Chapter 9
Critical Gameplay– Design Techniques and Case Studies

Lindsay Grace
Miami University, U.S.A.

ABSTRACT

This chapter introduces critical gameplay design as a technique for creating digital games that offer alternative play. Critical gameplay provides the opportunity to explore game ethics through the way games are designed to be played. Since game designers outline the rules of play, game designs outline designer's definitions of what is ethical and important. Taking the notion that, design is reflection of designer values, this chapter outlines methodologies for exposing the intrinsic values in play and creating gameplay models from alternative ethics and values. The chapter concludes with examples of critical gameplay games that have been demonstrated to international audience.

KEYWORDS

critical gameplay, game design, alternative play, values-based play, game mechanics, critical design, ethics creep

INTRODUCTION

In his keynote to the participants of the International Game Developer's Association's (IGDA) Global 2010 Game Jam, Ste Curran spoke of the wilderness outside the space of traditional game design. He claims in his address that "gaming is this giant creative space, surrounded by a frontier, and beyond that frontier there are so many countries left to explore" (Curran, 2010). This chapter suggests outlines one approach to exploring that frontier, here many game designers see an ever more rich set of possibilities. It is the space of undiscovered processes, or game play mechanics beyond our dreams. It is also the space of alternate ethics and morality. We are just beginning to map the discipline of software studies; likewise, game design is only starting to explore the ways in which game mechanics are in themselves ethical prescriptions.

One need only consider the conventional models of play to identify the edge of this frontier. It can be found in the prevalence of absolute assumptions in game design. Some examples include the following: collection of objects is good, elimination of obstacles is the best way to handle them, and that tools always offer benefits to us, never complicating our relationship with the challenges we face. This "wilderness" is also expressed in the host of assumptions we make and accept about the ways games are to be played and the expectations that enshroud them.

Critical gameplay is the study and production of computer and video games that seek to explore alternate ways to play. These play models are derived from critical reflection on the standards of gameplay and the culture that exists around them. As a three-step process, critical gamelpay is created by observing a set of standard assumptions, deconstructing the assumptions in that standard, and reorienting that set of assumptions through the production of an alternate model of play.

By introduction the concept of critical gameplay design, this chapter will explore and enhance opportunities for critical evaluation of conventional game mechanics to create a clearer vision of the contours and boundaries of game design.

Such study is not part of the established practice of understanding how shooting game characters may or may not encourage violent behavior (Kutner & Olson, 2008), for example. It is not merely about understanding game scenarios and

identifying their ethical underpinnings. It is more critical and more philosophical. It is no longer enough to ask about whether or not games train us into new patterns (Squire, 2003). Instead, this new area of study, calls for the inverse. It addresses questions about the rules in games. These questions may be about how games reinforce specific rationales or how designs bias toward specific ethics.

The proposed method for exploration of games delivers the potential to offer different paradigms for both the way we design games and the way we play them. Discovering alternative ways to play offers benefits in games for entertainment, education, and persuasion. The application of this methodology to digital game technology offers benefits to education, business, and societal study.

Just as explorers benefited from accepting that the world is not flat, game design can benefit from the understanding and acceptance that games are not merely a reflection of social values, but they actually prescribe models of ethics (Barr, Noble, & Biddle, 2007). These ethics are transmitted more deeply than through the superficial monologues of non-player characters, or in the story-driven decisions a player makes. They are an integral part of the gameplay, surfacing in the actually mechanics of play. Yet, the evaluation and creation of alternate game mechanics still remains an unchartered wilderness.

Background

Any understanding of the integration and necessity for play in society typically begins with a reference to J. Huzingha's *Homo Ludens* (1955). Much like the requisite attract screen of an arcade game, or a magic potion in a role-playing game, Huizinga's text serves as a lure. It brings the uninitiated into an academic understanding of games and society and the nearly omnipotent and certainly pervasive power of play.

Like good game design, this writing will not disappoint by glossing over this seminal text, but like good game design, its purpose is not to replay what has already been experienced. Instead, consider Huizinga as a foundational prerequisite. Many of the phrases and brilliant quotes of the text are unlike the focus of this chapter, familiar and often reproduced. Just as a player assumes multiple lives or the value of manna, you as reader can begin reading under the specter of *Homo Ludens*. But like the alternative play this chapter champions, a healthy critical distance to the often-referenced text will afford new potential. For the reader Huzingha exists as traditional game design, and this chapter seeks to address the non-traditional.

Consider only one small quote from Huzinga's book, "play creates order, is order. Play demands order absolute and supreme" (1955). If play is order, than an analysis of the unexplored spaces in play could begin with the fundamental question, what order is being designed? If play demands order absolute and supreme, how does the play we design demand players' adherence to its order? Does it reapply its rules via persistence, simply encouraging players to learn recitations of the same play over and over? Does it declare that there is but one way to play, when it demands order absolute and supreme? Does it judge or dismiss players who fail to play by its order? Are its demands polemical, propagandist, or even self-serving? Most importantly, what other order exists outside play's order?

