

Chicken Killers or Bandwidth Patriots?
A Case Study of Ethics in Virtual Reality

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

Abstract

Virtual reality has developed to the point where millions of people across the world are now engaging one another in social interactions ranging from games to learning and pleasure to business in virtual worlds. No unsurprisingly, ethical dilemmas have developed within the context of these interactions. In 2008, a resident of a computerized virtual world called “Second Life” programmed and began selling a “realistic” virtual chicken. It required food and water to survive, was vulnerable to physical damage, and could reproduce. This development led to the mass adoption of chicken farms and large-scale trade in virtual chickens and eggs. When chickens “lay” their eggs, the color scheme is important for determining their age - scarce eggs (rare colors) are worth more on the egg-trading market. Markets determine the value of eggs and, ultimately, the flock that one has accumulated. Not long after the release of the virtual chickens, a number of incidents occurred which demonstrate the negotiated nature of territorial and normative boundaries. Neighbors of chicken farmers complained of slow performance of the simulation and some users began terminating the chickens, kicking or shooting them to “death.” All of these virtual world phenomena, from the interactive role-playing of virtual farmers to the social, political and economic repercussions within and beyond the virtual world, can be examined with a critical focus on the ethical ramifications of virtual world conflicts. This paper views the case of the virtual chicken wars from three different ethical perspectives: as a resource dilemma, as providing an argument from moral and psychological harm, and as a case in which just war theory can be applied.

Keywords: virtual reality, virtual worlds, cyberspace, ethics, resource dilemma, just war

The ethical implications of virtual reality

The ethical implications of virtual reality are only beginning to become recognized and taken seriously. This is perhaps due to the fact that many virtual reality interfaces that have become popular in the past decade involve video gaming and similar entertainments, separating them categorically from the realm of the serious. For instance, World of Warcraft, a popular interactive, three-dimensional computerized virtual reality interface, involves a fantasy role-playing architecture through which twelve million users, more or less, interact (as of October 7, 2010, www.worldofwarcraft.com). While the ethics of the interaction in these types of virtual worlds would be subject to as intense a scrutiny as possible if it were taking place in face-to-face reality, because they are “only a game,” the impacts are typically minimized: they are deemed irrelevant outside of the context of the virtual world and their feedback into the face-to-face world is deemed negligible by many. Nonetheless, there is evidence to suggest that the relevance of virtual worlds to face-to-face interaction may be growing.

The most popular human-computer virtual reality interfaces today are known as MMORPGS (massively multiplayer online role-playing games), or simply MMOs. Examples of such MMOs include Eve Online, Entropia Universe, AlphaWorld, EverQuest, Lineage, Final Fantasy, Tibia, Pardus, Dofus, Runescape, Asheron’s Call, D&D Online, Cybertown, Toontown, WorldsAway, and dozens of others (Meadows 2008:24). Today, the development of virtual worlds has gone beyond the video gaming genre and has become a unique form of social interaction. With the emergence of avatar-built virtual realities the user has gained control over elements of the development of their online three-dimensional experience, following the limitations of the virtual reality laid down by the software they are using (for example, gravity, sun movement, and other universal “forces”). This introduces to virtual worlds the quality of “frontier genesis,” or social spaces where new boundaries are being developed, new norms created, new status arrangements negotiated and new territories contested. With only a loose set of rules provided for by the developers of the software, these virtual frontiers can be seen as sociological laboratories, giving glimpses into the continual process of the (re)development of society and the ethical choices made by participants. As Malaby (2009:132) puts it, “What should command [our] attention... is the way in which it is now possible to build, with the help of game design and other techniques, complex spaces designed to be spaces of possibility but without the conventional boundaries that mark games. This generates a remarkable opportunity for us to explore issues such as creativity, governance, ethics, and many others in environments with (at least for now) a different configuration of control from the one that previously marked much of our bureaucratized experience. Institutions, it seems, may be changing in their ability to govern themselves and others, and the advent of virtual worlds is at the forefront of this transformation.”

This study will investigate a case of boundaries contested in the virtual world of Second Life. Second Life was developed by the San Francisco’s *Linden Research, Inc.* (aka *Linden Labs*) and released to the public in June 2003. Several interdisciplinary books have recently been published about Second Life and Linden Labs (Boellstorff 2010, Malaby 2009, Au 2008, Castronova 2008), analyzing the core issues of virtual reality, such as personal identity, the organization of governance, economic behavior and creative capitalism. Interaction in Second Life is driven by avatars, a three-dimensional representation of a human, animal, hybrid, or any other of a number of representations limited only by the imagination and Linden Scripting

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

Language (the computer code that makes objects look and act as they do). What is clear is that the participants of Second Life have signed up *en masse*. As of October 20, 2010, Linden Lab reports just over twenty million signups, although the actual number of users is difficult to establish due to the large number of alternate avatars, or “alts,” created by the same user (Linden Lab 2010). At any given time “in-world” (in the virtual reality of Second Life), there are typically over 50,000 avatars being animated by users behind the other side of the computer screen (Linden Lab 2010). These avatars are typically used to allow users to bond with one another and become committed to shared cultures and communities that range from the healing to the perverse (not unlike face-to-face reality). Building virtual objects is made possible by anyone in Second Life, though it requires the development of some skill in manipulating such objects in a three-dimensional virtual environment using the typical mouse and keyboard input devices. Further involvement can come in adding coded scripts to objects to allow them to perform certain functions (such as firing a virtual gun). A few users have maximized the utility of their second lives, turning them into a means for making a profit in face-to-face life.

