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Legal Implications of the Project Entropia: Conducting Business in Virtual Worlds

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"*Any technology sufficiently advanced is indistinguishable from magic.*"
Arthur C. Clarke

Foreword

Writing this thesis has not been easy as it is rather far from a traditional master's thesis of law. However it has been one of the most interesting and inspiring parts of my legal education and what I have learned from it is so much more than can be seen in these pages. I would like to thank MindArk and the people there, especially Bernt Wåhlin, for giving me the chance to write this thesis. I would also like to thank Kristoffer Schollin and the rest of our little thesis group for support and many new ideas. Professors Koepsell and Castronova for kindly answering my mails and pointing me to suggested reading and giving me things to ponder. I have greatly benefited from the thoughts and ideas of these people, however the mistakes in the thesis are mine alone.

1. Introduction to the general area of the thesis

1.2. The new economy

Recent years have seen the development of what is popularly called the new economy or the knowledge-based economy. Knowledge is becoming increasingly more important in today's businesses, as well as increasingly more valuable. In most products of today, knowledge content is relevant and it is growing ever in higher even in traditional agricultural or industrial products. Four fifths of the cost spent on manufacturing a pair of Levi's jeans goes to information and marketing, not to actual production; farmers today produce five times more corn per acre than they could in 1920.[1]

Moreover, we have seen the development of products that in essence are pure knowledge, without any physical shape at all, or at least without any significant physical shape. Today we download computer programs and music from the Internet; companies pay large sums for the development of computer programs or 3D models - products that are 100% knowledge.

New technology and new businesses give rise to new issues. Law needs to handle them, as does many other professions; one example would be auditors, who are faced with a huge problem when auditing companies whose main assets are intellectual capital.[2] I would, however, like to claim that there is a difference between the problems posed to the legal professions as opposed to other occupations, namely that lawyers when presented with a case concerning new and difficult issues are forced to deal with it when it occurs. Auditors may conclude that there is a need for development of new methods for handling intellectual capital but can safely stick to the old and familiar methods while awaiting the development of new ones. Lawyers are forced to come up with a solution to the problem when presented with it since the legal system cannot simply conclude that there is a problem and then wait a few years until a reasonable solution has been developed.

The fact that lawyers often are forced to handle claims dealing with new and increasingly complex issues that they might not fully grasp can cause these claims to

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[1] Stewart, Intellectual Capital, pp. 14.

[2] See among other attempts Edvinsson and Malone, Intellectual Capital for one suggestion as how to handle this particular problem. Edvinsson has developed a model called The Navigator for Skandia.

be handled in a way that, in retrospect, seems unfortunate. An example from recent debates is the fact that in the US, software can be protected under both copyright and patent law, two systems that are by definition mutually exclusive. A reason for these inconsistencies in the system could be that lawyers have been forced to deal with problems concerning technology that they were not familiar with but were forced to handle anyway.[3]

Lawyers need to become more involved in the technological development to enable themselves to handle the problems posed by the new economy. The technological development moves at a speed hitherto unseen and creates completely new objects and phenomena that do not fit into the legal system as of today. An example of this is the development of the licensing agreement. A licensing agreement is one of the more common agreements in industry today; it used to mean a permit to manufacture goods that someone else held the intellectual property rights to, however today a licensing agreement can mean any number of things. A typical example would be the ever-present software licensing agreements, licensing is more flexible than e.g. a sale. In one technology development and licensing agreement several licenses were granted, all described in different ways:

- *"A royalty-bearing, world-wide license",*
- *"A non-exclusive, royalty-free, world-wide license"*
- *"A non-exclusive non-transferable license"*
- *"A non-exclusive, royalty-free, unrestricted, world-wide license"*
- *"A limited, non-exclusive license solely during the term of this Agreement"*
- *"A limited, non-exclusive, world-wide, royalty-free, perpetual, irrevocable license"* [4]

In order to deal with all these licenses and handle them in a correct way lawyers need to understand the technology behind the agreement and the business idea of the company; what is it they are trying to achieve by all these licenses?

1.3. MindArk and Project Entropia. Short outline of the business concept

[3] See Koepsell, The Ontology of Cyberspace, chapter 5 for a discussion about the problems raised by the current legal ontology of software.

[4] Taken from Technology Development and License Agreement between Sega and 3dfx as found at http://contracts.corporate.findlaw.com/agreements/3dfx/techdevagm.html 020419.

The situation in focus for the thesis is the business concept of MindArk AB; a company developing an online universe called Project Entropia. Project Entropia could be called an online game at present but the ambitions of MindArk reaches further than that; their vision is one where Project Entropia is the new Windows or Netscape. What is needed to enter this universe is a computer, an Internet connection and some client software, the latter, which will be provided for free.

MindArk is of course not a charity but plan to make money on the game. The idea is that the economy system of their universe will be 'sharp'; users will be able to exchange cash for the currency units used in the Project Entropia and spend that 'virtual' money in the online universe. There will also be a possibility to earn money in Project Entropia and withdraw cash from it.[5]

As declared in the section above I believe that lawyers need a better understanding of the technological phenomena they are dealing with. In order to stay true to that belief quite a large section of the thesis will be dedicated to explaining the technology, the product and the business concept of MindArk.

1.4. Conclusion

The business concept of MindArk is quite probably something completely new. As with all new phenomena with legal implications, there is a need to examine those phenomena, and to analyse them from a legal perspective. When money is involved it is always a sure sign that there will be legal issues arising from the phenomenon in question.

[5] Information from www.mindark.com, visited 020326.

2. Object and method

This thesis is the end result, if you like, of one year's study at the new master's program Intellectual Capital Management for Lawyers at the School of Economics and Commercial Law at the University of Gothenburg. The course attempts to teach law in a problem-based way and this is also how this thesis has been written. The focus is not a theoretical legal problem but the very real and tangible situation in the company MindArk. From this starting point, I shall attempt to make a legal analysis of the problems brought forward by the setting.

2.1. Object

The wider object of the thesis is to describe and analyse the legal implications of the Project Entropia. To understand what these implications are, it is necessary to understand the Project Entropia and the business idea of MindArk more in detail. Therefore, the first more concrete object is to describe and explain the Project Entropia, what it is and how it works.

Having done this it will be possible for me to point out a number of legal issues arising from the design of the Project Entropia. I can already foresee that there will be quite a number of issues who could be interesting to discuss more in detail. However, I can also foresee that there will be far too many for me to discuss within the limits for a master's thesis and limitations shall have to be made.

One area where it is obvious that there will be room for more theoretical legal reasoning is that of so-called virtual reality objects. In this area I will attempt a more traditional reasoning within legal theory as to what these objects are and how they should be perceived. I will also attempt a discussion on how to handle them practically now that they are present in business.

In essence, the questions I have asked and attempted to answer are as follows:

- What is the Project Entropia?
- What legal implications does its design bring?
- What are virtual reality objects and how can we handle them practically?

2.2. Method

The thesis deals with new and, to a large extent, unexplored territory. Therefore, the method will somewhat differ from the traditional legal method.

The first two objects of the thesis is to present a case study over the Project Entropia. MindArk is with this project in the forefront of the new economy and as a lawyer it is interesting to describe and map out the legal problems arising from this new business concept. Some problems are evident from the start but others will arise as I explore the design and structure of the Project Entropia.

For this first part of the thesis, the method will be an investigative one. I need to understand the design and the structure of the Project Entropia. To obtain this knowledge I will be studying the documentation of the Project Entropia, talk to the employees of MindArk and of course play the beta version of the game.

One of the problems I already now perceive as an interesting and relevant one is how to deal with virtual reality objects. Therefore, the next part of the thesis will be to explore this field, one of philosophy and legal theory, more in-depth. For this area, I will use a more traditional legal method namely the search for adequate literature, study of the literature and an attempt to present different theories on the subject.

Last but not least I will attempt a more down-to-earth legal reasoning around the problems I have mapped out in the previous sections, but still focus on the discussion around how to handle the actual transactions concerning the virtual reality objects.

2.3. Limitations

When starting with a practical situation rather than with a theoretical issue, the problem occurs that the practical situation is not always the right size to fit the time one has for a thesis and therefore, limitations have to be made. In my case, these have been done to some extent within this section. There will not be enough time to do a thorough legal reasoning within all the issues arising from the Project Entropia, I shall have to limit myself to presenting the possible problem areas and stick to a deeper analysis within one area, namely the one of virtual reality objects. Further limitations will be made down the road.

3. Introduction to RPGs

As explained in the introduction to the thesis I am of the conviction that lawyers of today need more insight into the technology, background and business ideas of the companies they are dealing with. When the understanding of the technology is lacking there is a large risk that the legal solutions adapted will not fit the situation at hand. Since Project Entropia is a so-called MMORPG it is my opinion crucial to understand what that is in order to be able to carry out a well-founded legal reasoning about how to handle it.

3.1. Roleplaying games

Project Entropia is presented on the website[6] as a MMORPG. I dare say that this means absolutely nothing for most of the legal community and I do not believe that expanding it to Massive Multiplayer Online Role Playing Game says that much more about what it really is to the uninitiated.

Starting from the beginning is usually a good idea, so let us start with the last part of the acronym, RPG, which stands for Role-Playing Game. Role-playing games have existed for many years and one of the most well known ones is Dungeons & Dragons. However most role playing games share some common attributes. Very little seem to be written about these games and the following is therefore mainly based on my personal experience of these games.

Role-playing games are not as much traditional games as adventures. The adventures are often set in a medieval, magical environment or a futuristic, technical one. The most central feature is, as can be perceived from the name, that you play a role; something that could be said makes role-playing a mix of a game and theatre or novels. The original role-playing games are played with pens, papers and dice. A group of people get together to play; one of them is elected as the person to control the game, the Dungeon Master. The Dungeon Master has either created an adventure on his or her own or bought one from a company specialised in publishing books with ready-made adventures.

