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Virtual Worldliness

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0. Abstract

Virtual worlds are persistent, computer-mediated environments in which a plurality of players can interact with the world and each other. From their humble beginnings, virtual worlds have evolved to become major hubs of entertainment, education and community. With this growing real-world importance has, however, come greater scrutiny from real-world institutions. Virtual world developers are now experiencing a degree of accountability to which most are unaccustomed and of which many are deeply wary. For their part, real-world institutions have discovered a large, shaggy animal in their yard that wasn't there yesterday and that doesn't behave quite the same as the usual beasts they encounter.

Designers of virtual worlds have a duty to understand the laws that apply to their creations, but the people who make and interpret these laws also have a duty: to understand virtual worlds. If they don't understand what they're regulating, how can they hope to regulate it?

At the moment, virtual worlds are regulated by a set of industry "standards" unilaterally imposed by their developers. In this paper, I describe what these standards are, why they came to be, and what would happen were they to be weakened. I make no argument for or against them on a legal basis: that is for experts in law to debate. Instead, I merely state the way things work now, that such experts may be better informed in their deliberations.

If a judge were to make a ruling that led to the widespread closing-down of virtual worlds, I'd prefer that the judge knew beforehand that this would happen, rather than be surprised by it.

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1. History

Twenty-five years ago, in the days when mainframes had less computational power than today's digital watches[1], I sat down with my friend and fellow undergraduate, Roy Trubshaw, to discuss the design of *MUD*.

MUD ("Multi-User Dungeon") was the world's first virtual world, although we didn't know that at the time. We knew it was an imaginary place that up to 36 people could visit simultaneously; we knew that players could freely interact with one another in the context of the world we were creating; we knew that the world was entirely defined by software, but that it only *lived* in the imaginations of the players.

We also knew (although up until now we hadn't actually said it) that, despite the fact we referred to it as a game, *MUD* was something else entirely. It was what we would now call a "virtual world".

So it was, in an out-of-the-way seminar room where we'd found a terminal so dumb it didn't know it wasn't supposed to let us use it, that the subject of content arose. Roy had spent much of his time up until then programming the underlying code needed to support the virtual world – an activity that both he and I regarded as fun. However, there wasn't much of a virtual world to support: a handful of rooms (to test the concept of "room"), a handful of objects (to test the concept of "object"), a handful of commands (to – oh, you get the picture), plus a full-blown system for adding new rooms, objects and commands on-the-fly. Everything was now in place: so what was the world going to look like?

Roy had written *MUD* to be a game. He could have written it to be an educational model of the human body, or a travelogue of Venice, or some kind of textual map for blind people to read using Braille, but no, he'd written it to be a game. In part, this was because only a game would attract sufficient users in an era when computer time was at a premium; however, that wasn't the main reason. The main reason was that only the pretext of being a game gave him free rein to create an entire world from his imagination.

Well, who wouldn't seize upon the chance to make their imagination real if it were offered them?

Roy deferred to me when it came to the game aspects of *MUD*, because of my relatively strong background in gaming[2]. I had the better appreciation of what would and wouldn't work in a game context; he joked that it was as if I had a game design manual hidden in my head where no-one else could read it.

I found this observation of Roy's interesting. Up until that point, I hadn't really given the notion of content (*i.e.* what players, considered as consumers, consume) much thought. I'd pictured places that I wanted to construct and the objects and beings I wanted to put in them; I'd figured out what players would do there, and what would happen when they did it. However, it hadn't occurred to me that I was working to an implicit, non-obvious rule-set born of experience. Now, I realised I was.

To illustrate his point, Roy thought up a puzzle – something to do with a castle and a lake shaped like a key. It was a good puzzle for a single-player adventure game, but I could immediately see it wouldn't work in *MUD*: while it was being solved, the puzzle would lock up a good deal of the world, thereby spoiling it for everyone else; it was linear, forcing players to run on rails and offering them little choice of how to solve it; it had no *replay value* – if it was solved once, it was solved forever; it required rooms of radically different conceptual sizes that would just feel *wrong* to the players. In all this flood of reactions, though, two thoughts came through that made the rest seem petty: *This isn't a game, it's a place!* and *I want to go there!* I suddenly felt as if I was the first human being on a new planet.

I described my views to Roy. *MUD* should be a place – a world – that let players *do* whatever they wanted to do (within the context of its physics), and *be* whatever they wanted to be (in the context of their own personality). The phrase I used was "open-ended". If people wanted to play it as a game, as most perhaps would, then to them it would be a game; if, however, they preferred to wander around enjoying the scenery or poking things with sticks, that was fine too. We would provide the world; the players could take from the experience of visiting it whatever they had use for.

Roy was persuaded, so we adjourned for a cup of hot chocolate from the vending machine (our preferred choice of drink because the coffee, ironically, tasted of mud).

2. The Vision

I always knew what virtual worlds promised: freedom. Freedom to do, to be, to realise[3]. I like this kind of freedom, it's a good thing; virtual worlds are a force for good. Furthermore, what we have at the moment is just a foretaste of the wonders that idealists like me believe are yet to come.

Of course, things are never quite that simple.

In designing *MUD*, Roy and I had made a number of assumptions that did not stand up when challenged by the players. In our defence, we did foresee most of these: we simply put off acting on them until forced to by circumstance. Nevertheless, eventually they became problems[4].

I'm going to describe some of these problems now, and how (historically) they were resolved. As a result of their resolution, certain "industry standards" emerged. While these standards pertain, the problems are manageable. If something were to happen to remove the standards, the problems would return. If the problems were to return, then either a new solution must be sought or the vision of virtual worlds as places to indulge imaginations would be lost forever.

