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Computer Games and Virtual Worlds: A New Frontier in Intellectual Property Law

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Introduction

The media realm of video games and virtual worlds has been growing substantially over the last 20 years. States alone, video game sales totaled more than \$21.3 billion in 2008. States alone and virtual worlds continues to increase, the legal issues they raise become more complex. These issues include the traditional areas of intellectual property law – copyright, trademark, patent, and trade secret – as affected by end user licensing agreements for each video game and virtual world user. This book discusses these traditional rights in the non-traditional setting of video games and virtual worlds.

⁸⁵⁷ Computer Games and Virtual Worlds: A New Frontier in Intellectual Property Law 1 (Rodd A. Dannenberg, Steve Mortinger, Roxanne Christ, Chrissie Scelsi, & Farnaz Alemi eds., 2010).
 ⁸⁵⁸ Id.

859 *Id.* at 2.

860 *Id*.

⁸⁶¹ *Id.* at 2-3.

End-User License Agreements: The Private Law in Video Games and Virtual Worlds

While video game users are generally constrained in their actions by the programmers of the game, the conduct of virtual world users is governed by contract law. Ref All actions of a virtual world resident are constrained by a contract called an end user license agreement (EULA). Ref An EULA is a contractual agreement between a virtual world resident and the company that operates the virtual world. These agreements are accepted electronically by virtual world residents before being allowed to access the virtual world. These EULAs serve as gatekeepers to many virtual worlds and are often non-negotiable.

EULAs offer a number if benefits as a method of governing virtual worlds. ⁸⁶⁷ Because EULAs are an express agreement between parties, they clearly state what constitutes permissible or impermissible conduct. ⁸⁶⁸ EULAs also usually include a termination provision, providing that if a virtual world resident breaches the EULA, his account will be terminated. ⁸⁶⁹ This approach also allows virtual world creators to pick and choose which terms and restrictions they would like included. ⁸⁷⁰ EULAs usually include provisions that prohibit harassing or offending other participants. ⁸⁷¹ Many

⁸⁶² Dannenburg, *supra* note 1, at 6.

⁸⁶³ *Id*.

⁸⁶⁴ *Id*. at 9.

^{865 &}lt;sub>Id</sub>

⁸⁶⁶ *Id.* at 9-10.

Dannenburg, *supra* note 1, at 11.

⁸⁶⁸ *Id*.

⁸⁶⁹ *Id*.

⁸⁷⁰ *Id*.

⁸⁷¹ *Id.* at 12.

agreements also contain arbitration and choice of forum clauses.⁸⁷² There is some speculation that as virtual world EULAs change over time, users will gravitate toward those with the greatest freedom and most rights.⁸⁷³

There are a number of concerns and limitations involving EULAs. First is whether the contract itself, and any material modifications of the contract, are unenforceable because of unconscionability. Refer to an unfair bargaining process (procedural unconscionability) that lends to an unfair result (substantive unconscionability). Next, most EULAs allow the virtual world operator to unilaterally modify its EULA at any time, and in its sole discretion, after the user agrees to its terms. Modifications generally require notification under common law, however it is not always necessary for virtual world operators to provide notice to its virtual world users. While virtual world operators may not need to give new consideration to users when modifying their EULA, the modifications are still limited by the doctrine of unconscionability.

Another issue regarding EULAs lies in the area of privity of contract. ⁸⁷⁹ EULAs do not create rights or obligations between or among virtual world members themselves, nor do they bind third parties who have not "signed" the agreement. ⁸⁸⁰ This raises

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⁸⁷² Dannenburg, *supra* note 1, at 13.

⁸⁷³ *Id.* at 17.

⁸⁷⁴ *Id.* at 19.

⁸⁷⁵ *Id.* at 19-20.

⁸⁷⁶ *Id.* at 27.

Dannenburg, *supra* note 1, at 28.

⁸⁷⁸ *Id.* at 29.

⁸⁷⁹ *Id.* at 30.

⁸⁸⁰ Id.

problems with third-party beneficiary clauses, as well as intentional or tortious interference of contract by third parties.⁸⁸¹

The next limiting factor of EULAs are state's consumer protection limitations.⁸⁸² While EULAs give virtual world operators some leeway, these agreements are still governed by contract law, and may be limited by common law or by state and federal statutes. 883 Every state has enacted statutes that protect consumers against unfair, unconscionable, deceptive, and fraudulent business practices.⁸⁸⁴

The last issue limiting EULAs surrounds the fact that children make up a large portion of consumers. 885 The child user's status as a minor may limit the virtual world operator's ability to enforce its EULA against them. 886 Because most EULAs assume the user has the legal capacity to enter into a contract, many courts are reluctant to enforce contracts against minors.

