Critical Play

Radical Game Design

Mary Flanagan

The MIT Press  Cambridge, Massachusetts  London, England
Since the 1990s, the extraordinary impact of individuals affiliated with the arts starting "grassroots wildfires" and "building guerilla technologies" in their quest for creative intervention has flourished onscreen. That context is important for this phenomenon is obvious. Computer games are more profitable and popular than ever before and have become a major cultural medium crossing a wide range of social, economic, age, and gender categories. Indeed, from casual games played on the Internet to large-scale stand-alone games like The Sims, Metal Gear, Bioshock, or Grand Theft Auto, or the millions of players in massively multiplayer online role-playing games (MMORPGs), the popularity of computer games suggests a "revolution" measurable in terms of financial, social, and cultural impact. As a cultural medium, games carry embedded beliefs within their systems of representation and their structures, whether game designers intend these ideologies or not. In media effects research, this is referred to as "incidental learning" from media messages. For example, The Sims computer game is said to teach consumer consumption, a fundamental value of capitalism. Sims players are encouraged, even required, to earn money so they can spend and acquire goods. Grand Theft Auto was not created as an educational game, but nonetheless does impart a world view, and while the game portrays its world as physically similar to our own—setting one of its stories and action in the city of Miami, for example, and presenting humanoid avatars as characters—the game world's value system is put forward as one of success achieved through violence, rewarding criminal behavior and reinforcing racial and gender stereotypes. Many scholars, game makers, and consumers believe that computer games can embody antagonistic and antisocial themes including theft, violence and gore, cruelty, problematic representations of the body in terms of gender and race, and even viciously competitive approaches to winning as a primary goal. While these practices are, of course, not the case for all games, related themes arise in a significant number of popular games and frequently overwhelm other
subtler interactions and representations. At the same time, artists continue to use games to take on social and cultural issues. Although much of contemporary play takes place online and onscreen in commercial environments, an exploration of computer-based artists’ games is essential to understanding the complete picture of contemporary critical play.

As mentioned earlier, the popularity of online networks, peer-to-peer exchange, and games have made playculture itself into a type of revolution. However, as formative cultural artifacts, games and game cultures are problematic. First, the computer games industry around the world is not inherently diverse. In the United States, for instance, the statistics in the game industry mirror those in other computer-related fields, and the demographic of the games workforce—the people who make the games—reflects the overall, limited expertise of the general public in computer languages and technologies. The number of women enrolled in computer science degrees has, surprisingly, declined considerably in the last twenty years. Black and Hispanic Americans represent a small percentage of all computer systems analysts and computer scientists working in the field, and well under 10 percent of programmers. The inequities that result are troubling, especially at a time when computers have become central to most disciplines and when computer games are emerging as a dominant medium. Researchers have described the dearth of diversity in technology professions as a social justice issue. As noted by many industry insiders, the vast majority of technology companies that produce games do not target women or people of color as players. Therefore, as gaming drives the development of new technology, and new technologies are made by a consistently similar demographic, the cycle of technological innovation and games entertainment remains fairly consistent. This has the unfortunate affect of keeping high-tech domains primarily white, primarily male, and primarily profit driven.

Therefore, commercial, masculine computer artifacts have taken pride of place in contemporary culture, whereas noncommercial technology tools, including artistic games, are relatively rare. Artist Martha Rosler argues, “Art with a political face typically gains visibility during periods of social upheaval.” The information revolution continues to be a disruption of older, more traditional modes of production and labor. With this change have come both an inscription of new technologies across more traditional roles, and also a significant movement towards the monitoring and control of the individual. This technological adoption and adaptation creates a continued disparity in working conditions, privacy, privileges, and wages, even in Western high-tech arenas. The computer is a portal to digital culture; however, it is more than a tool. Technological literacy and competence are essential to disadvantaged groups, which are once again in an unequal position in terms of experience and ranking in key
Artists continue to use temporary play to narrate the interaction of computer-vision of art-making and technology. However, as a formative, the computer games of the future, for instance, are related fields, and the games—reflecting language and technology—have, surprisingly, Hispanic Americans and positions of computer scientists. The inequities that become central to most art movements as a social justice, technology companies and players. Therefore, as unologies are made by innovation and games rate affect of keeping on profit driven.

Artists take pride of places, including artistic and political faces typical of information revolution production and labor. Information and communication creates a continued even in Western high culture; it is more than a disadvantaged group to space and ranking in high fields. Artists and activists tend to be the ones who uncover such realities experientially, sometimes by playfully making work that comments on technology itself.

At the same time, within the culture of computer games, race, ethnicity, language, and identity relations including gender emerge as complex and contradictory. According to a recent Pew Research study, game playing is universal among young people. Women also do play games, yet this play emerges differently than the play of their male counterparts. Women are perceived to be the primary audience for casual games, for example. In Western countries, computer games are still perceived as an arena created by and for white men, with women comprising approximately 10 percent of the game development workforce in the United States. Current trends indicate that those who label themselves as gamers are moving out of the PC game market and onto consoles, while female players and those new to gaming, such as older age groups, may be migrating to the PC for casual games, to cell phones, Wii-style systems, and handheld devices for play across mobile technologies. An entirely new group of adult female gamers emerged to play online social games such as The Sims Online, EverQuest, Uru, and World of Warcraft. Games that depict everyday activities such as communication, social negotiation, caring for elements or characters that are part of a game world, or stabilizing precarious situations have become extremely popular with female players. In 2003, for example, it was a novelty to have more than one hundred thousand simultaneous players in an online game, but this happened in the game EverQuest; subsequently, the massive multiplayer World of Warcraft claimed a total of ten million users signed on in 2008 and broke EverQuest’s simultaneous player records. Despite contradictions in data, there is evidence that women constitute either the largest, or second-largest, group of online gamers. The largest group has been cited as women aged thirty-five to forty-nine. Games journalist Kris Oser notes that women players, however, are still almost an invisible constituency to advertisers and game designers. While the statistics show us that women are increasingly playing games, few are envisioning and constructing these software environments. On top of these industry figures, few contemporary artists engaged with games are women.

