

Intellectual Property or Intangible Chattel? ¹

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Abstract

Currently this virtual property is governed under a system where initial rights are allocated to traditional intellectual property rights holders, and subsequent rights are governed by license agreements called End User License Agreements (EULAs). The traditional intellectual property rights holders have been systematically eliminating any emerging virtual property rights which game players may be entitled to by the use of EULAs, causing an imbalance in resources and rights. Perhaps items and characters created in virtual worlds by players should be treated as intangible chattel while allowing the underlying designs and code of the game designers to retain their intellectual property rights. Just as a person feels that when they have purchased a book, they own the book but not the copyright in the book; so too should a player own the characters and items (as intangible chattel) in the game's virtual world without acquiring the underlying copyright in that virtual world.

Keywords: *intellectual property, virtual worlds, intangible chattel, MMORPG, End User License Agreements*

I. INTRODUCTION

The internet has given birth to an expanding number of shared virtual reality spaces, with a collective population well into the millions. These virtual worlds are massively multi-player online role playing games which exhibit most of the traits we associate with the Earth world: economic transactions, interpersonal relationships, organic political institutions, and so on. These virtual worlds are created by computer code which is designed to act like real world property. (Fairfield, 2005) And hence, computer games of this nature subtly reflect our way of thinking about the real world. (Bolter, 1984) As such, the question is, should this virtual property be protected and regulated in the same manner as real world property?

A good deal of computer code is just one step away from pure idea. Like ideas, it is non-rivalrous; that is, one person's use of the code does not stop another person from using it. (Fairfield, 2005) This kind of code is deemed to be protected by intellectual property law. (Lessig, 1999; Geist, 2003; O'Rourke, 1997) Intellectual property protects the creative interest in non-rivalrous resources. If intellectual property did not exist, creators would not be able to recoup the costs of creation. Multimedia creators rely heavily on this theory. (See e.g., *Davidson & Associates, Inc., et al v. Internet Gateway, et al.*, No. 4:02-CV-498 CAS (U.S. Dist. Ct., E. Dist. Missouri, 2004))

But there is a different kind of multimedia, which is upsetting this theory, multi-author interactive online role-playing games. Interactivity is a key value of multimedia. Traditional media gives the user a passive role of watching or listening as a linear work unfolds. The benefit of digitisation is that it allows users to select precisely the information or experience they want. (Williams, Callow, and Lee, 1996) Massively multiplayer online role-playing games (MMORPGs) are the first persistent - 24 hours a day/ 7 days a week - virtual worlds, and the first instance of individualized mediated experiences within a mass audience (each player's experience is unique despite the large number of simultaneous participants). (Wolf and Perron, 2003). MMORPGs are the first interactive mass medium to unite entertainment and communication in one phenomenon. (Filiciak, 2003)

MMORPGs bring another type of code into existence; one which is designed to act more like land or chattel than like ideas. A type of code more prevalent on the internet than the first type of code and which uses most of the internet's resources. This type of code is rivalrous, if one person owns and controls it, others do not. (Fairfield, 2005) In fact, it makes up the structural components of the internet itself. For example, domain

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names, URLs, websites, email accounts, and virtual worlds. The chattel-like code creates virtual property akin to real life property. It demands protection too. (Bradley and Froomkin, 2005)

At the moment this virtual property is governed under a system where initial rights are allocated to traditional intellectual property rights holders, and subsequent rights are governed by license agreements called End User License Agreements (EULAs). The traditional intellectual property rights holders have been systematically eliminating any emerging or potential virtual property rights which game players may be entitled to by the use of EULAs.

This is causing an imbalance in resources and rights. The common law is a complex system which has evolved over time to encode many different factors into its rules. In particular, the law of contract and the law of property have traditionally balanced each other. The law of contract permits parties to realize the value of idiosyncratic preferences through trades. The law of property traditionally limits the burdens that parties may place on the productive use or marketability of high-value resources by means of contract. (Merrill and Smith, 2000) At the moment, emergent useful property forms in cyberspace are being eliminated by contract.