Take, for example, Second Life avatar Anshe Chung. In *I, Avatar: The culture and consequences of Second Life* (2008), Mark Stephen Meadows describes the rush of businesses into virtual worlds and the following disappointment. In May 2006, Chung appeared on the cover of *BusinessWeek* magazine. She was known in the real world as Ailin Graef, a woman who had multiple avatars in multiple game and social worlds. In Second Life, she moved into the virtual real estate market and, as the value of land in Second Life increased, she earned more than US\$100,000 and had assets totaling over L\$1,000,000 (the unit of currency in Second Life, known as the “Linden”). Seeing Second Life as a new market opportunity, many companies (including Microsoft, MTV, NBC, AOL, BBC Radio, Fox, Reuters, Sony, Popular Science, Playboy, Mercedes-Benz, Nissan, Pontiac, Toyota, BMW, AMD, Dell, Coca-Cola, Sears, Adidas, Reebok, and many others) rushed to acquire a presence in Second Life (Meadows 2008: 64-65). Nonetheless, more traditional marketers still saw Second Life as too risky for mainstream business. After the *BusinessWeek* article ran, Allison Fass of *Forbes.com* concluded that Second Life was not a healthy place for business. Her article (titled “Sex, Pranks, and Reality”) finished with a quote from Erik Hauser, creative director of Swivel Media, Wells Fargo’s agency: “Going into Second Life now is the equivalent of running a field marketing program in Iraq” (in Meadows 2008: 65).

But many choose not to create, and participate primarily for the gratification of the social interaction itself. One of the predominant institutions in Second Life today is the dance club. A huge hit upon their development in 2004 (Malaby, 2009:112), the number grew exponentially in a short time. With a huge number of themes (beach club, formal dance, jazz, honky-tonk, space themed, etc.), they continue to attract large numbers of users who socialize and virtually dance the night away. Other pastimes include playing virtual bingo-like games called Tringo and its successor, Zyngo, as well as other variations, often socially. Role-playing is a common endeavor for users of virtual worlds and a number of communities ranging from fantasy to science fiction, steampunk to postapocalyptic themes have emerged in Second Life. Like social groups and communities which emerged via past computer technologies (for example, bulletin board systems, AOL, the WELL, USENET, IRC, etc.), Second Life offers the same opportunity for any interest group willing to invest time and energy into building the social relationships that define that community. In 2008, a newly released product in Second Life, the “virtual chicken,” spurred the organization of a new group affiliation: cyber-pastoralists who call themselves the New

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

World Virtual Farmers. Particularly, chicken farming and its repercussions is the focus of this case study of ethics in Second Life.

Chicken farming in Second Life

In 2008, a virtual creature called the *sionChicken*, very realistic in many respects, was developed by a Second Life resident named Sion Zaius (see Figure 1). In face-to-face reality, Zaius is “a young college student whose first language is not English,” according to Nika Dreamscape of Second Life (2010). “He’s described as “painfully shy” by those who know him.” The virtual chicken he created required food and water to survive, was vulnerable to physical damage, and could reproduce (see Figures 2 and 3). Though created as a project for friends, he soon found that they were popular in the virtual realm of Second Life and began a business selling chickens and associated products in the various marketplaces of Second Life (Dreamscape 2010). This development led to the creation of chicken farms and the mass sale and distribution of these curious virtual entities, a kind of minimally intelligent “bot,” or virtual robot.

Second Life is organized economically as a free-market space within which developers are privy to profit from their creations, and the incentive for distributing these virtual chickens was fiduciary on *all* levels, from producer to consumer. The consumer’s stake involves virtual reproduction. When chickens lay their eggs, the color scheme is important for determining their age - scarce eggs are worth more on the egg-trading market (see Figure 4). These markets determine the value of eggs and, ultimately, the flock that one has accumulated. Trading in this way, people have accumulated thousands of Lindens, the virtual world currency of Second Life, which are then transferable into real-world currency.

Like other aspects of cultural development in Second Life, chicken farming was hardly neutral in its impact on residents of the virtual world. Chicken breeding became an investment activity and one estimate put the number of virtual chickens at over 100,000 (Davison 2009). The virtual chicks, once hatched, would roam around their pens (or, if unpenned, eventually walk away and disappear “off grid”) and bump into each other and the walls of the pens. Each collision needed to be tracked by the computer server running the simulation (or sim), and if enough chickens were present, the combined calculations slowed the performance of the sim significantly. Many chicken farm neighbors in the same sim complained of lag, the generic label for the experience of slow performance which makes it unrealistically frustrating to interact. The code which allows the chickens greater accuracy in their virtuality, compromised neighboring experiences and affected the social and experiential realism which sustains meaning in the virtual world. As a result, the reaction of some was violent. Neighboring residents took to kicking the offending chickens to death, or even shooting them with virtual guns (see Figure 5). Many virtual realities, including Second Life, have “combat systems” which allow users to track the “health” of their avatars – if they are struck by a virtual bullet (or phaser, or crossbow bolt, or stone, etc.), the system keeps track of the “damage” done to the avatar. The virtual chickens work in a similar matter and are susceptible to such “physical” damage, though unlike a user’s avatar, they can only “heal” with the aid of first-aid kits purchased from Sion Zaius. Some particularly devious programmers began a kind of “bio-warfare” campaign against chickens in Second Life, creating an object in the virtual world called the *sionChicken Killer* (see Figures 6

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

and 7) that acted as a food decoy, but when “eaten” would provide no sustenance - the chickens would die of starvation after a few days. This prompted avatar journalist Pixeleen Mistral, author of an “in-world” newspaper article in the *Alphaville Herald* about the sionChicken war, to muse on the economic nature of Second Life in asking “Will this then create a market for chicken killer detectors?” (Mistral 2010a). The opportunity for an arms race in the chicken wars was ripe. The text of the sionChicken Killer product reads as follows:

sionChicken Killer

Hate chickens? Tired of all the sim lag that they cause? You’ve asked your neighbor nicely to please reduce or remove their chicken population, to no avail. Now it’s time to get tough!

The sionChicken Killer is a carefully scripted food decoy that will distract your neighbor’s chickens from their food trays, starving them to death within several days. The sionChicken Killer has a 96 meter range, and has been tested with both v12 and v11 chickens.

