

Can Software Developers Own the Copyright to Any User-Generated Content in a Virtual World? A Comparative Analysis Perspective

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Abstract

The development of virtual worlds has sparked debates over the ownership of user-generated content, raising questions about whether it should belong to software developers or the users who create it. In countries like the United States and the United Kingdom, copyright laws do not explicitly define the classification of user-generated content as a type of work. Consequently, in practice, the allocation of copyright ownership often relies on End User License Agreements established between software developers and users. This article takes a comparative approach to explore how user-generated content should be classified and examines potential improvements in copyright law to address the issue of ownership. Furthermore, it delves into the question of whether user-generated content can or should be entirely attributed to software developers.

Keywords

Copyright, Virtual World, EULA, User-Generated Content, Software Developers

1. Introduction and Background

Since the advent of virtual worlds about two decades ago, issues relating to copyright in those settings have dominated the legal scholarly discussion. The ownership of the copyright in user-generated content in virtual worlds by software developers is a hotly contested topic in practice. Users and software developers are both significant players in virtual worlds. However, virtual worlds face the challenge of whether the copyright of user-generated content belongs to software developers or users. As such, while user-generated content (UGC) may occasio-

nally be owned by software developers, this is not always the case. This essay attempts to discuss whether software developers can own the copyright to any user-generated content in a virtual world. The discussion will centre on four topics: different sorts of UGC, how the end user licence agreement (EULA) affects copyrights, how copyright law is applied in the US and the UK, and putting forward suggestions for improvements to the copyright act.

Virtual worlds are a new concept born out of the development of computer games and the Internet industry, and they are technological artefacts that were produced for a specific purpose, frequently a commercial one (Burk, 2016). Typically, a software platform that gives users access to a simulated three-dimensional space is referred to as a “virtual world.” Individual users are represented by “avatars” within this virtual environment (Lastowka, 2007). In virtual worlds, users are able to access and experience the virtual world through these “avatars” thanks to the software developer’s construction of the virtual world.

Software developers write the code that allows virtual worlds to be presented to the user through electronic devices, and before gaining access to the virtual worlds, the user needs to agree to an enduser licence agreement (EULA) drawn up by the software developer, which is often made up of very long and complex language that the user agrees to without reading it carefully before entering the virtual world. It is clear that software developers are often able to unilaterally assign the user/player’s intellectual property rights to their user-generated content in the EULA in advance. The fact that there is no copyright law governing the ownership of user-generated content makes the EULA an important measure, but this does not mean that the provisions embodied in the EULA are reasonable. I therefore partially agree with this view as to whether software developers should own the copyright in any user-generated content or not, but again, I think there are exceptions that need to be discussed on a case-by-case basis. This will be explained below from a theoretical and legal practice perspective.

2. User-Generated Content: Definition, Types, and Features

First of all, there are also different kinds of user-generated content in the virtual world, some of which are able to express the creativity of users/players in the virtual world, who are entitled to authorship. Users also create content inside virtual worlds or games. If the user uses a flexible set of tools to create something unique, he or she may hold the copyright in that work. However, if there are only a few alternatives for character development, predetermined by the game owner, the copyright may belong wholly to the site owner (Osborne, 2008). The exclusive rights in intellectual property are, for example, probably appropriate tools to manage or deter the proliferation of private servers, that host copied game software as a substitute for the game proprietor’s own servers, for which they were intended, rather than for crowd control on virtual world servers. It is undoubtedly important to note that copyright is appropriate to prevent the misappropriation of the software or graphics associated with virtual worlds (Burk, 2010).

User-generated content is also represented in different ways in different games, all due to the different degrees of freedom in the virtual worlds offered by software developers (Schlinsog, 2013). The specific content at issue consists of mods and architecture built within the game (Schlinsog, 2013). Anthony Michael Catton, for example, argues that games can be divided into three categories a) defined template games, b) flexible template games and c) blank template games (Catton, 2019), these three templates also offer increasing degrees of freedom to the user/player.

In defined template games, there is little room for user/player creativity in the virtual world, and user-generated content is presented because certain conditions are met in the virtual world, which is not really defined as ‘user-generated content’. The elements of the virtual world that the user experiences are still created by the software developers, such as art scenes, character designs, etc. The classic games World of Warcraft and Mario have defined template games. Regarding the second type, the user/player has the freedom to combine these objects to create a different and unique image with the player’s will, for example by stretching, scaling, etc. (Catton, 2019). That is, the player creates avatars etc. in the virtual world of this type of game that is outside the expectations and control of the software developer and is not created by the software developer. The third type of blank template game offers the highest level of creative freedom, where the software developer does not create any images in the game, but rather provides the user/player with tools and equipment with which to build and create freely, such as Minecraft and Second Life (Catton, 2019).