Copyright law has been the first line of defense for the games companies, but the protection afforded to the games companies can be equally applied to the games users. The Federal Court of Australia, *Galaxy Electronic Pty Ltd v Sega Enterprises Ltd* (1997) 145 ALR 21, held that visual images created by playing a video game fell within the Australian statutory definition of 'cinematographic film'. The question is, nevertheless, who is creating the film: the games company who provide the backdrop and venue or the players who provide the dialogue, action, and plot. The structure and building-blocks are the legal property of the creator-company; however, each character is the embodiment of a player's story.²

II. VIRTUAL FREEDOM

Legal regulation of virtual worlds is gaining more interest as more and more people flock to virtual worlds and invest their time and resources there. The next section reviews the idea of freedom and regulation in virtual space. (Balkin, 2005) There are three. First is the freedom of players to participate in virtual worlds and to interact with one another through their avatars (in-game representative). The second freedom is for game designers to plan, construct, and maintain a virtual world; this freedom would be called the freedom to design. Finally, there would be a collective right of the designers and players to build and enhance the game space together; and hence, deemed the freedom to design together.

a. Freedom to play

Unlike single-player games, these virtual environments do not go into cryogenic suspension in your absence. Events transpire. Battles are fought. Rivalries flare. Alliances are formed. What makes the game immersive is a world where no territory is off-limit, anything you see is fair game. This virtual world cannot be flicked on and off, actions have lasting consequences, both narrative and social. (Herz, 1997) As players build their characters (avatars), accruing strength and skill with experience, they also rely on other characters. Success relies more on social interaction and less upon combat skill. Avatars enter a mythology; and their actions accrete to the continuity of the world. The audience does not just watch the story. The audience is the story. The players are producing as much as they are consuming. This is a quantum leap from conventional first person shooter technology.

² The following are protected subject matter for copyright purposes: original literary works are defined as any work, other than a dramatic or musical work, which is written, spoken or sung – these include databases and computer programs, including preparatory design material for computer programs; films; databases; the typographical arrangement of published editions of literary, dramatic or musical works; sound recordings; broadcasts; and cable programmes. Copyright, Design, and Patents Act 1988, ss 1-8.

Literary, dramatic, musical and artistic works and films are sometimes be collectively referred to as 'author works', and the other categories (apart from databases) are grouped as 'media works'. The distinction rests on a number of points, of which the most important conceptually is the idea that the second group relies essentially on the operation of machinery and technology where the first depends upon an individual as creator.

Virtual worlds are populated by thousands of people breeding new kinds of stories that demand a world-builder's creative ambition and attention to dramatic potential. Game designers control these virtual worlds through two basic devices – code and contract. They can write or rewrite the software that shapes the physics and ontology of the game space and sets parameters about what players can do there. They can also regulate the space via Terms of Service contracts or EULAs which players must sign in order to participate in the virtual world. In most cases, the EULA covers rules about proper play, appropriate behaviour, and decorum in the virtual world. These are aspects of the game which are difficult to control via code.

The game designer can discipline players who violate the EULA, take away their privileges and powers, or even kick them out of the game space and eliminate their avatars. The game designer's freedom to design and the players' freedom to play are often synergistic. The code and the EULA create the architecture and social contract of the virtual world. They allow people to play within it.

Thus, it can be said that the players' freedom to play is the freedom to play within the rules the game designers have created.

b. Freedom to design

The market is quite competitive at the moment, but since virtual worlds are human networks, there is reason to believe that only a few virtual worlds will eventually dominate the market. (Woodcock, 2005) The tendency to network monopoly is enhanced by the fact that most people seem to be willing to "live" in at most one fantasy world at a time, and switching is costly as it can take weeks to become familiar with a new world. The growth in the number of virtual worlds has been spurred by a growth in user base and revenues.