Despite the probable social benefits that could result, game designers have yet to grapple with the full range of inequities ingrained in the player categories and game models exhibited in most of today’s games. Possible overcategorization or reductionism from such classifications—for example, which designers are included under the rubric of “activist games”—is worth risking should such research provide for useful discussions, the design of alternate subject positions, new possibilities of agency, a revitalization of authorship, the promotion of equity, or other redefinitions of the cultural constructs currently embedded in digital environments.
In a further complication, the lack of diversity in the creative documentation by those at work in these movements makes it challenging to trace any historical practices that lie on the fringes of the accepted art world. Other than Alison Knowles’s *House of Dust* (1967), for example, there may be no earlier accounts of the development of full-blown computer games by women until *Mystery House*, an interactive narrative game by Roberta and Ken Williams and the first computer game to incorporate graphics of any kind (1980). In addition, there is poor representation of artists of color in these art movements, and a lack of designers, scientists, and others of color in contemporary gaming culture. Female artists and scientists, as well as artists and scientists of color, have certainly been involved in the major art and technology movements in the twentieth century—or have worked in parallel to them. More documentation and inspection is needed to broaden the way in which their recorded histories are shaped. The dearth of women and people of color represented in art history needs to become part of the investigation in critical practice.

Given the limitations outlined, the artists’ work explored here, historic and contemporary, responds to the commercial ubiquity of play. At the moment, computer and locative games are especially prominent aspects of playculture. From war simulations to Bulletin Board System style chess to 3D computer games, digital technology has been inherently bound with interactivity and diversion, and artists who engage in computer-based creation and critique represent the majority of contemporary examples of critical play. Questions surrounding participatory play and multiuser participation within the creation and reception of artistic, game-related works should, therefore, at least be introduced. Players of popular games may reskin, redesign, and indeed, reissue scenarios in online game environments such as *Second Life*. Music fans may download, upload, mix, and remix popular and independent music. The web can continue to provide a unique space where mainstream meets cult interests, creating subspecializations and massively multiplayer environs numbering in the millions of players. But, are artist-produced computer games, as systems, reinventing how these practices and their artifacts, how the culture, are constituted? What are the social ramifications of artist-produced computer games? How are these ramifications playing out? Above all, by what means do such works achieve in terms of critical discussion, dialogue, or interaction?

First, artists’ games by definition take an “outsider” stance in relation to a popular, commercial games culture. This position itself suggests alternate readings of contemporary issues in electronic media and offers the possibility of commentary on social experiences such as discrimination, violence, and aging that traditional gaming culture either avoids or unabashedly marks with stereotypes. With her low-tech
ve documentation by ny historical practices on Knowles’s House of development of full-active narrative game corporate graphics of tists of color in these or in contemporary und scientists of color, wements in the twen- nentation and inspec- ories are shaped. The needs to become part ere, historic and con- moment, computer re. From war simulat- onal technology id artists who engage r of contemporary ex- and multiplayer related works should, reskin, redesign, and Second Life. Music fans ut music. The web cancult interests, creating in the millions of reinventing how these ? What are the social ese ramifications play-ns of critical discuss- in relation to a popular, nate readings of cont- of commentary on that traditional games. With her low-tech game projects, California artist Natalie Bookchin uses humor, low-tech graphics, and juxtaposition to place the player in various difficult, challenging, or paradoxical situations. Bookchin’s use of both political and personal stories emphasizes ideas about the exterior and interior worlds of a game.

Best known of Bookchin’s gaming works is her influential narrative project The Intruder (1998–1999). Working from a short story by Jorge Luis Borges, “La intrusa,” the game takes the participant through ten arcade-style games as a means of interactively conveying the narrative. Readers or “players” interact with the simple arcade puzzles to advance the plot. Text and spoken-word narration, of a sort, emerge as players engage in what presents itself as a classic arcade system.

“La intrusa” was first printed in the third edition of El Aleph (1966) and was later included in the volume El informe de Brodie (1970). As in the original Borges story, the game too is set in the 1890s. Cristián and Eduardo Nilsen, two close brothers known for their fierce behavior, both fall in love with the same woman, and decide to share their intimate relationship with her. The woman, named Juliana, is later perceived to come between the violent brothers, causing emotional conflict. The narrative is distributed across a series of mini-games. Encountering and defeating, or outhinking, the small games that lie along the narrative path enables the player to move the story forward (figure 7.1). With each game move, the player earns a sentence or phrase. Players learn about the brothers’ relationship, their history, and their fights over Julliana. As the narrative progresses, things become more complicated. When the brothers
decide that Juliana is getting in the way of their close relationship, they have her pack up her meager belongings in a bucket and sell her to a whorehouse.

This part of *The Intruder* may help game designers explore levels of abstraction and narrative that become a part of any critical game. Rather than set the game in the whorehouse, or depict the two brothers with Juliana’s belongings, the image onscreen is abstracted in space and situation to feature simple elements of the narrative like the text, the belongings of the character, the props from the story, and the upfront images of a nude woman.

As *The Intruder* begins, players are presented with the image of a woman’s bare underside situated over a bucket (figure 7.2). In this game, it is the woman’s body that literally produces the story, as though the story was a kind of birth. The female body also produces trinkets the player must catch while maneuvering the bucket. This loaded image represents several narrative layers: Juliana’s meager possessions, her own status as a possession of men, and the value of the woman’s body as replacable in the narrative, to be exchanged for her sales price to the whorehouse.
Rather than a celebration of the brothers’ fraternity, or an inscription of a “cult of masculinity,” a growing feeling of helplessness engulfs players of *The Intruder*. The narrative is dark, brutal, and compelling, but Juliana, so important to the story, is rife with mystery. She cannot speak. Who is she? What does she look like? Bookchin removes the character’s last name to further impersonalize her in the telling.

