How to apply intellectual property law to Virtual worlds?
On the blurring borders between the real world (IRL) and virtual reality (in-game)

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Abstract
In this paper we highlight some interesting aspects of Massively Multiplayer Online Role
Playing Games (MMORPGs), such as World of Warcraft and Second Life. The number of
participants in these so-called virtual worlds are increasing exponentially (currently millions of
players). Beside the economic and social impact, several challenging legal issues arise. The
indirect communication by players through their characters in these worlds (avatars) as well
as the fading borders between in-game and real life. Our focus in this paper is on intellectual
property issues.

1 Introduction

We have entered a new era. The Internet is no longer just an infrastructure used to book a
flight, buy a book or send e-mails. People have actually started living on the internet: they
spend many hours in an increasing number of different virtual communities. The virtual life
varies from sharing information, e.g. photos (Flickr.com), movies (Youtube.com), and
personal information (Myworld.com), to three dimensional environments, e.g. World of
Warcraft and Second Life. These services are widely used all over the world by citizens,
companies and public entities. The economic and social impact is enormous, e.g.:

- In October 2006 Youtube was sold for over 1,5 billion dollars to Google;
- In November 2006 over 30% of Dutch parliament members joined virtual community
  Hyves.net, several with daily video logs;
- In 2007 8 million people world-wide were playing (and paying monthly fees) World of
  Warcraft, the most popular Massive Multi-player Online Role Playing game (MMORPG).
  In Asia there are 7 million users of the MMORPG Lineage, with at some times over 2
  million players concurrent online;
- In March 2007 “VU university NL” opened in Second Life, and we had the pleasure to be
  involved as the lecturer and one of the attendees in the first ‘virtual’ class that took place
  there. Many companies (Reuter, ABNAMRO, Adidas, Toyota), and governments including
  the European Commission are currently present in Second Life as well.

In this paper we highlight some interesting aspects of virtual worlds, or MMORPGs, such as
World of Warcraft and Second Life, with a focus on intellectual property issues. MMORPGs
are online computer role-playing games in which a large number of players interact with one
another in a virtual world. As the world exists 24 hours a day, the game also continues when
a gamer is not playing. In order to play the game, participants in a MMORPG take the role of
a fictional character, which players can often design to a certain extent.

This paper specifically addresses a selection of intellectual property issues related to
MMORPGs, with a focus on the relation between life within MMORPGs (in-game life) and real
life. After a brief introduction to the phenomenon of MMORPGs and an explanation of their specific characteristics, a selection of intellectual property issues is discussed, particularly with regard to the tension between in-game life and real life.

2 Why are MMORPGs interesting from a legal perspective?

Virtual worlds are interesting from different research perspectives, such as economy, computer science, social sciences, and law. Lawyers are challenged by determining what role law plays or should play. Application of the current legal framework to all aspects of MMORPGs is not self-evident. For example, the European Convention on Cybercrime has introduced the notion of virtual child pornography. In the Netherlands, public prosecutors and members of parliament recently argued that in-game sexual intercourse of an adult and child avatar qualifies as child pornography. However, penalising such behaviour comes close to penalising ‘bad thinking’ or fantasy, is a justifiable point of view. As criminalizing people’s thoughts is typically avoided in the laws of free nations, cautiousness is at place here: it is unclear where the line should be drawn between mere fantasy and the exercise of criminal acts.

Apart from the necessary debates on ethical aspects, the popularity of MMORPGs has brought about a number of virtual variations on all kinds of trades. Popular trades in the real world are opening offices and shops in online games, e.g. Reuters Press agency, Adidas, Philips, Toyota, etc. The first MMORPG-millionaires have been reported. One situation in which real-life regulations may apply to in-game life are the information requirements of the EU Directives on electronic commerce (2000/31/EC) and the distance marketing of consumer financial services (2002/65/EC). The question is how to fulfil information requirements mentioned in these directives in a virtual world that may closely resemble the real, physical world, but is still an electronic environment. Hence, the rationale of these regulations basically is to bridge the gap between the online world and the physical world.

Intellectual property is another topical subject that can be evaluated following the distinction presented above. For example, in January 2007, Second Life millionaire Ailin Graef and her Company Anshe Chung studios tried to press media to take down photos and videos of a “griefing attack” during an in-game interview with Ailin Graef’s virtual character Anshe Chung, claiming that reproducing the images violated copyright. Youtube at first followed the notice and take down of the DMCA, but the movie reappeared a few days later (for 18+).