Simply rez the object called “sionChicken food” on your parcel, as near as possible to the target chickens, then move the unit until the arrow points to them. That’s it! Deploying multiple units will not kill the chickens any faster but it will give you a better chance of affecting them. NOTE: The unit must be in the same sim (region) as the target chickens.

PLEASE do not use this to grief random sionChicken owners! It is meant to be used on uncooperative neighbors who refuse to consider how these chickens affect everyone around them.

Lastly, I have spent a lot of time perfecting this. I am sympathetic to your plight, but please don’t ask me for a discount... Cost: L\$1000. (Mistral 2010a)

At this point, the conflict came down to software versus software. The point made in the sionChicken Killer description about “griefing” random sionChicken owners is an important one, as it helps to distinguish between two different types of “chicken killers”: those who were attempting to eliminate lag in their regions, and those who were playing a game, intentionally killing chickens for the sheer sport of it. The most famous of these griefers in the chicken wars of Second Life became known as the “Soviet Woodbury” faction. According to Davison (N.D.), “Realizing that a) there are a group of chicken owners who care about their pets, and b) their [sic] are chicken-killing weapons available for purchase, a group of griefers, allegedly younger residents allied with Woodbury College begin killing “innocent” chickens on purpose.” Some of these griefers had their accounts banned and the Woodbury College presence in Second Life was eliminated by Linden Lab on April 20, 2010, citing only that “this decision [is] based on historical and recent events that constitute a breach of the Second Life community standards and terms of service. We ask that you please respect the decision and do not take part in the Second Life platform in the future” (Young 2010).

In an attempt to remediate the lag issue, creator Sion Zaius updated the version 11 and 12 chickens to reduce the lag that came from collisions. Furthermore, he released a new version of a device used to ensure the safety of one’s eggs and keep them from breaking, called the “Proteggtor.” The new version was programmed to delete all of the old, lagging eggs so that old laggy chickens would not hatch from them. Unfortunately, the initial release deleted ALL eggs, including newer, “lagless” versions. After repairing and updating the new Proteggtor, Zaius

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

claimed to have no responsibility for lost or broken eggs related to his unannounced “Proteggtor” update. This infuriated many of the New World Virtual Farmers (as they had come to call themselves), enough to threaten real-world lawsuits against Zaius’s real life driver. A noticeable backlash against Zaius also appeared in blogs and news websites related to chicken farming specifically and Second Life generally (Dreamscape 2010; Mistral 2010a; Davison N.D.). “Keep in mind that Sion Zaius created a lot of bad will in his customer base due to what appeared to be abusive business practices” (Mistral, personal communication, October 25, 2010).

As a result of the chicken debacle, “petable” turtles and bunnies known as “Ozimals” are becoming more popular currently. New products developed by innovative Second Life residents who have recognized the opening niche in this very popular viral market of cyber-pastoralism. They too have been targeted for termination, albeit to a far lesser degree than were the sionChickens.

Three Ethical Dilemmas

This case reveals several ethical dilemmas that are unique not in their substance but in their context: virtual worlds. First, this case could be examined as a resource dilemma, also known as a “tragedy of the commons” (Hardin 1968). This ethical dilemma exists when actors behave only out of rational self-interest, depleting the shared resources available for their collective well-being, resulting in conflict. In this case the capacity for the computer that is creating the simulated environment to calculate collisions was the shared resource. When stressed with too much information, the server slows down, creating a phenomenon called *latency*. “Second Life sends packets to your computer. There are about 10-30 pipes in between you and the grid servers, depending on where you're located. The amount of time it takes to traverse that length is called *latency* or *ping time*. More latency means things are just that little bit less responsive” (Nino 2006). More latency also means greater “packet loss” from the information being sent to your computer from the Second Life server that controls the sim within which one’s avatar is acting. The impact that this lack of responsiveness can have on the experience of avatar embodiment can be disturbing. “Packet loss is generally pretty nasty. It causes all sorts of weird side-effects. 'Rubber-banding' is one, where your avatar is walking or flying a short distance and suddenly snaps back or objects do that during editing. Slow rezzing of textures (or not rezzing at all). Avatars that are invisible except for their attachments. Being *Ruthed* (suddenly changing to the default female shape) or seeing someone else as *Ruthed*. All sorts of odd things like this are caused by packet-loss” (Nino 2006).

The property of latency is related to *bandwidth*, a measure of data transmission rates. The rational self-interest of the chicken farmer is to grow their livestock for fun and to profit from the unique eggs that are created. The rational self-interest of the neighbors of chicken farmers may have involved dancing, role-playing, education, or other forms of socialization. In a resource dilemma it is when the property is overtaxed and the shared resource runs out that conflict emerges. The analogy in virtual reality occurs when the “lag meter” spikes.

Questions inevitably arise. Is “lag” simply a technical error, or are phenomena that impact the virtual environment, such as slow server response time and bandwidth packet loss, ecological variables of virtual reality? If so, do these ecological variables present the basis for a shared “reality” that constitutes a “commons” which can be, tragically, overused? And who is to

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

bear the cost of the developer's programming error? Is the developer responsible for chickens killed out of the frustration of neighbors whose resource was being depleted by the chickens? Or is this responsibility solely on those performing the chicken slaying? These questions point out the fact that ethical dilemmas are at hand, ones that involve common commodities (server time and bandwidth). In fact, the resource dilemma is resolved by sharing the cost, though admittedly much of it is borne by the chicken farmers, due to a lack of regulation and enforcement over personal property in Second Life.