Millions of individuals are embracing the unreality of virtual worlds by paying substantial sums of money to exist in them. One might predict that where large amounts of real money flow, legal consequences follow. Brute cash alone, however, does not establish the legal significance of virtual worlds.

The business success of virtual worlds derives from their ability to attract customers who are willing to pay an ongoing fee to visit the world, and that requires virtual worlds to offer a form of entertainment that is persistently more attractive than the competition. As it turns out, virtual worlds seem to be able to offer entertainment that is attractive enough to many people that they sacrifice major portions of their time to it. They offer an alternative reality, a different country in which one can live most of one's life if one so chooses. As it happens that life in a virtual world is extremely attractive to many people. A competition has arisen between Earth and the virtual worlds, and for many, Earth is the lesser option.

The primary business challenge game designers face is the escalating cost of creating virtual worlds. The cost of first class art continues to rise faster than the market is expanding, especially as the MMORPGs require tremendously more art assets than the majority of stand alone video games. (Walton, 2003) MMORPGs are huge. They must provide hundreds of hours of gameplay to hundreds of thousands of players which has led to large teams and lengthy development cycles, often involving thirty or more developers working at least two years. (Ondrejka, 2005) The games' success depends on players' willingness to invest themselves (financially and emotionally) in their characters. They have to become citizens of this virtual world, if it is going to thrive. The very process of building a massive multi-player game reflects this shift. The designers, far from being authors, have to act more like urban planners, or local politicians.

c. Freedom to design together

For this reason, platforms owners seek out the opinions of the player community about how to improve the game and to make it more fun to play. How different features can be tweaked, and how loopholes can be eliminated. They also ask for suggestions as to how previously unanticipated forms of player behaviour, which are thought to be unfair or not in the spirit of the game, can be prevented through code or prohibited by the EULA. The game designers cannot make everyone happy because the suggestions are often contradictory. Some players may want to have a certain behaviour prohibited while others want it to become a legitimate part of the game.

The Sims was the first mass-market game to utilize player created content. The game allows the player to control the lives of a number of avatars who go about their day attempting to find happiness. Some who believe

that possessions bring happiness, and thus, fill their homes with better furniture like stereo equipment and pianos. This is the focal point of their existence. The game designers at Electronic Arts (EA) understood that the players would be able to supply more content to each than the designers could create. So, they released tools to create content before the game was shipped. EA now claims that over 80% of the content in use was created by players. This desire to customize their world extends to other games which do not support this kind of interaction. In Britannia, the most popular fantasy world operated by Ultima Online, players who would like to decorate their homes must come up with elaborate strategies for combining in-world objects in order to create images that look like real world items. For example, there are several different techniques for making pianos that involve dozens of different objects, ranging from wooden crates and chessboards to fish steaks and fancy shirts. (Ondrejka, 2005)

Other forms of user created content are mods. Mods rely on the fact that many first person shooter games, and some other games, allow users to modify in some combination of artwork and gameplay. The more flexible the engine is, the more variety in the mods. So an original first person shooter game can be morphed into anything from a driving game to architectural walkthroughs. There are websites that provide an audience and reviews for mods. This community acts as a training ground for artists and developers who want to work on games. (See, PlanetQuake Featured Mods at <http://www.planetquake.com/features/motw>)

Thus, the interaction between the game designers and the player community assists both the freedom to design and the freedom to play. It is the obvious aspect of the freedom to design together.

III. CRAFTING v. CREATING

As you can see, the desire to create and customize is a significant force. The distinction between mods and the Britannia piano illustrates a particularly important point. Mods allow the creators to change the behaviour of the game; whereas, the Britannian piano cannot be played. It looks like a piano, but it is only a stack of crates, a chessboard, and fish sticks. This is an excellent example of the difference between crafting and creation.