These are the types of questions that this chapter champion. They are questions bred from critical thought. They are not only questions of play design, but also of software design. For game design is not only integrated in the play created, but in the tools used to create play. Where a ball and all derivations of play involving the ball are restricted by the properties of the ball, a ball in a digital game world enjoys very few restrictions. The virtual world of a computer game, for example, need not adhere to real world physics, finite amount or fixed states. Instead computer and video game play, herein referred to as digital games, is very much limited by the properties of the cultural and development environment in which their play is constructed. Why, for

example, do so many game engines employ object collision as an important basis for game implementation? What types of digital games could be created if design divorced itself from the standard object-oriented metaphors of development? This is where critical questions meet critical design to create critical gameplay.

The first step in critical gameplay design is observation. These observations are lead by asking critical questions. Critical questions are not difficult to formulate. They are constructed by looking past assumption toward the logical trajectory of the game as a medium. They begin by asking how games function. What types of order are employed or even enforced? What precipitates from such inquiry is a list of very broad questions that include:

- What happens if the game experience is shifted from from interactive entertainment to interactive learning experience?

- What if one basic assumption of the logical relationship of game elements is removed?

- How can the existing dynamics be used to create a very different experience?

- Are specific perspectives being left out of the roles designed into games?

The questions can precipitate from a systematic analysis of a single game and tis rule or from patterns witness in a collection of games.

Second, these questions are used to deconstruct assumptions about play. If, for example, we consider removing score as an assumed element of a game, new questions arise. The first questions might be how can progress be communicated without score or how can score be made less numerical? Those are valid questions, but they are not deconstructive nor are they very critical. Instead, critical questions might read:

- If score indicates progress, is communicating progress essential to digital gameplay?

- What is the antithesis of score and does that add value to the play experience?

Not every question should yield an answer. Instead they should yield more questions that encourage exploration towards spaces that are unfamiliar.

The third step is to convert those critical questions into products that illustrate, answer, or further interrogate those same critical questions. This is the domain of critical design. Practiced most notably at the Royal College of Art, its first explorers are the design duo Dunne and Raby. Their products are, in their own declaration, anti-affirmative design. In their terms, affirmative design is the trajectory to which most design subscribes. It is an affirmation, acceptance, and furtherance of existing design models. It is, as Tim Brown describes in his TED Talk on the past trends of design:

 "what passed for design wasn't all that important -- making things more attractive, making them a bit easier to use, making them more marketable. . . and not having much of an impact".

The fundamental critique of affirmative design is that it simply fails to ask the important social questions. It fails to ask questions about the ethics of design practices and designed products. It fails to reevaluate its own practices. Instead, it trudges forward without critical reflection. Critical design is not concerned with trudging forward; it is only concerned with producing that which addresses the critical questions. This is evident in Dunne and Raby's Huggable Atomic Mushroom Cloud, an ironic object of comfort (Dunne & Raby, Projects, 2005).   Their collectible Evidence Dolls, designed as a DNA hope chest for the modern young woman (Dunne & Raby, Projects, 2005). These objects serve as artifacts of critical questions about social interactions.   A variety of other designer's work that pursues similarly critical design is outlined

in their book, Design Noir: The Secret Life of Electronic Objects (Dunne & Raby, Design noir: the secret life of electronic objects, 2001). Importantly, it should be understood that these designs are most engaging in their ability to raise ethical intellectual questions rather than their ability to raise profits.

An earlier incarnation of critical design concerned itself with the process of map making. Maps, in themselves have a remarkable effect on perspective and social relationships. The mapping process of critical cartographers, mapmakers employing critical design, involved exposing the inadequacies of conventional maps. Many of these maps sought to expose the biases, ethical or unethical, in popular mapping conventions. A critical cartograph might be as simple as choosing which continent to center in a world map or as complicated as resolving the many ways to accurately project the mathematics of a round world in flat, 2D space. The most controversial of these is the Peters Projection World Map which from its mathematic basis, claims area accuracy (Crampton, 1994). The more commonly used, Mercator projection map employs a process which inflates specific regions, depicting, for example, Greenland as larger than Africa, when in reality Africa is much larger than Greenland. This balance of value (fidelity to the shape of the earth versus fidelity to land mass size) voices itself in two different depictions of the same subject.

In terms of game design, critical cartography demonstrates how slight changes in a designer's value system *project* themselves into finished products. By asking critical questions about the ethical fidelity of a land mass agnostic design, a designer was able to incite awareness. By making the alternate projection map, the designer demonstrated inadequacy. Consider how many types of agnosticisms may exist in games. What perspectives have been left out of game playing experiences, for example? What do those omissions indicate about the order inherent in the design of play in digital games?