Historically, the eighteenth century provided much of the foundation for governance over personal property and market economies and fostered the development of capitalism. John Locke, Jean-Jacques Rousseau, Adam Smith and many other philosophers, economists and political thinkers established treatises that lead to the generalized social contract that governs over economic and property relationships today. In Second Life, a virtual world not even a decade old, governance is generally maintained by a small group of developers at Linden Lab who have neither time nor interest in every small dispute that goes on in Second Life, nor provides an established contract beyond their Terms of Service. Like a wild frontier, the sheriffs are few and far between and the arm of the law is not so long. Posses and vigilantes frequently decide the outcome of property dilemmas under such conditions. And the vigilantes killing chickens were not the only offenders. Chicken farmers who had little regard for neighbors sometimes placed a large number of chickens in a small area, deeply intensifying the lag problem. These small, populous virtual chicken breeding operations could be compared to the concentrated animal feeding operations (CAFOs) of the food factory systems common today in industrialized countries (Gurian-Sherman 2008). Here, the ethics of animal breeding intersect with virtual chickens, but I will leave that to another time. What of the ultimate source of the chickens themselves? What responsibility does the developer of the virtual chicken, Sion Zaius, hold? Zaius did attempt to remediate the problem, but in some cases (as with the "ProtEggtor" product) the solution was worse than the problem.

Few involved seemed to act within a context of enlightened self-interest, seeking compromise and negotiation, but rather resorted to the most expedient solution: violence in the case of neighbors, retrenchment in the case of farmers, or disclaiming responsibility on the part of the developer. No infrastructure of rules or ability to enforce existing community standards was evident. As an experiment in near-anarchy, this case is illustrative of anomic communities, or social groups within which the rules of law and social norms break down.

It may be useful to compare this example to an example found in a face-to-face confrontation over chickens in a small town near the college where I teach. In this "real life" case, an eccentric resident living within, but near the edge of, the village limits sought to raise chickens on his property and, according to him, was granted that right by a town councilman prior to a recent turnover in administrations. When a new administration sought to limit that right, the resident balked, and the town sanctioned a new law banning the raising of chickens and other farm animals within the village limits. The resident continued to resist (see Figure XX) and ultimately the case went to court. After the local court upheld the law, the resident appealed to the county court which upheld the citizen's right to own chickens. One side of this story can be read at the resident's website, www.EarlvillevilleChickens.com. This case highlights two facets of difference between the face-to-face world and the virtual world. The first difference is the established and often intransigent political and legal process by which the case proceeded and the

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

availability of courts of law to mediate the dispute. The second difference is the avenues of attention the resident had at his disposal to protest what he considered to be an unfair demand by the village, ranging from wearing a sandwich board in the town center to establishing a (rather bizarre) website about his case. These are the positives and the negatives of an established face-to-face community that many residents of Second Life seek to avoid. Nonetheless, Second Life does have its own boundaries, fuzzy and indeterminate though they may be.

One of the chief methods Malaby (2009) identifies for establishing order and governance both within the virtual world of Second Life and that of its maker, Linden Lab, involves the transition from traditionally executed norms and cultural rules for the workplace (negotiated through traditional media) to the use of what has been called “code/space” (Kitchin and Dodge, 2006). Institutionally, this meant the turn from memos, face-to-face meetings, and other traditional vertical, “top-down” bureaucratic methods of communication at Linden Lab to a software product called *Jira*, “designed to help a group of people keep track of the development of a software product and allows for the relatively straightforward coding of further tools that can be layered onto its software to make use of the information it tracks” (Malaby 2009:68). Individually, this meant the use of “games,” or elements of contingency and indeterminacy, to negotiate new media platforms used to convey the tasks and strategies necessary to create the virtual world, which itself is a kind of game. “Games,” says Malaby (2009:85), “are socially constructed by a shared commitment to their legitimacy as contrived spaces where indeterminate outcomes can unfold.” This injects an intentionally irrational element of unpredictability into the business of Linden Lab and its product. Malaby describes Linden Lab during his time there as constantly teetering between success and failure. This irrationality (in the Weberian sense) and unpredictability, however, harnessed the creativity of the masses and pushed Second Life in successful directions that would not have been otherwise known. For instance, the dance clubs and Zyngo parlors, castles, spaceports and, of course, chicken farms, were all outcomes of the nearly complete freedom given to users to create their own world. The *sionChicken* developed by Sion Zaius was one such “game” that represented both a rational and successful business strategy, but one that created an irrationality in the form of a dilemma within the framework of the resources important to the community. The debate about whether the experience simply was in fact, “just a game,” also was central. “[This] debate asks if chicken killing is a legitimate form of gameplay in a player-created game, and whether meta-gamers should be able to hijack the narrative of others. In practical terms, one has to assume that not everyone will share your notions of fair play and either find a way to exclude those people or incorporate their narrative into your own. In other words, either lock the griefers out, or include the idea of “bad guys” in your game's narrative structure” (Mistral, personal communication, October 25, 2010). Without the authoritative structure of law that we have constructed in the “real” world our virtual counterpart can expect this condition of unpredictability and irrationality to unleash more such dilemmas.

A second ethical dilemma present in the *sionChicken* case involves the treatment of objects in simulated environments. Is it ethically permissible to kill a virtual chicken in a premeditated fashion? Does the moral hazard of doing so lie solely on the infringement of property rights, or is there a deeper reason why simulations of living things be regarded with ethical pause? Is there an argument from moral development or from psychological harm? To what extent is the degree of accuracy of a virtual experience related to its believability and thus its impact on our psyche as a real experience?

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

In a now classic article on virtual reality in the 1990s titled “A Rape in Cyberspace,” Julian Dibbell (in Vitanza 2005) anticipated the tension between simulated and actual experience. In that article, Dibbell describes a MUD, or multi-user domain (a kind of text-based only virtual reality that preceded three dimensional graphic user interface virtual reality) named LambdaMOO. In the MUD, one user manipulated the computer code so as to force another user’s character to “perform” (within the context of their shared reality, which is merely the text description that defines the MUD) certain unsavory sexual practices upon the character of the perpetrator. The afflicted user reportedly experienced emotional trauma not unlike that of an actual rape victim. Reid (1995:165, in MacKinnon 1997) writes, “Users treat the worlds depicted by MUD programs as if they were real. The illusion of reality lies not in the machinery itself but in the user's willingness to treat the manifestations of his or her imaginings as if they were real.” The line between the virtual and the real is thinner than common sense might allow us to believe.