There are a number of potential resolutions to the intellectual property and private law issues that arise from EULAs in video games and virtual worlds. 887 The first solution would require virtual world operators to modify their existing EULAs as a way to temper one-sided provisions that put these agreements at risk of being classified as contracts of adhesion. 888 The second solution would be to continue allowing courts to rule on these issues using common law protections such as tort or property law. 889 The last solution

⁸⁸¹ *Id.* at 31.

⁸⁸² *Id.* at 35.

⁸⁸³ Dannenburg, *supra* note 1, at 35.

⁸⁸⁴ Id.

⁸⁸⁵ *Id.* at 37.

⁸⁸⁶ Id.

⁸⁸⁷ *Id.* at 40.

⁸⁸⁸ Dannenburg, *supra* note 1, at 40.

would be to create an online system for resolving disputes, so the parties involved can resolve their issues in the environment they arise. 890

Copyright Law Implications in Video Games and Virtual Worlds

Today, federal copyright law in the United States is governed by the Copyright Act of 1976. 891 The Copyright Act provides protection for "original works of authorship", and provides the author of a protectable work the exclusive right to make copies of that work, to distribute it, to make derivative works based on it, and to publicly perform and display it. 892 In the realm of video games and virtual worlds, users may seek to copyright any original design created while playing. 893

In order for an author to receive copyright protection, his creation must meet several requirements. 894 The first requirement is that the creation must be an "original work of authorship." 895 Courts have held that video games are protectable because they constitute "audiovisual works", and computer programs are protectable because they constitute "literary works." The second requirement for copyright protection is the constitutional requirement that the work be original. 897 The last requirement for copyright protection is that it be "fixed in any tangible medium of expression" from which it can be "perceived, reproduced, or otherwise communicated for a period of more than transitory

⁸⁹⁰ Id.

⁸⁹¹ *Id.* at 49.

⁸⁹³ Dannenburg, *supra* note 1, at 48.

⁸⁹⁴ *Id.* at 49.

⁸⁹⁶ *Id.* at 50.

⁸⁹⁷ *Id.* at 53.

duration." Courts have found that both video games and computer programs are "fixed."

The rules of a video game are not generally copyrightable due to the "idea/expression dichotomy" which states that copyright protection does not extend to any "idea, procedure, process, system, method of operation, concept, principle, or discovery." As previously mentioned, video games generally fall under two different "works of authorship." Audiovisual works, which embody the visual displays of the games while they are played, and literary works, which embody the games' computer code. This is an important distinction because the copyright in each can be protected, or attacked, separately. 903

Just as in video games, copyright protection extends to both the audiovisual work and the underlying computer code of virtual worlds. ⁹⁰⁴ However, virtual worlds raise many more copyright issues because they allow users to create and modify objects within the worlds. ⁹⁰⁵ It is very difficult to apply any of the statutory categories of copyrightable "works of authorship" to a particular item within a virtual world. ⁹⁰⁶ However, U.S. courts have not yet directly addressed this issue. ⁹⁰⁷

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⁸⁹⁸ Dannenburg, *supra* note 1, at 54.

⁸⁹⁹ *Id.* at 54-55.

⁹⁰⁰ *Id.* at 55, 57.

⁹⁰¹ *Id.* at 58.

 $^{^{902}}$ Id.

Dannenburg, *supra* note 1, at 59.

⁹⁰⁴ *Id.* at 60.

⁹⁰⁵ *Id*.

⁹⁰⁶ Id.

⁹⁰⁷ *Id.* at 62.

It can be argued that certain objects created within a virtual world are more copyrightable than objects in reality. 908 Copyright protection only covers an item's design features, and does not extend to an item's usefulness. 909 While this distinction may be difficult to make in the real world, one can argue that none of the objects created in a virtual world are truly useful. 910 Therefore, as long as a virtual creation is original, it should be copyrightable. 911 For example, users may wish to copyright the clothing they create for their avatars. 912 While the area is still largely unsettled, many aspects of video games and virtual worlds are likely to be copyrightable. 913

Video game and virtual world copyrights also raise issues surrounding the ownership of certain copyrights. ⁹¹⁴ Under U.S. copyright law, ownership of a protectable work vests initially in the work's author. ⁹¹⁵ If the work is made for hire, the "hirer" is considered the author. ⁹¹⁶ In the realm of video games and virtual worlds, the creator may choose to give users the right to modify code or create works within the game/world. ⁹¹⁷ Such modifications are considered derivative work, and sole ownership (minus the pre-existing material) is given to the creator. ⁹¹⁸ Many video game operators actually support the creation of derivative works because they benefit operators in the long-run. ⁹¹⁹

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⁹⁰⁸ Dannenburg, supra note 1, at 59.

