

Acquisition of ownership inside virtual worlds*

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OPSOMMING

Verkryging van Eiendomsreg in Virtuele Wêreld

Die artikel het ten doel om as kort inleiding te dien tot die manier waarop eiendom binne in 'n virtuele wêreld verkry kan word. Die Suid-Afrikaanse sakereg word as agtergrond gebruik om die nuwe veld van virtuele goederereg te bespreek en binne in die konteks van die reg in die regte wêreld te plaas. Ondersoek word ingestel om te bepaal of daar ooreenkomste is tussen die oordrag van eiendom in die regte en die virtuele wêreld. In sommige gevalle blyk dit te wees dat eiendomsregte afgelei word deur middel van standaard kontraktuele bedinge wat deur die ontwikkelaar van 'n virtuele wêreld bepaal word. Soms is hierdie bloot gebruiksregte, maar in ander gevalle, en spesifiek binne-in virtuele wêreld wat die regte wêreld simuleer, kan gebruikers eienaarskap verkry van hul virtuele goedere. Vanuit die voorbeelde is dit duidelik dat daar sterk ooreenkomste tussen eiendom in die regte en virtuele wêreld is. Eiendom kan onder andere deur beide oorspronklike sowel as afgeleide wyses verkry kan word in die virtuele wêreld en eiendomsreg in 'n virtuele item kan onder andere gesedeer, verkoop of ge-erf word of selfs verlore gaan in 'n insolvente boedel.

1 Introduction

The field of virtual property¹ is still one that not many people are aware of.² Even if they have heard about it, their concept of it is often

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1 For a concise introduction to the concept of virtual property see Erlank "Lecture: introduction to virtual property" 2009 SSRN available at <http://ssrn.com/abstract=1491118> (accessed 2010-10-10); Erlank "Introducing property in virtual worlds" 2012 *Social Sciences Research Network (SSRN)* available at <http://ssrn.com/abstract=2241030> (accessed 2012-10-31). See in general Fairfield "Virtual property" 2005 *Boston U LR* 1047 1102; Blazer "The five indicia of virtual property" 2006 *Pierce LR* 137 161; Deenihan "Leave those Orcs alone: property rights in virtual worlds" 2008 SSRN available at <http://ssrn.com/abstract=1113402> (accessed 2009-05-22) 1 51; Lastowka & Hunter "The laws of the virtual worlds" 2004 *Calif LR* 1 74. For a more exhaustive discussion of how property inside virtual world functions in the real world legal system, see Erlank *Property in virtual worlds* (LLD dissertation 2012 Stell) available at <http://ssrn.com/abstract=2216481> (accessed 2012-10-31).

2 This article is intended to be an exploratory and introductory article to the fields of virtual law, virtual property and virtual worlds. It is the first of a number of forthcoming articles dealing with both law and property regarding and inside of virtual worlds.

unformed, imprecise and mostly out-dated.³ While virtual property includes well known intangibles like domain names and email addresses,⁴ it also refers to property that only exists inside virtual worlds.⁵ This type of virtual property is a common feature of modern multiplayer internet based virtual worlds.⁶ The virtual property found in virtual worlds is usually created from computer code⁷ that is implemented to fulfil the same function in the virtual world as it would in the real world.⁸ For example, a virtual chair would be used to seat a virtual person.⁹

For the purpose of this article, the term virtual property will be used to refer to the objects of virtual property as found inside a virtual world.¹⁰ These objects are the items that players encounter and use by means of interaction between themselves, their avatars¹¹ and the virtual world. One category of the objects of virtual property would refer to things, or rather movable (in)tangible virtual items.¹² Other categories include (amongst others) virtual immovable property or things like houses, castles and land. In certain virtual worlds there are even slaves that are

3 This is possibly due to the changing understanding of the virtual property concept and the constant development of the virtual world phenomenon.

4 See Van Erp "Servitudes: the borderline between contract and (virtual) property" in *Towards a unified system of land burdens* (eds Van Erp & Akkermans) (2006) 4; Fairfield 2005 *Boston U LR* 1047 1049 1055.

5 Fairfield 2005 *Boston U LR* 1047 1058 1064; Lastowka & Hunter 2004 *Calif LR* 1 29.

6 For a discussion about the interconnected and multiplayer elements of virtual worlds see Castronova "Virtual worlds: a first-hand account of market and society on the cyberian frontier" (2001) *No 618 CESifo Working Paper* available at <http://papers.ssrn.com/abstract=294828> (accessed 2009-05-20) 6; Blazer 2006 *Pierce LR* 145 146; Fairfield 2005 *Boston U LR* 1047 1050 1054.