The next step would be for all the players to create their roles, their characters or avatars as they also are called. This typically involves choosing a name and possibly deciding on what characteristics the avatar has. Depending on what type of game the

[6] www.projectentropia.com at 020419

avatar will have different abilities in different categories of attributes. These are used to describe what sort of character the avatar is. Often they are 5, they might be called different things but have to do with strength, litheness, constitution or stamina, intelligence and wisdom. An avatar who is a druid might be very wise but not so strong and not with a very high stamina. A warrior character will be strong and healthy but perhaps not very intelligent. These attributes determine the skills of the avatars; the druid above will not be very good at fighting with a weapon but very proficient in performing rituals to please the gods while the warrior will be an expert with weapons but will probably fail sadly at spell casting.

When the avatars are created they can venture out on their adventures. This often involves exploring a strange land, killing monsters that they encounter and solving a quest or several. They would tell the Dungeon Master that "We now enter the cave" and the Dungeon Master would describe to the party what the cave looked like. "You enter the cave. It is too dark in here for you to see anything." The players would then decide to light a torch. "We light a torch." And again the Dungeon Master describes what happens: "You can now see. The cave seems rather small but you cannot make out the back wall of it. It is dry in here and some stones are scattered over the floor." If they adventurers encountered monsters and decided to battle them the battles would be decided in accordance with a rather complicated system of dice rolls.

3.1.1. RPGs go computerised not to mention online

These games were of course computerized as the computer revolution came. The first ones were simply text-based games where the player could go 'west' and 'look at cave' and the Dungeon Master instructions would appear as text chunks on the screen. The people and monsters you met in these games were controlled by the computer. These computer role-playing games evolved into two directions: some of them went online with the start of the Internet and remained text-based. What they gained was the fact that the some of the other people you met were players just like you, but behind another keyboard in another part of the world. Some of the games remained on personal computers but got increasingly complex and eventually became graphic games.

The first example, the Internet games are the various forms of what is called MUDs (Multi User Dungeons and MOOs, (MUD Object Oriented) or even MUSHes or MUCKs. These come in a multitude of varieties; they are typically created by young programmers in their free time and open to play for free to anyone with a computer and an Internet connection. The second example is just like any computer game you

play on your computer but based on the role-playing theme. They are developed by game companies with the purpose of making money on people buying their games. Some of the more well known ones these days could be Baldur's Gate or Diablo.

3.1.1.1. MMORPGs and the business idea behind them

The development we are now witnessing is a merger between the online game and the graphic game and we are getting large, complex graphic role-playing games played over the Internet. Well-known established examples of MMORPGs are EverQuest, Asheron's Call and Ultima Online but according to a website dedicated to listing these games around 25 MMORPGS are up and running, some free but most commercially run, with around 50 more in development.[7]

The business ideas of the companies behind the commercial games such as EverQuest are rather simple. The customer pays a certain amount of money to acquire a copy of the game and then a monthly fee to connect to the company's servers through which they can enter the actual world. An example of costs from Microsoft's game Asheron's Call shows that the retail price of the game is $20 and the monthly fee to play is $9.95.[8] EverQuest seems to be available for around $30[9] and the monthly fee is also there just under $10.[10] You buy your copy of the game in a store, it usually comes with one month's subscription included and after that month you must pay for additional months with your credit card if you wish to continue playing.

This does not typically pose very large problems in a legal context. Licensing agreements for software are a rather well established legal phenomena and something lawyers are relatively familiar with. What the agreements include, what rights and duties come out of them, is also quite clear. The other half of these agreements includes the monthly fee to be able to access the servers. This is a rather clean service agreement, which should not pose too complex legal problems.

3.1.1.1.1 Legal issues raised by MMORPGs

[7] hem.passagen.se/ulkis 020304

[8] Taken from the game's website www.asheronscall.com 020212

[9] According to amazon.com 020212

[10] According to www.everquest.com 020212

There does exist issues arising from these games but they are created by the players rather than the companies' set-ups of their businesses. The most prominent example would be the fact that there exists a black-market trade with characters and items from the games. Players that are good at the game can rather quickly advance their character and some of them have made a business out of it and are now selling their characters and/or items from the games via online auction houses.

What is actually sold is the account; that is the username and password to be able to log on as a certain character. An account in EverQuest can have as many as six characters connected to it. Sony, the developer of EverQuest has tried to ban the sale of characters and items, claiming these to be the intellectual property of Sony and not something private persons can trade freely with each other.[11]

Mythic Entertainment, the developer of MMORPG Dark Age of Camelot tried to stop the sale of items and characters from their game on online auction house eBay[12] by filing a statement to eBay claiming that the sale of the items from the games violates Mythic entertainment's copyright, trademark or other rights. In response a group of people under the name BlackSnow Interactive filed a lawsuit against Mythic Entertainment claiming that because of the licence agreement, where Mythic Entertainment states that they will not try to stop so called out of game trading, Mythic Entertainment has no right to try to stop the sale.[13]

The out of game trading, trading where items and characters in the games are sold for real life money does seem to be flourishing. When visiting eBay I found EverQuest characters auctioned for as much as USD 1500. The $1500 bid was for this object:

"This auction is for (2)Accounts on the Nameless server. The first is a 60 Dwarf Cleric (!!With EPIC!!) and the other is a 58 Halfling Druid. The best part about this is, if you have 2 PC's you can use both characters at the same time, making them a superior team. Both accounts are Kunark/Velious/Luclin enabled, and both characters full equip and items ranging from great to superb. Some items they have in bank are as follows: Deepwater Helm, Bracer, and Vambrace, Jade Inlaid Spaulders, Sentry

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[11] http://news.com.com/2100-1017-239052.html

[12] www.ebay.com

[13] This information was taken from BlackSnow Interactive's webpage www.camelotexchange.com which as of this date 020524 does not seem to exist anymore. Another site that also mentions the lawsuit is http://news.com.com/2100-1040-832347.html also visited 020524.

Girdle, Gaunts of the Black, Golden Efreeti Boots, Arbitors Combine Greatsword, MoSS, Paw of Opolla, Fishbone Earring ..etc These 2 guys are awsome money makers and experience getters. Both characters are alined with Dwarves/Dragons and have an excellent reputation on the server. Of course, as you know, you are paying for my time invested in these accounts and your bid is your word that you are in no way employed or affiliated with Sony or Verant. Account info will be sent to you once I recieve the Paypal payment, or certified check/money order. Happy Bidding and enjoy the accounts.."[14]

Quite a few more characters were up for sale and bids ranged from $1 to the above-mentioned $1500 with the most common prices being in three numerals. I have been monitoring eBay for prices during the writing of the thesis and although the $1500 bid is the most extreme I have seen, bids up to $600 or $700 dollars do not seem uncommon.

However it also occurs that mere items within the games have been auctioned of; for Asheron's Call I found the following items up for sale at eBay:

"A full pack of yellow virindi jewels. Turning these in at timaru will get you 360,000 xp..24 pyreal peas... 24 treated healing kits and 24 gems of stillness. Stock up on your essentials now. I accept paypal and money order. Delivery is available anywhere. If you have any questions feel free to email me or contact me in game as Killean. I also sell items direct. Contact me by email if you're looking for specifics."[15]

The starting bid for this item was $9.99 but the current bid was $30 when I visited the site. Most of the items for Asheron's Call were going for under $50, characters for a few hundred dollars.

These examples serve to prove several points. To begin with that MMORPGs are out there and they are causing problems, problems that need to be dealt with. Lawsuits are appearing that concern these games and it is not unreasonable to think that their numbers will grow as high-speed Internet access continue to spread and more people can access this type of games. The problems I will discuss later on in the thesis are not purely academic; sales of virtual reality objects are going on right now and have been doing so for some time.

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[14] Quoted directly from the auction site on eBay visited at 020212

[15] Ibid.

The second point of the examples is to prove the viability of the business model of MindArk and Project Entropia. People are apparently willing to pay an initial fee of $20 plus a monthly fee of $10 just to play a computer game. Many of these users are also willing to pay even more money to acquire that special skill or item they have been looking for even though this trading is regarded as cheating by many other players as well as being claimed to be illegal by the game development companies.[16]

Professor Edward Castronova, an economist at the California State University Fullerton made a study of the economy of MMORPG EverQuest.. He has conducted a survey among EverQuest players and monitored auctions at websites such as eBay. His conclusion is that the GNP per capita of Norrath, the country in which EverQuest is set, is somewhere between that of Russia and Bulgaria, 20% of those who answered his study agree or agree strongly with the statement "I live in Norrath but I travel outside it occasionally", 39% agree that "If I could make enough money selling things from Norrath, I would quit my current job or school and make my money there instead.". I think that these examples are enough to prove that MindArk's business concept is viable indeed and something that we might see several other examples of in the not so distant future.[17]

The third point is to make an initial pointer to some of the problems that will be discussed later. When seeing these real examples the problems become evident. Players are selling their characters and items on online auction houses while the companies developing the games claim that this is not allowed because it involves sale of their intellectual property. One striking question is of course, what it is they are selling. Some of the auctioneers state expressively in their auctions that the only thing they are selling is the time they put into developing their characters and they even add legal disclaimers such as this one: [18]

"LEGAL DISCLAIMER: By bidding or contacting me about this item you are stating the following: You are not in any way associated/affiliated with any government agency, Verant Interactive, Sony Computer Entertainment, or any Anti-Piracy group

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[16] See above at footnote 11.