In two further anticipatory articles that were published prior to the emergence of most well-subscribed virtual worlds), researchers have noted that in the ethics of representation and action in virtual reality the degree of realism is important. “[Virtual reality] applications differ in the kinds of *reality claims* they make, i.e. the implicit or explicit promises about the realism of (features of) the virtual environment,” says Brey (1999: 12; original emphasis). He continues, “When certain reality claims are made, the application can be expected to live up to certain *standards of accuracy*.” In the case of Second Life, the features of the chickens that created their realism (their “physicality,” need for food, shelter, etc.) was also the feature that created the resource dilemma and allowed neighboring residents to kick or shoot the chickens to death. In this case, the degree of realism has led to the creation of certain ethical choices not anticipated by the users, choices that mirror ones made necessary in the world of non-virtual chickens and non-virtual neighbors, but ones without the institutional infrastructure and support of established law and developed social norms. Brey (1999: 13) notes that it is “the developers [that] should hold the responsibility to take proper precautions to ensure that modeling mistakes do not occur, especially when the stakes are high...[and] the responsibility to inform users if such mistakes do occur and are difficult to correct.” From this perspective, Sion Zaius would clearly be taking much of the blame for the creation of the lag problems and subsequent exterminations. To his credit, creating new, “lagless” chickens (versions 1.1 and 1.2) provided a satisfactory resolution to the dilemma. But with them came a strict End User License Agreement removing any future liability to him due to the behavior of his product, about which many virtual chicken owners were quite unhappy. Virtual chicken owner Nika Dreamscape wrote a story on *The Chicken Blog* (“The Saga of Sion,” April 1, 2010) describing the perspective of the owners.

Suddenly there was a license which they [the chicken owners] felt left them defenseless against any maligned business practices. It was one-sided and bound the buyer completely... As a result, people left. They moved on to the new AI pets popping up in the marketplace that promised bigger and better things... While the group was maintained by his two customer service reps, Sion seemed to vanish, and has since rarely been seen or heard from. His chickens have not seen an update or new content in half a year now. I was one of Sion’s most challenging critics. I wrote, in depth, about some of his most fumbling missteps. I highlighted his lack of communication with his community... I’m not asking if, in specific incidents, Sion was right or wrong. I’m asking if perhaps it was to [sic] much too soon for a single, unassuming young student in college to readily endure success, demands, public scrutiny, public service with complete rationale [sic]. I don’t think I would have been able too [sic].

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

This owner, for one, could sympathize with the plight of Sion Zaius in recognizing his limited ability to cope with the problem. But she also held this person clearly responsible during the conflict, holding his conduct up to public scrutiny and demanding restitution for investment losses.

Interestingly, a Second Life estate owner, Intlibber Brautigan, also initially took offense to the scripting problem of the old chickens, but saw an opportunity to help the cause rather than create conflict. A transcript of Brautigan's work with Zaius was recorded by journalist dana vanMoer of the *Daily SL News*:

Today I had an IM from Intlibber Brautigan, he said he had a story for me and asked if I knew about 'Sion chickens'...

IntLibber Brautigan: they lag the crap out of sims, physics and script lag. They've been spreading like an infection across the estate - I spent last night dealing with lag complaints all over the estate. 10 chickens make 1 ms of script lag but each chicken makes 150 potential collisions!

He was so infuriated he considered an AR [Abuse Report] against the creator citing grieving issues but instead decided to speak to the designer and point out the problems.

Sion Zaius worked with Intlibber to fix the issues and had this to say:

Sion Zaius: yes, there have been problems with sion chicken causing physical lag. I'm working on the update which is called "version 11 lagless"

Originally the chickens were updated from the feed but this was changed about a week ago so I asked Sion what people needed to do as I understand you can't just pick them up and re-rez them.

Sion Zaius: since you cannot pick up chickens or eggs into your inventory without breaking them, you have to use chicken transport boxes or proteggtors to do so, if you use those objects, your chicken/egg will be updated automatically.

Sion Zaius: then, people would have to box up living chickens once, and free them again lag-improvement should then occur instantly - its awesome, this chicken has as collision score of 3.4 ... it had 140 before

IntLibber Brautigan: We will be requiring all of our residents who have chickens to update them if they want to keep them. The lag improvement is just tremendous, its going to improve sim life for everybody.

This shows the possibility of cooperation rather than competition as one of the resolutions to the ethical dilemma of resource competition. The commons need not be trampled by the self-interested masses: enlightened self-interest empowered a cooperative strategy in this case, resolving the problem for many by reducing the need for the resource at the source.

Brey also notes the function of meaning in virtual environments. "VR simulations of objects may approach the perceptual complexity and interactive richness of everyday physical objects, and may for this reason more easily generate belief in their veracity and objectivity than other sorts of representations" (1999:13). According to Ford (2001:118), who expands on Brey's article to include multi-user environments, "people often become emotionally invested in online personae within the context of a community." The real question is, "Can virtual chickens be considered personae?" They exhibit many of the characteristics of chickens. They are valued by

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

their owners, who must actively care for them in order to benefit from them. They can be terminated, like a person. The term *personae* comes from the Greek word meaning *mask*. Is the mask of virtuality enough to argue that the chickens are no more than pixels and/or electrons and deserve no more rights than their constituent parts? Or is their status as “bot” enough to confer even minimal ethical considerations? Do the feelings of the chicken owners or the chicken killers count, despite the virtual nature of the chickens themselves? Does a representation or a simulation have a claim to any moral rights? These are certainly difficult questions to tackle theoretically. The answer in the actual case of the sionChickens was resoundingly negative. In response to the question “What were the reasons given by the chicken killers (or bandwidth patriots, if you like) for their behavior?” Pixeleen Mistral responds “there were two rationales: the griefers said it was just part of the gameplay, and those concerned about the degraded performance of sims said they were trying to keep the chicken farms from slowing the sims down for everyone (i.e. the chicken farmers were taking more than their share of the sim resources).” Regardless of the fact that these chicken-bots were seen, by the New World Virtual Farmers at least, to be a “real” part of the Second Life community, it’s hard to believe that those involved in the “slaughter” paused to consider if the bots themselves had any natural right to exist. After all, this was only a game and it was simply necessary to redistribute resources appropriately so that all players could have a lag-free experience. The right-to-bandwidth clearly trumped the chickens’ right-to-life in the minds of many.