This combination of critical question-asking and critical design practices creates critical

gameplay. Games designed through critical gameplay techniques are not a panacea for ethical dilemmas, unsolved educational challenges or perfect designs. Just as the Peter's projection met with much negative critique, critical gameplay games ask for the same critical evaluation they apply to more traditional games.

The remainder of this chapter seeks to illuminate a more detailed process for designing critical gameplay games, providing examples of critical gameplay games, and offering some demonstration of its potential in practice.

Designing Critical Gameplay: Overview

In teaching game design I have routinely heard students throw up their arms in frustration and say, we can't do anything new, it's all been done before. My typical response reminds them of the musical composer, who knowing that all the notes and chords exist, accepts the responsibility of finding new combinations of those notes to make new music. Simply, if the notes have already been played, then the designer's responsibility is to find new arrangements.

This analogy is somewhat true, but it ignores two fundamental truths. First it assumes that the notes we have defined are the only ones. Musical scholars would note that while there is a general range of frequencies the human ear can hear, all of these pitches are not defined by the limited notes and chords of the western musical tradition. Instead, a C-sharp or B-flat is a convention in a standard prescription of music composition.

For game design, there are these same silos. There is the shoot mechanic, there is the take mechanic. There is a fairly long list of game interactions that fit somewhat neatly into a canon. These are the conventional game mechanics, which like a 15th century harpsichord are played either masterfully or poorly. There are games that ask us to shoot beautifully and others that are horrible at it. But that range of digital game mechanics is fundamentally limited. It is likely a combination of historical

successes and translating conventional game board mechanics. This canon is largely packed with ==game verbs==. Our verbs are move, take, leave, jump, etc. These are not far from the same verbs we have been using since text adventures asked us to articulate those verbs in monochromatic text.

As affirmative design suggests, the simplest innovation in gameplay mechanics is to use that packed canon of game verbs, spilling them into game environments and listing it as an improvement. This approach subscribes to what is marketed, that it is more enjoyable to the player to be given more verbs and more nouns with which to use those verbs. Shoot plasma cannon, shoot frag grenade, shoot m16. Those same marketers would claim a better game is a game with more verbs, not necessarily new ones. To return to the music analogy, this is as comical as implying that more notes make a better song. What Chris Crawford wrote in 1982 hold true today, "A very common mistake many designers make is to pile too many game features onto the game structure" (Crawford).

Players are routinely marketed an increase in ==game verbs== as an improvement to a game. In this thinking, a game design that not only lets you drive and turn a car is less fun than one that lets you skid, crash, jump, etc. Yet, game critics would agree that plenty of games that have increased their verb count, have not increased the enjoyment of their experience. Driv3r, for example, added both swimming and jumping to an already successful franchise with proven game verbs, yet reviews did not praise these additions as improvmenets to the experience (Atari, 2004).

The second weakness in the musical note analogy of game design is that it fails to look critically at what it means to compose play. It does not ask why or how, it only takes what is convention and seeks to compose music from that convention. It accepts good as *good*, and fails to update its perspective on convention. Good music in 1962 is not necessarily good music in 1992, nor is it good to every population or for every population. It fails to ask if there are other ways to compose or other standards for playing. In musical terms, the affirmative design standard leaves little room for jazz improvisation, heavy metal performance, DJ samples, or chip tunes because those musical styles do not fit into the criteria for classically good work.

This second weakness supports the first. If there are no ==critical questions== remaining about what is good, then all that's left is more of the same goodness. Like a conservative cultural loop, failing to ask critical questions about design results in a deep, but not necessarily diverse collection of artifacts. If we do not consistently interrogate the foundation elements, musical note systems, we do not open opportunities for music that expresses itself using previously undefined notes. If we do not look critically at the composition systems, we miss the opportunity to compose and play what the existing system does not support. Historically, this type of critical reflection has yielded innovations in seemingly stagnant creative endeavors. It has lead to the growth of world music, the cross-pollination of design, science and art practices. It can be argued that electronic music is the result of adopting alternative composition and performance systems for example.

If you ask ==critical questions== about the dominant game verbs in game design, you begin to see patterns in ethics and values. Adapting the play centric techniques of Tracy Fullerton ((Fullerton, 2008)), you begin to also unearth the primary perspective of gameplay. It is intrinsically, ==player focused==. The verbs in games are primarily focus on the player as a singular, world-centric concept. Consider the mechanics of most games. The player dies, the world ends. Even in MMORPG or other play communities, the world ends not when one player leaves it, but when all (or all but one) leaves it. This is not fundamentally true in the world in which we live, but the ethic certainly emphasizes one clear set of values. The player is the center of the world.

Consider how few games ever retreat from this fundamental value. In discussing this observation of games, you will even find that some consider it an unfair criticism. The claim reads that as a person in the world, I, the player, have always understood the world from my own perspective and through my own senses. The world is necessarily player-centric, because we are simulating the universal experience of being. If this is an accurate representation, then why do real people do anything for subsequent generations? Why do people bother thinking about what happens when you die? Aren't there cultures that understand the world beyond a simple one-time around life-death cycle? This particular argument for player centric design is one that lacks critical reflection. It is short answer, to a complicated question.