In another mini-game in the same story collection, Juliana emerges as a silent, pixilated figure. Players immediately know this figure to be Juliana, yet she is never given dialogue or a voice. As the story unfolds around her, the Juliana character becomes a mere blocky shadow produced by the men’s desire. The game’s aesthetic further supports this narrative evolution. While the background graphic is somewhat detailed, in a high-contrast photograph of a rustic street, the closer human figure is obliterated in chunky pixels. Game players maneuver Juliana down the street, causing her to run or jump, and eventually advancing the narrative when the character falls into the traps set for her. These are inevitable. Juliana’s possible actions and the meaningful choices that players make along with this character are irrelevant. Participants must oblige this framework to continue the narrative.

The story and the interaction in *The Intruder* may appear at odds with each other until the players understand the futility of Juliana’s agency. The set of games are designed to establish a gap between successfully advancing the story and compromising the safety and well-being of the character. The disjunction between interaction and narrative is deliberate, a gap that could be a site for critique or irony. To activist designers, irony is one of many strategies of critical play.

In *The Intruder*, Bookchin’s low-tech graphic style and her narrator’s solemn reading ironically subvert the arcade-game art concept. While the story itself is written by a Latino, the pieces excerpted into the games are narrated, when there is voice at all, by a Latina. Since the narrative involves the control of a Latina character, having a Latina both participate in the narrative and refute, or at least cause us to reflect upon the issue of voice by reading the text aloud, is an important aspect of the artwork. Here, Bookchin not only unplay[s] game conventions—for example, the narrative advances when Juliana falls into the hole, which, in other games, would represent failure or restarting—she also rewrites questions of authority, identity, and representation in games through the confusion of narrative voice. This rewriting is particularly evident in the position of a game player versus that of a reader. Game players participate in the construction and evolution of narrative in different ways than in traditional textual forms. *The Intruder* narrative grows to become particularly effective and poignant because players, the once-“innocent” (perhaps) readers of text, now
find themselves actually participating in the abuse of Juliana in the interactive format of the game.

What is most striking about *The Intruder* as an interactive work is not the as-
semble of cute, fun games and their blatant, funny sound effects, but rather how those
cute, fun games implicate the participant within what is actually a very dark narrative.
The full implications of game interaction style in relation to the narrative become
stronger when one takes an actual player into account. *The Intruder* positions users in a
precarious and uncomfortable place, rather than the typical "command post" position
of power most computer gaming examples provide for players. Software theorist Chris
Chesher (2003) explores this unquestioned positioning of power in his work on game
interfaces: "The cursor is not telling me something, but indicating that it is listening
for my command."20 Players are almost always constructed as powerful agents, super-
heroes, or even gods. Additional implications of this positioning for the male player
or, at least, a male gaze come to the fore given the current focus of much of the games
industry. "Control," Chesher notes, "undermines the liberal notions of privacy based
on the inviolability of the subject. It changes what a subject is."21

The complication of Borges's text and the critique of women's position emerge
from the "overpowering" control a player must enact to win in this system. The final
game in the set transforms the implications of all of the previous games into an indict-
ment. The player takes part in a "fugitive"-style scenario in which he or she guides
crosshairs over a pixilated, natural landscape graphic (figure 7.3). The point of view
from the crosshairs and the sound of a helicopter let us know we are indeed the hunt-
ers and that there is also someone or something to be hunted, in other words, a victim.
To complete *The Intruder*’s disturbing narrative, we must aim and "shoot at" a fugi-
tive figure below who, metaphorically at least, must be Juliana. In return, players earn
their "reward," the story's end. Bookchin's *Intruder* design invokes violence against the
lone female character.22 Perhaps this paradoxical involvement is a stronger indictment
of violence in computer games, or perhaps it should be read as a metaphorical critique
of the larger technologically influenced culture to which women do not yet substan-
tially contribute.

Bookchin's next game, *Metapet* (2002), is an online simulation game that exam-
ines the line between work and play (figure 7.4). In the *Metapet* simulation, players
create virtual workers of the future in biotech corporations, specifically one fictional
company called STAR DNA. The player's task is to try to help employee charac-
ters, who are seated at their desks in a work environment no doubt familiar to many
of the game's players. Employees who can be trained to work more efficiently are
in the interactive format
tive work is not the as-
cts, but rather how those
ily a very dark narrative.
to the narrative become
uder positions users in a
command post” position
Software theorist Chris-
er in his work on game
cating that it is listening
t powerful agents, super-
ing for the male player
us of much of the games
notions of privacy based
roman’s position emerge
in this system. The final
xes games into an indict-
which he or she guides
7.3). The point of view
we are indeed the hunt-
in other words, a victim.
and “shoot at” a fugi-
a. In return, players earn
okes violence against the
es is a stronger indictment
as a metaphorical critique
men do not yet substan-
ulation game that exam-
tapet simulation, players
pecifically one fictional
help employee charac-
 doubt familiar to many
ork more efficiently are

| Figure 7.3 |

| Figure 7.4 |
Natalie Bookchin, Metapet, 2002.
allowed to climb the corporate ladder. As a tongue-in-cheek critique, this game allows users to examine worker roles within corporate hierarchies. The game also touches on the constant presence of the network, and the addiction to maintenance brought forth by email, online dating, blogging, social networks, instant messages, voicemail, news feeds, and games like *The Sims*. Activities in *Metapet* include the workers' constant checking, tweaking, and maintenance tasks as they care for workplace systems. These matters reflect the themes of networked culture inherited from both domestic practices and from the daily grind among the lower echelons of the information technology workplace. In *Metapet*, players are constantly reminded of the ubiquitous presence of the network and of the constant upkeep they themselves do at terminals throughout the day.