Those charged with making decisions which might strike down these standards must therefore balance the desirability of doing so against the desirability of not having virtual worlds disappear as a result.

2.1 The Game Conceit

When people play games, they agree to abide temporarily by a set of rules which limits their behaviour (*i.e.* restricts their freedom), in exchange for which they gain whatever benefits the game offers. Game theorists refer to the boundary that separates the game world from the non-game world as *the magic circle*, from an early description of play-spaces by Johan Huizinga[5]. Virtual worlds are not games, but they use the same conceit: that some freedoms must be willingly given up for a time in order that new freedoms can be experienced during that time[6]. For example, in the real world a young man may find it awkward talking to young women because he fears rejection. He is prepared to accept the rules of a virtual world in order to talk to young women (or at to least people presenting as young women) in a context where rejection doesn't matter so much – he gains a freedom that he doesn't have in the real world. He can then learn from his experience and apply it back in the real world. Joy for him.

What happens, though, when someone doesn't play by the rules?

Suppose you were one of three people playing the game *Clue*, and that you were close to winning. The person playing Mrs White suddenly leans over to the player playing Colonel Mustard and says, "I'll give you $20 if you show me your cards". Colonel Mustard obliges, Mrs White pays up, and promptly announces that Reverend Green did it in the ballroom with the candlestick.

I don't know about you, but I wouldn't be all that pleased if this happened to me. Although there are no *written* rules in *Clue* about bribery, nevertheless there are *unwritten* rules that say this kind of activity stops a game from being a game[7]. I would think twice about playing with Colonel Mustard again, and three times about playing with Mrs White.

In a virtual world, what can do if I suspect one player of bribing another or otherwise stepping outside the boundaries of "play"?

Well, I can stop playing with them. However, that would also mean stopping playing with perhaps several thousand other people, some of whom might be very good friends.

OK, well maybe my friends will stop playing too and we can all move to some other virtual world where the game conceit still holds. Unfortunately, there's no guarantee that the miscreants won't simply follow us there (anonymously or otherwise).

So: either I have to grit my teeth and accept it, try to prevent the miscreants from playing (or at least repeating their scam), or quit entirely in disgust.

With *MUD*, I knew that people might break the unwritten rules that protected its virtual world from the real one. Some indeed did so. Individually, they were usually easy to deal with: I would speak to them explaining the problem, that it was unfair on the other players if they behaved however they were behaving, and please would they stop. Most saw the light and obliged. Those that didn't were reminded that I had my finger on the off switch for their character and that I could therefore obliterate them entirely if I so chose. Some very few, I did obliterate entirely.

How could I justify this? Well, it was quite simple. To discover why, we need to look at the rationalisation commonly employed by the people who broke the unwritten rules.

Some of the "written rules" of boardgames aren't actually written – they're coded in by the physical universe: your *Clue* character can't be in two rooms at the same time because reality doesn't work that way. The remaining written rules are not coded in: all that stops me from moving my token more than the dice roll says I can move it is the alertness of the other players. In contrast, virtual worlds have *all* their written rules coded into them: you don't get to teleport unless the code says you do.

Boardgames and virtual worlds alike have additional, unwritten rules that are not coded in. However, the subversive players claimed that the code *alone* defined *MUD*. They didn't recognise the existence of unwritten rules, *i.e.* of the game conceit. Their view was that if the code let them do it, they could, legitimately, do it. This was how regular computer games worked, and this was how *MUD* should work. If an activity is not permissible, why didn't the software simply stop them from doing it in the first place?

The answer is that there are some things that virtual world developers simply can't stop using software alone; trivially, they can't prevent people from swearing (although they can make it difficult[8]). Less trivially, should you be able to stand in a doorway thereby blocking people from entering a room? Well yes, if your aim is to prevent a thief from entering and stealing all your wounded friend's equipment, but no if your aim is to annoy the hell out of someone racing to help their friend inside who is being beaten to pulp by an ogre. Except maybe yes if they bought the last magic sword yesterday even though they didn't need it, just to stop your character from getting it.

Without recourse to artificial intelligence techniques that have yet to be invented, a virtual world's code can't hope to trap this kind of antisocial behaviour – even though it arises *inside* the virtual world. The attitude of the antisocial players to this was simple: "tough". They argued that in computer games it was the program, not the players, that defined the rules. Only the code could dictate what they did. Swearing at people was fine because it was allowed by the rules as defined by the code. If I didn't want people to swear, I could always take out the communication commands.

Taking out the communication commands would have ruined *MUD*. Instead, I added a command, FOD ("Finger of Death"). If people swore, I FODded them. Their characters disintegrated. Hey, the program *allowed* me to do it, so it was OK! It didn't allow anyone *else* to do it unless I set the flag on their character, but it allowed *me*.

Virtual worlds are played by rules. The rules are written (embodied in the code) and unwritten (embodied in the expectations of the players). People can deny the existence of unwritten rules, but they can't deny the existence of coded rules. If the code says that you can't walk through walls, you can't walk through walls. If the code says you can shoot arrows round corners, you can shoot arrows round corners. If the code says I can obliterate your character, I can obliterate your character. You may be able to pick and choose which cultural norms to obey, but you don't get to pick and choose which rules of the virtual world's physical universe to obey – and the administrator's authority in a virtual world is *embodied* in those rules. You don't swear, because if you do you're disintegrated. You don't do *anything* that the administrator doesn't want you to do, because if you do you're disintegrated.