⁹⁰⁹ *Id.* at 63.

⁹¹⁰ *Id*.

⁹¹¹ *Id*.

 $^{^{912}}$ Id at 64.

⁹¹³ Dannenburg, *supra* note 1, at 68.

⁹¹⁴ Id

⁹¹⁵ *Id*.

⁹¹⁶ *Id*.

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⁹¹⁸ Dannenburg, *supra* note 1, at 71.

⁹¹⁹ *Id.* at 71-72.

However, the extent of a user's intellectual property rights in the content he creates is usually limited by the EULA agreed to.

Most virtual worlds allow users to transfer items between one another, with or without the game operator's specific permission. 920 Copyright issues may arise when transfers are made outside the virtual world and with real money. 921 "Commodification" is the treatment of virtual objects as objects in the real world. 922 Many game operators prohibit commodification and consider it to infringe their copyrights in the game. 923 Some have argued that there can be no infringement, because the items being sold stay exactly where they were created: within the game. 924 Regardless of whether such transfers infringe owner's copyrights, they often violate the EULA agreed to between the owner and the user. 925

Once copyrights are established, copyright owners can license their exclusive rights, thereby exploiting and controlling access to the protected works. 926 Copyright licensing involving virtual worlds is complex and unsettled. 927 Users who have the right to license their virtual creations are faced with communication difficulties, and often cannot compose a proper written licensing agreement. 928

⁹²⁰ *Id.* at 79.

⁹²¹ *Id.* at 80.

 $^{^{923}}$ Dannenburg, supra note 1, at 80-81.

⁹²⁴ *Id.* at 81.

⁹²⁵ *Id*.

⁹²⁶ *Id.* at 82-83.

⁹²⁷ *Id*. at 84.

⁹²⁸ Dannenburg, *supra* note 1, at 85.

Although not necessary, copyright owners may wish to follow the proper formalities of notice and registration. 929 Adherence to these formalities will allow copyright owners to protect their creations from infringement. 930 Establishing a claim of infringement requires the author to show (1) ownership of a valid copyright, and (2) illicit copying by a defendant. 931 This is a common problem in virtual worlds because other users can easily copy most virtual creations using external software. 932 The remedies available to plaintiffs who successfully prove a copyright infringement claim include the actual damages suffered plus any profits enjoyed by the infringer. 933

Real World Patent Issues for a Virtual World

The issues surrounding patent law in the context of virtual worlds are extremely complex. 934 In order for the United States Patent and Trademark Office (USPTO) to grant a patent, the inventor must show that his invention is useful, new, and non-obvious. 935 A patent owner has the right to exclude others from making, using, selling, or offering to sell the patented invention or importing it into the country. 936 A useful invention is one that is "operable to perform its intended function." Video games and virtual worlds are considered "useful" and therefore patentable given that they are new, non-obvious, and

⁹²⁹ *Id.* at 88.

⁹³⁰ *Id.* at 92.

⁹³¹ *Id*. at 93.

⁹³² Dannenburg, *supra* note 1, at 92.

⁹³³ *Id.* at 106.

⁹³⁴ *Id.* at 112.

⁹³⁵ *Id*.

⁹³⁶ *Id.* at 112-13.

⁹³⁷ *Id.* at 113.

has subject matter tied to a particular machine or transforms data to a different state or thing. 938

There are a large number of problems that could arise when obtaining a patent for a video game or virtual world, or for an invention created within a video game or virtual world. 939 Process inventions frequently cross-over into video games and virtual worlds, and remain the most easily identifiable invention that could apply to a virtual world. 940 If it is not possible for a user to claim a process invention, he may claim a virtual world invention by claiming the computer on which the program runs. 941 However these types of claims may only apply to a centralized computer server, and would limit the available damages in an infringement suit. 942 Claiming a machine patent for an invention created within a virtual world raises philosophical questions of whether an item can exist virtually. 943 Creations within a virtual world are not likely to be seen as a composition of matter invention, unless the common understanding of "matter" changes to include virtual matter. 944 Design patents may also apply to video games and virtual worlds. 945 Design patents cover the "ornamental appearance" of an item, such as a character in a video game, and are becoming more popular with gaming manufacturers. 946

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⁹³⁸ Dannenburg, *supra* note 1, at 114.