[17] The study, called "Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier" can be downloaded from Professor Castronova's website http://business.fullerton.edu/ecastronova/

[18] As seen at www.ebay.com 020407

or any associated group or subsidiary of the above; or were formally associated with any of the above. Knowingly doing so violates the Internet Privacy Act, (US code 431.322.12 of 1995). Again you are only bidding on my time envolved. Everything else is given to you free-of-cost, and has no real or tangable value. So if you are from Verant or Sony: DO NOT contact me. All other questions can be sent to : <email address> "

4. Project Entropia [19]

After this brief introduction to MMORPGs and the economic interests connected to these and the legal issues connected to them, it is time to move from the more general to the specifics of the game this thesis is connected to.

4.1. Setting

Project Entropia is set in a distant future where humans have started to colonize space using the so-called Odysseus Probes. These probes reached a distant planet in the deep unknown regions of space and named it Calypso. On board the probes were advanced robots that started the colonisation of the planet, terra-forming and setting up the first settlements. As the first human settlers arrived in the Project Exodus the robots were to hand over control of the settlements to the human settlers but something went wrong and a war between humans and robots known as the Robot Revolts broke out. The war nearly wiped out every human settler from the planet's surface and the plan to settle the planet was abandoned.

Many years later another batch of human settlers arrived with the mission to clear Calypso from the remains of the robots. They did not only find hostile robots but also mutated human beings stemming from the Robot Revolt and a terrible new robot threat, giant, intelligent war robots originating from a different solar system, devoted to taking over Calypso; armed and with control over teleportation, new war robots continue to arrive on Calypso.

One special feature of the game is that of MindForce. Most RPGs have a fantasy-medieval setting where magic is generally a standard feature. Project Entropia with its distant future, sci-fi theme has MindForce. The idea is that humans have discovered how to use the latent powers of the brain with the help of nano-cybernetic neuron-stimulators that are implanted into the brain. These help activate and stimulate the MindForce, which can take many different forms. It is divided into different so-called Aspects, different forms of MindForce. Examples of what MindForce could be is telekinesis, the ability to move objects with the thought only or telepathy, the ability to read thoughts. The better you become at controlling the MindForce the more abilities you can get and the better you will be at controlling them.

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[19] This section of the thesis is based on information from the Project Entropia website, www.projectentropia.com, the company website, www.mindark.com, conversations with the staff at MindArk and my own experiences playing Project Entropia and other RPGs.

4.1.1. Content

I could spend any amount of paper describing and explaining what the content of Project Entropia is, the possibilities of the game, the reasons why people want to play it and much more. However the object for the thesis is to explore the legal implications of the economy system in Project Entropia and therefore I shall start with only a very brief exposé over what Project Entropia has to offer before moving on to the economy system and the various aspects thereof.

What is important to understand is that Project Entropia is not a game in that aspect of a game that it has an ending and you can win. The object is not to slay the dragon, rescue the princess, complete the quest and then The End. A game such as Project Entropia is to be seen as a process; the goal is to always improve your character, to find new challenges, to move on, investigate, explore, and socialise. Taking this into consideration, this type of games can be said to be mirrors of life, there is no ultimate goal where it all ends; you keep on struggling making ever-new goals for yourself. Of course, the difference is that the goals are more limited in a game like this and the day when you cannot find a new goal is often where you stop playing. This is mirrored by the game developers' wish to keep expanding the game all the time so that there always will be new goals available for the players so they will stay true to the game.

To many players of online games the social aspect of the game is one of the more important ones. In an online game many of the persons you see on your screen are not controlled by a computer, but are real players just like yourself. You have every possibility to socialise with them, find people with shared interests and even make friends.

When arriving on Calypso for the first time you will have to choose a name for yourself and set up what your character is to look like. Since project Entropia is a graphic game what you need to do is basically choose between different body parts, eye colours, skin colours, noses, hair-dos etc. When you are satisfied with your looks you press the ok button and the character you just made is now standing in their small apartment somewhere on Calypso. A few items of clothing are your only belongings. Take a deep breath and start moving around in your apartment, walk around, check out the bed, the desk and the teleporter, get used to the controls. When you feel confident about moving around, take an even deeper breath, enter the teleporter and venture out in the open.

On Calypso you will, among other things be able to walk around and explore the varied scenery, browse through shops, talk to the other players logged on and get a general feeling for the game. You will have no money or valuable items on you so you will be somewhat limited in your choices but you can have what could be seen as a preview of the game. Should you happen to like it and would like to explore it more you can transfer some money to the game and start buying things.

To begin with you can of course purchase different objects in the game. Basic examples would include nicer clothes, a weapon and armour, maybe medical equipment or mining gear. Now you would be ready to venture further into the world of Calypso, able as you are to defend yourself. Further along you might want to pay for some training to improve your skills in certain areas, maybe you want to get better at fighting, or healing or using MindForce. If you find valuable materials you might want to claim a deed to the land and use the materials you mine to produce things. Even more advanced players will want to get bigger houses, start shops and mining businesses or become involved in the player run societies of Calypso that need money for upkeep, houses for the society etc. Eventually there might even be a stock market where you can choose to invest in businesses within the game and online casinos for gambling.

This short exposé over the things you could spend your money on in the game makes the point that it is difficult to categorise the types of virtual reality objects that players will spend money on in the game, something that makes this task even harder.

4.2. The technology of Project Entropia

Big MMORPGs such as EverQuest and Asheron's Call run on a multitude of different servers, an account belongs to one of these servers and that one alone. This means that the same world exists in 'parallel universes' so to speak, people on one server can only communicate with others on the same server, but all the servers have the same lay-out, the same map etc. In this respect, Project Entropia will be different from the other games in that there will be only one copy of the world where every player will exist. On the website there is a vision of having as many as a million players logged on at the same time.

4.2.1. The economy system

The business idea behind Project Entropia is, as mentioned before, to make the game free to play, but to motivate people to exchange real life money for virtual money to spend in the game.

The economy system will in this respect be 'sharp', the currency of Project Entropia, PED (Project Entropia Dollars) and PEC (Project Entropia Cents), will be interchangeable with other, real life, currencies. This means that it is not only possibly to use real money to buy PED but it is also possible to exchange PED for real money. An example could be, if you spend your time on Project Entropia setting up a shop where other players can purchase the things they need it is possible for you to make a profit on the things you sell and exchange this profit in PED to, say, USD.

The prices of the items in the game will be set according to supply and demand. If a large number of laser guns of the model A are on the market the price of such a laser gun will be significantly lower than the price of laser gun B of which there are only a few on the market at present. The system will be flexible and able to adapt to changes in the supply curves of the various items in the game.

4.2.1.1. The secure transaction system

From within Project Entropia you can access the secure transaction system. It is a separate system where you have the possibility of either transferring money to or withdrawing money from Project Entropia.

Before you can do any of these things you need to fill in your personal information including address and phone number and credit card information. When this is done you choose a password that cannot be changed and can then proceed to making your transaction. You choose an amount of money in USD to transfer and see the amount in PED as well as the transfer cost. When this is done you exit the secure transaction system and is once again back on Calypso.

4.2.1.2. Spending money in-game

In the game there are several ways to spend your money. Throughout the city vending machines have been put up together with e.g. repair and recycling machines and hospital machines. These seem to be the most common vending place although there also are clothing stores and armour manufacturing stations.

When entering buying mode a new image pops up on your screen. To the left is the store and to the right the inventory of the player. You can browse through what is for sale at the store, read the information about the item, see a picture of it, its price and its statistics in the left-most window. If you choose to purchase the item you need to drag it to the next window in order to mark it down for purchase and the sum of your purchases will be added up. When satisfied with what you have chosen you need to pay of course. This is achieved by dragging your virtual credit card to the window for payment or by dragging items you want to sell to the window until the amount is enough. After this is done you can click either abort or confirm and then the accept button to execute the transaction. Stores and also the repair and recycling machines use the same interface to conduct trade.

4.3. Future developments

The game could be said to be merely the starting off point for the business idea of MindArk. The long-term plan is for example to enable e-commerce businesses to set up shops in Project Entropia where they can display their goods as 3D models. Consumers can enter the shop, browse through it and get a better look and feel for the products before purchasing them for PED and have them delivered to their real life homes.[20]

[20] See the company's webpage www.mindark.com under Investor Relations. (020513)

5. Virtual Reality

As explained in the previous sections one of the objects of the thesis is to explore the concept of virtual reality objects and how they can be perceived. Therefore, it seems proper to start with an attempt at explaining what virtual reality in itself is. This is by no means an easy task and it shall be more an attempt to give a rather short account of what virtual reality can be. Virtual reality is in itself could be called an oxymoron, a reality that is not real, another reality separated from this one.

A very common view of virtual reality is a person strapped in sensory-input devices, goggles and a data glove, maybe even a whole bodysuit, who through these devices can enter and manipulate a computer-controlled world. From the novel Neuromancer by Gibson, we have the picture of people who 'jack in' to Cyberspace via cables that connects the neural system directly to the virtual reality. [21]

I do not think that anyone would hesitate in calling this the ultimate virtual reality. However, there are a number of other things that can and have been classified as virtual realities. One example is the non-immersive variety where a person would enter an environment, a room perhaps, where normal objects and sensations are supplemented by e.g. computer-controlled objects or sounds. [22] A well-known example of this from the realm of fiction is the Holodeck from Star Trek. The Holodeck is a room where spoken commands are transformed into landscapes populated with people and objects. The crew of the Enterprise can on the Holodeck visit other places and other times such as medieval England.[23] Another example of the non-immersive virtual reality is the works of Myron Krueger who experimented with what he called responsive environments where he experimented with projections in projects such as Glowflow and Videoplace.