Some things the administrators object to are understandable: a virtual world for counselling rape victims (and there are such places) might dismiss journalists who turn up faking having been raped in order to get a story. Other things are more ambiguous: a virtual world created for worshipers of religion X (and there are such places, for different values of X) might dismiss members of religion Y who turn up hoping to participate in a ritual or service. Some things are completely arbitrary: I don't like the cut of your jib. All of these, however, are *part of the rules of the virtual world*. If you play, they're enforced with the same authority as any other rule.

Strictly speaking, then, the dissenters are correct. Anything the virtual world lets its players do, they can indeed do. Their decision of whether they *do* do it or not is entirely moderated by what the virtual world lets its more powerful players do should they dislike it. For most virtual worlds, the administrators are rational (that is, consistent if not always correct). Those that are irrational tend not to have many players: if you don't like the rules, you choose not to play.

So here's the first point I want to make. Virtual world administrators have absolute control over their world vested in the mechanics of that world. While this state of affairs pertains, they can protect the game conceit. If they were denied absolute control, then the game conceit must be protected some other way; otherwise, the virtual world would be just another extension of the real world.

2.2 Evolution

Virtual worlds are continually evolving. New content is added, old content is updated, exploits are curtailed, bugs are removed (hopefully at a greater rate than they are introduced), gameplay is rebalanced. If virtual world designers were unable to make changes to their virtual world, that world would become stale, dated, dominated by exploits and its gameplay would be all out of whack. Now it's possible that a relatively stable state could be achieved, with few bugs and exploits remaining and enough player-generated content appearing for it to retain its freshness; this is the case with the original *MUD*, which hasn't had new content added to it since 1985 but continues to be played. It takes many years to get a virtual world into this position, though, and even then occasional changes will still be called for.

What happens when players object to a change?

One day, I added a rabbit to *MUD*. We had a player with a character called Rabbit at the time. Because of the way that objects in *MUD* are referred to by unique,

case-insensitive nouns, the moment I created a rabbit the character named Rabbit was unable to play. I knew this, but I wanted a rabbit for a puzzle I had in mind. I offered the player a name-change; he accepted (he went for Wabit).

If he hadn't accepted, I'd have added the rabbit anyway. Otherwise, players would have taken the names of likely new additions to the virtual world and sat on them. This (what might now be regarded as an example of "cybersquatting") had indeed happened in the past: a player, anticipating that I might want to put a vampire into the virtual world, created a character called Vampire to stop me from doing so until I "compensated" him. Needless to say, the ruse didn't work…

Changes to a virtual world affect different characters (and hence different players) in different ways. Suppose a virtual world has two classes of fighter, the warrior and the paladin, where the paladin is the same as the warrior except for being more powerful against evil foes. After a time, the designer notices that there are many paladins and few warriors. Because there are many paladins, fewer evil creatures are around as they keep being slaughtered. The paladins could go and kill non-evil creatures, but this would be harder for them so they don't want to do it. Instead, they kick their heels and complain about how boring the virtual world is now, there should be more evil creatures about.

The designer can address this problem in many ways, of which adding more evil creatures is but one. Ultimately, the root cause is that there's an incentive for players to be paladins rather than warriors, but no disincentive. If more players were warriors (or fewer were paladins), the problem would go away. Thus, the designer decides to make a change such that paladins are weaker against non-evil foes. Paladins aren't attacking these anyway, so shouldn't care. Thus, players now have a choice to play as warriors (and be equally effective against all kinds of foe), or as paladins (and be more effective against evil foes but less effective against non-evil foes). The virtual world should be better as a result.

Why is it, then, that although most players of paladins are pleased with the change, some are unhappy about it? "You nerfed paladins!"[9]. Well, it's because although they didn't ever attack non-evil foes before, they did have the *option* to do so. That option has now been removed from them. If they'd known they were going to have this option removed, perhaps they wouldn't have chosen to be a paladin three months ago when they started playing.

Also, some players of warriors are complaining. They don't know why, but this new patch to the virtual world has somehow reduced the number of killable things. Previously, they could walk into a field and it would be full of orc children they could slaughter with wild abandon, but now when they stroll along, sword in hand, the field is already half-empty. If they'd known this was going to happen, maybe they wouldn't have chosen to be a warrior three months ago when they started playing.

The warriors are complaining because whereas in the past there were few warriors, the change in the rules has persuaded more players to become warriors, therefore there is more competition for warrior-speciality resources (*e.g.* orc children). In order to give the paladins more to kill, the warriors have been given less. Both, however, do now have enough.

In general, even the tiniest changes can have repercussions that ripple through a virtual world, affecting things not immediately connected to them. In-context economies (*i.e.* those designed-in to the virtual world, as opposed to those containing elements the software knows nothing about such as U.S. dollars) are particularly good in this regard: a slight adjustment in the way that a non-player character computes the

value of a sword would affect the price that it paid for swords, which in turn might impact on the amount a sword-smith could afford for raw materials, and so on, the consequences gradually propagating throughout the virtual world as supply and demand checks and balances react. Perhaps as a result of the new sword-valuation policy, there is a 0.01% fall in the price of pig iron in a distant market. This change wouldn't be noticed by most players, but it could seriously annoy the merchant who has 100,000 units of pig iron in a warehouse there. If this could be foreseen (which is possible, if perhaps unlikely), would it be a reason not to make the initial change to the way the non-player character values a sword?