MMORPGs are generally characterised by the large number of people who play and interact with one another online, in a rather isolated environment. In the game, players are represented by their personal avatars, which can often be modified according to players’ personal preferences. The avatars can range from representations of humans or animals to magical wizards, dragons or fairy-like creatures.

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2 We recognise that any straightforwardness of application of laws obviously depends on the specific legal framework that is applied. In our paper, we take legislation of the European union and Dutch law as a starting point.

3 http://conventions.coe.int/Treaty/EN/Treaties/Html/185.htm

4 This currently happening in Second Life, see http://weblogs.nrc.nl/weblog/discussie/2007/02/21/verbod-op-virtuele-kinderporno-op-internet-nodig/ for references to the actual debate.


6 Although they generally share a number of characteristics, MMORPGs do differ substantially from one another.
For the purpose of this paper, we identify two types of MMORPG: the games in which players must complete tasks and assignments to reach a higher level, such as Runescape\(^7\), Everquest\(^8\) and World of Warcraft\(^9\) and MMORPGs which have interaction with others as their main goal (also referred to as metaverses), such as HabboHotel\(^10\), There\(^11\) and Second Life\(^12\).\(^13\) Although both types of MMORPGs interfere to a certain extent with real life, the latter type is more likely to interfere with real life than the first type of MMORPG because in-game interaction plays a more paramount role.

3 Intellectual property rights in MMORPGs: from “we own it” to “you own it”

The relation to providers of MMORPGs is regulated by means of an “end user agreement”, “privacy policy”, “rules of conduct” or other types of terms of use. During the process of registration, players are required to agree to Terms of Use through a click-wrap agreement. It is typical for MMORPGs that these terms of use do not only regulate the relation between the player of a game and the game provider: MMORPG terms of use often contain regulations for conduct between players as well.\(^14\)

In many MMORPG’s, providers try to keep or to acquire as much of (intellectual) property rights as possible. Many producers stipulate in their terms and conditions that the producer is the intellectual owner of whatever players create in the game. An illustrative example is the following part the terms of service of Sony, provider of MMORPG Everquest:

“(…) SOE shall exclusively own all now known or hereafter existing copyrights and all other intellectual property rights to all Submissions and Licensed Content of every kind and nature, in perpetuity, throughout the universe.”\(^15\)

As a consequence, even transcripts of in-game chats between players would become property of the MMORPG provider.

The efforts of providers to gain as much control over intellectual property as possible, expands not to only contributions to the development of the infrastructure of the game, but also to creations within the game. Examples of the latter are (original) designs for avatars, text, designs for avatar clothing, virtual pets, accessories and other objects for avatars. Many MMORPG’s allow players to a certain extent to build their own creations. This is done by transfer (often in advance) or licensing of intellectual property rights.\(^16\) For instance, the General Conditions of MMORPG “There” stipulate:

“All materials you send to Company, whether or not at our request, including, but not limited to, e-mail, postings, contest entries, Avatars, There Objects, creative suggestions, ideas, notes, drawings, concepts or other information (except any Developer Submissions as defined in the Developer Addendum) (collectively, “Submissions”), shall be deemed the property of Company and you hereby assign all of your rights, title and interest in and to such Submissions to There.com/Makena Technology, Inc.”.\(^17\)

\(^7\) http://www.runescape.com
\(^8\) http://everquest.station.sony.com
\(^9\) http://www.worldofwarcraft.com/index.xml
\(^10\) http://www.habbo.com
\(^11\) http://www.there.com
\(^12\) http://www.secondlife.com
\(^13\) We would like to stress that this distinction is not all-embracing. Moreover, there are some other types of MMORPGs, such as simulations for educational purposes, which are left out.
\(^14\) To what extent the terms of use of a MMORPG actually govern relations between players, for example with regard to competent forum and applicable law issues in case of an in-game infringement of intellectual property is a matter that requires further research.
\(^15\) http://www.station.sony.com/en/termsofservice.vm
\(^16\) We recognize that in other legal systems than Dutch law, there may be other requirements for intellectual property rights to come into being. We do not discuss this matter any further in this respect.
\(^17\) https://webapps.prod.there.com/login/74.xml. Terms date from spring 2006
At the moment of conclusion of the contract, the gamer declares that he transfers any rights with regard to (at that moment not yet existing) contributions in advance to the MMORPG provider. Since a player is required to agree to terms of use prior to entering a virtual world, she may have to agree to transfer of intellectual property rights on creations before she is even aware of the possibility of creation of such items. Can such a construction be legally valid? In this paragraph, we take a closer look at this issue. We restrict our analysis to copyright.