Two very classic virtual games, World of Warcraft and Second Life, can be used as stark examples for comparison. In our instances, the “home” that is constructed in Second Life will be made using the tools supplied by the creator/publisher/owner but will be the original expression of the player/user/participant, but the “sword” that is created in World of Warcraft will be predominantly produced by the creator/publisher/owner and the player/user/participant can build on it or alongside it but with very limited potential to develop original new expressive work (Ahuja, 2016). As a result, the composition of user-generated content varies considerably between games with different degrees of freedom; user-generated content in Blank template games is largely a reflection of user/player ingenuity, whereas user-generated content in Defined template games is largely a reflection of software developer ingenuity, even if at an objective user-generated content is not created by the user/player, even though on an objective level it is generated by the user. In this case, whether the software developer can also acquire copyright in any user-generated content by virtue of owning the copyright in the code of the virtual world needs further discussion. In virtual worlds, where both software developers and users/players are very important players, the question of how user-generated content is defined in copyright law is next explored from the perspective of UK copyright law.

3. Impacts of EULA on Copyrights

In-game inventions have become more complicated over time, matching the development of technology in video games, to the point where some may now require copyright protection (Catton, 2020). Whereas, the ownership of user-generated content is not clearly defined in the copyright laws of any legal system, and the argument that the software developer should also own any user-generated content can usually be found in the terms of service signed between the software developer and the user/player. While this is a contract between both the software developer and the user/player and can reflect the principle of autonomy of intent, in practice it can easily place the user/player in an unfair position. In addition, the different contents of the user licence agreement provisions may lead to confusion in the management of intellectual property rights in the virtual world and the need for uniform rules. The use of contracts to exploit copyright in the technical field is therefore a commonplace business practice (Catton, 2020). In the absence of such checks and balances, the possibility of unanticipated or latent liability will keep increasing (Lintaman, 2020). Each contract is linked to the one that deals with a distinct part of gameplay in order to regulate and address every behaviour issue that can develop in the game environment (Barker, 2013). Users typically need to confirm their agreement with lengthy terms of service agreements in order to use the majority of internet services. If one carefully reads such terms, they frequently demand that the user grant the platform owner permission to use any and all content created while using the service. Another common contract clause permits the party hosting the content to unilaterally bar a user from access at any moment, potentially depriving the user of access to the generated content (Lastowka, 2007). However, in accepting the terms of the EULA, players may be giving up important, legal personal rights in the real world, such as intellectual property (Kane, 2009).

The simplest and perhaps most straightforward approach to making money off user-generated content is to simply purchase or discover another way to monetize the intellectual property rights to the content that users create. Many Web 2.0 businesses are made to enable tool creators to profit from user-generated value. These business models are facilitated by technology and contracts (Lastowka, 2007). In turn, these contractual terms are usually End User Licence Agreements (EULA).

As an example, it is mentioned in 1.1 of Second Life's Terms of Service that, Linden Lab owns Intellectual Property Rights in Second Life. In addition to Linden Lab's ownership of the Intellectual Property Rights set forth in the Terms of Service, you understand and agree that without a license agreement with Linden Lab, we do not authorize you to make use of the Linden Marks (Lindenlab, 2022). Use of the Linden Marks in whole or in part, including without limitation "Second Life," "SL," and the Eye-in-Hand logo, is subject to the guidelines and terms of any applicable license provided in the Second Life Trademark Guidelines and Second Life Brand Center (Lindenlab, 2022). Linden Lab, the company

that owns Second Life, does not believe that the player owns any user-generated content copyrights and only provides a copyright license to the user/player for snapshots and machinima (Second Life Wiki, 2011). I submit that snapshot and machinima, while also part of user-generated content, is separate from the virtual world and should not be confused with the user-generated content that is the main focus of this article. When users/players agree to similar terms of service, they relinquish the copyright of the content they create and generate. They are also at a disadvantage at the litigation stage when they realise that they should claim the rights that are rightfully theirs, because The owners of the game have access to a variety of resources that individual players do not, such as the financial resources to postpone legal actions, settle issues amicably, or simply ban the offending player from the game (Grimes, 2006). Therefore, since contractual law can take precedence over intellectual property rules, they are therefore weak forms of governance and control (Ahuja, 2016). In addition, play, use, and participation should not be conditioned on a non-negotiated transfer of an interest in the content produced during this play, use, or participation, especially since this requirement inherently acknowledges the ownership of copyright by players. Contract law should not be allowed to disregard laws of copyright and deprive rightful owners of their copyright, especially since contracts used in the governance of virtual worlds are vague contracts of adhesion (Ahuja, 2016).

In conclusion, the statement that “software developers in virtual worlds should also own any user-generated content” is too absolute and, from a legal practice point of view, a balance needs to be found in favour of both parties, as will be illustrated by comparing the practice of different legal systems.

4. Practice in UK & US

Conducting a comparative analysis here is to identify the difference in UGC legal provisions between UK and US, and then learn from each other to make better improvements of the UGC copyrights provisions, which pave the way for the following recommendations in next section.