Now consider that for years, the only element of change in a game world was the player. The player elicited change, to which the world responded. Non-player characters respond to players, while two players in competition respond to each other. Historically, there had been no game before the player and no game after the player. In terms of critical mapmaking, the player's worldview is centered on one thing, themselves. What are the ethical ramifications of a self centered world? Is there but one good, one goal, or one need?

Consider the relative desert of games that encourage altruism. Consider how few historical games ask the player to move the play lens from their play perspective to another's. Save for preserving the player's management of the world, perspective rarely shifts. Now consider how many hours under that particular perspective a game is played. Rarely do you find a game which asks the player to balance two opposing goals at the cost of reaching either. Few digital games ask the player to be arbitrator, for example.

These observations on digital game interactions are enormous, integral and often difficult to decant from the many other game play mechanics piled on top of them to make a complete game. But, critical question asking at

least offers some awareness and awareness can potentially birth new perspectives.

The Critical Gameplay Questions

What are the critical questions that produce critical gameplay games? They are questions born from the social sciences and art. They begin by asking about the standards, and then moving toward another convention. Just as a ship follows the coast to chart its beaches, the critical questions arise from following the line of logic that defined the convention.

Consider the collect mechanic. As a convention it has been a part of computer and video gameplay for years. The obvious goal, as it goes, is to collect more of whatever you seek. The more coins, gold rings, manna, health, and energy you collect, the better. Yet, a simple extraction of logic asks some very important critical questions. Logically, how does that ethic translate? Is perpetual, unbounded desire for more a positive ethic? In contemporary parlance, some people suggest that it should instead be a *sustainable* desire. It is not reasonable to allow your desire for energy to exceed the resources that are available. In some cultures, we consider that greed, an ethically corrupt basis for motivation.

If it is not greed, we can ask the practical questions. Are there situations under which collecting more is a problem? Certainly, collecting more guilt, more nightmares, more sadness are all bad things in many western cultures. In these cases, we may seek a way to allow them to dissipate into the ether of everyday living. Why then, have we not seen a preponderance of leaving games? Where is the collection of reverse Pac-man games, for example? Games where we must leave our guilt behind, lest the ghosts of our past catch up with us and ultimately destroy us. Where are the games where we are unburdened by our un-collecting?

If that is too exotic, return to the practicalities of everyday living and the ethics of greed. In the

most basic moral tales of the western storytelling tradition, the character whose collecting exceeds their capacity ends their story in pain or loss. It is as short as the child who ate so much they were made sick, or the king who exercised too much authority on their subjects and lost their kingdom via tyranny. In these cases, there is an ethical limit. There is a sense of cultural value, where it is fine to collect, until you have collected too much. In games, the most conventional mechanic is to simply prevent the player from collecting any more. There is no substantial cost in over collecting, only in failing to have the right collection at the right time.

It may also be that we must ask questions beyond our local culture and towards our larger social culture. In a capitalist society, is it simply that collecting makes the most immediate sense to us? Is it that we are simply using the intrinsic understanding that having more is good (as in wealth) to inform the gameplay experience? If so, why don't we ask the obvious questions about other cultures? Why don't we ask about the Buddhist ethic of detachment, in its many forms?

The critical questions precipitate from examined explorations into what we understand to be a convention. As an explorer who sees two borders, but seeks to define the space between them, critical questions come from identifying that there is a space that needs to be defined. This definition through exploration serves the minimum benefit of orientation. It helps to locate game designs in a much larger societal landscape.

Identifying the Invisible Mechanics: Player Perspective

The first step in understanding the design of critical gameplay is in identifying the seemingly invisible mechanics. The spaces that game design ignores are often revealed through analogy, considered thought, or versions of cultural anthropology. Each moment of discovery, as expressed through the production of a game, or through the critique of games, demarcates a point in the logical space in game design.

To understand the process of revealing a seemingly invisible mechanic, trace the intellectual deconstruction and exploration of player-centric design that follows. It is not an attack on player-centric design, as critical design does not attach affirmative design. It is provided only as a demonstration of revealing ethical bias in mechanics.

Player-centric design is so commonly assumed and taught in game design, that it becomes an invisible assumption. It is so ingrained that it ceases to be ethical and instead becomes factual. For some designers, it is no longer a choice in game play design; it is the only way to design games. Even in the grandest plan for new gameplay, many designers forget how many mechanics remain invisible to them in the design of a game.

