

LIVING ON THE EDGE

Digital Worlds Which Embrace the Real World

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Abstract. For many digital world creators and thinkers, a core belief is that digital worlds benefit from isolation from the real world. In particular, real-world economies and legal structures should be excluded from digital worlds. As attractive as these positions can be, they do not act in the best interests of digital worlds or the residents of these worlds. With millions of players moving into online spaces and spending increasing amounts of time living their lives in them, ties to the real world become critical. This Article will argue that strong economic and intellectual property ties to the real world are vital components of successful digital worlds.

1. A Declaration

In 1996, John Perry Barlow (1996) wrote “A Declaration of the Independence of Cyberspace.” It built upon beliefs that already existed among members of the various online communities that had been formed in the preceding two decades.

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

Stirring and utopian, Barlow’s “Declaration” anticipated many ideas that would later be applied to digital worlds. Primarily motivated by free speech issues, it argued that the real-world did not “create the wealth of our marketplaces” nor “know our culture, our ethics” and that “[y]our legal concepts of property” do not apply.

Eight years later, millions of users (Woodcock 2004) are spending large portions of their lives (Yee 2002) in digital worlds with capabilities and opportunities that go far beyond those of earlier text-based communities. As these spaces have expanded, debates echoing Barlow’s have become commonplace: Should real-world economies be allowed to intrude into digital worlds? Should real-world intellectual property rights and laws apply?

The answers to these questions have generally favored isolating digital worlds, but it is time to reexamine those responses. Digital worlds other than the massively multiplayer online role-playing games (MMORPG) have reawakened the promise of generalized online worlds (Ondrejka 2003) that have previously existed only in science fiction (Stephenson 1992). These worlds, with millions of intimately linked people exercising creative and intellectual freedom, will enable

creation and culture unlike any that has come before. Strong connections to the real world are critical to the growth and success of these worlds.

2. The Importance of Economic Connections

In 2001, Professor Edward Castronova wrote an economic analysis of *EverQuest* and legitimized the academic study of digital worlds (Thompson 2004). He has since focused on the “right to play”, that argues that real-world economic connections are antithetical to a fun, immersive world. In various papers (2001 and 2003), Castronova develops the idea that digital worlds are full of serious and interesting human activity – also covered extensively by Hunter and Lastowka (2005) – and that they generate a tremendous amount of real-world economic value. In the first quarter of 2004 alone, eBay users sold over US\$5.85 million worth of digital world currency, objects and accounts (Castronova 2004a). This 9% year-on-year increase is all the more impressive, as eBay captures neither the Korean market nor *EverQuest* sales.

2.1 INTO THE BLACK

No *EverQuest* items are sold on eBay because Sony banned their sale in 2001 (Koster 2002), and Turbine followed this year by banning *Asheron's Call* sales (Castronova 2004b). The generally cited reason for the bans was the right to play. Many others (Ondrejka 2003b) have assumed that digital world developers have a choice about commodification. The evidence suggests that neither is true.

The removal of *EverQuest* items from eBay created a vibrant black market as other sites such as PlayerAuctions and IGE took up the slack. While use of these sites technically violated the game's End-User Licensing Agreement (EULA), this violation was rarely enforced, and the success of these sites indicated a strong demand among the players for player-to-player exchanges of goods and services. In fact, recent announcements from Sony (Colker 2004) indicate that they are interested in capturing some of this market.

2.2 COMMODIFICATION

An even more basic issue is whether commodification is even a choice for the game developers. Modifying the game mechanics to prevent real-world exchanges necessitates the blocking of all in-world exchanges of items between players and all exchanges of accounts between players. Blocking all in-world exchanges is required because there is no way to accurately determine if the exchange is the result of a real-world monetary transaction. Certain patterns may indicate that the exchanges are driven by real-world concerns, but detecting and proving player intent is extremely difficult and prone to false positives. So, developers are left blocking all player-to-player transactions, which completely eliminates most of the game play of MMORPGs. Proving that an account has changed hands, much like proving intent, is also difficult and inaccurate. Technical detection of intent, generally, is an arms race that is at best expensive and at worst not winnable.

Given that neither the EULA nor technical methods will successfully block real-world economic intrusion into digital worlds, the final question is whether such a block is desirable. A market exists for digital goods because it takes a significant time commitment on the part of players to create interesting content. As a result, players with proportionally more money than time have an incentive to shortcut parts of the experience. While this does have the negative effect of having some inexperienced players experimenting with more power and wealth than they would normally have, this negative must be compared to the effects of forcing economic behavior into black and gray markets. Companies like IGE (Thompson 2004), which operate

“virtual sweatshops”, exist at the whim of digital world developers and have yet to establish strong consumer protections (Cringley 2004). Tighter integration with the real world offers residents better economic opportunities, as well as better protections as the services supplying these opportunities are legitimized.