Today neither the Cyberspace from Neuromancer nor the Holodeck are accessible to us, and the gloves and goggles are mainly found in research facilities yet there still exist things that are called virtual reality.

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[21] The term virtual reality was coined by Gibson in Neuromancer.

[22] Mizrach, Steve, What do we mean by virtual reality?, at http://www.eff.org/Net_culture/Virtual_reality/vr_three.models, viewed at 020326

[23] Heim, ibid, p. 122.

In his book Code, Lawrence Lessig calls text-based online games[24] virtual reality.[25] These are in no way immersive, there are no pictures, and they consist of text only yet he calls them a virtual reality, a cyberspace. The difference between the Cyberspace of Gibson and a MUD is enormous, yet both of these things are perceived as virtual realities.

In his book The Metaphysics of Virtual Reality Michael Heim tries to answer the question what Virtual Reality is.[26] He lists seven different concepts that in their own way are characteristics of virtual reality. It might be interesting to have a brief look at these seven since they do explain quite a lot about what expectations people have about virtual reality. The seven are:

- Simulation
- Interaction
- Artificiality
- Immersion
- Telepresence
- Full-body immersion
- Networked communications

Heim explains *simulation* as the feeling of "more real than real". Today's computer graphics systems have the ability to deliver almost photo-realistic images and landscapes. Powerful graphics motors were originally developed for military flight simulations, letting new pilots practice in realistic simulators before being allowed to go in real airplanes. The ability to create an environment that closely resembles the real world seems to be a characteristic of virtual reality.

A simulation might look extremely real but it could have the form of what basically is a movie. *Interaction* ensures the capability of influencing the simulated environment. Heim uses the example of the desktop on our PCs, we can drag papers to the trashcan or move papers to different folders and in general change the way the simulated desktop looks. In Project Entropia you will be able to affect the environment to a large extent, e.g. you can change your character, you can purchase things and kill monsters; all actions which leave a permanent impression on the world.

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[24] See section above for further explanations on MUDs, MOOs and MUSHes.

[25] Lessig, Code is law, p. 74.

[26] Heim, The Metaphysics of Virtual Reality, Chapter 8, The Essence of Virtual Reality

According to Heim, some people stretch the term virtual reality to encompass everything *artificial*; even so far as to say they live their whole lives in virtual reality since the world we live in today is largely a human construct. Heim does conclude that stretching the term virtual reality to encompass everything artificial makes it largely meaningless. A term that can mean everything does not really mean anything.

The datagloves, goggles and joysticks mentioned above are what Heim calls the *immersive* side of virtual reality. This has been discussed above.

With the term *telepresence* Heim means the ability to, from afar, control e.g. a robot in a remote location, being able to see and hear what goes on there through cameras and microphones and manipulate that environment. One example he mentions is the so-called keyhole operations where surgeons insert a camera through a very small incision in the patient's body and are able to operate through what they see through the camera.

To Heim the concept *full-body immersion* is somewhat different from immersion and refers to what is mentioned above as the non-immersive variety, with the utopia being the Holodeck of the Enterprise.

Without *networked communications* virtual reality would be a rather lonely place. One of the main features about almost any description of virtual reality is the fact that you can communicate with other people in and through the virtual reality.

As is evident from all the characteristics Heim mentions there is no real consensus as to what virtual reality really is. When used by one person it could be most anything, when used by another what is referred to is a futuristic development à la Neuromancer, and that only. Heim concludes that there is reason to remember how controversial the term reality has been throughout the centuries. If western culture has rivalled over the meaning of reality for two thousand years, Heim says, we should not expect to be able to arrive at an answer of the meaning of *virtual* reality in the very short time that we even have discussed the term.

To get back to my question about what it is that enables people to call both Gibson's Cyberspace and the text-based MUDs virtual realities, they do share some of Heim's criteria from above, mainly interactivity, artificiality and networked communications. Heim's criteria are all of them rather easy to grasp and check, however for something to be classed by virtual reality I believe many people would request something more.

There needs to be a sense of an alternative reality, a world of its own and I think that is what Cyberspace and MUDs have in common and what makes people call them both virtual realities. This is also a point, in pop culture and books such as Neuromancer there is one virtual reality, in the case of Neuromancer it is Cyberspace, in Snow Crash by Neil Stephenson it is the Metaverse. However, what we see today is the development of multiple virtual realities.

5.1. Virtual Worlds

What virtual reality is seems hard to reach a conclusion on. Another concept is that of so-called virtual worlds used by Edward Castronova in his study of the economy in online game EverQuest. According to him, a virtual world has three defining features:

"- Interactivity: it exists on one computer but can be accessed remotely (i.e. by an internet connection) and simultaneously by a large number of people, with the command inputs of one person affecting the command results of other people.

- Physicality: people access the program through an interface that simulates a first-person physical environment on their computer screen; the environment is generally ruled by the natural laws of Earth and is characterized by scarcity of resources.

- Persistence: the program continues to run whether anyone is using it or not; it remembers the location of people and things, as well as the ownership of objects" [27]

Virtual worlds as a term for the worlds created in these type of games is a good one and one prone to less misunderstandings than virtual reality and I shall use it as term for the phenomena such as Project Entropia instead of the more vague term virtual reality.

5.2. Virtual reality objects

One of the objects of the thesis is to explore what virtual reality objects are and how we can handle them in a practical context. I will attempt to start out by discussing what a virtual reality object is and how it should be seen and continue with the practical problems posed in a later section.

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[27] Castronova, Virtual Worlds; A First-Hand Account of Market and Society on the Cyberian Frontier, p. 6

A virtual reality object is hard to define. I would, with a somewhat fuzzy definition, call it something that is perceived as an object by people but that does in fact only exist in virtual reality. Now as we have seen in the previous section it is hard to define what a virtual reality is. In his book "The Ontology of Cyberspace" David Koepsell states that "*Virtual reality is a simulated environment which may be experienced much as reality is experienced."*[28] This is a definition that suits my thoughts about the importance of the personal experience for something to constitute a virtual reality. Koepsell continues the passage by moving on to virtual reality objects:

"Suppose a virtual reality world in which users may manipulate virtual objects and "inhabit" virtual places. May such users own virtual reality objects? May they assert possession over virtual places to the exclusion of others? If so, by what claim of right may such ownership or possession be asserted?"[29]

These are exactly the questions raised by the Project Entropia where the players may purchase, and use, virtual reality objects for real money. What rights can they then claim to these virtual reality objects? Can they be said to 'own' these objects?

It is obvious to all of us that we cannot handle a laser gun purchased on Calypso the same way as we handle the purchase of a gun in a shop in real life. There is something fundamentally different about that gun from Calypso, yet there are also many similarities between them. How we decide to handle the disputes arising from these objects is very much dependant on what decisions we make regarding the nature of these objects.

From what I have been able to find there has been very little written on this subject. One possible reason that very few people have done research in the area could be that it today exists mainly, if not only, in online games. For one thing I doubt that very many researchers are familiar with these at all; if they are I also doubt that very many of them realise the potential in these games. As Edward Castronova writes in his study of the economy of EverQuest:

"Why bother? Isn't Norrath just part of a silly game? Perhaps it is, on an abstract level. But economists believe that it is the practical actions of people, and not abstract arguments, that determine the social value of things. One does not study the labor

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[28] Koepsell, The Ontology of Cyberspace, p. 9

[29] Ibid.

market because work is holy and ethical; one does it because the conditions of work mean a great deal to a large number of ordinary people. By the same reasoning, economists and other social scientists will become more interested in Norrath and similar virtual worlds as they realize that such places have begun to mean a great deal to large numbers of ordinary people." [30]

In his study Castronova shows that around EverQuest's player base of around 400,000, in every hour around the clock around 60,000 of them will be online and in Norrath. He estimates that perhaps some 93,000 people spend more time in Norrath each week than they do working for pay. Finally, through his study he shows that the GNP per capita of Norrath easily exceeds that of a number of countries including India and China.[31]

As, stated before lawyers cannot continue to ignore these worlds, in a not too distant future companies will face lawsuits from users concerning virtual worlds and these lawyers will have to deal with the questions posed here, what are virtual reality objects, how do we handle them. In that sense this section is very much practical although seemingly very theoretical.

[30] Castronova, Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier, p. 2.

[31] Ibid.

5.2.1. Code is law

To be able to discuss virtual reality objects we need to be familiar with the environment in which they exist. As stated previously, the laser gun on Calypso is in many ways similar to a gun in real life but also in many ways different. In what ways it resembles it and in what ways it differs from it, is decided largely by the design of the virtual reality in question, therefore it is important to understand how a virtual reality might behave.

In cyberspace the person creating the virtual reality in question could be said to be the equivalent of God. In reality we are stuck to a number of conditions for life. To mention a few, the weather, the fact that we can hit other people or steal from them if we choose to and an infinite number of others.

The difference is that in cyberspace every single one of these conditions is created by the person designing the cyberspace. Let us examine the examples from above, starting with the weather. In real life we are stuck to it, there is no way we can change the weather. We might wear sunglasses or carry umbrellas to protect us from it but that is as far as we have come, when it rains we get wet. In cyberspace the designer of course controls the weather, rain, sun or snow or something completely different unknown to the real world. But he also controls the effects of the weather, in cyberspace you do not necessarily get wet when it rains.

Now the weather does not have much to do with law but killing and stealing has. In real life we cannot stop people from performing the actions that kill people or steal their property. We might fantasise about chips operated into people's brains that will disable them from lifting their arm but as it is we are stuck with simply stating that it is forbidden to kill people or to take their belongings. We try to enforce this in a number of ways; we have police and jails and social norms that tell us not to accept people who perform these actions. Creating, understanding and maintaining these rules is what we call law.