Manuel Castells, in his book *The Rise of the Network Society* (1996), notes that the change in the ways technological processes have become organized originates at the shift from surplus value and economic growth to data and knowledge economies. Bookchin's work makes apparent this economic flow, and goes on to ask, "But at what cost?" The workers at STAR DNA are themselves products of genetic manipulation, optimized for multitasking performance. The network as a conceptual structure plays a vital role in the formation of Bookchin's work and in many other kinds of Internet art, engaging with systems of information and communication and allowing us to examine links and structures that shape our experience of computer-mediated culture.

In other examples of critical play, computer-based gaming projects may delve into the meaning of identity in culture or more concrete subthemes, such as "woman in games" or "human versus machine." The issues brought forth by the duality between body and mind are in some ways celebrated by games, where the agency of the physical body only now is beginning to approximate the agency of the virtual. Human computer-interface designer Joy Mountford observed that as "the computer stares back at you, it sees you as one eye and one finger." In other words, computer interfaces are still designed as if players and users themselves are only partly bodied, or even disembodied. The relationship of the body to the mind, and now to the network, must be better articulated beyond various forms of utopian rhetoric, particularly in the era of the "social networks" frenzy, where ranges of intimacy and knowledge are set computationally, and often by systems designers, rather than by participants. Here, it is worthwhile to remind ourselves that, as architect Karen Franck notes, we "construct what we know, and these constructions are deeply influenced by our early experiences and by the nature of our underlying relationship to the world." This is true for purely digital experiences as well as for hybrid or physical manifestations of play.
Games that Play Themselves

The computer game is the paradigm for the critical play of other artists as well. Eddo Stern's work flourishes at the intersection of game-related art and technology works. Dealing with system-on-system interactions and game-related interactions, Stern's remarkable range of projects has helped define the field of new media art, and larger art and technology practices. His Dark Game (2006) is a videogame prototype in which two rivals are deprived of their sight. Like his Tekken Torture Tournament (2001), where the injuries of the virtual characters are translated to the physical players, Dark Game demonstrates the link between virtual actions and the players' own bodies. Cockfight Arena (2001), perhaps the most whimsical of Stern's works, consisted of a performance in which players work to control their avatar on the screen while wearing feathered chicken suits embedded with sensors. When Stern's work borders, or crosses into, the absurd, the resulting players' actions are most pleasing. The work unabashedly explores masculinity and power issues within commercial games, taking the manifestation of machismo posturing and "the fight" among players to their extremes.

In Best . . . Flame War . . . Ever (2007), Stern documented and interpreted heated online arguments as animated collaged characters speaking the dialog. In RUNNERS: Wolfenstein (2002), Stern inverted the destruction of World War II by allowing Israeli players to invade Nazi Germany. In addition to large-scale political issues, Stern investigates the mundane everyday experiences of his players. Fort Paladin: America's Army (2003) is a Fisher Price–styled castle that houses the game America's Army (figure 7.5). Robotic "fingers" play the game maniacally and repeatedly, like a human player might have to do to stay on top of the game. The game's play features a repetitive scene: the same character launches the same grenade attack on the same nonplayer characters, or NPCs, and then spawns the same new NPC soldiers to kill again, in an endless loop.14 By letting the game play itself, Stern's theories on play and his practice highlight the futility of agency in closed systems. Stern also exposes the iconography of games as fetish items and as forms of cultural shorthand. Demonstrating technical, conceptual, and aesthetic aspects of the work at all times, Stern questions what it means to play critically, opting at times for a system to play itself, as it understands its own rules best.

A Race of Races

In a comment on scientific perspectives and categorization, games and play are also used in the work of Paul Vanouse. One Vanouse work in particular, The Relative Velocity
Inscription Device (RVID) (2002) is particularly important (figure 7.6). In this installation, which consists of a computer-controlled separation gel and DNA and displays, Vanouse runs a live scientific experiment wherein four separate DNA samples from each member of his multiracial Jamaican American family are literally raced in a portable lab. The family members’ DNA samples travel slowly, and in addition to the race action, viewers can read a eugenics treatise that explores the historic positioning of racial identification practices. Vanouse posits, “In 1960, my ‘brown’ mother emigrated to the US from Jamaica, and met my ‘white’ father. Why is my skin color lighter than my sister’s?” With this simple demonstration, Vanouse’s project critically examines the genetics behind even small variations in skin color and the ways in which those variations are transmitted. Vanouse’s intention is not to literalize the genetic variations among mother, father, sister and brother, but to question the validity of such choice in what he calls “scientific spectacles.” The project also brings forward our unease as spectators with regard to our own genetic and racial identity.
In this installation DNA and displays, DNA samples from historically raced in a por-
tion to the race historic positioning of one mother emigrated
skin color lighter than the see critics examining the ways in which those
analyze the genetic vari-
anon the validity of such so brings forward our identity.

Figure 7.6
Projection from Paul Vanouse's The Relative Velocity Inscription Device (RVID), 2002, which displays a closeup of the live video
image of the electrophoresis gel holding the individual DNA samples, with graphical overlays.

Citing the ambitious Human Genome project in his work, as well as past research
artifacts like the 1929 tract "Race Crossing in Jamaica," a three-year study exploring
the "problem of race crossing" during a time of racial separatist doctrines, Vanouse
is keen to problematize the scientific process on a fundamental level. Vanouse's work
then embodies critiques of science first launched by the Austrian philosopher Ludwig
Wittgenstein in his depiction of language as a game capable of representing a system
of knowledge, which was later more specifically developed by the American Thomas
Kuhn, whose ideas about the nature of the social knowledge produced by science,
including the theory that science is inherently political, are well documented. Kuhn's
belief is that science is a game, or is at least modeled on a game metaphor, and that
this game, like other social practices, constitutes primarily a language game of power,
legibility, and control in the Wittgensteinian sense. If the very working of society is a
network of language games, science, with its hyperspecialized language, its particular
knowledge, and specific community of authority, must therefore be a subset of such
game, where truth is relative, and where what constitutes fact is instead relative to
one's subjectivity. Kuhn's creation of the concept of the "paradigm shift," a dynamic that models how scientists move from doubt, or even disdain, to consideration and finally acceptance and enthusiasm for new theories reveals the rules by which science operates and delineates how as a system of knowledge, science relies on social and psychological factors.