Consider that as far as player-centric designs go, games in the realm of Sid Meier's Civilization, Spore and the Sims succeed in moving away from player centric gameplay, toward a community centric design. They are games whose ethical decisions are based not solely on the needs of the player, as the player does not necessarily have a single avatar or agent to manage. They focus instead on larger social need. The needs of several Sims must be balanced, and those Sims may be active even if they are not in worldview. The player's needs are given to them, constantly changing, and in some ways out of their control. These are not games about saving princesses, destroying enemies, or annihilating alternate races. Instead they are about maintaining a local culture. These games are based more on the preservation of local community than the Machiavelli's self-preservation. They are player-centric, but they have at least expanded the sense of player. If many games ask the player to manage the arguably puerile, self-centered needs of a single character, these games move toward the experience of a parent, incorporating the challenge of managing your child's needs.

Now consider a game in which the player is a secondary role. Just as we consider the actors in a theatrical production at play, so too games could employ the same complexity of play structures and roles. Game designs can move from player-centric, to supporting-role centric. This role does exist for game players in the self-constructed scenarios of cooperative missions and campaigns, as players organize themselves into self-sacrificing groups or assist in maneuvers such as cover fire or flanking. Yet, very few games employ such a mechanic as the central goal in a game. A game of assistance or supporting role, although quite logical, is quite rare. Instead, assistance more often takes the perspective of player centric address, posting the player as the last of a race, the only one capable of reversing the tide, or other situations in which a seemingly supporting role is converted to a key role.

Even in the very easy conversion of team sports, such as football or baseball, there is a bias towards player-centric design in digital games. Many digital version of American football have the player switch roles in the middle of a play session, taking the responsibilities of coach, blocker, and quarterback. In soccer, as the ball is passed, the player takes control of the possessing non-player character. Even in situations where there is a clear standard for non-player centric design, the simulation is steered player-centric design. To return to the theater reference, what was once an ensemble performance is converted to a one-performer show.

By following similar intellectual paths, it is conceivable to map the ethics of existing and potential games. The following section lists the standard means for constructing conceptual maps of gameplay mechanics and their underlying values. These approaches include identifying the invisible values in games, ethics creep in game design, and omissions by the game designer. These approaches are not set forth as prescription for improving play as much as they are offered to encourage diversifying play and critical reflection.

Identifying the Invisible Values:

Just as some mechanics may not be immediately apparent to players or designers, their requisite ethics remain under the surface. Their remains a collection of values that are as obscured as the mechanic to which they are attached. Consider simply the ethic attached to the playground game, King of the Mountain. Children push and shove each other to maintain their position at the top of a hill or snow mound. The mechanic is simple, do anything that you are capable of without letting anyone else stay or arrive at the top. The most successful player understands their own limitations and strengths and how to exploit the weakness of others. The game is played with one eye on the upper limit of what is allowed. A hard push down the hill is okay, a direct punch might get you in trouble with teachers.

The game would be played very differently if your goal was to get someone else to the top of the mountain. Instead of worrying about how you can maneuver yourself, you are looking for ways to maneuver the other person's chances of success. It is not simply a point of support, but you must change your entire goal orientation. You are not worried about ever achieving dominance, instead you accept that you will never be King of the Mountain, and instead seek to help someone who has the chance to keep it. The ethic transitions from player centered goals, to a supporting role, with very little change in the game experience.

The more common version of King of the Mountain employees what some would consider a rat-race ethic. It is an all-out volley for power, for which there is but one winner. The values are clear. The second version maintains a similar set of values, but it relocates the locus of power. In the second version, the locus of power is moved to those who help maintain the position of power. The role of the person at the top diminishes, as their potential is limited like the king in Chess. They are central to the goal, but an ancillary means to accomplishing the goal. The King of the Mountain is preserved, but their

abilities are far more limited than those actors that support them.

Now consider that the playground version of King of the Mountain is quite mutable. Children can adapt the game and make new rules, alliances, and define the order. Yet, within the confines of many digital games, play is not mutable. The player cannot change their abilities, save for systems that allow players to elect for additional challenge by limiting abilities or making the player more vulnerable. The values in games remain, and as is fundamental to most digital games, there is a *play to stay* system. If the player does not play as directed, the game typically quits, booting the player out of the experience until they choose to follow the rules. Change direction in a racing game, and you will be realigned. Get off the track and you will be brought back to the track. Choose to be a pacifist in a first person shooter, and your game won't last long. Digital games rarely afford for alternate ways to play them. Even the best sandbox games impose rules which realign play toward the order prescribed by the game. Shoot too many people in a Grand Theft Auto game, and the police will chase you (Rockstar North, 2002).

Now consider that these ethics are enforced, through this play to stay standard. This quality is in itself a game mechanic. It is a way in which goals are not only accomplished in the game, they are enforced. Run off the track and the computer will return you to the track so that you can pursue the only true goal of any value, crossing the finish line. Combine that basic mechanic with any other commonly used mechanics and you begin to identify an enforced set of ethics. Collect a specific number of items to continue to the next level or earn extra playtime. Destroy a prescribed number of threats to continue play. These things are so fundamental to game play in digital spaces that they are ultimately invisible.