Crafting is not creating in the realm of MMORPGs. Crafting is the process of advancing your character, or "leveling," through repetitive generation of game objects. Leveling relies on a complex system of skills and progressions that allows the player to unlock new abilities, visit new portions of the world, and generally become more powerful. The objects generated through crafting are chosen from the thousands provided by the developers, and may be used by the crafting player, sold to other human players or sold to non-player characters ("NPCs") added to the game solely to act as buyers. These automated buyers are important because user leveling produces large quantities of items that are not useful or desired, so the NPCs are required to drain the unwanted items from the system. (Ondrejka, 2005)

In the real world, objects are created out of component parts of lesser value. A piano, for example, may be built from timber, wire, and ivory (or plastic nowadays). Despite the fact that the raw materials have negligible value, the piano may be extremely valuable due to time and effort added in order to create a functional piano. This critical type of added value is everywhere in the real world but is conspicuously absent from virtual worlds - the Britannia piano can't be played.

Because many crafting systems involve the gathering of "raw materials," and newer MMORPGs are adding more complicated schemes, the crafting being accomplished may appear to be adding value in the same way as real-world creation. This is not accurate. Game developers use crafting based on "raw materials" to slow the rate of production, to limit the crafting of the best items, and to extend the life of content by obscuring which items are the best. Production is slowed because players must take the time to acquire the correct combination of raw materials. Crafting of the best items is limited through artificial scarcity of raw materials. The players must search through a larger design space which, in turn, takes more time to discover the items. This adds to the slower spread of items through the community. (Crafting Level 1 at <http://starwarsgalaxies.station.sony.com/content>)

Nevertheless, the players are still just choosing from the set of objects that the developers built into the game. Competitive pressures combined with communication between players will force rapid convergence onto the best items. The value of some of these items will be increased due to scarcity, but this is fundamentally

different from the value added in real world creation. Players cannot truly innovate because they are still just choosing from the items supplied by the developers.

Developers believe that they are creating new worlds in which communities can be formed and stories can be told. Players see this in a slightly different light. They use the game platform to create identities, have adventures, and tell their own stories. The technologies for producing animated motion pictures and building virtual worlds have been converging. The design of movies and virtual worlds are similar; however, virtual worlds require interactivity. Interactivity makes virtual worlds a better medium for the communication and exchange of ideas than motion pictures. Not only can the game designer exercise his imagination in the creation of new worlds, but so do the players. Motion pictures allow images to be viewed by a mass audience; but multiplayer online games convert that mass audience into active participants and storytellers. Virtual worlds permit contingent events, path dependencies, and cumulative effects. In short, they permit the development of histories. They allow the players to make new meanings, to have new adventures, to take on new personas, to form new communities, and to express themselves and interact with and communicate with others in ever new ways. (Balkin, 2005)

IV. CODE AND CONTRACT

So how should one determine the ownership of the virtual assets created in these spaces? Currently, the two most prevalent ways in which to deal with the issue lay in intellectual property law and contract law. Both these approaches carry with them a set of presuppositions about whose interests should be protected. This set of presuppositions then defines how the rights of players/crafters should be balanced against the rights of designers/creators.

a. Copyright

Although all aspects of intellectual property law could be used in determining ownership in a virtual world, copyright shall be the focus of this paper. First, virtual worlds consist of mainly images and text; and thus, the most obvious choice is copyright. Secondly, as players craft visual and textual avatars and objects in virtual worlds, copyright is directly implicated. There is no requirement of formality necessary for copyright to vest in each creation.

Five categories of elements that may receive copyright protection under a current understanding of copyright law are as follows: text (fiction and code), digital images, building designs, music, and multimedia.

1. Text: Fiction

Within most virtual spaces, players interact textually with each other and with their world. He may have discussions with other players, examine items more fully, or do battle - and this entire experience is textual. Because virtual worlds attempt to create three-dimensional worlds, text is most commonly incorporated in player interactions, although it remains integral in many other ways.

Fictional texts are at the very core of copyright law, extending protection to original literary "works of authorship fixed in any tangible medium of expression." (CDPA 1988, ss 1-8) The only two issues that must be addressed in determining whether these virtual fictions are copyrightable are whether they are original and whether they are fixed in a tangible medium.