Virtual world designers have to take all these things into account when they decide whether or not to change their virtual world. Any alteration that gives something to one group of players will *by definition* take something away from another group: at the very least (to put it in trade union parlance), their differentials will have been eroded. The decisions are hard, and mistakes are often made, but ultimately they're for the designer alone to make. A wise designer will explain what's happening and why, thus preparing the players for the change while giving them the opportunity to voice objections. Ultimately, though, the designer must weigh up the odds in terms of what's best for the virtual world as a whole.

Here, then, is my second point. Virtual world administrators can't please all their players all the time, no matter how fair they try to be. They must on occasions change the virtual world in ways that some – perhaps all – of the players find unpalatable. While this situation pertains, and designers are able to ride roughshod over players' opinions, the virtual world can continue to evolve and improve. Anything that served to limit this process would limit the virtual world's evolution.

2.3 Achievement

As I explain in my book[10] on the subject, many people play virtual worlds as a way to explore their identity. Virtual worlds do this by delivering to the players an experience amounting to a *hero's journey*[11]. Not all virtual worlds are set up for this (educational ones usually aren't, for example), but most are. Similarly, not every player plays for this reason, but most do (although few of them necessarily realise this).

In those (majority) virtual worlds set up to guide players along their hero's journey, critical to success is the notion of *achievement*. Players must feel that that they are advancing relative to one another and that the advancement is worthwhile. Most virtual worlds therefore have a mechanism that allows a quick comparison between characters – normally a system of *levels*, with higher-level characters being more advanced than lower-level ones. Although, strictly speaking, virtual worlds don't *have* to have something like this to facilitate a hero's journey, it certainly helps; furthermore, if they do have it then they're implicitly offering a hero's journey whether they want to or not (but in almost all cases they *do* want to offer it).

An important point to note here is that the character reflects the state of advancement of the player. In general, a player who is close to ending their hero's journey will play a character that is of a very high level, whereas a less experienced player will play a lower-level character. Players therefore use their character's status to establish their place in the social order: someone of a higher level is "better" than you, as you are "better" than someone of a lower level. Players undertake actions in the virtual world that cause their characters to go up levels, thereby showing to the rest of the world (but mainly to themselves) just how good a player they are

becoming. It's in the interests of all players on a hero's journey to do this: if you don't accept a metric that says some players are better than you, you can't hope to use that same metric to judge the improvement in play of your future self over your current self.

Now this would all fall apart if there were not a strong correlation between a character's level and its player's experience. It doesn't matter so much that if you see a low-level character then it must have a low-experience player behind it; the critical deduction is that if you see a high-level character then it must have a high-experience player behind it. Otherwise, when you're a high-experience player, how will anyone (least of all you) recognise your quality?

Virtual world designers implicitly understand this, and will ensure through the virtual world's design that only those characters belonging to players who genuinely *are* good at what they do reach the higher levels. This maintains the integrity of the hierarchy, underpinning the players' sense of advancement and reinforcing their growing feelings of self-actualisation. A virtual world in which the lucky roll of a die could instantly turn a newbie into a mighty wizard would remove all pretence that rank meant anything. Unless the players of this world could find some other way to measure their relative progress, it would become a very disappointing and dispiriting place for those on a hero's journey. It's perceived as an issue of *fairness*.

Virtual worlds administrators strive to protect the integrity of the level hierarchy. If they discover that someone is exploiting some unintended design feature that fast-tracks them to higher levels, they have not only to track the bug down and fix it, but also remove all benefit that the player has gained from it. In its purest form, this may mean busting them down several levels, but it can also include actions such as removing in-world property or in-world currency wrongfully acquired.

The interesting thing here is the definition of "wrongfully acquired". Who decides it's wrongful? What makes some actions in the virtual world "exploits" when other, similar actions, aren't?

Virtual worlds are designed to be open-ended. Designers are usually very pleased when they discover that their virtual world reacts sensibly to a situation which they hadn't foreseen. Suppose that, in a patch, the designers of one virtual world were to improve their physics engine such that object collisions were better detected. To their delight, they discover that players can now use axes to chop down trees, whereas previously they couldn't. To their dismay, they discover that the Axe of Great Magic can chop down stone walls, too. Players in the possession of this rare item have been breaking into castle treasuries and availing themselves of the entire contents unmolested by guards.

In both these examples, the effects were unintended. The chopping down of trees is something that the designers were pleased with, yet the chopping down of walls is something they were not pleased with – it gave players a short-cut to wealth that they could use to purchase high-powered objects. The former would be regarded as a feature, the latter as an exploit. The designers would alter the virtual world's code so as to maintain the former while suppressing the latter.

From an abstract point of view, though, there is little to choose between a feature (easy logs) and an exploit (easy treasure). In some virtual worlds, perhaps the chopping down of trees would be the exploit and the chopping down of walls would be the feature. It's a judgment call, and one that only the virtual world designers are in a position to make. If they don't get to decide what is or isn't an exploit, exploiters will prevail and the achievement structure will break down.

Note that not all exploits are in the code. Sometimes, the exploits occur where the code can't reach – in the real world. If a player does something in the real world that gives them an advantage that the designers deem to be unfair (*e.g.* they hack the client software to reveal information to which they should not be privy), administrators should be able to take action in the virtual world to protect the level system. If this means disintegrating characters played through hacked clients, so be it.