In terms of critical play, Vanouse reskins the simple interactive display of the race much like a game show from the 1970s invites players to guess the prices of goods or to wager on the success of randomly playable elements (figure 7.7). Even a scientific visualization would both simplify and posit as incorrect assumptions about content. He also unplays the "game" of science, questioning its validity.

Social and psychological factors are key to the work of Wafaa Bilal, an Iraqi-born American artist and U.S. citizen. Bilal's work explores the position of the Iraqi civilian through technologically mediated games. In May 2007, Bilal confined himself in the Flatfile Galleries in Chicago for thirty days under twenty-four-hour webcam surveillance to raise awareness about the everyday life of Iraqi citizens and the home confinement they face on a daily basis due to violence and surveillance in their cities.
ig" - a dynamic, to consideration and the rules by which science relies on social and psycho-
ductive display of the race the prices of goods or (e 7.7). Even a scientific assumptions about content.
y.
afa Bilal, an Iraqi-born nation of the Iraqi civil-
Bilal confined himself in a four-hour webcam survei-
citizens and the home surveillance in their cities
and towns. Titled *Domestic Tension*, this work allowed members of the public to visit Bilal's project website, watch him via webcam, and shoot him with a remote-controlled paintball gun (figure 7.8).

The work is one of the strongest anti-Iraq war statements made during the conflict, and was followed in over one hundred and thirty countries around the globe. During the month-long exhibition, the site received eighty million hits, and sixty thousand paintballs were shot. The work also featured various forms of player subversion, such as the ability to "unplay" the scenario overall. Several viewers acted by forming "protective groups like the VIRTUAL human shield [sic] SHIELD, who take turns aiming the gun away from Bilal around the clock." Anonymous comments on popular aggregate sites such as Digg.com noted during the event that the exhibition was "one step closer to stabbing people in the face over the internet." Another commenter said: "I think the most disturbing part of this exhibit is one of the comments in the chat room. 'Do we get to shoot more if we donate?'"

Bilal's incorporation of a mediated-game interface provoked viewers to interaction, encouraging participants to "Shoot an Iraqi." Bilal, who left Iraq due to imprisonment
and torture during the last Iraq regime because he himself had made anti-Hussein artworks, would conceivably be the last person to face U.S. censorship due to questions of political loyalty. But this was not the case. In 2007, Bilal decided to recreate the 2003 game *Quest for Saddam* as a way to voice a critique of U.S. policies in the Middle East. The original game, using the *Duke Nukem* 3D game engine, asked players to fight generic “Iraqi” soldiers, and to find and kill Saddam Hussein, Iraq’s leader from 1979 to 2003. The game was created by United American Committee Chairman Jesse Petrilla. This first *Quest for Saddam* was reskinned as a “hunt” for George H. W. Bush by the Global Islamic Media Front, a group said to be related to Al Qaeda. Their game, *The Night of Bush Capturing* was hacked by Bilal so that the artist could put his own, more nuanced spin on this epic conflict, in terms of both the actual war and the video game battle.

In *The Night of Bush Capturing: A Virtual Jihadi*, Bilal places himself as a character in the hacked Al Qaeda version of the Petrilla game. The Bilal game narrative is part autobiographical and part fiction: after learning of the real-life death of his brother in the Iraq war, Bilal is recruited by Al Qaeda to join the hunt for Bush. Bilal intends for the work to communicate both the racism and hatred embedded in U.S. games such as *Quest for Saddam or America’s Army*. He also aims to demonstrate the difficulty Iraqi citizens face and their vulnerability during recruitment for violent groups such as Al Qaeda, maintaining that ordinary Iraqis have little to show for their “freedom” but incredible loss and violence. “This artwork is meant to bring attention to the vulnerability of Iraqi civilians, to the travesties of the current war, and to expose racist generalizations and profiling. Similar games such as ‘Quest for Saddam’ or ‘America’s Army’ promote stereotypical, singular perspectives. My artwork inverts these assumptions, and ultimately demonstrates the vulnerability to recruitment by violent groups like Al Qaeda because of the U.S. occupation of Iraq.”

Bilal undertook the game modification while a resident visiting artist at Rensselaer Polytechnic Institute in Troy, New York. But close to the time of the scheduled exhibition opening, the school shut down the show. It moved to an alternate art space, and this too was shut down, by representatives of the city government for “code violations.” Although Bilal’s presence was welcome on campus, and his exhibition themes well known, suddenly the artist’s work was perceived as too controversial to support. Bilal believes that during “these difficult times, when we are at war with another nation, it is our duty as artists and citizens to improvise strategies of engagement for dialogue.”
In 2003, the NewsGaming.com team led by Gonzalo Frasca launched *September 12th: A Toy World* as a reaction to, and criticism of, U.S. policies in the fight on global terrorism (figure 7.9). Named to invoke the World Trade Center bombings of 2001, *September 12th* is a simulation that uses video game technology to model the obvious paradox in the American–Middle East conflict: the problematic inevitability of collateral damage suffered in the standard “combat models” of fighting terrorism. *September 12th* is an interactive toy world that provides “a simple model” players can use “to explore some aspects of the war on terror.” In some ways, the experience is a reskinned version of a classic *SimCity* game, with a highly reduced set of player options.