7 Fairfield 2005 *Boston U LR* 1047 1049; Grimmelmann "Virtual worlds as comparative law" 2004 *NY Law Sch LR* 147 150. For a general discussion about code-as-law see: Lessig *Code and other laws of cyberspace* (1999) as well as Lessig *Code: and other laws of cyberspace, version 2.0* (2006).

8 Fairfield 2005 *Boston U LR* 1047 1049. See in general Erlank (2009).

9 This example can be enhanced by visualizing a virtual folding chair that is placed next to a virtual wrestling ring. This virtual chair would then be used by one virtual wrestler, to hit his opponent over the head. Hence form follows function.

10 As mentioned above the term "virtual property" has many other meanings as well. Examples of other objects of virtual property include uniform resource locators (URLs); domain names; email addresses; bank accounts; the player's account in a virtual world (ie the player's complete virtual world patrimony in that specific world); intellectual property interests held by both players and developers in the objects that they create, import and use in virtual worlds etc. See in general the discussion about various objects of virtual property Fairfield 2005 *Boston U LR* 1047 1049, 1052; Lastowka & Hunter 2004 *California LR* 1 29.

11 An avatar is the player's corporeal representation inside the virtual world, otherwise also known as the player's character. See Castronova (2001) 3.

12 These would include objects such as chairs, sneakers, clothing, cars and almost any other type of object that one would find as a virtual (in)tangible object to its real world counterpart. In order to appreciate the diversity of virtually tangible objects that are created, used, traded and sold in virtual

deemed to be the property of the player.¹³ Even more challenging from a real world property perspective, is the fact that a player's avatar could also be defined as an object of a property right.¹⁴

Although there are various levels in which one can perceive virtual property,¹⁵ the focus in this article will be on the intra-virtual world level. In other words, the cross-border transactions that occur between the real and virtual worlds will be ignored. This article will specifically not deal with the player's virtual world account as an object of virtual property. Acquisition of ownership inside the boundaries of the virtual world will be illustrated by a number of virtual world examples. Because of these exclusions, a number of assumptions will be necessary.¹⁶ These assumptions are that a player can have possession of a thing in a virtual world and that the concept of ownership is also taken for granted inside the virtual world.

worlds, see the online marketplace in *Second Life* Linden Lab "Second Life marketplace" 2011 *Second Life Marketplace* available at <https://marketplace.secondlife.com> (accessed 2011-10-10).

- 13 For example *Second Life* contains an area called Calana Mount where players can (amongst the usual available occupations) act as slaves or slavers: Hsu "Virtual world, real college class" 2008 *Las Vegas Sun* at <http://www.lasvegassun.com/news/2008/apr/07/virtual-world-real-college-class/> (accessed 2011-10-10). There are also players participating as willing sex-slaves for other player's in *Second Life*: Wagner "Sex in Second Life" 2007 *InformationWeek* at <http://www.informationweek.com/news/199701944> (accessed 2011-10-10).
- 14 See Lastowka & Hunter 2004 *California LR* 1 51-71 where they deal with the issue of recognition of personal rights of avatars as cyborgs in both the virtual and real worlds.
- 15 Such as intra-virtual world, extra-virtual world or cross-border between the virtual and real worlds.
- 16 These assumptions form the base of a number of heated debates in the virtual property law society. The relevance of the assumptions can be seen from this brief example. At the moment virtual world developers are actively trying to prevent the vesting of any real world property rights in players. They do this by means of making access to the virtual worlds dependant on the acceptance of an End User Licence Agreement (EULA) stating that a player only acquires a limited licence to interact with the virtual world, and that the licence is revocable at any time, for any or no reasons at all. Additionally to this, the contractual agreement also invariably contains strong clauses that explicitly state that a player does not acquire any ownership or property rights in anything inside the virtual world. In spite of this, players are actively ignoring these stipulations and using both their accounts, as well as the objects that they possess via their avatars inside the virtual worlds as objects of property that they sell, barter and trade with in the real world. This has led to a multi-billion dollar trade in virtual property that takes place in spite of the developer's contractual stipulations to the contrary. For more on this topic see Castronova (2001). Also see Lawrence "It really is just a game: the impracticability of common law property rights in virtual property" 2008 *Washburn LJ* 505 549; Nelson "The virtual property problem" 2009 *SSRN* available at <http://ssrn.com/abstract=1469299> (accessed 2009-08-11) 1 33.