However, in cyberspace, the designer can decide that it will simply not be possible to kill other people or to steal what belongs to them. You will not be able to lift your arm and attack another person. He could also make it physically possibly but, like our laws, state that it is not allowed and then try to enforce it much like we do in real life. The question is, would this not come through as rather silly? Why would you let people do things and then tell them they cannot when you just as well might disable them from doing it at all? Here, the laws might be enforced perfectly, in code. Code in

cyberspace becomes what law tries to be in real life. In cyberspace the world can be exactly as we want it.

If we draw the conclusions of the fact that the designer can create the world just as he wants it, it must be that he is responsible for everything in the world he has created. If you do not like the fact that you get wet when it rains or that other people can kill you this is all his responsibility. In real life there is one very practical reason we cannot complain if we are killed but apart from that there is also really no one to blame for the overall problem that people can kill others.

However, in Cyberspace we can sue God. Imagine that there is someone, a physical person, or nearly as good, a company. They are the ones that have decided that others should be able to steal your things, in effect it is their fault you had your things stolen. And here lies a problem with games such as Project Entropia. People will at least try to hold MindArk responsible for problems they encounter in the game, even ones that were designed to be there.

5.2.2. Koepsell

As quoted in the beginning of this chapter David Koepsell in his book "The Ontology of Cyberspace" asks questions essential to this thesis, what are these objects, how should we perceive them, what rights can people claim to them.

The purpose of Koepsell's book is to create a new ontology for cyberspace. He mainly discusses the example of software but also makes some general statements on the nature of objects in general and objects in cyberspace in specific.[32]

[32] Koepsell, ibid, p. 2.

5.2.2.1. Commonsense ontology according to Koepsell

Ontology could be said to be a branch of metaphysics, where metaphysics is somewhat paralysed by the age-old dispute between idealists and realists, ontology attempts to keep moving by simply ignoring the question of what really is, and what is not. A realist will maintain that the physical reality is the primary substance of the universe, and that everything, including ideas, is derived from the physical matter. An idealist however, will maintain that it is not the physical reality that forms ideas but rather the ideas that form the physical matter. These two will never be able to agree on the true matter of the object A, however they will be able to agree that A has, or appears to them to have, certain qualities such as smell, taste, weight, extension etc. Ontology starts of with the assumption that we will not be able to solve the ultimate question of what is real and what is not and then tries to move on to attempt to categorise the world, as we perceive it, whether it is real or not.

Ontology concerns itself with the study of being, it attempts to categorise, order and discuss the relationships between objects. Ontology should because of its attempt at metaphysical neutrality, also be neutral when selecting the objects for its study. Objects, in the ontological sense, cannot be limited to physical objects but must include everything that can be a possible object, such as non-physical objects of thought.[33]

Such an ontology might comprise two categories of objects, intelligible and sensible. Intelligible objects are objects than can be thought of; sensible objects are physical objects. A horse is both an intelligible and a sensible object since I can nor only think about the horse but also touch it, groom it and ride it. On the contrary a unicorn is an intelligible object only since although it does not exist physically I might still think of it.

Traditionally, law is not a field where ontology is applied and studied. Nonetheless the law, such as most anything, use a certain naïve ontology; is distinguishes tangible objects from intangible objects, it sets up categories of property, chattels, real estate and intellectual property. Within these categories there are further subcategories, to use Koepsell's example, the law treats jewels differently from cash.[34]

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[33] Koepsell, The Ontology of Cyberspace, pp. 24.

[34] Koepsell, ibid, p. 29.

A legal ontology would concern itself with examining the naïve ontology presently used by the legal system and then criticise it without concerning itself with whether the object of the study, be it rights, real estate or intellectual property, is in a deeper sense real or not.[35]

5.2.2.1.1. Koepsell's attempt at a commonsense ontology for cyberspace

Koepsell discusses other works with attempts at a legal ontology, among them Adolf Reinach's work The A Priori Foundations of Civil Law and their methodology. He concludes that Reinach's method of first principles is perhaps suitable for the investigations of a priori objects but cannot be utilised as an approach to study laws that are purely positive and have no a priori elements or features.[36]

He lines up five principles of applied legal ontology that he concludes can also be used as a basis for an empirical method of legal ontology. His five principles are:

- Archaeology – Pick a subject and unravel its existing ontology.
- Ontology – Determine whether the existing ontology abides by principles of formal ontology and logic.
- Evaluation – Determine whether the ontology is correct, based on II.
- Application – What are the consequences if the ontology is not correct?
- Adjustment – Determine how the law could be changed to reflect a correct ontology.

Using these principles, Koepsell attempts to examine, evaluate, criticise and adjust the current legal ontology of intellectual property.

His conclusion is that the current ontology of cyberspace is in fact not correct. It leads to inconsistencies and thus breaks the rule that a correct commonsense ontology must be logically correct. When software is protected under two, mutually exclusive, schemes, this is a logic flaw.

Koepsell argues that: *"Cyberspace is physical as all its components are physical."* He takes an inventory of the commonsense categories of cyberspace, starting of with bits and bytes working up to programs through words and algorithms. In essence Koepsell

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[35] Koepsell, ibid, p. 30.

[36] Koepsell, ibid, pp. 38.

concludes that all these are physical components, as are storage media, input and output devices and networks. Since these are what makes up cyberspace, cyberspace in itself must be physical argues Koepsell.[37]

Koepsell explains that many of the, as he sees them, misconceptions of cyberspace arise from a confusion of functionality and/or purpose with the way cyberspace objects actually work. As Koepsell sees it there ought to be no difference between how books and computers are treated. Both the book and the computer is simply storage media for information and both exist as sensible objects.

Koepsell criticizes authors who try to state that cyberspace, or information expressed on bits is different from say information expressed in analog form. He admits that there are differences, one cannot touch the bits or 'own' them in the same sense, they are more readily copied and transmitted, but according to Koepsell this is a difference in degree, not in kind.

"Software exists in cyberspace as text exists on paper, or as a statue exists in stone. The expression is distinct from its medium, but whole dependant on it as well. What is true for software is also true for data sets, e-mail, web pages, and any other cyberspatial entity."[38]

5.2.2.2. Criticism of Koepsell

Koepsell does have a point when he tries to bring cyberspace back to down to earth. Many, not to say most, of the things written about cyberspace are very high-flying and popularised. There is a point in remembering that cyberspace is not a completely separate world, it is resident on our hard disks and travels in very down-to-earth cables beneath our streets.

However, when it comes to the question of virtual reality objects and the ownership of them in the concrete context of Project Entropia I am not certain that the conclusions of Koepsell are very helpful to me. Koepsell mainly discusses software and its protection and although the discussion is most interesting it does not really contribute very much to my concrete problem at hand. Whether we talk about purchasing a laser gun on Calypso or purchasing a number of bits on a server in an office in Gothenburg

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[37] Koepsell, ibid, pp. 78.

[38] Koepsell, ibid, pp. 125-126.

these are equally new phenomena to the legal system and very hard to fit under one intellectual property scheme designed to protect copyright and patents. In this situation it is not the protection for the copyright as such that is problematic but the sale of copies of the code, or as I would like to put it, virtual reality objects. In addition, if we choose to see the laser gun as simply bytes this does not really accommodate many of the problems the sale of the laser gun might give rise to.

Let us take the example that has followed us along for most of this thesis, the laser gun we purchased in a store on the planet Calypso. This is, no doubt, present as a physical object in the real world as bytes on server in an office in Gothenburg. However, this physical presence do not take into account the fact that a lot of people will experience this as a laser gun with different attributes belonging to it, such as what type of gun it is, how many shots are loaded into it etc. These attributes are of course information contained in the bytes on the server but the problem is that merely looking at those bytes will not tell you anything about that; in fact you cannot even see those bytes. They only make sense and have a worth in the actual circumstances of Project Entropia.

If we choose to look upon the laser gun as bytes on the server, we miss the fact that most people coming in contact with it perceive it as a laser gun. It can be discussed as a laser gun, it can be used as a laser gun, it can be traded, and it is worth real money. All these attributes become troublesome if we try to apply them to bytes but work just fine if we choose to see it as an actual laser gun, albeit a virtual one existing only within the limits of Project Entropia.

5.2.2.3. Conclusions on Koepsell

Perhaps Koepsell's ontological method is simply not suited for an area that is completely new. He concludes that the method from first principles is not suitable for an area where objects do not exist a priori but as a result of positive law. Examining and criticising the existing ontology is a major part of his method. In this case, there hardly exists any ontology at all, simply because the phenomenon is too new.

5.2.3. Heim

As mentioned above very few people seem to have written anything about cyberspace and virtual reality objects from a more philosophical point of view. Most of the works I have been able to find deals with cyberspace in a very popularised way or from a

sociological point of view. Apart from Koepsell I have been able to find one more book, namely The Metaphysics of Virtual Reality by Michael Heim.

Where Koepsell is a lawyer and argues from a legal point of view Heim is more of a philosopher and approaches the subject of virtual reality from a somewhat different angle. He also claims to be exploring the ontology of cyberspace stating in the beginning of his chapter "The Erotic Ontology of Cyberspace" that

"We need to give an account of (1) the way entities exist within cyberspace and (2) the ontological status of cyberspace – the construct, the phenomenon – itself."

However as opposed to Koepsell's more down-to-earth view of cyberspace Heim tries describe our relationship to cyberspace in a much more philosophical way; as indicated by the title of the chapter in question "The Erotic Ontology of Cyberspace". Heim quotes quite a lot from the novel Neuromancer by Gibson, the book that coined the term Cyberspace and draws parallels to mainly Plato and Leibniz. However it seems to me that Heim does not actually answer this question posed, his interest is more directed at the reasons for why we invent virtual worlds and what it means to be in one.