The originality requirement remains a low hurdle. The United Kingdom's court in *Ladbroke (Football) Ltd v. William Hill (Football) Ltd* [1964] 1 WLR 273 held that "only that the work should not be copied but should originate from the author." As long as the fictional texts are even remotely creative, they pass this requirement for originality. While the bar is indeed set low, short phrases and simple shapes remain unprotected by copyright. Much of the textual dialogue is indeed quite short and may fail to pass this low hurdle. While each individual phrase may not itself merit copyright protection, the dialogue in its totality would most likely be sufficiently original to garner copyright protection.

Providing a greater quandary is the requirement that the work of authorship be fixed in a tangible medium. Much of the textual interplay is quite transitory; unless a character records conversations or events, the text will be lost. It may not be necessary that a work be recorded to be considered fixed. In the United States, the Ninth Circuit held in *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (1993), that a computer program is copied when the software is temporarily stored in RAM. If a RAM copy suffices as fixation for purposes of infringement, it could be argued that it should suffice for purposes of granting copyright.

There is no doubt that the fiction, if it clears the hurdles of originality and fixation, should receive copyright protection. But there is yet another hurdle: determining authorship. Players become members of collective dramas. One way to solve the problem is to consider the entire collective fiction as a compilation. Authorship of the whole could be granted to all participants, while each player would retain authorship of his personal contribution to the fiction, as long as it met the requirements for originality and fixation. (*Macmillan & Co. Ltd. V K & J Cooper* (1923) 40 TLR 186). Another solution would be to consider the collective drama as a joint work of authorship, thereby granting ownership of the whole to all participants, as long as each participant made copyrightable contributions and intended to be a co-author. (CDPA ss 10 and 88(5))

Text: Code

Virtual worlds are created by code. The creators of these worlds write software code that, when run, creates a shared virtual space. As discussed earlier, players may write code. In virtual worlds, players create mods that represent their characters and environments. While the interface provides a useful environment for creation, it also serves to insulate players from code; each act of creation using the interface creates underlying code, invisible but essential. This code, although invisible to its creator, may be protected by copyright.

The U.S. Court in *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3rd Cir. 1983) held that "a computer program, whether in object code or source code, is a 'literary work' and is protected from unauthorized copying, whether from its object or source code version." The written code is therefore protected as a "literary work" as long as it meets the other requirements of originality and fixation. This holds true in the United Kingdom as well. (See, Copyright (Computer Software) Act 1985)

First, the originality requirement would be satisfied as long as the code demonstrated "some creative spark" (*Apple Computer*) or reflected the author's personality. However, if development tools are used, the generic code generated may not demonstrate any creative spark or the author's personality. However, this creativity could be evidenced by unique, player-defined attributes and descriptions embodied in the code and reflected in the virtual creation. Hence, any creativity embodied in the code would depend on the degree of creativity that the player used during the process of creation. Creativity would lie in the type of object created, the attributes assigned to that object, and the descriptions accompanying that object. Therefore, the code that renders a rock, designed by the player with the assistance of a design environment, would probably not be sufficiently creative, assuming the rock is just an ordinary rock; however, the code underlying a well-defined character, similarly designed by the player with the aid of a development environment, would probably evidence sufficient creativity.

Second, the fixation requirement would offer no hurdles here, because the code would be maintained in internal storage on the server.

2. Digital Images

Virtual environments are abounding with images. These digital images may take many forms, ranging from photos to creative art, and may be used to illustrate places or represent characters. Artistic works are at the heart of copyright protection. Copyright law includes "pictorial, graphic, and sculptural works" among the defined categories of "works of authorship." (CDPA ss 1-8) Digital images qualify as pictorial or graphic works. Again, the only remaining issues are originality and fixation. As long as the work demonstrates the author's personality and is fixed, then copyright law will protect the image.