⁹³⁹ *Id.* at 122.

⁹⁴⁰ *Id.* at 122, 124.

⁹⁴¹ Dannenburg, supra Note 1, at 124.

Dannenberg, *supra* note 1, at 124.

⁹⁴³Dannenburg, *supra* note 1, at 126.

⁹⁴⁴ *Id.* at 126.

⁹⁴⁵ *Id*.

⁹⁴⁶ *Id.* at 129-130.

It is also important to understand the importance behind licensing and enforcing virtual world patents. 947 Proving infringement in a virtual world is even more complex than proving infringement in the real world. 948 Analyzing a virtual world infringement claim requires consideration of the software's source code, object code, hardware used, the interaction between the software and hardware components, and the interaction between the software and user. 949 EULAs may require that each user license his patent rights to the operator of the virtual world and all other users of the virtual world. 950 There can also be problems identifying the real-world identity of online avatars. 951 There are also issues surrounding jurisdiction and venue since it is difficult to identify the location of a virtual world. 952

Because patent rights are usually limited by a geographical area, it is difficult to identify the property and applicable controlling law in a dispute concerning virtual world conduct. 953 Pinpointing the governing law in a dispute between parties can be very difficult if more than one EULA is involved. 954 Some people have gone so far as to suggest a "virtual patent system" as an alternative for providing patent rights to inventors in the video game and virtual world realm. 955

⁹⁴⁷ Dannenberg, *supra* note 1, at 129-30.

Dannenburg, *supra* note 1, at 134.

⁹⁴⁹ *Id.* at 134-35.

⁹⁵⁰ *Id.* at 136.

⁹⁵¹ *Id.* at 137.

⁹⁵² *Id.* at 137-38.

⁹⁵³ Dannenburg, *supra* note 1, at 140.

⁹⁵⁵ *Id.* at 141.

Implications of Video Games and Virtual Worlds in Trademark Law

Trademarks are mainly used to distinguish one source of goods from another. 956 Game designers may use trademarks to make game environments more realistic, thus improving their appeal. 957 Game players may wish to use trademarks as a form of selfexpression and to brand their personalities. 958 Whenever trademarks are used without permission, whether due to designers or players, many legal issues arise. 959

Trademark protection for video games and virtual worlds is available under both federal and state law. 960 The Lenham Act, which is the source of federal trademark protection, defines a trademark as "any word, name, symbol, or device, or any combination thereof" that is used to "identify and distinguish [someone's] goods, including a unique product, from those manufactured or sold by others and to indicate the source of the goods, even if that source is unknown."961 Product packaging and design features are also protectable under trademarks. 962

Like many of the other areas of intellectual property law, many uses of trademarks in the contexts of video games and virtual worlds involve conventional questions governed by well-established rules. 963 Most trademark disputes within the realm of video games and virtual worlds fall into three categories: (1) traditional liability for the use of trademarks on physical products like packaging, (2) direct liability for the

⁹⁵⁶ *Id.* at 146.

⁹⁵⁸ Dannenburg, *supra* note 1, at 146.

⁹⁵⁹ *Id.* at 147.

⁹⁶⁰ Id.

⁹⁶¹ *Id.* at 148.

⁹⁶³ Dannenburg, *supra* note 1, at 155.

use of marks within a game, and (3) secondary liability for the use of marks within a game.964

Unlike the previously discussed areas of intellectual property law, trademark infringement does not turn on the idea of "virtual-ness." A trademark established in the physical world can be infringed by unauthorized use in a virtual world, and a trademark established in a virtual world can be infringed upon by unauthorized use in the physical world. 966 The real issue regarding trademarks (even in the contexts of video games and virtual worlds) continues to be balancing the goal of minimizing consumer confusion with the goal of facilitating free speech. 967

Implications of Video Games and Virtual Worlds and the Law of Trade Secrets

Unlike other forms of intellectual property, trade secrets are governed entirely by state law, and there is some variation from state to state. 968 It is unclear which jurisdiction's laws would govern trade secret issues arising from video games and virtual worlds, but the laws of each state are based on three common sources: (1) The Uniform Trade Secrets Act, (2) the Restatement of Unfair Competition, and (3) the Restatement of Torts. 969 The Uniform Trade Secrets Act (UTSA), which has been adopted in different forms by 47 states, defines a trade secret as information that (1) derives actual or potential economic value from not being generally known to, and not being readily ascertainable by proper means to other persons who can obtain economic value from its disclosure or use, and (2) is the subject of efforts that are reasonable under the

⁹⁶⁴ *Id*.
965 *Id*. at 161.