2.3 PLAYER CHOICE

More importantly, the four most popular MMORPGs in the US, *Final Fantasy XI*, *EverQuest*, *Ultima Online*, and *Star Wars: Galaxies*, all combine role-playing components and themed environments with strong secondary markets. Players that want both have evaded every attempt to stop it. In this regard, player actions are not unlike what is observed in the real world, where play and economics have always intersected. Clearly, money will change the way some play games, but the real world proves that the NFL can coexist with backyard football games. If anything, the NFL provides a setting to role-play in while running tossing the ball around after Thanksgiving dinner.

Freedom to play can coexist with economic links and regulations, and the balance seems to make sense. Jack Balkin (2005) uses the example of behavior within hockey or football games, where you generally can't sue someone for battery if they tackle you, but sufficiently dangerous breaches of the rules or of real-world laws are punished. Pete Rose discovered that certain economic connections to the “virtual world” of Major League Baseball weren't tolerated either within the game or in the real world (Schleicher 2004). Digital worlds will find similar balances as they grow and integrate more tightly with the real world.

2.4 BEYOND GORDON GEKKO

In digital worlds that leverage user-created content, economic connections provide two additional benefits. First, they allow markets outside of the digital world to be explored. Second, economic factors can provide context and motivation to follow through on large and difficult products.

New markets are important because user-generated worlds are so efficient at content generation that there is nearly always excess production capacity. Particularly among early adopters, the joy of creating and sharing with others leads to incredible creativity and expression. Many of these creations could be effectively utilized in contexts other than the world where they are created. For examples, fashion designs created within the world could be desirable either in other digital forms or even in the real world, or game ideas prototyped within a generalized space could move to other platforms. If these creations have value in other forms, economic incentives can help ensure that technical and logistical problems are solved in order to allow their transfer. Consumers outside of the world may also decide to visit the source of their new goods, providing a source of new users who might otherwise have never chosen to explore a digital world.

Transfer of creations into and out of digital worlds immediately raises questions about intellectual property and ownership, as does the concept of economic motivation for creation. Like economic connections, real-world intellectual property rights are presumed to be detrimental to digital worlds, so before describing economic motivation those concerns must be addressed.

3. Intellectual Property and Motivation

In November of 2003, the digital world *Second Life* announced that residents would retain intellectual property rights to their creations. Amidst discussion and debate (Grimmelmann 2003), Yale's Yochai Benkler raised perhaps the most interesting point (paraphrased here by James Grimmelmann):

You're creating this world in which people come to play and be creative, and yet you've given this world a system that has been extensively criticized as limiting creativity. Haven't you just given them a new set of hurdles to creativity?

In order to better understand Professor Benkler's question, as well as the answers, some background is required.

3.1 WHO OWNS MY CREATIONS?

Nearly every other game – whether single player or digital world – uses its EULA to enforce a licensing agreement between the creators and players (Taylor 2002). In the case of digital worlds, the norm grants the world's developers all rights to residents' creations, and developers have used these rights. For example, the EULA was used to shut down one of the first commercial exploitations of a digital world, Black Snow's "farming" of Dark Age of Camelot, although the legal issues involved have yet to make it to court (Dibbell 2003).

Despite strongly worded EULAs, most current online games offer such limited opportunities for creation that the point is almost moot. However, in worlds like *Second Life*, where user creation is a major component of the world and game play, a fundamental tension exists between asking the residents to create the world, and then forcing them to relinquish ownership of everything they make. Residents are now starting to recognize this (Terdiman 2003). It is clear that the right choice is to allow residents to retain as many rights as possible to their creations.

3.2 CREATION IS NOT CRAFTING

It is also important to understand the profound differences between crafting and creation in online games. In the MMORPG *Ultima Online*, for example, it is possible to stack objects in such a way as to make a piano-shaped pile – players have actually discovered multiple ways of doing it. However, these are only piano-shaped piles of objects that don't do anything. You can't play them. In order to add a piano to *Ultima Online*, its developers would have to create a piano object via changes to the core game and then release a patch – a piano isn't something that a player can just decide to make. Instead, users can make things like shirts that are made by collecting specific resources and then choosing the "make shirt" option that was provided for them. This process is MMORPG crafting: players optimize decision trees created by the games' developers to combine objects built by the developers in order to make other objects supplied by the developers.

This player effort is clearly not creation as normally defined. In the real world, raw materials and time are combined with skill to create items that are significantly more valuable than the sum of their parts. Creators' skill and innovation lead to entirely new creations that engender new concepts and ideas. This is the process of creation, and while difficult to implement in digital worlds, the atomistic construction techniques (Ondrejka 2003) invented for *Second Life* allow for creation in a very real way.

3.3 MUDFLATION

To return to economic interactions for a moment, it is interesting to note the effects of trade with the real world on a crafting economy versus one based on creation. In the former, players can pay

to bypass the boring content (Burke 2003), forcing the developers into an enormously expensive arms race with their players. The developers try to create more new and interesting content before the players consume it. Plus, the crafting economy leads to “mudflation” where rare and valuable items become less rare and less valuable over time. The median players become better armed and better able to kill monsters, thus adding money into the world more quickly, resulting in better armed and experienced players and a positive feedback loop that is extremely difficult to balance.

