a long process that Chris takes seriously as he tells me about his approach. But he is careful to explain that he often has to compromise his particular approach in favor of what works best for the team:

Like you may have you come to a point where there’s just kind of two different design philosop-phies and you have to kind of pick one or the other? And you’ll look back to your overall statement and go, ‘ok which one may support that one the best?’ or ‘which one has the least counterproductive risk?’ ok and then you pick that one.

Even in the process of designing an interactive play experience, Chris understands that he too must be willing to change his approach based on what will help him “win the game,” so to speak. Working with the design team on the problem of writing a play experience has taught him that the collaborative process must reflect a combination of problem-solving strategies that, when implemented, work together to communicate relatively well to ensure that what makes a game fun comes as close as possible to what the game is about to begin with.

4. Critical reflection: why is this fun?

Designers may spend a significant amount of development time simply negotiating content design and trying to articulate how that content will contribute to a fun play experience. Still, most designers will emphasize that designing immersive play experiences is equally important to coding it. So when they communicate a potential game idea to a publisher,
development team, or potential funder, designers must be able to say what a game is “about,” knowing that what a game is about is both their theory of design and what gets designed. What a game is about is both its nouns and verbs, so to speak. It is about both the internal design choices of a game—its aesthetics, its storyline, its characters—and also about its play, knowing that play experiences are negotiated spaces. In fact, all parts of the development process—production, art, design, programming, quality assurance—factor into both content and player experience. In making those arguments for what constitutes a fun game, designers again pull from their skills as writers, creators, coders, and players so that they can express a game concept that is able to meet the needs of all. And in order to get a game “green-lighted,” they must be able to show how the player will be coached through the process of playing the game, how the game teaches the player to achieve success with the puzzles the designers have created, and how the player’s interaction with a game generates an interactive experience.

Chris states that his primary job responsibility at Microsoft is to “make games more fun.” Working with publishers, internal and external designers, and developers, Chris is there to guide and enhance games by teaching the development team how to think about the games conceptually as they work through the details of the designs. He says, “my best role with a lot of developers is really to act as a foil.” Chris watches over the design process, coaching developers along, getting them to reflect on why they make decisions, whether those decisions are good, and how those decisions will be experienced by players. Chris’s identity is that of a master teacher, coaxing a development team through the process of engineering a plan.

Chris comments that a tricky part of that process is getting his team to articulate precisely to an unfamiliar audience why their game ideas and methods are the right ones. Chris’s job is to teach his team how to make an argument for why their choices necessarily work. Often that involves helping them put their game’s value into words, even if they only understand it on an intuitive level:

It’s very easy to get them to say, like, you understand why your game [is cool]. You’ve been working on it for two years. And oh this is cool and that’s cool and the other thing’s cool. But if you put it in front of people and they don’t see that or they don’t see it quickly enough, then it doesn’t matter, and all those [hours of development] go to waste because the user doesn’t experience it.

According to Chris, some designers may know from their own experiences playing games that those they make are particularly fun. The challenge for Chris is that he must be able to help those developers craft their games so that they are experienced as closely as possible to the ways its developers intended. Because video games are interactive media that require participation, and because gameplay experiences are necessarily situated in personal contexts, it can be extremely challenging to argue for a singular interpretation of a game in a way that is persuasive to an audience who has not played it yet. Therefore, Chris is not only a coach and teacher but also a more sophisticated reader in this space. He absolutely “acts as a foil,” as he puts it, anticipating responses and predicting audience reactions. His expertise is that of a more knowledgeable audience and reflector, one who can help refine an argument in order to help make it more persuasive.
Many designers like Chris frequently rely on metaphors and prior genre knowledge to communicate that overall vision of what a game is about and how it will provide a framework for a potentially compelling play experience. Chris contends that not a lot of designers understand how to make that description exciting and comprehensible to a potential producer or publisher, or even the team working on the game. Still, Chris is aware that there is a distinct difference between using these sample descriptions in order to bring an audience into a conceptual view of a game and the gameplay experience itself that should evolve as a result of the game’s rule system. Those descriptions make up the content but they do not explain the experience. They are two different but related things, and both of them have to be considered in the vision of the game and its design document. Chris offers an example of the relationship between content and experience:

If I handed you a stack of quarters, with that stack of quarters, if you consider that the content, you can play tiddly winks with it, you can play quarters with it, you can play hopscotch with it, you can play checkers with it. You can play all these different—totally different games—with the same content. And I think a lot of times the kind of Hollywood pitch ‘oh it’s this with that’ speaks very much to kind of that upfront ‘here’s what the content is’ and just kind of basically what you’re doing. It gives you kind of ‘here’s the genre and here’s what it’s gonna look like’ and it gets you ‘oh I get it, ok’ but it doesn’t speak to maybe why it would be really good.