The aim of this paper is to take an introductory look at acquisition of ownership inside a virtual world. A brief summary of the methods of acquisition of property in South African property law will provide the background against which to discuss the new field of virtual property and give it some real world context. In most instances ownership will be derived from the terms of a contract, where a developer gives a user a right to use or own an object of virtual property.¹⁷ Sometimes this is just a right of use,¹⁸ but at other times, and specifically in virtual worlds that emulate the real-world,¹⁹ users are able to acquire ownership in these items.²⁰ There are also a number of other methods of acquisition that closely resemble those found in the real world. Ownership in a virtual

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- 17 The issue of the allocation and regulation of virtual property rights falls outside the scope of this article. For a discussion about the intellectual property and real world contractual implications of property in virtual worlds see Fairfield 2005 *Boston U LR* 1047 1049; Deenihan 9; Adrian "Intellectual property or intangible chattel?" 2006 *J Int Comm Law & Tech* 52 61. See in general: Chheda "Intellectual property implications in a virtual reality environment" 2005 *The John Marshall R IP Law* 483 508; Dibbell "Owned! Intellectual property in the age of dupers, gold farmers, eBayers, and other enemies of the virtual state" 2003 available at <http://www.nyls.edu/docs/dibbell.pdf> (accessed 2008-03-12); Eriksson & Grill "Who owns my avatar? – Rights in virtual property" 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* available at <http://www.digra.org/dl/db/06276.23429.pdf> (accessed 2009-10-02); Kunze "Regulating virtual worlds optimally: the model end user license agreement" 2008 *North Western J Tech & IP* 101 118; Miller "Determining ownership in virtual worlds: copyright and licence agreements" 22 *Rev Litig* 435 471; Reuveni "On virtual worlds: copyright and contract law at the dawn of the virtual age" 2007 *Indiana LR* 261 308; Westbrook "Owned: finding a place for virtual world property rights" 2006 *Michigan State LR* 779 812.
 - 18 For example, *World of Warcraft's (WoW)* EULA states that "(t)his software is licensed, not sold. By installing, copying or otherwise using the game (defined below), you agree to be bound by the terms of this agreement." See Blizzard "World of Warcraft – End User License Agreement" 2009 *World of Warcraft* available at <http://www.worldofwarcraft.com/legal/eula.html> (accessed 2009-11-04).
 - 19 As an example, one of the private islands in *Second Life* is called "Brigadoon." This is a safe, virtual environment where people with Asperger's syndrome and their care-givers can interact. See Silverstein "A world where anything is possible" 2005 *abc NEWS* available at <http://abcnews.go.com/Technology/FutureTech/story?id=1019818> (accessed 2009-12-01); Fairfield 2005 *Boston U LR* 1047 1049 nn 51, 52.
 - 20 For example in the virtual world of *Second Life* ownership of land is an essential part of the gameplay. For an illustration of how this works see the discussion about estates versus private regions in *Second Life* where Linden Labs (the developer of *Second Life*) describes an estate as follows: "An estate is a term for a group of one or more Private Regions that belong to one Resident. See Linden Lab "Private regions: about land" 2011 *Second Life English Knowledge Base* available at <http://community.secondlife.com/t5/English-Knowledge-Base/Private-Regions/ta-p/700133> (accessed 2011-10-12).

item can be ceded, sold, inherited or lost in an insolvent estate.²¹ It can even be acquired in an original form.²²

The relevance of this field of property law becomes apparent when one realises that virtual property ownership has far-reaching consequences from both an economic and social viewpoint.²³ Because of this importance of virtual property from an economic perspective,²⁴ it follows that whoever has ownership²⁵ of these virtual assets are able to exert control over and derive financial interest from them.²⁶ Due to this fact, knowledge of how ownership in virtual property can be acquired and what the corresponding rights should be, quickly become relevant to the practice of the law of property.

2 Acquisition of Real World Property

Before investigating the ways in which virtual property is most often acquired, it would be good to take a brief look at the ways in which one is able to obtain ownership of things in South African private law. This

21 For a discussion about the problems associated with ownership of digital information and virtual property after someone's death see: Miller "Virtual inheritance" 2008 *Economics of Virtual Worlds* available at <http://economicsofvirtualworlds.blogspot.com/2008/09/virtual-inheritance.html> (accessed 2011-10-20); Cha "After death, a struggle for their digital memories" 2005 *Washingtonpost.com* available at <http://www.washingtonpost.com/wp-dyn/articles/A58836-2005Feb2.html> (accessed 2011-10-19); Staff Writer "Digital privacy after death – What will happen to your online profile when you're gone?" *lifeinsurancefinder.com.au* available at <http://www.lifeinsurancefinder.com.au/infographics/what-happens-online-when-you-die/> (accessed 2011-10-19).