This is the third and final point I want to make. Those virtual worlds that offer one or more explicit, sanctioned methods by which the relative experience of players may (through their characters) be judged have an obligation to uphold the integrity of those methods. In order to do this, the administrators must have the freedom to remove what they perceive to be short-cuts and to undo the results of what they perceive to be aberrant behaviour whenever these situations arise – even if they arise in the real world. While this standard pertains, they are able to preserve the basic honesty of the measuring system. If their powers to interfere as they see fit were removed, then either some other way of preserving the hierarchy must be found or some other hierarchy must be implemented, or the virtual world will cease to operate as an effective venue for identity exploration.

3 Discussion

I've made three primary points here. To recapitulate:

- The powers that virtual world administrators wield are embedded in the coded rules of the virtual world, which the administrators themselves define. If this were not the case, they could not protect the game conceit.
- Virtual world administrators have *carte blanche* to change the virtual world however they deem appropriate, regardless of the will of the players. If this were not the case, the virtual world could not evolve.
- Administrators of virtual worlds that feature achievement are able to change the coded rules of their virtual world retrospectively and without warning, under conditions they need only specify after the event. If this were not the case, the virtual world's ability to support identity exploration would be compromised.

The game conceit, freedom to evolve, support of a hero's journey: without all three of these fundamental characteristics, a virtual world is greatly diminished if not mortally wounded. Although I am happy for administrators of individual worlds willingly to relinquish one or more of these characteristics if they so choose, I am not happy for them to be taken away through ignorance by external forces.

The three standards that I have described currently protect their respective characteristics. These may not be the only ways to protect them (indeed, they may not be the only characteristics that need protection), but if the current standards fail then other means to achieve the same ends must be installed instead. Otherwise, virtual worlds will never deliver the wonders they promise, or even continue to deliver those wonders they can manage at present.

I do not therefore intend to defend the current standards *per se*. I shall, however, point out what threatens them. There are several emerging attitudes towards virtual worlds that at first glance seem perfectly reasonable, yet which on closer inspection are more than suspect. I only need one of these to illustrate the general principles involved, so I shall select the most contentious: the commodification[12] of virtual worlds.

3.1 There's One Born Every Minute

Although in the early days of *MUD* I foresaw many of the changes that were (and are) to come to virtual worlds, I did not predict the extent to which they would become commodified. I didn't realise people could be so touchingly trusting.

Because they evolve, virtual worlds change the whole time. If I, as a designer, determine for obscure reasons of balance to add a thousand new Swords of Shininess, that's up to me. What if you bought a Sword of Shininess yesterday for $500, though? Its value has immediately dropped, because the supply of Swords of Shininess has increased. Or perhaps for even more obscure reasons of balance I decided that the best solution was to remove Swords of Shininess as a concept altogether – you'd be down the whole $500.

A player in this situation might think it reasonable to go to a court of law to seek compensation for loss, or to get the designer's decision reversed. For whatever reason, a judge might agree with them and award damages and/or instruct that the latest patch be reverted.

This would not be a good thing for virtual worlds.

Every change to a virtual world has *some* effect that will impact one player less advantageously than another. If that player can call upon the law for compensation, so can someone else for some other change (or even, conceivably, for the change required by the judge to undo the first change). The overall effect is to remove the designer's freedom to change their world however they see fit. The result: virtual worlds will not evolve.

OK, so let's throw in that word "reasonable". Players expect that designers will patch the virtual world every so often, and they accept a certain amount of "reasonable" change. When the designer makes an "unreasonable" change, then they call in the judge. Better?

No, not better. There's no way to measure the "reasonableness" of virtual world design decisions any more than there's a way to measure the reasonableness of a portrait. Artists do what artists do.

Even if it were feasible, it's pointless. Here's the thing: any utility inherent in a virtual world object is only there because of the software that provides its context. When you buy a virtual object, you're gambling that the virtual world giving it meaning will not change in such a way that it reduces the amount that people will pay for that object. Securing your bet by calling on the law to undo changes of which you disapprove attacks the standard that permits designers to make whatever changes they deem necessary to help the virtual world evolve. Every change affects *somebody* adversely, therefore in this scenario every change can in theory be prevented by law. Thus, the virtual world does not evolve, which ultimately kills it. Killing it removes the entirety of your investment anyway.

In other words, if players wishing to protect their investments in a virtual world can invoke the law to limit changes, *that very action* will change the virtual world in such a way that the investments will *not* retain their value.

There's a rejoinder to this. What I've effectively done here is to set up an edifice only to knock it down. Sure, the law *might* seek to protect investments from the effects of designers' whims, but then again it might not. I could just as easily have suggested that the law might seek to make all virtual worlds have names beginning with the letter P, then demolish that argument instead. What evidence is there to

suggest that players would want to bring in the law if they lost money because of a change?

Well, the evidence is that they already try to do this by other means. Players are subservient to designers, because designers control the code. However, players can leave the virtual world if they so choose, which gives them leverage on the developer's marketing team. The marketing team, being on the business side of the company, can call on higher management to instruct the designers to do things they don't want to do. Thus, there's a rock/paper/scissors relationship: designers beat players, players beat marketers, marketers beat designers. Unsurprisingly, there have been many occasions in the past where players have used their influence on marketers to cause major changes to be made to a virtual world (for example, the removal or player-versus-player combat in *Ultima Online*).

This approach only works when large numbers of players are involved, though. Individuals – even rich individuals – have little influence on marketers. They do, however, have (through their lawyers) influence on judges. If their monetary loss from a change to the virtual world were great enough, there's every reason to suppose that a player or group of players might seek redress through the courts[13].

Hopefully, by then the courts will be ready.