In UK copyright law, CDPA1988 s9(3) defines authorship of a computer-generated work as follows: In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken (UK Copyright, Designs and Patents Act, 1988). But that is as far as it goes. As virtual worlds have become larger and more diverse in the forms they take on computers, so too have the various copyright issues associated with them. Although the CDPA includes a definition of authorship of computer-generated works, there is no doubt that software developers own the copyright in the code of virtual worlds, since it is they who write the code that enables the prototype and the basic framework of the virtual world to be constructed. However, due to the specificity of virtual worlds, and as mentioned above, users/players are also important participants in virtual worlds, so whether users/players can also be

considered to have undertaken certain necessary arrangements is not clearly explained in the CDPA, so the CDPA's provisions are still inadequate. In my opinion, I argue that it might be possible to learn from US copyright law and introduce a concept like "derivative works", which might provide some scope for copyright issues in relation to virtual worlds.

It is mentioned in section 101 of the US Copyright Act: A "derivative work" is a work based upon one or more pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgement, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications, which, as a whole, represent an original work of authorship, is a "derivative work" (*Copyright Law of the United States, 2022*). Because user-generated content in virtual worlds is not a new work created independently, it is in fact still a 'derivative' work that relies on elements that already exist in the virtual world and can be defined as a modification of the original work. A creation is protected if it reaches the required level of originality, with the exception of any elements that are already in the public domain or are otherwise protected in another location. Nothing implies that virtual objects shouldn't be constrained in the same ways as physical ones. The underlying protected elements under the right to produce derivative works most likely transmit copyright protection to the virtual world (*Marcus, 2007*). Therefore, I submit that the introduction of the concept of 'derivative works' under US copyright law could assist in the categorisation of user-generated content in virtual worlds in the UK.

Compared with the UK CDPA and the US Copyright Act, it can be found that the following differences exist between the two. Compared with the UK CDPA, the US Copyright Act is more comprehensive in UGC protection under the virtual worlds background. Although CDPA discusses the copyright situation of computer-generated works, it does not consider the situation of user-generated content, which has certain defects, and the concept of "derivative works" in the US Copyright Act can be regarded as a kind of protection for user-generated content.

However, even if the concept of "derivative works" were introduced into UK law, it would still not essentially resolve the issue of copyright ownership of user-generated content, a debate that needs to be faced in both the UK and the US (*Catton, 2020*). Because EULAs are more malleable as contracts than copyrights, they are a better legal remedy for player-developer conflicts and even player-player conflicts. EULAs, on the other hand, are difficult for copyright law to govern directly because of their contractual nature.

5. Conclusion and Recommendations for the Copyrights of UGC

In conclusion, as the virtual world continues to expand, people are increasingly aware that both software developers and users/players are essential participants in this virtual realm. I believe there is some merit to the argument that software

developers hold the copyright to user-generated content, but this does not apply to all situations. Users/players also have the right to own the copyright to the content they create.

Based on the discussion of EULA-related theories and copyright laws in the UK and the US, it can be concluded that contract law becomes the primary rule in the absence of clear definitions of UGC under copyright law. In this context, the establishment of UGC-related provisions in EULAs becomes a significant factor influencing UGC copyright ownership. However, as seen in the example of Second Life's EULA mentioned earlier, users often find themselves in a passive and unfair position when dealing with software developers' contractual terms. Additionally, there are different types of user-generated content, some of which exhibit originality while others do not. Direct regulation through EULAs might lead to unfair outcomes.

The ownership of intellectual property naturally requires regulation under copyright law. Therefore, both the UK and the US should adapt to the growing trend of the virtual world and further define UGC at the legislative level. The author suggests categorizing user-generated content to some extent in the legislation. The three types of virtual world games mentioned earlier can be supplemented by copyright law, allowing the court some discretionary standards based on the creative level of content provided to users/players in the virtual world. This would indirectly limit the copyright ownership clauses in EULAs, avoiding unfair outcomes and ensuring a fair balance that does not overly favor software developers.

Also, strong protection for VR works will ensure that creators are incentivized to innovate in this new area (Wheatley, 2017). This can also create a win-win situation for software developers. The content created in the real world and the virtual world should not differ in terms of legal rights. However, due to the unique nature of the virtual world, creators can easily utilize functionalities and materials that are difficult to achieve in the real world, such as rare colors, different lighting conditions from various time periods and angles, etc. (Wheatley, 2017). If the content created in the virtual world cannot be protected, creators will feel frustrated, and their rightful interests will remain unprotected.

However, if we can establish a more detailed copyright law in the future as mentioned earlier, where creators have higher degrees of freedom within the software developed by software developers, and they can generate original works that receive corresponding copyright protection in the real world, then creators will have an additional platform to communicate with other users/players in the virtual world. This will further stimulate their creative enthusiasm and contribute positively to promoting the software developed by the developers. It is by giving users more rights to their intellectual property in the virtual world without hurting the interests of software developers that the virtual world can flourish.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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