22 This is discussed in more detail below.

23 See in general Lastowka & Hunter 2004 *California LR* 1 74.

24 This issue has been discussed quite extensively in the literature about virtual property. See in general: Castronova "On virtual economies" 2003 *Int J Comp Gaming Res* available at <http://www.gamestudies.org/0302/castronova/> (accessed 2009-05-22). See also: Castronova "Real products in imaginary worlds" 2005 *Harv Bus R* 20 22; Castronova "The right to play" 2004 *NY Law Sch LR* 185 210; Castronova "Virtual world economy: it's Namibia, basically" *TerraNova* 2004 available at http://www.terranova.blogs.com/terra_nova/2004/08/virtual_world_e.html (accessed 2008-08-24); Castronova (2001) 40; Lastowka & Hunter 2004 *California LR* 1 9; Grimmelmann 2004 *NY Law Sch LR* 147 149; Pollitzer "Serious business: when virtual items gain real world value" 2007 *SSRN* available at <http://ssrn.com/abstract=1090048> (accessed 2009-10-10) 1 51.

25 Vacca discusses two models of ownership used in virtual worlds, the first refers to the so-called traditional model of ownership where the developer of a virtual world automatically becomes or stays the owner of all property inside the virtual world. The second model he calls "user-retained ownership" which leaves ownership of user-created content in the hands of the player and not the developer. See: Vacca "Viewing virtual property ownership through the lens of innovation" 2008 *Tenn LR* 42 44.

26 This correlates with the phenomenon that most of the largest virtual worlds that are commercially run tend to follow the model of ownership where the developer retains all ownership inside the virtual world. See in general Vacca 2008 *Tenn LR* 42 44.

will provide a real world frame of reference when discussing acquisition of ownership inside a virtual world. In the real world, acquisition of ownership is usually divided into two broad categories, being either original or derivative. The main difference between the two relate to the question of whether the ownership is acquired independently or in the alternative, derived from and dependent on the ownership of a predecessor.²⁷ Hence, original acquisition of ownership is usually said to occur when there was no predecessor,²⁸ and derivative acquisition takes place when ownership is derived from a predecessor. Original acquisition is the result of a unilateral act and a new right is created in respect of the property being acquired.²⁹ Derivative acquisition on the other hand, follows after a bilateral transaction requiring the co-operation of the predecessor in title.³⁰

Some of the more prominent examples³¹ of original acquisition of ownership (with similar counterparts in virtual worlds) are occupation; treasure trove; accession; specification; acquisition of fruits; expropriation; forfeiture to the state and appropriation of minerals.³²

Examples of derivative acquisition of ownership³³ (with similar counterparts in the virtual worlds) are delivery³⁴ (in the case of movables) and registration in the case of immovables.³⁵

3 Acquisition of Virtual Property

3.1 Introduction

In a virtual world there is no meaningful distinction between software and law. What the software does not allow, is impossible.³⁶ This leads to

27 Van der Merwe & De Waal *The law of things and servitudes* (1993) 116; Badenhorst, Pienaar & Mostert *Silberberg & Schoeman's The Law of Property* (2006) 71.

28 This is not always the case. An example of an exclusion being the case of expropriation when the ownership is acquired free from the characteristics, obligations and benefits of the right of a predecessor: Van der Merwe & De Waal 116.

29 Badenhorst, Pienaar & Mostert 71.

30 Van der Merwe & De Waal 116; Badenhorst, Pienaar & Mostert 72.

31 Van der Merwe & De Waal 116.

32 For a detailed discussion of original acquisition in South African Law see Badenhorst, Pienaar & Mostert *Silberberg & Schoeman's* 137, 174. Of all of these examples, the most important in virtual worlds is occupation.

33 Van der Merwe & De Waal 148.

34 Van der Merwe & De Waal 156. For a detailed discussion of transfer (delivery) as a mode of derivative acquisition of property in South African Law see: Badenhorst, Pienaar & Mostert 175, 200.

35 Van der Merwe & De Waal 165. For a detailed discussion of registration of land as a mode of derivative acquisition of property in South African Law see Badenhorst, Pienaar & Mostert 201, 239.