3. Building Designs

One of the advantages of virtual space is the ability to construct your world as you imagine it, independently of economic considerations. Many players build houses or even cities. These buildings are often elaborately designed and constructed. For example, a resident of Britannia created a three storied home with nine rooms, a rooftop patio, and walls of solid stonework. Works of architecture are a subcategory of artistic works under the CDPA s 4(1) (b). They are defined as a building or model for a building. In turn, a building is defined as including 'any fixed structure and a part of a building or fixed structure'. The copyright also exists in the architect's plans and drawings.

There is a possibility that a two-dimensional representation of a building could be the design of a building embodied in a tangible medium of expression. To the extent that the building design demonstrates the author's personality, there is a good argument that such building designs are protected by copyright. Granting a copyright in the building design would offer broader protection than that offered by pictorial and graphic representations; it goes beyond the mere visual representation to the arrangement and composition.

4. Music

Many virtual worlds use music in various ways as part of the experience. It may be included to provide ambiance to particular locales or may serve as a soundtrack to a particular quest or adventure. Both players and designers may use music to enhance the virtual world. The musical sequences, which are generally played in continuous loops, come in one of two forms: borrowed and original. The player or designer may incorporate borrowed music into his space for which another may already retain a copyright (raising issues outside the scope of this paper). But to the extent the music is original to the virtual space, it may warrant copyright protection for the author.

Musical works and sound recordings are protected works of authorship under CDPA 1998 ss 1 and 5A (1). The CDPA gives no guidance as to what a musical work is, but this has yet to cause a problem in practice. A sound recording is defined as (a) a recording of sounds, from which the sounds may be reproduced, or (b) a recording of the whole or part of a literary, dramatic or musical work, from which sounds reproducing the work or part may be produced, regardless of the medium on which the recording is made or the method by which the sounds are reproduced or produced. To the extent the musical composition passes the tests for originality and fixation, it will be protected by copyright as a musical work and possibly as a sound recording.

5. Multimedia

Virtual environments exhibit an audiovisual feast. Virtual worlds are rich with images and sound played in combination to create a unified cyber experience. The player, through his participation, creates part of the audiovisual display, while other aspects are inherent in the world itself, rooted in the design of the creator. The player may maneuver his character, in combination with other characters, through an established quest or adventure to create a multimedia experience, which if recorded may be watched as a movie. Multimedia experiences are possibly protected by copyright law or attract a type of database protection.

In the United States, multimedia is explicitly protect by copyright law as an audiovisual work, (17 U.S.C. 102) which is defined as "works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devices ... together with accompanying sounds, if any, regardless of the nature of the material objects ... in which the works are embodied." (17 U.S.C. 101) This provision has been used to protect the audiovisual experience of video games, which seems an apt analogy for virtual space.

b. End User License Agreement

Software companies offering subscriptions to virtual worlds want protection for their intellectual and economic investment. As such, companies condition entry to their worlds upon acceptance of an End User License Agreement (EULA). The motivation for the proliferation of software licensing agreements remains contested.

There are those who believe EULAs benefit corporations and consumers alike, while critics bemoan its impact on the application of intellectual property law.

1. Proponents

Proponents claim that license agreements offer a genuine benefit to consumers: offering efficiency, information, and a variety of rights. EULAs "promote efficient software transactions" by incorporating standardization of contract on a "mass market scale." Promotion of transaction efficiency results in lower prices for consumers. Although the resulting agreements may be "contracts of adhesion," these are common in mass market transactions. Most consumers, "rather than relying on their own negotiating skills or knowledge of the relevant law," would be "better served by relying" on various contract principles to protect their interests. (Gomulkiewicz & Williamson, 1996)

"EULAs place valuable information in the hands of end users." Consumers do not understand copyright law: they neither know what rights they are granted, nor do they understand what rights copyright law denies them. These documents record contract terms and conditions to inform the end user of the "relationship between the parties and the range of rights available to each party." Although these documents can provide valuable information, the consumer is no better informed of his rights if he does not read the documents. (Gomulkiewicz & Williamson, 1996)