3.2 Meaning

Bill Gates could be the world champion high jumper if he wanted to be. All he has to do is go to the current world champion high jumper[14] and buy his world record off him. Hey, once he's got it, maybe he can persuade the courts to prevent other people from attempting to beat it because that would be like stealing.

Well, no. World records are awarded to individuals only under certain conditions. You can't buy a world record – they're non-transferable. So are tickets to international sporting events, so are bank accounts, and so (if you want to enable the hero's journey) are characters with virtual worlds.

There are four main reasons why people buy characters in virtual worlds:

- As an investment. They think they can sell the character or the objects that came with it for more than they paid.
- For group-play reasons. They haven't played for a while and their friends are ahead to an extent that they couldn't easily catch up. They buy a character of an appropriate level so they can play with their friends again. This category also includes those who might purchase a character in order to fill a perceived void in their group's make-up (in a party of adventurers with one-too-many mages and one-too-few healers, the player of one of the mages may sell their mage and buy a cleric, for example).
- To inflate their status. They buy a higher-level character so they can act like they're a higher-ability player. This would also cover the situation where a player wants access to high-level content without having to "waste time" playing through the low-level content to get there.
- They want to acquire an object legitimately, but find they can only get it by paying real money to people who have tied up the market.

The first and fourth of these reasons are dependent on the other two for their success, so if those disappear then they also disappear. The second reason is understandable, although ideally it should be unnecessary: virtual worlds ought to be set up so as to make mixed-ability parties of players viable. The third reason is the problematic one.

It's fairly obvious that paying for a higher-status character in order to appear to be a higher-status player is ultimately self-defeating. If one player buys status, those who know that player will also be tempted to do it (so as to re-establish their place in the hierarchy relative to that player). The more that players trade up their characters, the less that anybody will associate character level with player ability, and therefore the lower the value of level as a measure of ability. If too many people debase the currency, the currency becomes worthless.

This has a bad effect on players undertaking a hero's journey. What's the point in beating down hordes of bad guys, scrimping and saving gold pieces to buy the next grade of magic shield, bouncing back from your defeats, using your wits to ensure victory – what is the *point* of it if someone with a few dollars to spare can get where you are while knowing squat about the game?

As a virtual world designer, I don't want my players to have their sense of achievement trashed like this. I therefore seek to prevent players from buying and selling in the real world characters and objects from my virtual world. If I can't protect the integrity of the measuring system, players will lose faith in it. This will cause them to abandon their hero's journey, depriving the virtual world of one of its unique selling points.

Some virtual worlds don't care about this, which is fine. Some virtual worlds do care about it, however, and they mustn't be treated the same way as the virtual worlds that don't care. There is a step change difference between the two. Virtual worlds are just about the *only* places where an average person today can undertake a hero's journey, but even without this feature they can still qualify as virtual worlds (in the same way that a story without a plot can still be a story, Chekhov-style). What's acceptable in a virtual world for which the designers have opted out of supporting the hero's journey is not necessarily acceptable in one for which they haven't, though.

One option open to virtual world administrators wishing to stop the trade in characters and objects is to delete any character or object found to have been traded. While this may work for the sale of characters, players are generally opposed to the idea when applied to objects: they don't buy objects because they want an unfair advantage, they buy them because a real-life company specialising in object sales has tied up the source and this is the only way to get them. They want the sellers to be punished, not the buyers.

Thus, administrators will often close down entire accounts discovered to belong to dealers, but leave those of the people the dealers exploit untouched. Because accounts are real-world entities, most commercial virtual worlds assume the authority to do this under an End-User Licensing Agreement ("EULA") that defines the conditions under which a player is allowed to enter that virtual world; breach of this contract means that an account can be cancelled with no redress.

In either situation (loss of characters or loss of accounts), the sellers are not going to be happy. They are losing trade because of the administrator's actions. There are laws and constitutions and things (you can tell I'm not a lawyer?) that protect a company's right to do business. EULAs and other restrictive practices can be struck down[15]. Perhaps they will be?

I shan't go into the various legal arguments for and against the actions of virtual object traffickers[16]. As I indicated earlier, my task here is to explain why the current standards exist and what would happen if they didn't exist; it is not my place to determine whether they should or shouldn't exist in the eyes of the law (although this is not to say I would necessarily be overjoyed with whatever decision was handed down to me).

Early virtual worlds didn't have the problem of people claiming real-life ownership of virtual objects. The reason for this was because these worlds would periodically *reset* – everything was returned to its starting position, leaving only the character records of the players untouched. This was for design reasons[17], but one consequence was that players took it for granted that everything in the virtual world was transitory: the lord giveth and the lord taketh away[18]. It was only when virtual worlds began taking on more permanence that suddenly some players began to think that because their *character* owned something, that meant they as a *player* owned it.

If players are given (or if the courts decide they already have) the right to buy and sell any characters or objects they "own" in virtual worlds when this is against the wishes of the administrators and most of the other players of those worlds, that would invalidate the current standard employed by developers to protect their achievement hierarchy. Unless some other way to maintain it could be found, this in turn would lead to a fundamental change in the nature of virtual worlds. It would be like insisting TV drama adhered to the same standards of truth as TV documentaries – bye bye TV drama.

3.3 Playing by the rules

My final example of how commodification affects virtual worlds concerns the way it breaches the game conceit.

Commodification brings reality into virtuality. Unfortunately, except in very narrow circumstances[19], the game conceit evaporates upon contact with this much reality. For *no other reason that this*, virtual world administrators with a game conceit to protect *must* have the ability to extinguish the threat. There are other things they can try first, of course (such as attempting to persuade an individual of the harm their activity does the virtual world); for those that don't co-operate, though, only the extinction of their characters will ultimately stop them.