In *September 12th*, players are presented an isometric view of a bustling town and market, where terrorists and civilians intermingle, and a simple choice: fire or don’t fire. The view offers a “big picture” of a presumably Middle Eastern city. The player’s only available action is to manipulate crosshairs over the view, clicking to fire missiles from far away onto the village. If a player chooses to fire her missiles at the terrorists in the...
market, she will quickly find that it is nearly impossible to hit them. The missile will, however, destroy buildings and kill innocent civilians. Shooting again and again is permitted in intervals and only generates more rubble, more mayhem in the village, and more suffering. Civilians left alive after each missile attack weep and mourn the loss of the dead. Soon after, the embittered survivors become terrorists themselves through a shift in animation. If the player keeps firing, in just a few minutes the marketplace will be destroyed and only terrorists will be left to run through the ruins. Described as a simulation on its start page, *September 12th* has no win-or-lose state. Since there is no goal, there can be no obstacles to that goal and so the game has no inherent conflict, except that which might arise in players themselves. Even a simple illusion of a win state cannot be maintained in a game that openly declares it has no end and can't be won. The lack of an opponent makes conflict or balance irrelevant. The game does not involve any form of progression. There is no learning curve. However, *September 12th* possesses many qualities of both a game and an artwork: it has a clearly defined set of cause-and-effect actions the player can choose to pursue, and the world thoughtfully models a problematic situation that might also classify it as a game for social change. It is also successful at providing a safe way to experience reality, or in this case, a possible playing out of choices which might create a reality. Since the results of the simulation are less harsh than the real situation the game is modeling, with no actual lives lost and no actual terrorists created, the overall effect is what game scholar Chris Crawford labels emotional content: "A game creates a subjective and deliberately simplified representation of emotional reality," something easily accomplished in a simulation that draws its content from a current situation in the real world.

To game designer Frasca, the task was to demonstrate that destruction of cities and high civilian casualties can only cultivate a climate of resentment, vengeance, and hatred that can spawn new enemies. In short, violence breeds violence. In this way, the *Sim* aspect of the work is rewritten into a futile cycle: players do not work for character happiness and can do nothing to make the lives of the characters better or more productive. Frasca explored different techniques to convey the act of turning regular villagers into terrorists. "What I wanted to show is simply this circle of terror that seems to not have an ending. We tried a traditional morph between the two characters, but we felt it was not clear enough. The technique that we ended up with flashes back and forth between the two characters, and I think it works pretty well." Frasca noted that all the responses to the game were positive, even among Arabs in the United States. Is the *September 12th* simulation a comment on the term "terrorism" itself? Absolutely. However, in *September 12th*, the message is not only that violence produces more violence but also that the work behind developing the software allows those who engage
them. The missile will, again and again is perpetrated in the village, and the marketplace will be in ruins. Described as a state. Since there is no no inherent conflict, the illusion of a winner and a looser cannot be maintained. The game does not have a clearly defined set of rules for social change. In this case, a possible outcome of the simulation is the actual destruction of cities, part of revenge, and elation. In this way, the game does not work for character development or to promote turning regular vigilante of terror that seems to be in the United States. Frasca noted that in the United States, the game Hush was born out of a Values at Play exercise. The concept for the game was created in a critical brainstorming exercise for the Values at Play project, an effort of artists and humanists to reflect further on human values in games. Antonisse and Johnson state: “The idea for Hush was actually born out of a Values at Play exercise.”

We had to create a game from a randomly chosen game mechanic and game theme, and we drew “Singing” and “Human Rights.” The contrast between these two cards posed a challenge and yielded many unconventional ideas, including the core concept for Hush. One of the things that attracted us to the concept is that the player isn’t viewing this horrific event from a distance and attempting to “solve the problem”; they are immersed in the moment, experiencing the terror of a Hutu raid. It’s also important that even though the player is not in a position of power, the player still has the noble goal of saving a child.
Game play in *Hush* is quick, but the experience is immersive, with the matching, timed game mechanic requiring full concentration. The game soundtrack convincingly conveys the conflict between staying calm and a surrounding world of mayhem and violence. To game scholar Ian Bogost, “*Hush* offers a glimpse, as it were, of how vignette might be used successfully in games... as a vignette of a situation in mid-90s civil war-torn Rwanda, the game is compelling,” for the “anxiety of literal death contradicts the core mechanic’s demand for calm, but in a surprising and satisfying way, like chili in chocolate. The increasingly harsh sound of a baby’s cry that comes with failure attenuates the player’s anxiety, further underscoring the tension at work in this grave scenario.”

Most important, *Hush* explores subjectivity. It is the strength of the belief in a position, from which an experiential “truth” emerges, that helps this game move from a broad statement to a personally moving experience. We can look to the ideas behind standpoint epistemology that open up the possibilities to use games as an approach against power and oppression. Here, Braidotti’s notion of radical forms of re-embodiment can work in a game; even though the body is not visibly acting a scene to
an observer, the participant is bodily engaged. While lived experiences culminate in a variety of complex physical, social, and philosophical realities, even simple games such as *Hush* can provide an emotionally complex slice of an experience, and present a layered, "nomadic" perspective by shifting from player, to character, to world citizen and more.

**The Rise of Serious Games**

Artistic interventions in the form of games arise from a number of intentions, including social critique, a need for solidarity and action among participants, and the impulse to stage large-scale games in order to disrupt political scenarios or daily life. Some of those making video games, as we have seen, can be identified as artists. Bookchin, Stern, Vanouse, Bilal, and Schleiner have provided compelling activist models. Bookchin renews games in light of critique by using existing narrative. Stern rewrites how games work and adds to their complexity. Vanouse brings in a critique of larger epistemological concerns through a look at scientific discourse and classically styled games. Bilal changes the stakes of a game, crossing lines not only in representation but also in national and international comfort levels, ethnic stereotypes, and the power of institutions and the state. Even earlier examples such as Schleiner offer historical precedents for projects that move primarily into the realm of activism. In all cases, digital worlds are enormous sites for the import of content from the real world. These can include social interactions and social constructions like racism and sexism, which can prevail inside particular types of game frameworks.