Under Dutch law, transfer in advance of property in general is impossible as transfer can only take place after the conveying party (in this case the gamer) has power of disposition over a good (in this case, intellectual property rights). Although property can not be transferred in advance, delivery in advance of future goods is possible on the basis of article 3:97 Dutch Civil Code (hereafter: BW - Burgerlijk Wetboek). In the case of copyright, which comes into being once a work is created, this means that rights are (automatically) transferred at the moment (the work that has been conveyed in advance) comes into being. At the moment a work is delivered in advance, the requirements for transfer must have been met as well (article 3:84 BW). One important requirement for transfer is that a work must match the requirement of determinability (art. 3:84 lid 2 BW). In our opinion, rather general descriptions in General Conditions such as in those of MMORPG "There" (as mentioned above) are too vague do not match the requirement of determinability of property. We believe that for delivery (and thus, transfer) in advance to be valid, a player should at least have a general idea of the kind of contributions she can make to a specific MMORPG.

A further requirement for transfer of copyright, is that this is done by a signed deed of transfer. On the basis of article 2 sub 2 of the Dutch Copyright Act 1912 (Auteurswet 1912) and 3:95 BW, copyright can only be assigned by means of a deed of transfer: a written document that must be signed by the transferring party. Whether agreeing to Terms of Use by clicking an “ok”-button is sufficient to match that requirement is in our opinion highly questionable, because a click appears insufficient to authenticate the holder of the copyright as the person who signed the deed. It is therefore doubtful whether Dutch law allows “delivery in advance” of copyrights by means of agreeing online to Terms of Use by clicking an “ok-button”.

Not all MMORPGs require players to transfer their copyright. Second Life, for example, takes a different approach: players do not have to transfer their copyright, but the Terms of Service of the game state explicitly that the copyright on their creations belongs to them. In other words, “You create it you own it.” Players are obliged in the Terms of Use to grant a royalty-free, non-exclusive license for use of their creations in the context of Second Life to the provider.

Unlike transfer of copyrights, the act of licensing of copyrights does not require a licensor to match procedural requirements under Dutch law. As a result, the licensing of copyrights in General Terms Conditions which are part of an agreement between parties is in our view possible. When a player does not provide an exclusive license to the content she brings in, she is in our opinion free to publish that content elsewhere.

4 Interaction between in-game and in real life

MMORPGs are generally perceived by users as separate worlds, where players can have their avatars lead a life that may differ from their every day (real) lives. However, in many MMORPGs, in-game interaction between people can result in interference with real life. In

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19 Rank-Berenschot 2003 (T&C BW), art. 3:97 BW, aant. 2 en 5.
20 Article 5 (2) of the Berne Convention.
23 Paraphrased of art. 5.3 Terms of Service Second Life.
25 Assuming that the content which is brought into a MMORPG is created or owned by the player.
Second Life, one can easily make a trip outside the game by clicking on an in-game link that opens a website outside the game. As Second Life enables users to create all kinds of constructions in the game, many companies are now creating virtual branches in Second Life. These virtual branches can be housed in virtual copies of buildings that exist in real life. For instance, exact copies of shopping malls, universities and town halls can be found in Second Life. When real life brand logos and trademarks (Coca Cola) are used to decorate virtual shopping malls without rights holders’ permission, infringement of intellectual property right may occur.26

Many other MMORPGs that have less extensive possibilities for creation of in-game virtual objects are also faced with the interference of real life with the game. Most Terms of Use of MMORPGs contain clauses that prohibit the trading of virtual assets (which are considered intellectual property of the MMORPG provider) outside the game, for example virtual swords or virtual currency. MMORPG providers are thus trying to regulate conduct of players outside the boundaries of the game. Nevertheless, the trade of virtual items outside the game, for example via eBay or other internet auctions, is still very popular. eBay has recently banned auctions of virtual assets, (except trade of assets from Second Life), because it cannot always be established whether a seller of virtual objects has (intellectual) property rights over those virtual items.27

The more real life interferes with a game, the more chances there are of intellectual property issues arising. Examples of topics where real life is currently interfering with in-game life are the provision of news and the creation of in-game fashion.

4.1 In-game newspaper

An interesting feature which links in-game life with real life concerns the provision of “news” and more generally, the reporting on events. Many MMORPG’s have some form of in-game newspaper, which contains all kinds of contributions of gamers related to in-game life. Famous examples are the Second Life Herald (founded by judge Richard Posner) and Second Life’s Metaverse Messenger.28 Some in-game “news provisions” also relate to events that happen in real life.29 In real life, there are numerous blogs reporting on events that happen in-game.