I'm saying something quite strong here. I'm saying that administrators should be allowed to obliterate traded characters – or even characters they suspect are being manufactured for trading – merely for *existing*.

It's not hard to see whence objections to this might come. If I pay $5,000 for a virtual house and you disintegrate it (or even if you merely auction it off), I'm going to be absolutely livid. As far as I'm concerned, you just burned $5,000 of my money. I don't care that you prohibit commerce: my local park prohibits commerce, but if I bought a dog from someone there that wouldn't give the park warden the right to shoot it.

Well no. That's because the existence of a bought dog in a park doesn't diminish that park's ability to function as a park. The existence of a bought character in a virtual world does diminish that virtual world's ability to function as a virtual world. It's one more grain of reality, one more player who regards the virtual world as little different to the real one.

There's a familiar paradox here. All virtual objects are defined by the virtual world's code. That's not just *one* piece of code, but the *sum* of the code, along with all the data it operates on: everything is so dependent on everything else that it's impossible to isolate a single few lines of program and say "these are the Spear of Destiny" or "these are the Sword of Truth". Those same lines that "define" the Spear of Destiny *also* partly define the Sword of Truth – if the spear did not exist, the sword's influence on the virtual world would be ever so slightly different. The code is the DNA of the virtual world, and – here's the crucial bit – *the administrators are*

part of that DNA. A judge can strike down an administrator's powers in a virtual world, but those powers are embodied in the code. To change the powers is to modify the code; to modify the code is to modify all virtual objects – including the one that caused the judge to order that the code be modified.

Put another way, a virtual object is only what it is because the designer makes it so. Take away the designer's ability to make it so, and it ceases to be what it was.

OK, so the out-of-context sale of one object isn't going to make a lot of difference in itself. It's a drop in the ocean, and its feedback into the virtual world's value system is lost in the noise of in-context transactions. The *accumulation* of out-of-context sales, however, does make a difference. Unchecked, eventually it tips the scales and the virtual world flips from being a hero's journey world to being a world with no hero's journey. The game conceit has gone.

Which is the more important: supporting explorations of identity or supporting the free market? Are they compatible, or mutually exclusive? If those who make and interpret laws break down the barrier that is the game conceit, they're taking away the ability of virtual worlds to deliver that which only they *can* deliver. Is it right to do that? Is it right *not* to do that?

The scene: a regular Saturday afternoon match in the Premier League (this is soccer; hey, I'm English, it was either that or cricket). The referee awards a penalty. The defending goalkeeper stands in front of his goal, while the attacking striker places a ball on a spot 12 yards in front of him. The striker is going to run up to the ball and try to kick it past the goalkeeper and into the goal. The goalkeeper is going to try prevent the ball from getting into the goal. Except this one isn't, because this one has been paid by a gambling syndicate to throw the match. When the police find out, he's going to go to prison.

One goalkeeper taking a bribe, one player selling a character. The law does protect some game conceits once it understands the consequences of not protecting them. Will it do so for virtual worlds?

4 Summary

I've described here three standards of action that virtual world developers commonly employ to ensure their creations' uniqueness and survival.

In truth, these standards are not quite as formally distinct as I have made out. As an administrator, if I find you're using an exploit then I might decide to obliterate your character using the powers I gave myself to protect the game conceit. Alternatively, I might change the virtual world so that the fruits of your exploit are worthless – using powers only "needed" to guarantee the virtual world's evolution. Then again, I may just fine you a few levels using the specific powers I possess for maintaining the integrity of the achievement system.

Everything is intertwined. Optimistically, this means the system is robust: if one standard were invalidated, the others could cover for it Pessimistically, this means the system is fragile: if one standard were invalidated, the others would be invalidated with it.

I tend towards the pessimistic view. If one standard is invalidated, this will be because it can do something that it shouldn't be able to do. If another standard can achieve the same ends, it will be invalidated for the same reason. If it can't achieve the same ends, whatever the standard was protecting will be unprotected: this will ultimately mean the end virtual worlds as we know them (and, worse, as we might yet have known them).

Here's my take on all this.

I have nothing against commodification for virtual worlds that want it. Good luck to them! As far as I'm concerned, the more virtual worlds there are, the better. I don't want *all* virtual worlds to be commodified, though.

What worries me is that precedents established in dealing with the virtual worlds that want commodification are applied to the virtual worlds that don't want it. Not only is this unfair on those developers and players who don't want it, but it's self-defeating: as I have shown three times in the above discussion, uninvited commodification ultimately leads to its own strangulation (and invited commodification isn't exactly risk-free either).

When Roy and I created *MUD*, we knew that other people would write programs based on it – that the idea would evolve. We knew these (let's call them) "virtual worlds" would become commercial entities in themselves, *i.e.* that people would pay to play them. After thinking about it, we figured there was scope for advertising in them, but that this would spoil the players' feeling of immersion unless it made sense in context. For the same reason, we rejected the idea of selling stuff inside the virtual world using real-world money (although we did miss a trick, in that it's immersion-busting to buy a magic sword with dollars but less so to buy gold pieces with dollars then buy the sword with gold pieces). Besides, who'd want to pay for something that might be worth nothing the next day – ha ha!

Virtual worlds have evolved. There are myriads of them out there of all shapes and sizes, from tiny, textual, role-playing *MUSH*es to mighty, all-conquering graphical spectaculars with more players than some countries have citizens. Their amazing variety can only increase, as new designers with new ideas seize their own chance to make their imaginations real. Yet through all these worlds run threads of similarity, the fundamental concepts about which they crystalised: the core characteristics that say "this is a virtual world".