More interestingly, a prerequisite to game design is game playing. What is produced is informed by what was experienced, and ultimately what was accepted. Being subjected to the pay to stay experience is so integral that few look critically

at reversing it. What results is a kind of ethic-value creep, where foundational values are merely expanded into more complicated systems, instead of being reevaluated and reconstructed.

Identifying Ethics Creep:

As mentioned, ethics creep is the common situation under which a foundation set of values inhering in games is affirmed and expanded into more complicated systems of value. However, in the expansion of a fundamental ethic, which seeps into other cultures consuming the games we produce, we are in fact encouraging them toward that ethic. In analogy, we, as game designers are not seeking to assimilate the culture of that which we explore, we merely ask them to assimilate our culture. In exploration terms, we as designers are in a kind of manifest destiny. We are only seeking to see our artifacts abound, instead of asking about the native artifacts to which we may not be accustomed.

To understand these cultural impositions, consider the experience of a new game player. New game players are often shamed for not understanding the conventions of a game. They might not understand that moving an avatar onto something collects it, for example. But it is important to be critical of the gameplay mechanic itself. Why does moving on to something collect it? Why does it not destroy it, as in walking on a piece of food destroys its value. Why does walking on something not bury it or discard it?

The un-initiated player is a wonderful resource for identifying ethics creep. Those players who are unfamiliar with the standards of gameplay, although often dismissed, are sometimes touchstones for the transparent values in games. They can serve as un-indoctrinated critics. If we simply fail to be critical of our conventional gameplay mechanics, we fail to discover the potential in the ignored. This failure is a weakness, as it encourages us to accept things that only pollute our designs. The acceptance of a few standard sets of gameplay mechanics offers the benefits of clarity, at the

cost of variety. It is true that if there is one set of values and one path toward those values, then the world is simpler, but it is clearly less rich. More important to the task of design, it lacks variety in solutions.

Identifying Omissions

In her 2005 review of key questions in games and ethics, Mia Consalvo mentions that there are two groups who ask the question, is this a good game or bad game (Consalvo, 2005). She claims there are merely game players and game critics. This is no longer true. The third and exceptionally important group to ask this question is the game designer. The game designer is either critic and player, or neither. The game designer makes the decisions of both critic and player, but in the end, it is their decisions, which produce what the former groups evaluate.

This oversight is not from an unscholarly failure to understand the entirety of the problem but from a society-wide dismissal of the designer as source of ethic. Those who analyze games sometimes fail to critically analyze the fundamental source in the way we routinely analyze literature or film. Perhaps it is because games study is a relatively new media field or because games have had such a substantially clear relationship to commercial industries. Games are full of assumptions and full of omissions as much as they are full of presumptions and additions. Simply, it is important to remember that game designers are not just creating experiences; they are also removing certain experiences from the games we play.

One part of the design of ==critical gameplay== games is to highlight those removed experiences to initiate a dialogue about why they simply don't exist. It is not enough to say that these types of gameplay are clearly positive or negative, it is more critical to ask why they have been omitted. While it is not the role of critical gameplay games to answer these questions, it is their responsibility to expose these alter-play experiences in an effort to offer more material to

critique. In essence, critical gameplay games at least map the unexplored places, allowing game players and game critics to figure out whether or not they want to experience what had previously been ignored.

For this reason it is important to also discuss games created under a critical gameplay design process. The following section outlines a few of these games.

Critical Gameplay Games:

In my first explorations into critical gameplay, I picked a few of the most common gameplay mechanics. I put these in a list and tried to address them very singularly. The first of these critical gameplay ==prototype games== sought to expose the possibility, in the same way that an explorer might seek to prove an unchartered island's existence. There are still whole continents of game design to be discovered and explored.

I can deconstruct a few of these games, their design process, and their goals to outline the topography of critical gameplay. The following sections outline a few critical gameplay games. These games have been displayed internationally at the ACM Conference on Human Factors in Computing Systems, the International Digital Media and Art Association's Annual conference, the International Conference on Advances in Computer Entertainment Technology, the Annual Symposium of the Special Commission of Games and Digital Entertainment in Brazil, and in a solo exhibition named Critical Gameplay in Chicago, Illinois, USA. Documentation for each game is available at CriticalGameplay.com (Grace, Critical Gameplay Games, 2010)

Critical Gameplay Question: Stereotype by Appearance

Stereotype is an ethical dilemma. It is sometimes an effective way to protect ourselves, as in all snakes are dangerous. Or it is a world limiting experience, as in the many beautiful, innocuous creatures seem we avoid because they look like

snakes. Games are full of <mark>stereotype.</mark> Perhaps as a remnant of once simple computer systems, games often rely on clearly defined, non-ambiguous types. In the oldest games, a non-player character might be a distinguished by color or shape. In modern games, the characters are more richly illustrated, even if their relationship to the player character is not. In general, a character's role is either enemy or not, and more often than not, it is distinguished by their appearance.