⁹⁶⁸ Dannenburg, *supra* note 1, at 188.

circumstances to maintain its secrecy. 970 Like the UTSA, the Restatement of Unfair Competition requires a trade secret to be competitive enough and secret enough to provide an economic advantage. 971 The Restatement of Torts further requires the information to "be in continuous use of the operation of the business." 972

The real issue in applying trade secret law to the realms of video games and virtual worlds is "to whom the secret gives an advantage." The issue of whether the economic advantage required by trademark law must be to the user in the real world, the avatar in the virtual world, or to both has not yet been decided by courts. 974 The basic test for assessing economic advantage, however, is whether the owner is able to use some method to enhance his business opportunities as compared to his competitors. 975

The larger issue in the context of video games and virtual worlds is the one of secrecy. 976 In most virtual worlds, whatever you type or speak is broadcast to all avatars within a certain distance from your avatar. 977 Almost all communication that takes place in a virtual world is susceptible to eavesdropping by other users, and stored on the servers of the provider. 978 Usually, any general disclosure destroys the required secrecy. 979 It is extremely critical that the trade secret actually remain secret and that the person claiming trade secret protection can show that he took reasonable steps to protect the secrecy. 980

⁹⁷⁰ *Id*. at 189.

⁹⁷¹ *Id.* at 190.

⁹⁷³ Dannenburg, *supra* note 1, at 191.

⁹⁷⁴ *Id.* at 191-192.

⁹⁷⁵ *Id.* at 193.

⁹⁷⁶ *Id.* at 194.

⁹⁷⁸ Dannenburg, *supra* note 1, at 194.

⁹⁷⁹ *Id.* at 195.

⁹⁸⁰ *Id.* at 196.

Video game and virtual world users also sometimes use trade secrets in conjunction with other forms of intellectual property protection such as patents and copyrights.⁹⁸¹

Because trade secrets must be kept a secret, any element of the game that can be viewed by players cannot be considered a trade secret. 982 Therefore, all trade secrets for gaming companies must occur "behind the scenes." However, real-world secrets can sometimes be revealed by players while they are playing the game. 984 Also, trade secrets could be developed by a player, or group of players, in a virtual world that could provide real-world or in-game benefits. 985

International Considerations of Virtual Worlds

Virtual worlds are inherently international, which makes the legal issues surrounding them even more confusing. 986 Within the game or virtual world it is impossible to distinguish a resident of one country from another. 987 While virtual worlds may feel limitless, it is important for users to remember that they are playing within a specific geographic area, and that the virtual world itself exists in computer servers and networks which are also located in a specific geographic area. 988 Most virtual worlds exist over closed networks, and everything stored on those networks are under the control

⁹⁸¹ *Id.* at 197-99.

⁹⁸³ Dannenburg, *supra* note 1, at 200.

⁹⁸⁵ *Id.* at 202.

⁹⁸⁶ *Id.* at 216.

⁹⁸⁸ Dannenburg, *supra* note 1, at 216.

of the hosts, service providers, and system administrators. 989 In this sense, virtual worlds do not seem international at all. 990

However, cross-border interactions and transactions take place every day within virtual worlds. 991 Since this is the case in virtual worlds, and the internet as a whole, there are several issues raised including choice of law, and personal and subject matter jurisdiction. 992 To make things even more complicated, there is no single set of laws that govern conduct affecting the exploitation of intellectual property across national borders. 993 In the context of copyright law, even determining where a work originated is a challenge, much less where that work has been infringed. 994 The international nature of virtual worlds also poses many problems with patent and trademark prosecution, particularly in areas of priority and territoriality. 995 Existing case law, which is not fully developed in this area, cannot give a clear picture of how the new "virtual issues" will take shape. 996

⁹⁸⁹ *Id.* at 217. 990 *Id*.

⁹⁹¹ *Id*.

Dannenburg, *supra* note 1, at 217.

⁹⁹⁵ *Id.* at 242.