Licensing agreements offer a "certain desirable package of rights to customers at the lowest possible price." In some cases, EULAs provide users greater rights than they would have had under traditional intellectual property law: many licensing agreements allow the consumer to "make and use a second copy of a licensed program," which would be infringing activity under copyright law. Furthermore, software licensing agreements simplify the arrangement of rights concerning products that are often protected under "copyright, patent, trade secret, and trademark law" by creating a single document enumerating these rights. Although corporations may deny users rights that they would have been guaranteed under intellectual property law, this denial is often intended to protect corporate investment, and the rights denied are often ones that most consumers would never exercise: "The law should not force mass market software publishers to burden the price of their software by requiring publishers to offer rights which most users are not interested in acquiring." (Gomulkiewicz & Williamson, 1996)

2. Critics

Critics complain that software licensing seeks to protect the corporation to the detriment of both the consumer and the application of intellectual property law: Intellectual property law strikes a careful balance between the rights of intellectual property owners and the rights of users. Legally binding license agreements that readers sign to get access to a database already require them to behave in ways far more restricted than copyright law would ever have demanded. As such, vendors who draft EULA provisions often seek to expand their rights and limit the rights of users.

Whatever their effect on intellectual property law may be, EULAs are written by corporate attorneys to protect corporate interests in corporate products; any alleged benefit to consumers is merely secondary to the protection of corporate concerns - "to prevent people from hacking into or altering the program's source code." (Rolston, 2002)

The EULA is a powerful tool for controlling ownership in virtual space. Reading a software licensing agreement can be a disturbing experience. Not only is it disturbing, but it may strip you of ownership in your creative works in a virtual world. The previous section on copyright demonstrated the elements of virtual worlds in which a player may receive ownership. However, software publishers/game designers who offer access to commercial virtual worlds use licensing agreements to protect their economic interests. Through the use of these agreements, designers often deny ownership to participants who exercise their creativity.

The Ultima Online License Agreement, in outlining a subscriber's rights in paragraph 5(b), explains that the player relinquishes all rights to personally-created works of authorship: "You acknowledge and agree that all characters created, and items acquired and developed as a result of game play are part of the Software and Service and are the sole property of Origin Systems." (<http://www.uo.com/agreement.html>) The player not only loses any rights of copyright claims to the character or item that he creates, but he also transfers ownership of his creation to the software publisher.

V. CONCLUSION

Copyright law aims to provide creators with an incentive to create by granting them exclusive rights in their copyrighted works subject to specific limitations so that they may enjoy the benefit of their works. As discussed, both game designers and game players may have copyrightable interests, which are currently limited by End User License Agreements. However, if game designers allow the player to hold copyrights in their own designs, then this may be an invitation to the law to step into virtual worlds to enforce intellectual property rights.

Every form of intellectual property right is a distortion of free-market principles. In order to correct this distortion there must be a trade-off between the rights of originators and the rights of users of knowledge, so that a balance may be found between innovation and overprotection. I would like to suggest that perhaps items and characters created in virtual worlds by players should be treated as intangible chattel while allowing the underlying designs and code of the game designers to retain their intellectual property rights. Just as a person feels that when they have purchased a book, they own the book but not the copyright in the book; so too should a player own the characters and items (as intangible chattel) in the game's virtual world without acquiring the underlying copyright in that virtual world.

A stage as large as these virtual worlds are creates new opportunities. All kinds of products can be spun out of the interactive universe; it is only a matter of time before toys, comic books, and action-figures spring from these games. It also creates a new set of tensions. Even though the structure and the building blocks of the games are the legal property of the designers, each character created is the embodiment of someone else's story. And the players who rise to prominence in this world, who have famous adventures and compelling personalities--those people will demand moral ownership and/or copyright protection for their avatars and will want to tell their stories, both inside the game environment and on their own websites. Define their rights now because at some point, the line between what "happened" and what's fiction, what's true and what's a proprietary fantasy will effectively vanish. And everyone-- players, game designers, the fan community, the licensing department, and perhaps the courts--will have to figure out how to decide who owns what.

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