Author Cory Doctorow gave an interview in an in-game newspaper of Second Life in July 2005.30 He subsequently reported having the interview on his own blog, where he referred to another blog maintained by the administrators/managers of Second Life. Which rights can be exercised IRL by providers of MMORPG’s with regard to texts in in-game newspapers, depends first of all on the status of the articles. Articles that are merely “news of the day” are beyond the scope of the Berne Convention31 and in many legal systems not protected by copyright. Article 10bis of the Berne Convention leaves it to the member states to permit the reproduction of articles on “current economical, political or religious topics” published in newspapers in similar media32 and the reporting of current events. The Dutch Copyright Act contains a number of news-exceptions that arrange for the possibility of news items to be published in other media without copyright infringement.33

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26 This issue is not discussed further in this paper. For an example see the Mall of the Dutch village Alphen aan den Rijn called Aarenhof, where the Coca Cola machines are copied into this virtual model of the real mall.
28 In-game newspapers are e.g. made in Habbo Hotel, Second Life and The Sims Online
29 A popular example are in-game lectures. See e.g. http://lodder.cit.vu for pictures and a transcript of a virtual class. The presentation of the latest book by judge R. Posner, including the signing of the virtual book with electronic signatures, is another example.
31 (article 2 (8) Berne Convention)
32 Article 10bis(1) only requires the source of the reproduction to be clearly indicated.
33 Article 15 Aw
Regardless of the contents of terms, a MMORPG provider will often be unable to take measures against the publication of news in other media outside the game.

In Second Life, the interference of in-game news and real life news is illustrated by the recent griefing attack on Second Life millionaire Ailin Graef. An interview of her avatar Anshe Chung with an in-game newspaper was disturbed by flying penises projected onto Anshe Chung. The incident was reported on many news sites on the web. Shortly after the interview, films of the incident also appeared on YouTube. Ailin Graef and her company Anshe Chung studios filed a complaint under the DMCA, claiming that showing the images of the griefing attack on the Internet constituted infringement of their copyright on the avatar. The complaint was withdrawn a few days later. Whether Ailin Graef or Anshe Chung studios would have held a successful claim against the producers and reproducers of the pictures of an event in Second Life is uncertain. However, if they would have posted a claim against reporting news sites, she would probably have come away empty-handed. Avatar Anshe Chung is a public figure in the community of Second Life and the story about her was most certainly newsworthy.

To what extent a provider can act successfully against the publication of other types of literary contributions such as stories, poetry or serials, from an in-game newspaper in a real life setting, depends on the extent to which gamers have transferred their copyrights to the provider.

4.2 Fashion

Many MMORPGs have their own fashion designers, for example in There and Second Life. There-gamer “KittenKat” designs virtual clothing, accessories, means for transport etc. He trades all these items within There under the trade name “Oy”. As discussed above, the Terms of Use of There aim to facilitate the transfer of all rights on contributions by There to the MMORPG provider. Gamer Aimee Weber (her real name) is the designer of “PREEN”, a well-known trade name and trade mark within Second Life. Unlike most other MMORPG’s, Second Life does not require gamers to transfer intellectual property rights on the content they create. On the contrary, Second Life explicitly recognises that gamers acquire intellectual property rights on their in-game creations. Gamers are required to grant a non-exclusive license of intellectual property rights on their contributions in advance to the provider of Second Life. This means that that Aimee Weber is free to reproduce and sell “real” versions of the virtual fashion items she created for Second Life. For There-player Kittenkat, this is not so obvious. If he has legitimately transferred the intellectual property rights on his creations, he may require permission from the provider of There to reproduce items created in There in real life.

To what extent does the transfer leave a gamer the possibility to use a trade name that is used in-game for accessories, outside the MMORPG? Are gamers allowed to use the trade names they use in-game, such as “Oy” and “PREEN” in real life? Under Dutch law, a trade name is only protected when one carries on an enterprise. When Kittenkat and Aimee Weber offer their products for virtual currency, one could conclude that they trade for profit and hence carry on an enterprise. When we assume that both gamers op actually have possession over the trade name they use in the game, is the question is whether There-gamer Kittenkat has legally valid transferred the trade name from the gamer to the There provider. A number of obstacles for a valid transfer can be identified. First, it is in our opinion unlikely that a trade name can be considered to match the requirement of determinability as meant in art. 3:84 lid 2 BW as mentioned above. A second obstacle is that according to article 2 Hnw, transfer of a trade name is only possible in connection with transfer of the company that is carried out, therefore including the activities carried out by the company. As long as “Kittenkat” is herself responsible for the marketing and development of her products and

37 Article 1 of the Dutch Trade Names Act (Hnw) and Gerechtshof Amsterdam 29 januari 2005, BIE 2005/24.
enjoys material benefits from her company/enterprise, it is unlikely that her company is transferred to There along with the trade name.