Alternately, in a world where true creation exists, value is determined by the demand for given items. This demand can be linked to utility, the added value of creation or the investment of the creator (Hunter and Lastowka 2003) and can be driven either by in-world residents or consumers from the real world. While not every creator wants to make money, in a world where residents can do anything, business provides an important global context. These links also provide quantitative measurements of the strength and stability of the in-world economy.

3.4 WHY NOT A COMMONS?

The potential for economic links forces a return to Professor Benkler’s question. Why bring real-world intellectual property into digital worlds? *Second Life* allows residents to retain their intellectual property rights in order to improve the quality and the quantity of user-created content within the world. Intellectual property law argues that limited monopolies are important to provide creators the opportunity to sell their creations for more than the marginal cost (Lemley 2004 and Netanel 1996).

Second Life already had to allow real-world intellectual property intrusion because residents are allowed to upload textures and audio samples. Although structuring its EULA to create an intellectual property commons is a possibility, this would harm user creations: it limits the creator’s choice about whether or not to attempt to profit from their creations; derivative works extracted back to the real world are devalued; creators can’t create trademarks or brands in-world; real-world organizations and corporations avoid the world for fear of devaluing their brands; and creations can not be leveraged because they lack legal standing.

Another concern that legal scholars have raised is that digital worlds offer tremendous opportunities for infringement. Will lawsuits become the norm (Grimmelmann 2003)? So far, for *Second Life* that hasn’t been the case. Users are aware that they retain copyrights and occasionally investigate their options under the Digital Millennium Copyright Act, but allowing users to retain their copyrights has not triggered a dramatic increase. Instead *Second Life* has seen a tremendous burst of entrepreneurial activity among its residents.

3.5 PRESERVING CREATIVITY

An oft-missed point is that even in a digital world that fully embraces real-world copyrights, it is important to retain the historical limits on copyright, such as first sale and fair use. The current climate of strengthened copyright, exemplified by the broadcast flag (Crawford 2004) and the assault on file sharing (Lessig 2004), would be disastrous if applied to digital worlds. While creators within digital worlds should have the choice to protect their creations, traditional copyright seeks a balance between the rights of creators and the rights of consumers. Just like the real world, fair use and the right to tinker are critical components to education and knowledge dissemination within digital worlds. Giving creators the ability to block fair use reduces the world’s ability to build on past work and constantly improve subsequent creations.

Even more damaging in the long run, “strong” copyright acts to lock early adopters in as the creative class, with knowledge and expertise hidden away. This introduces exactly the “hurdles to creativity” that Professor Benkler feared. Instead, digital worlds must embrace fair use while providing tools to allow rapid and economical resolution of infringement within the world. Despite the technical challenges that it entails, residents need to be on a level playing field, where everyone is allowed to exercise their rights, rather than following the real world’s approach where a subset of technical elite possess the training and knowledge to defeat digital rights management schemes.

3.6 MOTIVATIONS

For truly great content, observation within *Second Life* indicates that residents need large groups working towards common goals with the overhead and turnover that entails. While many creations within digital worlds will be built via small, incremental improvements from a changing group of residents, some creations will require organized groups and long-term commitments from the participants. As projects within digital worlds approach the complexity of real-world games, with commensurate time commitments required of participants, some project leads will find economic motivations to be a useful option.

Digital worlds thrive on great content. Atomistic construction puts the potential for great content in the hands of the residents and allows the world to leverage their skills and interests. Intellectual property law allows in-world creations to compete on a level playing field with the real world and to evolve within a competitive landscape. The connected nature of the space and non-existent production costs mean that the only resources are time, creativity and innovation. However, in order for user-created digital worlds to grow beyond early adopters, they must generate content that draws in new and casual users, either as residents or by reaching them through other channels. Great content, content that drives world growth, is critical to achieving this long-term growth.

4. The Future of Digital Worlds

There are still major opportunities to further expand the connections between the real world and the digital in order to improve content creation. No digital world has true banking, with the currency virtualization and liquidity that banks provide. Creative Commons (2004) offers a wide range of licensing options for creators who don’t want a copyright, but Creative Commons licenses have yet to be integrated into any digital world. Digital worlds should be home to social activism (VERTU 2004) all kinds of academic research. All of these will enable residents and non-residents to interact more freely and will benefit both worlds by providing more potential residents, more content, information and capital flowing in both directions and more innovation in both worlds. It will be worlds built on this foundation, with the powers, protections and limitations brought on by economic and legal ties to the real world, that will provide spaces that truly deliver what Barlow was asking for in 1996:

We will create a civilization of the Mind in Cyberspace. May it be more humane and fair than the world your governments have made before.

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