In its simplest dichotomy, a game character can be considered either a threat or a non-threat. As such, Black/White seeks to frustrate that distinction. First, the game does not allow the player to distinguish threats and non-threats by basic appearance. In the game, every character looks the same. The player character, non-player character threats and player character non-threats all share the same animation and images. In the game, the player's goal is conventional, move from one side of a level to the next avoiding or squashing threats. If the player squashes a non-threat, they are forced to restart the level. The player must balance their judgment to successfully traverse the level. The challenge arises in that the gameplay does not rely on the conventional binary cue of threats having one appearance, and non-threats having another. Instead of judging threats and non-threats by appearance, they must be judged by behavior. Threats act aggressively, lurching at the player as they approach. Non-threats, act passively, smiling as they pass the player. If the player makes contact with a threat, they die and must restart the level. If the player makes contact with a non-threat, nothing changes. The game seeks to explore alter-stereotype mechanics. The new value focus is designed to emphasize behavior over appearance.

To further emphasize the theme of its critique, the game is constructed in binary sets, with two levels, two types of characters, each animated in two frames, within two colors. There are several layers of binary aesthetic and technical implementation decisions.

Critical Gameplay Question: The Cost of Subscribing to Character Fictions

When designing narratives for digital game experiences it is common to incorporate back-story into the non-player characters. This approach is expected to enrich the experience by making the fiction of the game world more believable. In a first person shooter, for example, the player is supposed to believe in the lives of their computer-controlled squad-mates or the enemies that they destroy. The critical question is why, when we pull the trigger, does that life end without circumstance and without remorse? If that fiction is so important, why not remind us of it?

Bang! is a critical gameplay game designed around this reflection. It provides the player with a traditional first person shooter situation. Explosions resound as the force shakes the player. Soldiers creep through the woods, viewed through the simulated night vision goggles of the player-soldier. When the player successfully shoots a skulking soldier, the game audio is silenced. The 3D graphics cut to black. A slow running, photographic slideshow of the victim's life plays in reverse. The player watches the victim with their friends, their wedding, their first kiss, their childhood birthday parties, and their baby pictures. The goal is an unnerving reminder of the <mark>duplicity of value</mark>. The critical observation is that it is both important to believe the character fiction and dismiss it.

Critical Gameplay Question: The Drawbacks to Collecting

Levity is one the simplest Critical Gameplay games. Responding to the previously discussed mechanic of <mark>collecting</mark>, Levity reverses the mechanic. The player is afforded the ability to run and jump to traverse the platform-scrolling level. In their movement across the level, they are presented with rotating gold coins. If they collect the gold coins, their movements are slowed and their ability to jump lessons. Each coin they collect retards their movement, and lowers the height of their jump. In its first level,

the player must figure out a way to avoid collecting anything in order to successfully traverse the level.

In subsequent levels, the player has the ability to give away what they've collected to regain some of their abilities. They can do so by donating their collected items to non-player characters in the level. These non-player characters jump at the coins, but are unable to reach them. Their jumping interferes with the player's ability to jump, so it is to the player's advantage to placate the non-player characters by giving them anything they have collected.

The primary concept behind the games is that the things the players collect weigh them down. Like many Critical Gameplay games, it is a prototype of teaching an alternate value system through the mechanics of gameplay. It asks the basic question, what if the habit of collecting was discouraged? What if players were encouraged to enjoy the freedom of lack?

Critical Gameplay Question: Can Non-Action Be Engaging

Wait is a response to the dominant belief that good game play comes from acting on a world. One of the most commonly exhibited games in the Critical Gameplay collection, Wait is designed to discourage the player from acting on the world. It entices the player with an animated grassy field with stone hills in the distance. The grass moves slowly in the wind, as the sounds of a forest fade into audibility. While the player peers into the field, elements of a forest fade into view. The trees reveal themselves, flying creatures begin to float between the trees, flowers show their blooms, and more. Yet as the player moves toward the scene, the elements fade back away.

Wait employs a game mechanic based on a rarely used game verb, waiting. The player's action is to wait and observe. To return to more typical expectations of a game the experience affords a scoring system. If a new object appears in the viewing frustum of the player, then they receive points for their observation. The points are awarded as a distinct tone upon each period

of new observation. Likewise, if the player waits too long, the game falls back on the pay-to-stay mechanic by fading the entire world out of view and presenting the player with their final score. The idea is to balance observation with movement. It functions metaphorically as an experience in life philosophy. Instead of championing an end-goal oriented race through experience, it emphasizes the worth in balancing experience with careful reflection. It is designed as a reminder of the play present in a walk through the forest.