5.2.3.1. Koepsell's criticism of Heim

Koepsell starts of his book by addressing, as he sees them, errors made by others that have tried to address the issue with ontology of cyberspace. Koepsell says that: *"What is clear is that Michael Heim's Metaphysics of Virtual Reality contains an incorrect ontology and a muddled metaphysics."*[39]

Koepsell claims that Heim's mistake is to have confused metaphysics with epistemology, and furthermore not distinguishing properly between ontology and metaphysics. Epistemology is the branch of metaphysics that deals with the nature and grounds of knowledge, its limits and validity. Epistemology is still riddled by the metaphysical ridge between idealists and realists, who have very different standpoints on what true knowledge is and how we come to it.

5.2.3.2. Conclusions on Heim

Whether Koepsell's criticism of Heim is correct or not is too much for me to say, however I can conclude that Heim does not really help me with my problem at hand and that I shall have to proceed on my own.

[39] Koepsell, ibid, p. 22.

6. Legal implications of the Project Entropia

One of the objects of the thesis is to map the legal implications arising from the business idea of MindArk. When a company decides to conduct their business in a completely new fashion this will most likely bring with it legal implications and as a lawyer it is of interest to map out what these implications may be. I will not have the time to pursue all of these questions in depth but I will touch upon them to raise awareness of them and then go more in depth on one issue namely that of what type of transaction the transfer of money and purchase of items within the game could be seen as, the practical side of the question of virtual reality objects.

MindArk faces many of the same problems that companies in general and e-commerce companies in specific do, such as paying with credit cards over the Internet, identification problems over the Internet, the dangers of hacker attacks, technical problems etc. I shall not be going further into these since they for one thing are not specific for the Project Entropia and secondly they have been explored in many other works. My focus is the possible legal implications following off the business idea and design of Project Entropia in specific.

6.1. Tax related questions

One of the, as far as I can tell, completely novel ideas behind the Project Entropia is the fact that the economy system is 'sharp' and players will, at least in theory, be able to earn money within the game and later withdraw that money from the game, exchanging it for real money thus in effect earning actual money for their performances in the game. The subject of this thesis is not tax law but you need not be a tax lawyer to realise that when people somehow earn money, taxation authorities will be interested.

6.1.1. Income taxation

Most taxations systems agree that income is the best basis for taxation; the difficulties lie primarily in assessing what the relevant income is and how it is to be calculated. The classical definition of income is from Adam Smith and the Wealth of Nations:

"The gross revenue of all the inhabitants of a great country, comprehends the whole annual produce of their land and labour; the neat revenue, what remains free to them after deducing the expense of maintaining; first their fixed; and, secondly, their circulating capital, or what, without encroaching upon their capital, they can place in

their stock reserved for immediate consumption, or spend upon their subsistence, conveniences and, amusement." [40]

Basically income is whatever money is earned during a year and that are free to use without consuming the capital of the inhabitants. Earning money in a MMORPG does definitely fall under the general area of what is to be taxed. The questions arising now would be how and where and when. I could imagine that a lesser income would be taxed as income from hobbies whereas in the case of someone actually earning a lot of money it could be classed as income of business although the dependency on MindArk in order to earn the money is rather great. I will not attempt to answer these questions here since it is out of the scope of the thesis but they are interesting questions nonetheless.

6.1.2. VAT

The second issue concerning taxation that might be interesting to explore is that of VAT. The question would be if what MindArk does is a kind sale of goods or services that would make the company obliged to charge VAT on the virtual reality objects within the game that they sell. This is a very complicated issue indeed and shall have to be sorted under what is outside the scope of the thesis.

6.2. Banking related questions

Banking is traditionally viewed as having great importance for society in general and associated with special risks. Because of this baking business is surrounded with a number of regulations and provisions designed to maintain stability and security in the area. In Sweden, permission to conduct a banking business is given by Finansinspektion or occasionally by the government and such permit is given to a bank only if the business in question can be assumed to fulfil the demands posed. Once granted a permit the bank is only allowed to conduct certain types of business, those traditionally associated with banks.

The definition of what running a bank actually is seems to be somewhat problematic. The act was changed in 1995 and the old definition replaced with a new one stating that a bank is a commercial enterprise in which is included accepting money for

[40] Lodin mfl, Inkomstskatt, p. 25.

placement on accounts if the sum is determined nominally and accessible to the depositor on a short notice.[41]

In an essay called "Begreppet bankrörelse"[42] professor Bert Lehrberg criticises the new definition for being too vague. Practically everything can be included in this definition, from internal accounting within a company to what we traditionally call banking. There is an exception in section 2a of the Act for the retail chains' customer cards with added accounts. Swedish readers will be familiar with e.g. ICA or Konsum cards where the consumer can deposit money into an account, usually combined with rather high interest, and later use the money only to shop in that particular store. The exception is connected to several demands on the forms of the account, there must be a maximum allowed deposit of 15 000 SEK, and the money must be accessible to the client only via purchases made in that company or group or when the account is cancelled.

It is possible that the business solution of MindArk does fall in under the very wide definition of banking in the Swedish Banking Act, however to conclude that a further study would be necessary, something that lies outside the scope of this thesis. I would like to note one thing, namely the difference in purpose between MindArk and a company conducting business close to traditional banking. The purpose of MindArk is not to give consumers a place to store their money; it is to provide an easy way to make use of the economy system in Project Entropia. Having to pay separately each time you wished to purchase an item within the game would make it unwieldy and discourage people from using it.

6.3. Gambling related questions

The gambling related issue regards whether the fact that players will be able to earn money on the Project Entropia could be viewed as gambling or a lottery, it is after all a game. Sweden has rather strict rules on gambling and lotteries; these are to a large extent forbidden or must be conducted only with a permit from the Swedish state.

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[41] See Swedish Bankrörelselagen, section 2. *"Med bankrörelse avses i denna lag verksamhet i vilken ingår inlåning på konto om behållningen är nominellt bestämd och tillgänglig för insättaren med kort varsel."*

[42] Lehrberg, Uppsatser i bankrätt.

In Project Entropia there is a possibility to exit with more money that you entered with. The question is how this should be seen, is it a lottery, a game based on skill or an enterprise. It could even be that there is a need to differ between different ways of making money in the Project Entropia. Perhaps it should not be seen as the same thing whether you make the money by hunting bots with your laser gun, mining valuable ore or setting up your own store and trading in needed items.

This too is a complex issue and would supposedly depend a lot on the exact design of the different parts of the game.

6.4. Forum related questions

This is a most interesting question, as always when connected with trade over the Internet. International Private law is of course in principle applicable but it was not designed to deal with trade over the Internet and can thus at times appear clumsy and not really up-to-date. The practical problems that might arise from the Project Entropia are of two sorts, first lawsuits between MindArk and one or several users, secondly lawsuits between players of the Project Entropia.

Lawsuits between players and the company might of course arise in several different situations but here there can at least be made an attempt to regulate them in the contract between the player and the company and as such are rather manageable.

Lawsuits between players are somewhat more problematic. Picture a situation where two players decide to trade with each other. When used correctly the trade system in the game should ensure that problems do not arise, however a situation might occur where it is not used correctly or where the trade involves services. One player might wish to travel through dangerous lands and hire another player as a bodyguard. Should the first player now have paid in advance and the other player does not comply with their agreement we have a classic ground for suing since the money paid in the Project Entropia has a real value. However, add to that picture that one of the players involved, our presumptive plaintiff is Japanese and the presumptive defendant is Canadian. The whole thing took place on a server located in Gothenburg, Sweden.

6.5. Miscellaneous questions

This section of the thesis does not claim to have dealt with all or even a majority of the problems that might arise from the design and layout of the project Entropia. They are the issues that have struck me as possible and interesting, however it is most

certainly so that even more issues, not discussed here, will arise. An example to illustrate this point would be recent lawsuit against Sony by a mother whose son committed suicide after, according to the claims of the mother, playing too much EverQuest.[43]

The more time I spend on reflecting on the Project Entropia the more things I realize are interesting legal questions. For instance, what to do if the server crashes or something goes wrong with the programs and a player loses money because of this. Another issue would arise in the case of a bankruptcy of MindArk, what would in that case happen to the money and valuables players have gathered within the Project Entropia and what would be a suitable solution to that situation. Unfortunately, as has been stated many times before, the scope of this thesis does not permit me to go into all these matters and I shall continue on to the issue where I will try to make a somewhat deeper analysis.

6.6. Contractual related questions

In this section, I will try to examine more closely one of the problems arising from the structure of the Project Entropia, namely the one concerning what type of transaction is taking place when a consumer transfers money to their Project Entropia account and then proceeds to spend that money in the game. The reason I have limited myself to this area in particular is firstly that I feel more at home in the area of contract law than e.g. tax law, secondly that I see this problem as very fundamental. One of the questions I asked in the object was "What are virtual reality objects and how can we handle them?" So far I have tried to answer the first part of the question, what virtual reality objects are from a perhaps more philosophical point of view[44]. In this section I will attempt a more practical point of view and discuss how problems that might arise could be handled here and now.

6.6.1. Bundle of rights-theory

What we call a sale of goods or ownership can also be described as a bundle of rights conferred upon the buyer.[45] Most legal concepts we have are these bundles of rights and although it is theoretically entirely possible to make use of the assets in society in

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[43] According to http://www.twincities.com/mld/pioneerpress/3146855.htm visited at 020429.

[44] See section above.