The examples discussed in the rest of this chapter are described by the terms serious games, games for change, or social impact games. The debate regarding the general use of these terms must be noted. Different groups favor different categorical labels. Games scholar Woods argues that serious games are the goal of those within the game industry for the future of games, noting that many developers wish to create “serious” content or experiences that are typically represented within traditional narrative forms such as books or film. Though these lines are not fixed and easily definable, most in the community understand serious games to be those primarily within the domain of education or military applications. Such games might focus on training for service, disaster relief, hazardous occupations, crime, the redesign of public spaces such as transit systems and parks, or the creation of frameworks for team building.

On the other hand, games for change or social impact games are understood as those that address social concerns more broadly. These might include poverty, racism, bias and discrimination, war and peace, or human rights through education and outreach. There is a fast-growing collection of computer-based games designed to
educate on matters relating to environmental concerns, human rights abuse, worker's issues, land use, and other social ills. These games are often created to address real-world issues or to raise awareness and foster critical thinking. Both categories of games integrate real-world data and stories, focus on education and public opinion, and aim to provide an alternative to existing media on such issues.\textsuperscript{46}

Many social impact games use video game technology in innovative and novel ways in order to convey their messages, but in the end bear little resemblance to existing mainstream video games. This relationship is an interesting one to explore. In his 1984 book, \textit{The Art of Computer Game Design}, Chris Crawford, perhaps prematurely, provided a definition of what games are and how they should be designed. He identifies four elements common to all games: representation, interaction, conflict, and safety. Of the four, the ideas of conflict and safety are the most useful in distinguishing a game from a simulation or other interactive media forms. To Crawford and other game designers, even a social impact game would require conflict:

Conflict arises naturally from the interaction in a game. The player is actively pursuing some goal. Obstacles prevent him from easily achieving this goal. If the obstacles are passive or static, the challenge is a puzzle or athletic challenge. If they are active or dynamic, if they purposefully respond to the player, the challenge is a game. However, active, responsive, purposeful obstacles require an intelligent agent. If that intelligent agent actively blocks the player's attempt to reach his goals, conflict between the player and the agent is inevitable. Thus, conflict is fundamental to all games.\textsuperscript{47}

The absolute insistence on conflict can emerge to be more interesting and subtle. The conflict in \textit{Madrid}, for example, lies in the player's abilities given an impossible task. In \textit{September 12}, conflict is in the player choice itself. Primarily in reference to social activist games, game scholar Shuen-shing Lee refers to these as "you-never-win" games. Lee's theory would be extraordinarily familiar to a Fluxus game maker, for art games have a long history of circumventing win and loss states for other themes. Yet in games that attempt to appeal to the vast majority of conventional game players, or those interested in activism without a radical edge, Lee builds on notions from scholars like Janet Murray and offers literature for a model, connecting games for change to the dramatic form of tragedy, where the player is not meant to win because that is what maintains the tragic form.\textsuperscript{48} This idea builds on Frasca's approach. In his now classic "Video Games of the Oppressed," Frasca points to the playwright Bertolt Brecht's critical play with Aristotelian drama, insisting that actors and audiences remain aware that what they see and engage in is a simulation and that they are
ights abuse, work-created to address both categories of public opinion, is innovative and novel. Previously, conflict, active, and dynamic, if not in distinguishing Crawford and other active or dynamic, if active, respon-

tential agent actively layer and the agent is interesting and subtle. Given an impossible rarity in reference to these as “you-never-uxus game maker, for tes for other themes. ventional game plays-

nals on notions from connecting games for meant to win because Frasca’s approach. In nats to the playwright that actors and audi-

tion and that they are present to provide a critical view. Frasca also mentions Augusto Boal’s “Theatre of the Oppressed,” which strove to tear or break down the fourth wall between subject and viewer.

These theories are important to understanding the strategies behind social impact games. The simulative nature of a game creates an environment where a game becomes a venue for those otherwise uninterested in experimental art per se to think through and challenge the heady ideas of society and culture.

In 2006, MIT and other organizations launched a nationwide student competition with the goal of linking technology to the genocide in Darfur, Sudan. The winning entry, Darfur Is Dying, was conceived and developed by a group of students from the University of Southern California and was launched to critical acclaim. Darfur Is Dying is an online game designed to raise awareness of the three million people in refugee camps. The game is intended to function as a call for aid, intervention, and progressive legislation. The game is also designed to empower students and others to become involved in actions that could stop an international crisis.66 Players in the game, described by the makers as “a window” onto the experience of the refugees, must keep their refugee camp functioning in light of the danger of invasion by Sudanese government-backed militia, the Janjaweed.

A simulation-style game, Darfur Is Dying places the player in the perspective of a displaced Darfuri refugee. Initially, players each choose a character from a wide range of age and gender, and then begin to forage. The first goal is to leave camp and fetch water. But it is a long run to get water in the barren desert—five kilometers—and the magnitude of the mission soon becomes clear to the player. Armed militia groups patrol the land, and players must guide their game characters to hide when appropriate behind scrub or boulders. If the character is caught, a text screen ends the play and makes a point on the crisis: “You will likely become one of the hundreds of thousands of people already lost to the humanitarian crisis” or “Girls in Darfur face abuse, rape, and kidnapping by the Janjaweed. If she succeeds in fetching water, the girl can bring more water back than a smaller boy, but less than an adult.”68 If the players’ characters survive this game level, they move on to help the camp manage small plots of land and gardens by collecting water, building shelters, and harvesting food.

Darfur Is Dying plays much like a traditional action game. The refugee characters negotiate danger, forage for water, and rebuild their village in order to accomplish a clearly defined goal: survival for one week. The game’s players become steadily more skillful at guiding their characters to avoid and prevent danger as time progresses, so the game has a smooth learning curve. The challenges that are presented entail
relatively simple navigation and limited artificial intelligence. Game enemies exist in endless numbers and will deliberately move toward their intended targets via the shortest possible route. Conflict emerges as the player’s Darfurian refugee struggles to avoid capture or murder by the Janjaweed militia. The game maintains the illusion of winnability by defining a reasonable win state and providing a means to this end.