If virtual worlds are to continue to astound us, to fill us with wonder, to allow us to be who we really are, these threads of similarity must be protected – cherished, even.

They're not games, they're places.

And I still want to go there.

5 Acknowledgement

This paper greatly benefited from comments made by Ren Reynolds (http://www.ren-reynolds.com) on its first draft. Thanks, Ren!

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[1] I offer no evidence in support of this statement whatsoever. However, a paper about law wouldn't be a paper about law without an endnote in its first sentence.

[2] I'd run my own postal games magazine for two years, and had a game published as a result (Bartle, R. A.: *The Solo Dungeon* , Games Publications, Birmingham UK, 1978. It was a book version of what would now be classified as a hypertext game).

[3] Strictly speaking, this should be "virtualise", as I mean it in the sense of making the imagination non-imaginary (*i.e.* "real" under normal circumstances, but "virtual" here). Designers want freedom in the designing of virtual worlds every bit as much as players want freedom in the playing.

[4] Some assumptions have stayed the course and are only now being challenged. For example, we (well, I) used the excuse of "you don't have to play if you don't want to" to fob off people who complained about the way the virtual world was run, all the while knowing that, actually, if all your friends are in the virtual world then you may feel you do "have to" play even though you don't really "want to". In other words, I knew (what would now be called) "social capital" existed, but dismissed its significance. The reason why I did this will shortly become apparent, but that isn't to say I necessarily *should* have done it.

[5] Huizinga, J.: *Homo Ludens*, Tjeenk Willink, Haarlem The Netherlands, 1938.
[6] The subject of giving up selected freedoms to gain greater freedoms has a long history in Philosophy, stemming in the main from Thomas Hobbes' *Leviathan* (ch 14). I shall not, however, discuss this here except to note that the debate exists; my purpose is descriptive, not normative.
[7] Furthermore, there are an infinite number of them. Salen, K. & Zimmerman, E.: *Rules of Play*, MIT Press, Cambridge MA, 2003 (p129).
[8] There is a town in the UK called Scunthorpe. Do you ban all reference to its name (as AOL's every-vigilant profanity-filters originally did when they saw the second-to-fifth letters) or do you allow reference to it in the full knowledge that people will then start using it as a profanity?
[9] Nerf (nɜ:f) *vb. (tr.)* to render less effective. [C20: from the Nerf™ brand of safe-play toys]
[10] Bartle, R. A.: *Designing Virtual Worlds*, New Riders, Indianapolis , 2003 (ch5).
[11] Campbell, J.: *The Hero with a Thousand Faces*, Princeton University Press, *Bollinger Series 17*, Princeton, 1949. This is far too detailed to go into here, but essentially there is a pattern followed by much of myth, ancient and modern, that takes an individual on a journey to a world of adventure (i.e. a *virtual world* in our case) where challenges are met, foes defeated, aspects of the self confronted, and identity asserted. As a result, the individual is a more complete person than they were before they made the journey. In virtual worlds, the undertaking of a hero's journey is, for many players, the ultimate source of the fun they derive from playing.
[12] *Commodification* is a term used to describe the transformation of previously non-commercial relationships into commercial relationships. In virtual worlds, this is generally taken to refer to the treatment of virtual objects (or currency or characters) as objects of real-world commerce. Its principal manifestation is the buying and selling of virtual goods for real money on auction sites such as eBay.
[13] Celia Pearce reports that the parents of an *EverQuest* player who bought him a high-level character for his birthday tried to hold the developers accountable when he subsequently got it killed. It's not clear from her paper the extent to which lawyers became involved, however, nor whether the anecdote is basically true or merely an urban legend. Pearce, C.: *Emergent Authorship: The Next Interactive Revolution*, in *Computers & Graphics* vol. 6 (1), Elsevier, February 2002. http://www.cpandfriends.com/writing/pearceCAG.pdf .
[14] The current holder of the outdoor world record for the high-jump (men) can be found at http://www.iaaf.org/statistics/records/gender=M/allrecords/discipline=HJ/index.html . It's not Bill Gates.
[15] Although it may appear that once again I am building up an edifice just so I can bulldoze it, this one is constructed on stronger foundations. Mythic, the developer of *Dark Age of Camelot*, was sued by a virtual object trading company called Black Snow after Mythic suspended Black Snow's accounts. Unfortunately (from our perspective) the case was never resolved, because Black Snow neglected to pay its lawyers…
[16] For a summary of these, see Reynolds, R.: *Hands Off MY Avatar: Issues with Claims of Virtual Property and Identity*, proc. Digital Games Industry, University of Manchester, 2003 (forthcoming). http://www.ren-reynolds.com/downloads/HandsOffMYavatar.doc .
[17] You can give actions far more complicated consequences if you know that their effects will all be wiped out simultaneously. Otherwise, undoing the effects of one action might interfere with the continued ability to undertake some other action (*e.g.* the door someone burned down yesterday suddenly respawns and traps you in a dead-end room).
[18] Job 1:21.
[19] Playing poker for money involves making game-critical decisions based on foreseeable consequences occurring outside the game, *i.e.* can you afford to stay with the betting? To do this, poker temporarily co-opts part of the non-game world into its magic circle. With careful design and planning, virtual worlds can do the same kind of thing in a limited way; this does not in general extend to the routine buying and selling of characters on auction sites, however.