36 This is if the virtual law is derived from the computer code. It is also possible that players create legal norms between themselves that are not designed or enforced by the code-based legal norms. See Grimmelmann 2004 *NY Law*

an area of law in virtual worlds where “there is no room for mediation because any ‘legal’ mediation embodied in the software immediately becomes part of the ‘natural’ world.”³⁷ This means that a player’s property rights are guaranteed by the programming. As the “owner” of a virtual sword, an avatar is guaranteed that the rights that he or she has in the sword would be protected and enforced against any other player by means of the game-code.³⁸ While the player “owns” the sword, no other player can interfere with his right, or even make use of the sword. However, as in real life, no property rights are totally absolute or totally exclusionary in a virtual world. A player’s property rights will be guaranteed to be protected only insofar as the software allows for it.³⁹ For example, in the virtual world *Ultima Online*, one of the features is that players are enabled by the software and game-design to “steal” from one another.⁴⁰ In other words in such virtual worlds the software explicitly makes allowances for the action of lawfully “stealing” the property of another player.

3 2 The concept of virtual world ownership

The concept of “ownership” inside a virtual world is a problematic one and it is easier (and probably more correct) to describe players’ property rights towards the things that they “own” in virtual worlds as being possessory.⁴¹ The reason for this is that the concept of ownership is normally inferred from the factual question of possession. Because a player is not enabled by the game’s code to possess an item “belonging” to another player, the mere fact of possession equates to ownership inside the virtual world. In many virtual worlds property rights attach to a holder of an object for as long as the item is carried around by the

Sch LR 147 150, 154; Edelmann “Framing virtual law” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* available at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (accessed 2011-08-08) 5. See in general Lessig (1999).

37 Grimmelmann 2004 *NY Law Sch LR* 147 150. See also: Jankowich “Property and democracy in virtual worlds” 2005 *Boston UJ Sci Tech* 177; Pollitzer 20; Lessig (2006); Lessig (1999).

38 Grimmelmann 2004 *NY Law Sch LR* 147 refers to this attribute of the property rights as “absolute”. I would rather describe it as being automatically exclusionary.

39 Lessig “The law of the horse: what cyberlaw might teach” 1999 *Harv LR* 522, 531. See in general Lessig (1999).

40 Grimmelmann 2004 *NY Law Sch LR* 147 150 n 11; Lastowka & Hunter “Virtual crimes” 2004 *NY Law Sch LR* 309. Certain virtual worlds even include the class of “thief” as one of the types of avatar that a player can choose to create. For an in depth discussion of the “thief” class and attributes relating to thievery in some other classes like “rogues”, “swashbucklers” and “assassins”, see Forum Contributors “Thief-classes in MMOs” 2008 *The Pub at MMORPG.COM* available at <http://www.mmorpg.com/discussion2.cfm/post/1895730#1895730> (accessed 2011-08-13).

41 Grimmelmann 2004 *NY Law Sch LR* 147 151.

avatar.⁴² As soon as the avatar drops⁴³ the object, it constitutes abandonment and the item immediately becomes *res derelictae*. The next person to pick up the item will then become the new owner.⁴⁴ The example mentioned here is a very simplistic use of the ownership concept in a virtual world and many worlds are far more sophisticated in their approach to the ownership concept as well as in the implementation of it via code. This is due to the pressure on developers to implement more detailed code-based property rules and not only a simple “possession-is-all-rule”.⁴⁵ An example of a more complex code-based property system may be found in the area of virtual homeownership.⁴⁶ The default rule in virtual worlds is that all players have access to all areas at all times. The next more developed rule is to allow only the owner of a house into his virtual home, which is counter-intuitive if a home-owner wishes to invite guests without giving them a full run of the house. To solve this dilemma, developers have created a nuanced system of levels of exclusionary capacity that they build into the code-based property system. Grimmelmänn refers to this as a “virtual fee simple”⁴⁷ with a new estate carved out called the “right to visit”.⁴⁸ This so-called “right of visit” is perpetual, non-transferable and subject to revocation by the owner of the house at any stage.

This right to visit has a measurable effect on the ability of both owner and visitor to interact with their own property as well as the property of others. In the example above about ownership being lost by the dropping of an item, the rules of the acquisition of the object in question was clear. However, if one was to integrate that example into the context of a virtual home in a virtual world, a number of problems arise. One such problem (and a main reason why players would wish to own a virtual home), would be to have a secure environment where they could store their collected virtual items without losing their property rights in it.⁴⁹ Apart

42 This is often referred to as “equipping” an item. See: Sony “EverQuest II Manual” *EverQuest II* available at http://everquest2.com/manual/EQII_Manual.pdf (2010-11-03) 16.