The complication comes in when the camp is successfully established, for a healthy camp attracts raiders. Given this event, the player must pay for her own success, rebuilding the village after attacks, and continuing to collect water, harvest gardens for food, and stave off disease by visiting the clinic when it receives new supplies. Exploring the village reveals information about the general state of the Darfurian people and the tragic events that lead a refugee to the camp in the first place. While *Darfur Is Dying* allows players to safely experience the trauma of being a displaced Darfurian refugee, the game is so closely tied to real people and events that it unsettles the player and disturbs her sense of comfort. Hovering over hits in the refugee camp, text reveals chilling personal accounts of real refugees. The *Take Action Now* button on the interface has a real-world effect by offering players the chance to write or email the U.S. president, petition Congress to support the Darfur Peace and Accountability Act, or email the game to others to spread information about the Darfur situation.

Unlike mainstream games, *Darfur Is Dying* sobered feelings of accomplishment, and allows players to feel the distance between a game and the real-world situation. It can be argued that *Darfur Is Dying* is another “you-never-win” game, for surviving for one week does not resolve the conflict in the game or in the world around us. If one survives the game in character, he or she will succeed in the digital version of the Darfur universe, but no further. Games that inform do not end the real conflict. Perhaps, however, we may design games that have more and more global influence or even enact changes in education, fundraising, or work through play.

Other artists and activists have looked to games as a means to building support for a cause. The *Peter Packet* game was created by NetAid, a nonprofit organization whose aim is to eliminate poverty, and by Cisco, a technology company (figure 7.11). NetAid designed *Peter Packet* so that U.S. players could learn about children in less developed countries, and send superhero Peter Packet to move messages on the Internet to those in need. The game explores issues of education, clean drinking water, and AIDS in Haiti, India, and Zimbabwe through the use of computers and specifically, the Internet. Players help Peter Packet dodge viruses and hackers in order to help in-game characters communicate with international contacts such as teacher organizations. By
emes exist; get via the struggles to the illusion of its end.
shed, for a nournourn suc-
harvest garner
es Darfuri
place. While
that it unset-
in the refu-
e Take Action
he chance to
ur Peace and
out the Dar-
accomplishment,
d situation. It
for
us. If one
on of the Dar-
lict. Perhaps,
ence or even
ng support for
ization whose
). NetAid
ess developed
et to those
; and AIDS in
ally, the Inter-
help in-game
izations. By
interacting, these players not only learn about computer networking such as rout-
ing messages but also gain awareness about contemporary situations regarding tech-
nology, education, health, and poverty around the world. The game also offers players
and their friends a chance to learn more about fundraising and taking action to help
in the related causes.31

If games are supposed to be a source of entertainment, should they also attempt
to enhance critical thinking as well as address social and political issues? Peter Packet
has critical content, with relatively straightforward arcade game play, but games such
as Darfur Is Dying and September 12th appropriate or alter established gaming models
in an effort to send a message or affect change.5 These games are infused with socio-
political criticism in their quest for digital activism.53 They challenge the notion that
games must be only entertaining and fun, and offer alternative goals such as medi-
tative play or, in the case of these two examples, out-of-game engagement, with
or without the often trivial pleasures offered by industry standards.5 In his article
"Videogames of the Oppressed," Frasca writes, "The goal of these games is not to find
appropriate solutions, but rather to trigger discussions. . . . It would not matter if the
games could not simulate the situation with realistic accuracy. Instead, games would
work as metonyms that could guide discussions and serve to explore alternative ways of dealing with real life issues.\textsuperscript{15}

Along these lines, Persuasive Games created the “game for change” or a game engaged in raising awareness about social or political issues titled \textit{Oil God}, which puts the player in the position of a god, complete with a moveable “God-hand” as the cursor, in a simplified version of the popular PC game \textit{Black and White}. Players attempt to raise the price of oil to a certain level by starting wars, causing natural disasters, and altering national political and economic systems through political change and civil war (see figure 7.12).

Presuming that many players wish to be god, the game is predicated on the perhaps cynical belief that players will subscribe to the favored game strategies for the subversive pleasure of profit, endorsing military coups for financial game, and even directing aliens to kill and probe large segments of the civilian population. In \textit{Oil God}, information about how various stimuli will affect oil prices is withheld, and it appears impossible for the player to discern which nasty actions benefit prices more than others. Starting wars usually seems to increase oil prices, and it is clear that directing damage at regions and nations with oil seems to keep oil prices at a premium. While Persuasive Games calls this work a “news” game, \textit{Oil God} in fact abstracts the factors

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{oil_god_game_screenshot.png}
\caption{Figure 7.12}
\textit{Persuasive Games, \textit{Oil God}, 2006.}
\end{figure}
alternative ways

that influence oil prices in order to make critical comments on the potentially devious strategies of oil cartels and corporations. *Oil God* aims to educate players about complex economic systems through simulation, fantasy, and humor, and while it succeeds in fulfilling fantasy and providing humor, it is not the equivalent of a “news” game, where at least factual elements or systems would function, and while *September 12th* is an example of Lee’s “you-never-win” concept, *Oil God* is a cynical “you-always-win” game, proving games for change can relate closely to artists’ game work, while strategies among artists and activists can diverge dramatically.

Whatever their message, serious games are among the most challenging games to design. These play spaces must retain all the elements that make a game enjoyable while effectively communicating their message. Either component can be lost in the attempt to manifest the other, resulting in a game that is dull and didactic, or entertaining but hollow. In the worst case, the results are both dull and hollow. Games are frameworks that designers can use to model the complexity of the problems that face the world and make them easier for the players to comprehend. By creating a simulated environment, the player is able to step away and think critically about those problems. Frasca refers to these games as a “trigger of discussion,” and existing social activist games work largely on that level. They are not necessarily meant to be fun, though fun may be a side effect, and are rather meant to make people think. Like other designers of critical play, social activist designers can approach serious issues through games. In some cases, a game may provide the safest outlet available for exploring devastating problems and conflicts.