Of course, actual lives are not at stake in this case. Life, or more particularly the premeditated end of it, predisposes moral discussion. While it is clear that there is an exchange value for virtual chickens, from a deontological perspective the question remains: is there any *inherent* value in simulated objects? Plato denied this possibility, privileging the ideal and the real over the “sham,” or virtuality (Vitanza 2005:1). An ethical thinker of this ilk, critical of consequentialism, might ask if the termination of simulated life could lead down a slippery slope to a position whereby some people, unwilling to strip simulation from actuality, fantasy from reality, allow the impulses of the lawless virtual world to drive their behavior in the real world. The evidence is certainly mixed on the impact of cultural forces, such as television or the Internet, on individual behavior. Nonetheless, from an ethical standpoint, these considerations need to be made.

A third ethical perspective from which this “lag war” could be examined is *just war theory*. The just war tradition is as old as war itself and dismisses normative agreements regarding rules of war agreed upon by each party in a conflict. Rather, *a priori* rules of justice should define the terms of engagement. Since the Second Life chicken conflicts were taking place in a new frontier, only loosely bounded by convention and social norms and where few significant rules of conduct/combat existed, this seems a valuable approach. The principles of just war are commonly held to be: “having just cause, being a last resort, being declared by a proper authority, possessing right intention, having a reasonable chance of success, and the end being proportional to the means used” (Moseley 2009). These principles cover a broad range of ethical perspectives including elements of deontological ethics, Kantian duty ethics, and consequentialism.

Before hashing out each of these principles in the Second Life chicken war case, let us establish once again that the “field of battle,” so to speak, is the virtual world, a shared experience mediated through the computer and its input and output mechanisms. The world is

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

broken down into regions called “sims,” each controlled by a unique computer server. The establishment of the accuracy of the simulation is the chief public good being fought over. Technically, this resource can best be exploited when bandwidth is maximized and lag is minimized. And the contestants in this fight involved avatars, or virtual personae driven by users. Now, remembering these conditions, can principles of just war be applied in this case?

First, was there just cause for the neighbors of the chicken farmers to terminate the chickens without negotiation? Certainly they felt so. The culprits striking the first blow, by their account, were the agents responsible for placing the chicken-bots in the sim, thereby creating what was deemed to be an excessive amount of lag. They were only reacting to an untenable situation introduced by the chicken farmers. But what if the farmers were unaware of the impact their chickens were having on the sim? In fact, this condition was recognized by the developers of the sionChicken Killer (the food distracter “bio-weapon”), when they wrote on the product advertisement “PLEASE do not use this to grief random sionChicken owners! It is meant to be used on uncooperative neighbors who refuse to consider how these chickens affect everyone around them” (Mistral 2009). Nonetheless, the need to create such a plea was an indication that some of the sionChicken killing had gone beyond the boundaries of just war and had become “griefing,” or “activities designed to make another player's life or experience in Second Life unpleasant” (*Griefing*, Second Life Wiki, 2010).

Second, was chicken killing a last resort for residents? In some cases, chicken killing may have seemed a last resort when chicken farmers did not respond to neighbors requests to reduce lag and the larger governing authority in Second Life (Linden Labs, to whom one can report abuse of the terms of service) was unresponsive. However, the costs of teleporting (the main form of travel in Second Life) to another sim which was unladen by virtual chickens was negligible. Nonetheless, for one who invests in renting or buying property in Second Life and takes the time and energy to create one's own personal space, the idea of moving due to a neighboring avatar's behavior is undesirable.

Third, the declaration of war by a “proper” authority was impossible, due to the fact that no such authority exists in virtual reality. Governance is at the dictatorial behest of Linden Labs, who, in following the generalized ethic found in the origins of the Internet, created a virtual world where freedom and communitarianism are centrally valued and rules and roles left up to the individual (Reymers 2004). As in most virtual communities, griefing (alternatively called “flaming,” “phishing,” or “trolling,” though each term has a specific nuance) is more than happenstance and often has a central place in the definition of the community. This is precisely due to the fact that no central authority exists and laws and norms are left to each unique community to establish. Occasionally Linden Labs will mediate a dispute, but they certainly did not sanction the chicken killing that was going on. As Davison (2009) suggests, it was precisely due to the collapse of boundaries between normative expectations in different communities that the sionChicken incidents occurred. The third principle for just war in this case is not clearly definable due to the fact that there is no agreement on the propriety of authority in Second Life.

Fourth, did the chicken killers possess the right intention in perpetrating their violent solution to lag? It seems that if the chicken farmers were provided warning that such solutions would be forthcoming, and they did nothing to respond, the intention would have been clear. But was it the *right* intention? Given that bandwidth is the lifeblood of virtual reality, the air that avatars breathe, anything that compromises this valuable resource may be said to compromise

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

the very existence of the interactive interface itself. Therefore, if one considers interaction (with the virtual environment) to be the central to the purpose of one's presence in Second Life and accuracy of interaction is a direct result of bandwidth availability, protecting bandwidth availability is akin to protecting one's very existence. From this perspective, "chicken killers" may more heroically be seen as "bandwidth patriots." The right intention principle seems to be met. However, one can see this principle spiraling out of control. Would it be acceptable in virtual worlds, for instance, to somehow disable (or "kill") another user's avatar if you deemed they were using up too much bandwidth (as a result of wearing heavily scripted objects, such as fancy hair, shiny jewelry, etc.)? Certainly a balance needs to be struck between stylizing ones avatar with "bling" (or ones land with virtual chickens) and bandwidth considerations. Grievers who indiscriminately killed chickens without warning and without the purpose of reducing the lag problem would not have been acting with the right intention (and thus might be considered a kind of "chicken war criminal" – unfortunately, there is no equivalent of The Hague to which these avatars can be tried for their crimes, unless you consider the developers at Linden Labs to be playing that role).