[45] See e.g. Håstad, Sakrätt, p. 22.

any number of different ways it is, as Håstad remarks, of course much more practical to have standard packets of rights to choose from. Håstad, along with Hessler, divides the competence of the possessor of the rights into three different aspects; how he is actually allowed to make use of the right, how he can legally dispose of the right and in what way the right is included in the estate of the possessor.[46] Ownership is the most extensive concept of rights we have and as such is brings the most far-reaching consequences. The owner is allowed to make use of the owned object in any way he wishes; he might dispose of it in any possible way and the object is included in his estate. Since ownership is the most complete concept of rights we have it is most practically defined in negative terms; the owner of an object might make use of his possession in any way he wishes unless there exists statutory limitations or limitations that the owner has entered into through agreement.[47]

For a transaction to be e.g. a sale of goods or a pledge or indeed any other established concept of rights, it needs to bring with it the whole bundle of rights. If it does not, we do not perceive it as that type of concept but rather as something else. Sometimes these other things evolve into concepts of their own; sometimes we simply label them as a false or mock transaction.[48] As well as the rights conferred, the purpose of the transaction is of importance.

I will here start with an assumption of what type of transaction it might be, then try to sort out what characteristics we normally assign to that transaction and in the last step examine whether a transaction in Project Entropia fulfils these characteristics and whether there are discrepancies in the matching; whether there are things that are not taken account for by treating them as a normal say sales of goods transaction.

I will focus on the problem concerning how to handle the actual transactions in the game according to Swedish Law. The forum problem is, as mentioned above interesting but unfortunately the scope of this thesis does not permit me to pursue all the possible problem areas and, as has been said a number of times before, I shall have to choose one.

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[46] Håstad, ibid.

[47] Håstad, ibid, p 23.

[48] See the issue of 'säkerhetsöverlåtelse' in Swedish law. The transaction does not bring with it all the appropriate characteristics of a sale nor of a pledge and has become a phenomenon of its own. See e.g. Håstad, ibid, p. 207.

I believe that the transactions of transferring money to the Project Entropia and using that money in the game should be viewed as separate transactions to make it easier to discuss their characteristics.

6.6.2. Transfer of money

In the first step the consumer transfers money from a credit card to his or her account in Project Entropia. The exchange rate between, say USD, and PED has been fixed and it is also possible to withdraw money from your account although this might come to be associated with a small fee or a limit on how small an amount you are allowed to withdraw. The practical question here is of course what sort of transaction or agreement this is.

As stated above, I will first try to liken the transaction in question to an existing accepted concept to try to find out whether the similarities are enough to warrant it being treated the same or if the discrepancies are too large.

I would spontaneously compare this transaction to two different phenomena from real life namely casinos and retail store accounts. In a casino you exchange your cash for chips that can only be used within the casino, however when you decide to leave the casino you exchange your chips back for real money. Retail stores, to take one example ICA, have their own accounts and cards where you can deposit money to use only to shop in that store.[49]

Other possibilities for analogies would be to see the transaction as a deposit of money into an account or simply an exchange of currencies, where MindArk is simply a company offering to buy and sell PED.

The analogy I think works best is the analogy with the purchase of chips in a casino. As stated above under the bundle of rights theory, the purpose behind the transaction is also an important part of the transaction, sometimes maybe even more important than the formal characteristics of the transaction. In Swedish tax law there has been discussions as to whether the principle of 'genomsyn' has been accepted in the case law of the Swedish court Regerinsgrätten. The principle would be one where the

[49] See above under Banking.

formal characteristics of a transaction are ignored where the true purpose of the transaction is to avoid taxation.[50]

In a casino, you would usually buy chips to use to play the games in the casino. The chips are not worth anything in themselves, they would usually be simple plastic markers with different numbers on them for the value that they represent. The chips have no real value outside the casino, however in the casino they are as good as money and will be traded back for real money by the casino. In a casino you can lose your chips or you could win more and then trade your winnings back for real money. The purpose of buying chips is to be able to make use of the entertainment provided in a casino, you need the chips in order to partake in the different games since the casino does not accept cash. [51]
In my opinion buying chips in a casino is very much similar to the transaction when transferring money to the Project Entropia. The purpose of the transaction is very similar, the chips, or PED, are used to be able to partake in the entertainment activities offered by the company selling the chips/PED. The purpose of transferring real money to the Project Entropia and getting PED instead is to be able to play the game provided by MindArk. The PED do not hold a value in themselves, much as the chips do not, they are simply a means to the end, which is playing the game Project Entropia, alternatively playing the games in the casino. The end purpose are somewhat different, Project Entropia is a game designed to be played mainly for the entertainment of playing, whereas in a casino the desire to win could be said the main driving force for people to play.

Unfortunately I have, as stated above, not been able to find any legal resources discussing any contractual problems with the sale of chips in casinos and therefore the analogy is somewhat maimed by the fact that it does not lead anywhere at the moment. What it does show is that this transaction does not necessarily differ all that much from other types of transactions that are an accepted part of society. [52]

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[50] Lodin, Inkomstskatt, p. 552

[51] I have not been able to find any legal resources about the basics of casino law. Obviously the subject is not especially established in Swedish since casinos were established here only last year. The resources I have been able to find on the Internet deal mainly with American Casino Law, which is much more established and in general does not discuss the basics of casino law. The reasoning above is my own, and based on my understanding of casinos.

[52] At least it is now after Sweden has introduced casinos in 2001.

6.6.3. Transactions within the game

Within the Project Entropia, the player can spend his or her virtual money, the PED, on several things as has been outlined in the section on the Project Entropia. What we now, as lawyers, ask ourselves is what possible problems could arise from these transactions and how to solve those.

There are two obvious possibilities to purchase items in the game, from stores or directly from another player. A spontaneous analogy to real life transactions would of course be to view these as normal sales of goods in accordance with the Swedish Sales of Goods Act[53] and Consumer Sales of Goods[54] act respectively. Since I am focusing on the company perspective in this thesis as opposed to the player perspective I will limit myself to exploring the sale of goods from MindArk to the player. The analogy will still be useful in the player-to-player relation but I will not have time to pursue that here.

6.6.3.1. Consumer Sales of Goods Act

Before going into any deeper discussions about the suitableness of applying the Consumer Sales of Goods Act it could be interesting to ask whether it would be at all possible in a formal legal sense to apply it to transactions taking place within the Project Entropia. The Act is according to its opening section applicable to the sale of chattels from a businessman to a consumer, when the purpose is to use the chattels for mainly private purposes. Now, that the seller is conducting business and that the buyer is a consumer is not really problematic in this context, MindArk is obviously conducting business and the player is a consumer. The criterion that it must be chattels is somewhat more troublesome; what we are dealing with are not exactly chattels in the traditional meaning of the word. However, chattels are commonly defined as anything that is not real estate. Furthermore, intellectual property is commonly regarded as chattels.[55] Of course, buying a virtual reality object on Calypso and buying chattels as such in real life differ in many respects but the formalities in themselves should not render it impossible to apply the Act to the situation at hand.

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[53] Köplag, SFS 1990:931

[54] Konsumentköplag, SFS 1990:932

[55] Malmström, Civilrätt, p. 119

To summarise, the main areas regulated in the Swedish Consumer Sale of Goods Act are the following: the deliverance of the goods, the responsibility for costs, the risk for the goods, delay on the part of the seller, delay on part of the buyer, faults in the goods and the price and the time for payment. These could be said to be standard issues arising from a transaction under the Act, common problems that need solutions. Many of these are not at all relevant for a purchase made from the, so to say, company owned stores in Project Entropia. The trade is, as mentioned in the section about Project Entropia, fully automated, meaning that problems connected to delivery, risk, costs, delays, price and time for payment simply will not arise. Choose the item you want to buy, read the information, see the price, pay the money and accept the purchase and the item will automatically be in your inventory and the money will be gone. This means that faults in the goods is the only problem left that could be typical for a sales transaction, at least according to the law and hence I will focus on this issue when discussing whether the Act could be applied to problems arising from purchases in the Project Entropia.

Section 16 of the Act defines when goods are considered faulty. The basic rule is that the goods must be in accordance with what is stated in the agreement. If nothing else follows by the agreement the goods should be suitable for the purpose for which goods of the same kind is normally used. If they differ from this or in any other way differ from what the buyer had justified reasons to expect the goods are considered faulty. The principles are very generally defined and as such could in principle work on Project Entropia, however certain problems occur when they are applied in a practical situation.

To take one such example, in Project Entropia objects will degenerate from use, much as in real life. The degeneration rate is set by MindArk, just as the circumstances under which the object will be more worn, e.g. a laser gun would assumingly get more worn from being fired than from just being carried around. This could pose a problem but it is somewhat analogous to real life. A company producing something could be said to be responsible for the durability of the object; they have in a way decided the durability of the product by the way they have chosen to produce it, although not in such a direct way. It is in both cases possible to argue about whether the durability is lower than the customer had reason to expect. At this point, the analogy is rather consistent and useful. The discussion will of course be different when concerning a virtual object than a real one but it should not cause too much trouble.