4.3 Moral rights and in-game constructions

In a number of MMORPG, players can create all kinds of virtual constructions themselves. When a player creates an in-game work of art that is considered offensive, the MMORPG provider may object and decide to modify or remove such creations. Most MMORPG Terms of Use contain provisions enabling providers to do so. There is a tension between copyright and contract law when a creator of a work has agreed in advance to terms and conditions and these terms include prior agreement to modification of a creation by the provider. Can moral rights be set aside by a contract concluded prior to the existence of works? Article 6bis of the Berne Convention states that ownership of moral rights is not transferable and: “(…) the author shall have the right to claim authorship of the work and object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honour or reputation.” As a consequence, moral rights on in-game creations can not be transferred to the provider of the service. The validity of a clause in General Conditions stating otherwise is uncertain to say the least.

Assuming moral rights cannot be transferred to a MMORPG provider, it is not unthinkable that the existence of moral rights can become an obstacle for the MMORPG provider. Depending on the circumstances, a MMORP provider may for example be obliged to take measures to enable the creator to protect his creation against destruction.

4.4 First sale doctrine

A final topic worth to discuss is the first sale doctrine. The first sale doctrine (or extinction) means that once a specific work (or copy) has been made public for the first time, the copyright holder no longer has power to regulate the sale of this specific copy. The rationale for this doctrine is that the right to make public can be exercised only once. This is different for electronic copies. Hence, you can sell an electronic work (e.g. and MP3) at a reasonable price, send this file to the buyer but keep a copy yourself. In that case the original MP3 (if obtained legally) has already been made public, but because of the ease by which the original buyer can sell it and still remain in the possession of the work, the copyright regarding sale always stays in hand of the copyright holder. The well known Digital Right Management systems are meant to formalise this continuing right of the copyright holder. In case of virtual objects in e.g. Second Life, this reasoning may not hold. Here the creator is the only one who can multiply her creation. A virtual object has the same essential characteristic as physical objects: its singular nature. So, if someone buys a virtual sword, and want to sell it, she will no longer be in the possession of the sword after the object has been sold. It could be argued therefore that the first sale doctrine should also apply to these virtual objects, for they share exact those characteristics with physical goods that were the reason to distinguish between physical and electronic works within this doctrine (see e.g. Article 3 and 4 of the Directive 2001/29/EC).

An interesting consequence of taking this position, is that producers do not have the possibility to forbid trade of items. Hence, their right (they hold for themselves of everything created in these worlds) extinguishes after the first time it has been made public. You could argue that in-game is not public, but since anyone can enter the game this does not hold stake, especially not since so many people participate.

5 Conclusion

38 Article 6bis sub 1 Berne Convention
39 As far as the applicable law is one of the many countries that are a party to the Berne Convention.
In many MMORPGs, all aspects of the game are governed by the game’s terms and conditions of use. Within the game, MMORPG providers are legislator, judiciary, and government in one. Balance of powers appears to be completely absent in the virtual world. Nonetheless, law regulates social behavior, and the interaction taking place in these MMORPGs fall under the scope of law. Obviously, law is not only the rules set by governments in these worlds. In virtual worlds or MMORPGs norms are defined on at least three levels. Mainly by the producers, partly by the players, and real world law is inflicting as well. The trading of ingame items for real money may complicate the matter further. How should the legal status of in-game objects, transactions and relations between avatars be determined? Tensions arise between the scope of terms and conditions governing in-game life and regulations governing real life, for example with regard to the application of intellectual property rights.

In this paper we analysed the copyright issues that are problematic in the light of the upcoming virtual worlds or MMORPGs. It is clear right now that uncertainty will remain regarding the legal status of objects and the relation between avatars and their users. In this paper we did, however, put forward some of the answers to the most urgent legal copyright issues. We realize more research is needed.

As a general rule you can say that the more a MMORPG interferes with real life, the more relevant legal issues become. If virtual worlds really become our digital future and simulations and E-learning facilities become commonplace in daily life, an in depth analysis at the relation between in-game life and real life is required. Although at this moment the analysis of legal issues already explore the boundaries of existing legal systems, our expectation is that soon it will no longer be possible without adding new concepts and norms. The exercises undertaken now are not only interesting for a good understanding of existing law, but also set the lines for future research in this field.