Fifth, the chances for the reasonable success of exterminating the problem chickens was relatively high, due to the fact that sims are isolated from one another and eliminating the chickens from one sim, while not addressing the more global problem of chicken lag, solves the problem from the point of view of the "bandwidth patriot." Furthermore, such local "raids" drew attention to the fact that a more global problem existed, thereby creating the kind of awareness that ultimately motivated Sion Zaius to alter his product (virtual chickens) into a "lagless" version. In retrospect, these "bandwidth patriots" did succeed in their objective to rid Second Life of most of the laggy initial versions of the sionChicken.

Finally, the utilitarian question remains: did the ends justify the means? Or, more accurately, were the means used to protect bandwidth proportional to the value of the bandwidth obtained? How *bad* a problem was the lag issue, and did chicken owners *deserve* to have their flocks culled? Was there a greater good produced by the chicken wars? The problem of the extent of lag can be answered technically, as it was in the following response to an article written about the chicken wars in the *Alphaville Herald*, Second Life's online newspaper:

With the Version 11 Lagless model, the collisions produced by sion chickens have dropped from 150-250 down to 3-30 under most circumstances. The script lag still runs from 0.1-0.3 ms per chicken. For this reason I recommend that estate owners impose a covenant limit of no more than 1 chicken per 1k sqm of land. In our Ancapistan estates, weve found that these limitations keep sims healthy and enjoyable for the most part, however we do recommend an upper limit of about 50-60 chickens per sim ONLY if these are the only objects in the sim. The more prims in the sim, the more collisions that will happen, and other scripted objects of course will take up some of the total script time (Intlibber Brautigan, in Mistral 2009).

Whether or not the chicken farmers deserved to have their flocks terminated is a value-based question whose answer varies depending on the querent. From the point of view of the "bandwidth patriot," laggy chickens earned their just desserts: death. From the point of view of the farmer, there was no honor, integrity or merit in the unilateral decision of the chicken killers to exterminate their flocks – an extreme view might have held that it was a "bot genocide" imposed upon them from the outside. A less extreme view might simply acknowledge the loss of investment property that cost, in some cases, a significant amount of money. And from the estate owners' point of view, a balance was necessary to hold between the interests of the many renters

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

upon their estates and the economic advantage that chicken farming brought. The resident above continues:

When these chickens started spreading across our estate, we considered banning them, but considering the economic activity they stimulate, we sought instead to help the makers at Sion Labs reduce lag as much as possible. Provided these tips are followed, there's no reason why chickens cannot be permitted in any sim in the numbers specified.

Estate owners IMHO should look at the chicken craze as a means of expanding occupancy, particularly by imposing limits in numbers of chickens per 1k sqm, this obviously means a chicken farmer needs a lot of land to farm a lot of chickens (Intlibber Brautigam, in Mistral 2009).

The consequences of the chicken war were variable. Was a greater good achieved? Perhaps for Sion Zaius, who continues to reap great profits from his chickens and the associated products needed to breed them. Perhaps there was a greater good served to the Second Life community at large, for whom the growing problem of laggy chickens was resolved through the actions of a few "bandwidth patriots." However, a greater good was not likely achieved for the aggrieved chicken farmers who lost valuable (even if virtual) livestock as a result of the conflict. And it is uncertain, but perhaps a greater good was not served for the face-to-face communities of the users behind the avatars, whose first lives may have been influenced in their Second Life roles as patriotic chicken killers, victimized farmers, or grief mongers. A just war minimizes casualties, and the casualties of this virtual war, while physically negligible, may have been psychologically costly.

Conclusion

No ethical dilemma has a simple solution or one that satisfies all parties. Nonetheless, the structure of the community within which such dilemmas arise influences the outcome for all. Where resources are limited, communities come into conflict around the behaviors that exploit those local resources. A resource dilemma, or tragedy of the commons, challenges those trapped within it to take the perceived irrational step of bowing to a group interest over one's own self-interest, but as many researchers have discussed in the past decades (Axelrod 1984; Sagan 1998), this strategy can be more lucrative (and thus rational) for all individuals involved in benefitting from a common environmental resource. In the case of lag and bandwidth, these are the environmental resources being taxed, and so an ethically sound position advocates eliminating the elements of the virtual reality that put an undue burden on this resource on a shared basis. The definitions of "undue" and "shared," however, are the sticky points left to be negotiated given the circumstances. One of the difficulties in deciding where these lines should be are the multiple sources of lag the lack of good information about what is slowing one's Second Life experience.

From a consequentialist perspective, then, if the achievement of the greatest good for the greatest number of people requires the extermination of the offending laggy chickens by those other than their owners, so be it. However, this argument offends the more principled ownership argument regarding said chickens. We would typically not feel this to be the right course of action if the terminated chickens were our own. The extermination of laggy chickens in an arbitrary and capricious (as it was in many cases such as the Soviet Woodbury faction attacks and others), could not be justified using this argument. Nevertheless, from a consequentialist

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

argument, the chicken-killers were in the right – the end of the chicken wars in Second Life (brought about by a software upgrade introduced by the creator), overall, justified the means by which this conflict was resolved.