Other Critical Gameplay Games

The aforementioned list is not the only set of critical gameplay games. Those games were merely an early collection of games to be exhibited as critical gameplay. One of the most engaging critical gameplay experiences is a game that did not endeavor toward addressing the ethical issues in critical gameplay. Instead the game endeavored to demonstrate challenge and how challenge is derived. Kayin's Nasaki's I Wanna Be the Guy (Nasaki, 2007) is a game whose challenges rely on the standards of existing games. The game serves as critique for the standard cannon of gameplay mechanics, reminding players that walking into swords is dangerous (instead of a way to pick them up) and larger than life fruit may be threatening. The game functions as a détournement, emphasizing the logical problems with standard 2D gameplay assumptions through an exceptionally challenging experience. Released in 2007 the game met with a brief fan following, as people were enthralled with its seemingly impossible expectations. Yet, the very power of this game design is in the fact that the challenge rests largely on the expectations of experienced players. The game actively critiques common gameplay mechanics by demonstrating how they can be turned upside down.

Conclusion

This chapter seeks to outline the process of critical gameplay design as an alter-ethic producing methodology. In the last few years critical gameplay games have been exhibited

and distributed through a variety of venues including academic conferences, the Games for Change festival, and independent game design communities. Their growing popularity and attention seem to predict an awareness of the potential for such approaches. Such approaches to play are distinctly increasing in activist and art game design communities.

These few case studies are provided as evidence of the possibilities in critical gameplay design. Each demonstrates a fundamental approach to deriving critical gameplay. As a three-step process, these are observation of the standard, deconstruction of the assumed value, and reorientation of assumptions.

This chapter sought to define critical gameplay and expose the process of designing a critical gameplay game. It did so by identifying the patterns of design, which include identifying the invisible mechanics, identifying the invisible values, identifying ethics creep, and identifying omissions. It also described the relationship of critical gameplay to other critical design practices, discerning the focus of critical game designers from other types of designers. In support of these observations, it provided several case studies addressing specific critical design questions in ethics and values.

As a relatively new approach to game design, Critical Gameplay offers an opportunity to explore the ethical foundations of gameplay standards. This chapter is not meant as an exhaustive resource, but merely as an orientation for the beginning explorer. Much like mapmaking, it has tried to identify a few key aspects of the topography of critical gameplay design. The hope is that the reader uses this information to further more exploration in this new area.

REFERENCES

Atari, (2004, June). Driv3R [Xbox].

Barr, P., Noble, J., & Biddle, R. (2007). Video game values: Human–computer interaction and games . *HCI Issues in Computer Games* , 180-195.

Bogost, I. (2009, June 30). *Persuasive Games: Gestures as Meaning*. Retrieved February 5, 2010, from Gamasutra: http://www.gamasutra.com/view/feature/4064/persuasive_games_gestures_as_.php?print=1

Brown, T. (2009, September). *Tim Brown Urges Designers to Think Big*. Retrieved January 15, 2010, from TED, Ideas worth spreading: http://www.ted.com/talks/tim_brown_urges_designers_to_think_big.html

Consalvo, M. (2005, December). Rule Sets, Cheating, and Magic Circles: Studying Games and Ethics. *International Review of Information Ethics* , pp. 11-12.

Crampton, J. (1994). Cartography's Defining Moment: The Peters Projection Controversy, 1974–1990. *Cartographica: The International Journal for Geographic Information and Geovisualization , 31* (4), 13-32.

Crawford, C. (1984). *The Art of Computer Game Design*, Berkeley, CA: Osborne/McGraw-Hill

Curran, S. (Producer), Curran, S. (Writer), & Susan, G. (Director). (2010). *Global Game Jam: Keynote* [Motion Picture]. U.K.

Dunne, A., & Raby, F. (2001). *Design noir: the secret life of electronic objects.* Basel, Switzerland: Birkhäuser.

Dunne, A., & Raby, F. (2005). *Projects*. Retrieved 1 15, 2009, from Dunny and Raby:

http://www.dunneandraby.co.uk/content/projects
/

Fuller, M. (2008). *Software Studies: A lexicon.*
Boston: M.I.T. Press.

Fullerton, T. (2008). *Game Design Workshop: A*
Playcentric Approach to Creating Innovative
Games. Oxford, UL: Elsevior.

Grace, L. (2010, April 10). *Critical Gameplay*
Games. Retrieved April 10, 2010, from Critical
Gameplay Website:
http://www.CriticalGameplay.com

 (2008). Grand Theft Childhood. In L. Kutner, &
C. K. Olson. New York: Simon & Schuster.

Manovic, L. (2008). *Software Takes Command.*
San Diego:
http://softwarestudies.com/softbook/manovich_s
oftbook_11_20_2008.pdf.

Mary, F., & Anna, L. (2009). Anxiety,
Openness, and Activist Games:A Case Study for
Critical Play. *Breaking New Ground: Innovation*
in Games, Play, Practice and Theory . London:
Digital Games Research Association.

Nasaki, K. (2007). *I Wanna be the Guy (Game)*.
Retrieved 12 23, 2009, from I Wanna be the
Guy:
http://kayin.pyoko.org/iwbtg/downloads.php

Rockstar North. (2002, May). Grand Theft Auto
III [Playstation 2].

Squire, K. (2003). Video Games in Education.
International Journal of Intelligent Simulations.