43 Or “unequips” the item.

44 Grimmelmänn 2004 *NY Law Sch LR* 147 151. For example, Ultima Online’s Playguide describes the procedure and consequences of dropping items as follows: “You can remove items from your inventory and drop them almost anywhere on the screen near your character. If, for some reason, the item can’t be dropped in the location you’ve selected, either an error noise will sound or the item will return to your inventory. A dropped item will stay where it is until it deteriorates naturally or someone picks it up. Dropped items don’t tend to stay around for long.” Mythic “Ultima Online playguide: environment manipulation” (2010) *UO Herald* available at <http://www.uoherald.com/node/115> (accessed 2010-11-03).

45 Grimmelmänn 2004 *NY Law Sch LR* 147 151.

46 *Ibid.* For an example of how a developer deals with this issue, see: Sony “EverQuest II Manual” *EverQuest II* available at http://everquest2.com/manual/EQII_Manual.pdf (accessed 2010-11-03) 26.

47 Making use of feudal estate terminology.

48 Grimmelmänn 2004 *NY Law Sch LR* 147 152.

49 Even if items are not taken by other players, they are subject to “decay” as is explained in the Ultima Online Playguide. “In Ultima Online, items that are

from this, homeowners would also like to have guests over for functions and other social visits. However, what would the consequences be of inviting visitors to a player's house? Would an item dropped by a guest become the property of the homeowner, or would any guest that picks up or uses an item in the house become the new owner of that item? It is clear that in this case the general rule of possession equating virtual ownership is not satisfactory. In order to solve this problem, the nuanced system of exclusion mentioned above incorporates a number of new options. A homeowner is able to choose between certain categories of access that he or she wishes to assign to a visitor. Depending on the category that a homeowner assigns to a visitor, that visitor will not only be able to access certain areas of the home, but the visitor's interaction with the items in the home will also be defined. For example, one visitor might have access to enter the house, but not to pick anything up, while another visitor might be given certain permissions to be able to carry off any items in the home.⁵⁰

3 3 Original Acquisition Inside Virtual Worlds

From the discussion above it is clear that the most important form of acquisition of virtual property is derived from having possession of a virtual thing. How then does a player acquire possession and/or ownership of an object of virtual property? As mentioned above, the methods of acquisition would usually depend on the allowances made for transfer and possession by the code and by extension the laws of the virtual world itself.⁵¹ Similarly to the real world, original acquisition is usually achieved by means of occupation of property (*occupatio*). In the virtual world occupation of property frequently happens by means of capture of wild animals or monsters.⁵²

In most virtual worlds the best way to increase one's virtual patrimony is by occupation, or as it is commonly referred to in virtual worlds, as "the taking of wild monsters".⁵³ The capture and killing of wild animals or monsters inside virtual worlds often represent the best way of

placed on the ground (i.e. not locked down or secured in a house, or placed in your bank box) can decay. This means that after a period of time, the item will disappear from the game. There's no way to retrieve items that have decayed. To keep your items safe from decaying, you need to either lock them down or place them in a secure container in a house that you own, co-own, or are a friend of, or store them away in your bank box." See Ultima Online Playguide "Houses: housing security" 2010 www.uoherald.com available at <http://www.uoherald.com/node/216> (accessed 2010-10-10).

50 The level of complexity with regard to rules of access can become extremely complex. For a good example of how such rules work, see Ultima Online Playguide "Houses: housing security" 2010 www.uoherald.com available at <http://www.uoherald.com/node/216> (accessed 2010-10-10) and also Dark Age of Camelot Manual "Chapter 4: accessibility" 2010 www.camelot-herald.com available at <http://www.camelot-herald.com/housing/manual/chapter4.php> (accessed 2010-10-10).