A second ethical dilemma regarding the virtual entities known as sionChickens involves the degree to which they are virtual. This dilemma stems from the relationship between simulation/belief and agency. With the representation of behavior in avatars, it is assumed that users have enough self-coherence to willingly (as opposed to unwillingly) suspend their disbelief. But is this a safe assumption? As the degree of accuracy of the representation provides a virtual world that more and more closely approximates the parameters of the face-to-face world, it can be expected that phenomena outside of the control of the designers of the virtual world – let's call them environmental contingencies – will lead to many different reactions and consequences that must be dealt with on a social level. Malaby (2009) goes so far as to suggest that Second Life is explicitly designed with such contingencies (yet just as explicitly avoids governing over the consequences of users' creations - this is left to users to hash out on their own). The degree of responsibility that Linden Lab took over the chicken lag problem was minimal. Rather, the mantle of responsibility was passed to Sion Zaius, the creator of the offending chickens. A lack of responsiveness on his part clearly evoked the violent and negative responses from residents that were fed up with lag.

Third, the notion that conflict can be based on principles of just war leads to the conclusion that cyberwar is one of the complexities of virtual reality that challenges the bedrock notions of culture. While questions of just cause, last resort, intentionality and having a reasonable chance of success are as clear (or fuzzy) as they might be in face-to-face situations of conflict, the chief difference in the case of Second Life involves the place of authority within the structure of disputes. Without a distinct political authority and system of comprehensive rules (beyond the TOS, or Terms of Service provided by Linden Lab) the establishment of authority is weak or non-existent. Occasionally, Linden Lab bans users or whole groups (as in the case of Woodbury College), but typically Linden Lab stays out of a conflict if there is not a clear violation of the TOS. Estate owners can establish a covenant and ban those who break it, but the offending parties can return in mere moments after creating a new Second Life account (with a different name, but equal ability to harass). This basic anonymity and powerlessness to prevent griefers is what typifies most online communities. The sole effective form of resistance against such grieving, flaming, trolling or phishing is to ignore the offending parties until they go away. The establishment of law in virtual reality is unlikely, except where existing face-to-face world law (such as the Digital Millennium Copyright Act, for example) may impede in the virtual world. This intrinsic lack of a coherent social contract beyond custom can be taken as a symptom of a much larger movement involving the greater crisis of metaphysics. In connecting virtual reality to modern philosophy, Colin Beardon argues that the artifice of virtual realities and simulation are such a symptom:

The idea that modern philosophy is in crisis is not new. Some postmodernists express this by saying that we are at the end of the project that began with the Enlightenment (Dews, 1989). Laufer (1991) has shown how philosophy has moved through three stages since the Enlightenment: the first (from 1790 until 1890) was dominated by Newtonian science and Kantian philosophy; the second (from 1890 until 1945) was dominated by Comtean positivism and what we would call "modernism"; and the third (the period since 1945) is the period of deepening philosophical confusion and the emerging concept of the "artificial".

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

If this analysis is correct, then the emergence of virtual reality at this point in time is a reflection, not just of technical, economic and political developments (which are of course also very important) but of the fact that our traditional philosophical system is now collapsing at its most central point - metaphysics. Our concern with the ethics of virtual reality is therefore doubly difficult. Ethics has been severely attacked and has been in a state of confusion for at least fifty years (Ayer, 1936), and virtual reality is a reflection of deep philosophical confusion. (Beardon 1992:4)

Though he doesn't name it, Beardon alludes to the postmodern condition of Lyotard (1979) and many others who might claim that in the new era, one of pastiche and simulation, the interactive virtual world experience is the end of the grand narrative of broadcast dominance and the beginning of something new. The events and technologies that shape what is new, virtual reality in this case, do in fact reveal cracks in the façade of traditional ethics. Those cracks may eventually be filled in by some futuristic Locke or Rousseau, but for now they represent holes in the fabric of our socially constructed virtual worlds.

If it is the case that the simulations created in virtual realities reflect a shift to a postmodern era, we can expect that traditional and modern modes of ethics involving enlightened self-interest, individual responsibility, ends and means, and arguments from moral development to be less than apt for describing and anticipating the actions and reactions of free agents in Second Life. In fact, even free agency comes under scrutiny in postmodernism. The case of the virtual chicken wars in Second Life seems to confirm these expectations of Beardon (1992). The crisis of philosophy is intensified as new, postmodern virtual realities bear down upon our old, modern face-to-face reality. This crisis leads to one of Beardon's final questions, "What is the nature of the responsibilities one has when offering a new version of reality?" In Second Life, and increasingly in cyberculture generally, this crisis is realized through the modality of the construction that people collectively create as they compete for resources in virtual worlds, share social bonds, create communities and factions, and work out amongst themselves what it means to kill a virtual chicken.

A CASE STUDY OF ETHICS IN VIRTUAL REALITY



Figure 1
Second Life avatar Sion Zaius
Source: Mistral 2009



Figure 2
Virtual Chickens
Source: Mistral 2009

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

The screenshot shows a marketplace listing for a virtual item named "sionChicken Killer". The category is "Home -> Weapons -> Other Weapons". The item is priced at L\$1000. The description reads: "Hate chickens? Tired of all the sim lag that they cause? You've asked your neighbor nicely to please reduce or remove their chicken population, to no avail. Now it's time to get tough! The sionChicken Killer is a carefully scripted food decoy that will distract your neighbor's chickens from their food trays, starving them to death within several days. The sionChicken Killer has a 95 meter range, and has been tested with both v10 and v11 chickens." The item details show it costs 2 prims and has "Copy" permissions. A warning states: "PLEASE do not use this to grief random sionChicken owners! It is meant to be used on uncooperative neighbors who refuse to consider how these chickens affect everyone around them." The listing also includes a note: "Lastly, I have spent a lot of time perfecting this. I am sympathetic to your plight, but please don't ask me for a discount..."

Figure 5
sionChicken Killer Product
Source: Davison (n.d.)



Figure 6
Chicken Killing Incident
Source: Mistral 2009

A CASE STUDY OF ETHICS IN VIRTUAL REALITY



Figure 7
Virtual Chicken: “Dead and Revivable!”
Source: Mistral 2009



Figure 8
Earlville Chickens: “Honk for Earlville Chickens.com”
Source: Reymers 2008

A CASE STUDY OF ETHICS IN VIRTUAL REALITY

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