As long as the virtual reality stays rather close to real life the problems are somewhat smaller or at least more manageable. Objects degenerating from wear and tear are

something we are used to; the phenomenon as such should not come as a surprise to anyone. The fact that you will be affected by gravity and that you will get wet when it rains should also feel as a natural part of the game. The more problematic issues arrive when the game start differing from real life to a larger extent. Let me try to exemplify, role-playing games are often set in some sort of fantasy or sci-fi world, part of the theme is to introduce things not known to real life; fantastic animals, new materials, new abilities such as magic or MindForce. Part of the attraction of the games, or for that sake novels, is the joy of exploration of this new and fantastic place. Players want to go out and experience something that is different from what they already know, they want to see if they can kill that monster with this weapon, they want to see if this armour is any good against that weapon. Say that the game introduces the, to earth, unknown metal mithril.[56] Mithril is very good for armour, it protects very well against damage; thus it is expensive. Imagine that someone pays a large sum, in the case of Project Entropia in real money, to acquire such an item only to find out that mithril is severely damaged by saltwater when he falls into the sea. Was this to be expected? Could he claim he had justifiable reasons to expect that his suit of armour would not be ruined if he went for a swim in it? If I pay money to purchase the ever-present laser gun and the laser gun does not kill the monster X as fast as I had expected, how would it be decided whether my expectations on the laser gun in question were reasonable or not?

There is an intrinsic conflict in the design of the Project Entropia; MindArk acts both as a seller of objects and as a computer game producer. A seller is under obligation to make sure that the buyer has information enough to make an informed choice; generally a seller is not allowed to withhold any information he has about the object of the purchase. However a game developer wants to make an exciting game; in a role-playing game one of the motivators is, as mentioned previously, to explore the universe of the game, to try out new objects, to boldly go where no one has ever gone before. Revealing all that is known to the company about the virtual reality objects that they sell could in effect mean ruining their main product, the game. A balance needs to be found where users keep the enjoyment of the game, which is what they are ultimately there for, as well as being able to make informed choices about the objects that they pay money for.

These examples show that trying to apply traditional Consumer Sales of Goods Act to the situation at hand in Project Entropia is somewhat problematic. On the other hand,

[56] Know from The Lord of the Rings by JRR Tolkien although I modified its qualities to suit my example.

problems such as the ones mentioned above are bound to arise, and treating them under the Consumer Sales of Goods Act is what, at present, in the most suitable way gives room for discussing them. The problem with the laser gun that the buyer claims does not fulfil his justifiable expectations is one I believe will arise and treating it under the Sales of Goods Act allows for these problems to be discussed.[57]

The discussion above serves to prove the point that this is indeed a new phenomenon that will be hard to discuss at first, on the other hand everything has been new and hard to discuss. I would claim that the main difference between buying a product on Calypso within the boundaries of Project Entropia and buying a product in a store in real life is in fact the dependency on the seller. When I buy a sweater at clothing store here in Gothenburg, pay for it and bring it home I am not dependant on the company to do anything as long as my shirt fulfils my legitimate expectations on it. Only if there is something wrong with the shirt, if the goods are faulty, am I dependant on the store to fulfil any other obligations towards me. The shirt exists whether the company does or not, whether they go bankrupt or close for the holidays. Should I buy a shirt on Calypso I will be totally dependant on MindArk to continue to give me access to the Project Entropia since this is the only place where I can make use of my purchase. Without the Project Entropia up and running, my shirt is nothing; I cannot even access it.

In a way, I do not only buy the actual virtual reality object but the company's guarantee that I will be able to access and use the object. I would like to claim that this "meta-contract", this unspoken contract to continue to provide, is the decisive difference between purchasing a product in the Project Entropia and purchasing a product in the real world and what really makes this a completely new concept.

A connected issue is the fact that MindArk are in total control of my possessions on Calypso. They could, at least in theory, at any time remove the shirt from my account, delete my account or, raising even more questions, change the shirt after I have purchased it. This might not be a legally or morally acceptable thing to do but the point here is that it is possible for MindArk to do that, the shirt is still under their control.

Sale of goods regulations have developed over many years and today represent what we believe is a fair distribution of risk. I have in a previous section claimed, in a somewhat popularised way, that in Cyberspace we can sue God. To follow through it

[57] Compare section Criticism of Koepsell above.

could be said that sale of goods regulations look the way they do because in real life we cannot sue God. In real life, people manufacture things, and, as we all know, to err is human. The reason that the object I purchased in real life broke could e.g. be that the material it was made from was flawed; the thread used in the shirt had a weakness in it and broke. This could not be said to be anyone's fault; but since the seller is the person with the best possibilities to prevent the damage he will, according to sales of goods regulations be held responsible. The rules we have devised distribute risk in a way we believe is reasonable. The question would be, if the fault in the goods could be attributed to a single person, someone who had designed the thread used in the shirt to break, would we not hold this entity responsible for the fault? It is possible that a fair distribution of risk in a place where we knew exactly who was responsible for every flaw would look different. This is however also connected to the intrinsic conflict mentioned above between the need to inform the player/buyer and not to ruin the joy of playing the game by telling too much.

6.6.3.2. Conclusions

Applying the Swedish Consumer Sales of Goods Act to a purchase made within the Project Entropia does seem to be possible although it causes some problems such as assessing what a justifiable expectation is. What should also be remembered is the underlying dependency on the company, the metacontract, the contract to continue to provide.

It is possible that the differences between the purchase in real life and on Project Entropia are sufficiently large to call for a difference in treatment. However, at the moment I can see no better alternative way to treat the disputes arising from the Project Entropia. Treating the virtual reality objects as something else, say a licence or simply bytes on a server does not accommodate the fact that people do view them as objects and does not give room for the conflicts arising from this view.

7. De lege ferenda

The business concept of MindArk with the design of the Project Entropia is as far as I can tell a completely new phenomenon. As such it does not fit very well into the legal system, designed with something completely different in mind. Selling virtual reality objects is as shown above to be partly very different from selling, for lack of a better term, real reality objects even though some of the characteristics remain the same.

To be remembered is that balance and distribution of risk are important factors in the design of the legal system when it comes to sales of goods. In virtual worlds we suddenly can sue God; in a virtual world there always is a person or company making the choice that something will behave in a certain way. The question is if the distribution of risk decided upon in reality will work in virtual worlds as well.

As with many other new areas thoughts on the matter is needed. The arrival of the Internet has messed law up well and good and most of the issues raised have yet to be solved. We are still in a stage where we are trying to fit the square plug into the round hole; trying to squeeze the problems raised by the information age into a legal system devised for the industrial age. Today intellectual property is the number one property, machines and buildings are no longer the backbone of companies, information is. There is a general need to update the legal system to make it fit into the new economy, on the other hand we are seeing so many new phenomena that it will prove very problematic to get an overview and adapt suitable measures for all of them. Technological development will always be ahead of legal development, but law can keep updated on technological development and be better prepared for what may come.

Following this reasoning it is hard to make any specific recommendations de lege ferenda other than recommending the legal professions in general to keep up with technological development, try to actually understand it, map the problems posed by it and discuss possible solutions.

It is possible that the best solution would be to create a new legal category better suited for virtual reality objects. At present there are things that are not covered by treating the objects under the Sales of Goods Acts, such as the metacontract or the problem with distribution of risk. However I cannot at present see how such a scheme should be devised and I believe that it cannot be based on the design of one game.

8. Recommendations to MindArk

As pointed out in the section above, and indeed throughout the thesis, what MindArk is doing is something new and innovative that the legal system is not built to handle. When the system nevertheless is forced to deal with the issues raised, which I believe there can be very little doubt that it will, there is really no way of telling where it is going to end up. A point that can serve to prove this is the one mentioned initially, the fact that computer software in the United States has ended up being protected under two mutually exclusive systems. In this situation it is hard to issue any recommendations.

The recommendation that can safely be made to any company venturing out on a new business operation is to consider the legal implications of the business idea as well as the technical or economic ones. When property is intellectual law is the only way to control it and to manage legal risks becomes ever more important when law is the way you control what you are selling. To thoroughly investigate the problems posed by the business idea you have chosen and then attempt to set up your business in a way that accounts for those problems is advice that is suitable for anyone.

To take a concrete example, the issue with information when buying objects in the game. If one is aware that there might be a problem, familiar with the thoughts behind acts regulating sales of goods and committed to finding a solution it is possible to attempt to set up a balanced solution. Facing a lawsuit is a lot easier if you have thought the problem through beforehand and are able to show that you have realised the problem and done your best to regulate it in a satisfactory manner.

9. Final conclusions

The object of this thesis has been to explore the Project Entropia and map and to a certain extent discuss the legal consequences arising from its design and the business concept connected to it. Initially I asked a number of questions namely:

- What is the Project Entropia?
- What legal implications does its design bring?
- What are virtual reality objects and how can we handle them?

The scope of the thesis has forced me to limit myself to a larger extent than I would have liked but I believe that I to some extent have managed to answer the questions posed. My hope is that I to begin with will have managed to explain what Project

Entropia is and established why it is interesting to a lawyer to explore an online role-playing game.

I have made an attempt at a more philosophical reasoning about virtual reality and the objects found there, however I do not think it is possible to once and for all answer that question. Virtual reality and hence virtual reality objects are very wide concepts that elude easy definition; this should however not discourage us from trying to discuss them, as it is important to define the areas you are discussing.

Virtual reality objects cause many problems since they are completely new entities to the legal system, and not only to the legal system but to the world in general. I have mainly encountered them in business to business relationships and there they seem to be handled mainly by way of licensing agreements. The use MindArk puts them to, directly in a business to consumer relationship gives rise to entirely new questions and of course it is possible to attempt to answer these in a number of different ways. My answer to the last question posed, how can virtual reality objects be handled, would be to, at least initially, treat them as much as normal objects as possible. Within the Project Entropia people will come to think of their belongings much as they think of their belongings in real life. This occurs in most computer games people put a lot of time into, and in the case of Project Entropia they will even be able to ascribe a concrete value in dollars to the objects in question, something that will reinforce these feelings. Treating them as something completely different than normal objects will not accommodate for the problems that can and will arise from them. I believe that the example above with a player being dissatisfied with a virtual reality object and even suing because the object in question does not fulfil what they believe is their reasonable expectations is not too farfetched.

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