For a writing instructor, this is the difference between showing a model of a scientific lab report and coaching students through the process of writing one. Both tasks are important for learning to be a successful scientific writer, but both nouns and verbs come together to make the sentence, so to speak. In a game design context, it becomes important not only to show that process of writing a lab report but also to explain why that particular process is good. Even more, it has to be fun.

There is a difference between engineering the rules for a game and actually developing the parameters for which success is achieved. Chris again likens these concepts to his hobby of driving race cars—a hobby that informs his work on several racing games created for Microsoft. Throughout our discussions, Chris speaks often about engineering the multiple variables that go toward being a successful driver: “In racing everything comes down to a stopwatch. You can measure your performance on a stopwatch. Period. That’s it. But there are a billion different ways of improving your time on that stopwatch.” For Chris, the fun of the game is the experience of engaging with the multiple variables for improving your vehicle. It’s one thing to be able to move quickly to a finished, successful product; it’s quite another to find the fun in the process of getting there. Content and experience must work together to get to the finish line.

In more detail, Chris calls this process “engineering the theoretical,” or thinking about the series of choices a game player might need to make before his car even begins a race. “You know,” he says. “How well do you build a motor? How well does your suspension setup work? You know all that kind of stuff as well as the kind of high speed chess behavior of you as a driver as well as the car control behavior as well.” Winning the game involves crossing the finish line first. The gameplay experience for Chris, though, is in the challenge of managing the multiple factors in solving the problem that the game content
(or rule system) presents. “There’s all these things that factor into this one time,” he says. Imitating the noise of a stopwatch, he continues: “Click. And I like exploring all of those simultaneously.”

5. Conclusion

It has been argued that video game designers can be thought of as curriculum designers in the sense that they generate systems of experience, problem-solving, and interpretive play through a process by which they engineer and “constrain players through rules and narrative, but also . . . give players sufficient control to enter the world” (Squire, 2006, p. 22). The same can be said for those hard at work in today’s university-level writing programs. As professionals, writing instructors and video game designers are tasked with creating spaces where the potential for skilled creativity and problem-solving can be practiced and assessed. Understanding how this process works helps us begin to make sense of our questions about video games’ significance as places for literacy.

Chris’s work as a designer and developer is just one of more than three dozen cases I have examined during the course of my research in this area over the past five years. Throughout my work I have learned that designers’ and developers’ theories and designs are so carefully considered, so meticulously crafted, and so collaboratively created that I wonder how it is that they are able to create a successful and motivating game at all? Over and over again I witness developers creating solvable problems and leading players toward finishing their games successfully. What’s more, they are able to accomplish their goals knowing that players will often misinterpret, modify, or re-interpret their games.

Arguing for a conception of the design space of a writing classroom in this way helps return composition studies to a discussion of the connections between theory and practice. Though certainly not in the same sense as Paolo Freire (1986) intended, the concept of praxis is indeed present among many in the game development community. It is not uncommon to find designers and developers performing lengthy dialogues on the subject of what makes their games fun and how their processes work best. But the principle that “a theory of fun” (Koster, 2005) ought to provide a supportive framework for design choices is a serious one in the game development community. Every element of a game’s production ought to, at least in theory, be reflective of a development team’s vision.

In the sense that a theory that supports a play experience and that the experience is a designed space, there is a strong analogy to be made with the design of composition curricula and course syllabi. Given that post-secondary writing classrooms are some of the most populated spaces on campus, it becomes acutely important to ensure that each of those courses is not only infused with some kind of supportive theoretical framework but also encourages its instructors to reflect critically on the nature and usefulness of that framework. Theory and design inform each other, but only to the degree to which we are able to observe thoughtfully and then reflect on those observations.

Paul Dourish (2001) has written on the connections between theory and design in the context of human–computer interaction, though he might as well have been talking about critical pedagogy. For Dourish, designs are barely valuable without a theoretical context. He
responded to the notion that theories of design are only relevant when they can be “harnessed,” that where theory is abstract, design is application:

However, we could claim that this position is exactly backward; theory grounds design by providing a framework within which hypotheses can be constructed and tested, options explored and compared, and results analyzed, evaluated, and verified. (2001, pp. 157–158)

Dourish went on to explain that without theoretical frameworks, designs are “simply speculative” (p. 158). Theories are never “just” theories; instead, they give designs purpose. Theories help pull designs out of the abstract, Dourish argued, because they provide us with a way of naming the value of a design. Game designers like Chris help us understand in a concrete way how that relationship between theory and practice informs the building of an immersive play space that has enormous implications for learning and literacy. We are only beginning to understand those implications. In the meantime, we can examine how games are made and how developers’ design principles are developed and informed by particular theories and contexts for creation.

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