51 See in general: Lessig (1999).

52 Grimmelmann 2004 *NY Law Sch LR* 147 154.

53 *Idem*.

acquiring treasure or “loot”. Although it is legally significant to be the player who slays a monster, the possession of the monster’s corpse is only of legal significance for a short time because it is not the monster’s corpse that is important, but rather the perceived value of the objects that these monsters drop when they are killed.⁵⁴ Grimmelman notes that

[i]n the large crop of quasi-medieval games, with their strongly fantastic overtones, the capture of wild animals is nothing less than the principal source of wealth. The single most profitable ‘industry’ is hunting monsters and looting their corpses.⁵⁵

In the case of capture and killing of the monsters, the property rules contained in the game-code are highly worked out, but do not provide for all the available circumstances that presents itself in the game. For example, a game like *EverQuest* automatically awards experience points⁵⁶ to the player who kills a monster. If a group of players work together to slay a monster, the experience points are distributed by the game amongst the players, usually in proportion to their contribution to the killing. However, the loot that the monster drops when killed is not automatically assigned to any specific players and becomes *res nullius* as soon as it is dropped.⁵⁷ The first player to pick up the treasure then becomes the owner of it. Although the game-code would seem to create certainty as to the ownership of the picked-up treasure, the player community has developed a set a normatively binding rules relating to who is allowed the pick up the treasure.⁵⁸ Players will often deviate from the code-based rules to follow rules based on their own social understandings.⁵⁹

Apart from the capture and killing of wild beasts as a method of obtaining virtual property, certain other interesting methods are available to the player. Mining and farming are given as examples of how

54 See the discussion about the automatic awarding of experience points below.

55 Grimmelman 2004 *NY Law Sch LR* 147 155.

56 These experience points are valuable because they contribute to the development of the player’s avatar, from a vulnerable inexperienced weakling in the beginning of the game, to a superior character with enhanced abilities at the higher levels of the game. One of the aims of most virtual worlds is that the player’s avatar should be able to proceed to the next level (called levelling up). This is achieved by the acquisition of property and experience points.

57 DaCunha “Virtual property, real concerns” 2010 *Akron IP J* 40. For a discussion about how this allocation of experience points function and their part in the virtual world economy see: Malone “Dragon kill points: the economics of power gamers” 2007 *Games and Culture* forthcoming available at <http://ssrn.com/abstract=1008035> (accessed 2009-05-18).

58 If one player picks up the treasure that appears from another player’s efforts, it is considered as “kill stealing”. Even though the game-code would not penalise this action, the other players will take action against a perpetrator. For more info see Grimmelman 2004 *NY Law Sch LR* 147 155-156.

59 *Ibid* 156.

things are taken raw out of “nature” and then transferred into useful and saleable things. Take this account of one player’s labours for example:

In addition to the four hours of clicking, Stolle had had to come up with the money for the deed. To get the money, he had to sell his old house. To get that house in the first place, he had to spend hours crafting virtual swords and plate mail to sell to a steady clientele of about three dozen fellow players. To attract and keep that clientele, he had to bring Nils Hansen’s blacksmithing skills up to Grandmaster. To reach that level, Stolle spent six months doing nothing but smithing: He clicked on hillsides to mine ore, headed to a forge to click the ore into ingots, clicked again to turn the ingots into weapons and armor, and then headed back to the hills to start all over again, each time raising Nils’ skill level some tiny fraction of a percentage point, inching him closer to the distant goal of 100 points and the illustrious title of Grandmaster Blacksmith.⁶⁰

Certain games also provide mechanisms for combining already existing things into new things (accession),⁶¹ and others have mechanisms for creating new things from a code level.⁶² Apart from ownership of the virtual thing, in such a case the creator is sometimes given intellectual property rights in the newly created thing. This is such a prominent aspect of the virtual world *Second Life*, that there is even an intellectual property office in *Second Life*.⁶³

3 4 Derivative Acquisition Inside Virtual Worlds

Apart from being able to pick up or take an item that is lying around as *res derelictae*, there is a thriving economy that operates inside most virtual worlds.⁶⁴ Players can make use of auction houses,⁶⁵ bazaars and other in-game trading facilities like shops, taverns and town commons to transfer property – and consequently ownership.⁶⁶ The benefit of using the in-game provided mechanisms for transferring property is that the code usually provides a secure transaction facility. The property is kept

60 Dibbell “The unreal estate boom: the 79th richest nation on earth doesn’t exist” 2003 *Wired.com* available at http://www.wired.com/wired/archive/11.01/gaming_pr.html (accessed 2010-10-10).

61 For example, in *Ultima Online* players are sometimes required to combine items to produce new items. See Mythic “Ultima Online playguide: environment manipulation” (2010) *UO Herald* available at <http://www.uoherald.com/node/115> (accessed 2010-11-03).

62 This is a prominent feature of *Second Life*. See in general Ondrejka “Escaping the gilded cage: user created content and building the metaverse” 2004 *NY Law Sch LR* 84.

63 Duranske “SLPTO offers Second Life content creators suite of intellectual property protection tools” 2007 available at <http://www.virtuallyblind.com> (accessed 2008-03-12)

64 Deenihan 5; Castronova 2003 *Int J Comp Gaming Res*.

65 Deenihan 5.

66 See for example the trading options employed in *World of Warcraft*: Blizzard “World of Warcraft game guide: trading” 2010 *World of Warcraft* available at <http://www.worldofwarcraft.com/info/basics/trading.html> (accessed 2010-10-10). Also see the trading and selling methods employed in *EverQuest*: Sony “EverQuest II Manual” *EverQuest II* available at http://everquest2.com/manual/EQII_Manual.pdf (accessed 2010-11-03) 22 24.

by the game-code and only transferred to the buyer as and when funds are transferred. An example of this is found in the World of Warcraft game-guide:

Select a character, and then right-click on its portrait/name. You can also do this for player portraits. This will launch the trade screen with another player. Place your items in the top portion of the screen. Once you are satisfied with the other player's trade, hit "Trade" button. To trade money, open up your backpack and hold down shift while clicking on the money amount. You can then select the amount of money and drag it over to the trade window. You can also drag an item or money from your bags and drop it on another player to initiate a trade window. Make sure the other player gives the correct type of coin in the trade. When you have a trade window open, you can right-click an item to move it to the trade window.⁶⁷

Similar to the real world, immovable property such as houses and virtual land are also tradable in virtual worlds and ownership of virtual real estate frequently changes hands. Most virtual worlds that provide for individual ownership of virtual immovable property also provide some type of registration system that emulates a real world deeds registry.⁶⁸ Take for example this extract from the Dark Age of Camelot Manual:

Please note that only Personal Homes can be sold, not Guild homes. Should you decide to sell your home to a fellow player, there are a few steps to follow. The first thing you need to do is to get the title to your home. You can purchase the house title to your home in the housing market area from the deed NPC. Once you have the house title, it works just like any other item transaction. Hand the house title to the player you wish to sell it to, decide on the price, and then both of you hit accept. You can only sell a house to someone who doesn't already own a home. Once you have the house title, it works just like any other item transaction. You must stand on the lot where the house is [, t]hen hand the house title to the player you wish to sell it to[.] Decide on the price[, t]hen both of you hit accept[.] Please note: you can only sell a house to someone who doesn't already own a home.⁶⁹

The example above mentions that the house title is transferred from player to player. This might look like a normal "physical" transfer of a document, but it must be noted that the game-code arbitrates the transaction and immediately records the details of the transaction as well

67 Blizzard "World of Warcraft game guide: trading with another player" 2010 *World of Warcraft* available at <http://www.worldofwarcraft.com/info/basics/trading.html> (accessed 2010-10-10). A similar function exists in EverQuest. See: Sony "EverQuest II Manual" *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (accessed 2010-11-03) 23 24.

68 See for example the mechanism facilitated by the game-code in Ultima Online: Mythic "Ultima Online Playguide: houses: selling your house to another player" (2010) *UO Herald* available at <http://www.uoherald.com/node/213> (accessed 2010-11-03).

69 Dark Age of Camelot manual "Chapter 3: maintenance and management: selling your home" 2010 *www.camelotherald.com* available at <http://www.camelotherald.com/housing/manual/chapter3.php#5> (accessed 2010-10-10).

as that of the new owner in a central database.⁷⁰ Therefore, it would seem as if derivative acquisition of property occurs in much the same way in the virtual world as in the real one.

4 Conclusion

In this paper I discussed a number of ways in which ownership of virtual property can be acquired inside of a virtual world and illustrated these with a number of examples from virtual worlds. In order to understand the procedure of acquisition of virtual property I briefly discussed how virtual world property based systems operate when they deal with the concept of ownership. The purpose of the paper was to take a brief exploratory look at virtual world acquisition of ownership. This was done against the background of South African property law. It is clear that there are similarities between acquisition of ownership in the real world and that of acquisition inside of a virtual world. Even from the limited examples discussed above it has transpired that one can obtain ownership of property inside of a virtual world via either original or derivative means. The most prominent method of obtaining original acquisition of virtual property is by occupation of a thing that is *res nullius*, while the most prominent method of obtaining derivative acquisition is through transfer of ownership by means of delivery.

⁷⁰ See Mythic "Ultima Online Playguide: houses: selling your house to another player" (2010) *UO Herald* available at <http://www.uoherald.com/node/213> (accessed 2010-11-03).