

# **A New Frontier in Digital Content Policy: Case Studies in the Regulation of Virtual Goods and Artificial Scarcity**

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## **Abstract**

Last year, millions of people around the world spent billions of euros on virtual items, characters and currencies in online games, social networking sites and other digital hangouts. The increasing value that individuals are attributing to these artificially scarce virtual objects can be seen as a consequence of the growing importance of information and communication technologies in everyday life. The purpose of the current paper is to examine this shift in consumer behaviour and business models from a public policy perspective. We present three case studies to examine the key policy issues that virtual goods are giving rise to, and to analyse some of the regulatory responses that have been effected so far: judicial protection of the possession of virtual goods in Finland and the Netherlands, statutory regulation of virtual goods trade in Korea, and application of consumer protection law to virtual goods sales in Finland. Likewise with the debate over copyright, the first big policy debate of the digital era, this new policy debate tends to pit individual consumers and entrepreneurs against the interests of publishers and established public policy. However, the roles are curiously reversed: it is not the publishers but the consumers who demand that pieces of digital content should be respected as property, and turn to courts to enforce their view.

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## Introduction

Looking back at the kinds of policy debates that have persisted around the Internet in the areas of commerce and economy, the main factor behind these debates has always been *abundance*: how digital communication technologies made it easy to duplicate and share information, and how this has disrupted business models and value chains in various industries. In this paper, we argue that a new wave of innovation has opened up a second frontier of digital policy debates: a one centered around not digital abundance, but artificial *scarcity*.

Ever since the birth of the commercial Internet, the digital entertainment and content industries' revenue models have been based around charging for access to content and advertising space. But today, it is becoming increasingly common especially for game developers and online community publishers to provide access to their content for free, and instead charge for so-called *virtual goods and currencies* (Lehdonvirta 2009a). Virtual goods and currencies are essentially entries in a site operator's database, and their particular features and appearances depend entirely on the game or site in question. There are two key common features, however: each virtual good is "owned" by or associated with a particular user account, and virtual goods are *rivalrous*: giving away one's goods to another user results in the original possessor losing them (Fairfield 2005). This is in contrast with traditional information goods, where sharing implies duplication rather than transfer.

In this paper, we seek to address a general dearth of research on the policy implications of this new mode of digital commerce. We attempt to demonstrate that it is giving rise to a new kind of policy debate that is radically different from the old debate surrounding digital copying. In the old debate, the industry likened pieces of digital content to physical goods, and insisted that they have real monetary value. Consumers thought of digital content as mere bits, and many used this as a justification for disregarding the industry's legal and moral claims. In the new debate, roles are reversed: many consumers are likening pieces of digital content to physical goods, and insisting that they have real monetary value. The industry prefers to think of digital content as mere bits, and many companies are using this as a justification for disregarding and actively opposing consumers' and third parties legal and moral claims. During the old debate, courts were frequently called upon by the industry to protect companies' property-like interests in pieces of digital content. Since the start of the new debate, courts have been called upon several times to protect an individual consumer's property-like interests in pieces of digital content. In the old debate, many public authorities expressed concern over the fact that consumers were not buying enough digital

contents, and sought ways to increase consumer spending. In the new debate, certain authorities have expressed concern that some consumers are buying too many digital contents, and at least one authority has acted to bring about a reduction in digital content purchases (Lehdonvirta, Wilska, and Johnson 2009).

The paper is structured as follows. We first introduce the virtual goods paradigm and argue that it is a large, important phenomenon that policy makers and regulators should pay attention to. We then explore the main policy challenges it is giving rise to through three case studies: judicial protection of the possession of virtual goods, statutory regulation of virtual goods trade in Korea, and application of consumer protection law to virtual goods sales in Finland. Finally, we draw together some common themes from the cases for further discussion.

## **The Rise of Virtual Goods**

Both digital games and online communities have for long included features that simulate economic activity and trade: play money, simulated shopping malls and numerous kinds of virtual “goods” ranging from vehicles and weapons to clothes and furniture. For individuals significantly immersed in these environments, such virtual goods and currencies have probably always been personally important. However, any disputes or conflicts arising from them have been left for the gamers and game operators to settle themselves. Regulation pertaining to video games has traditionally revolved around sexual and violent content. The society has not been interested in regulating transactions involving virtual points and items with no direct link to the national economy.

This detached nature of virtual economies began to change when players started to exchange game assets for real money. This real-money trade of virtual goods (RMT) first started to happen on a large scale in so-called massively multiplayer online role playing games, such as *Ultima Online* and *Lineage* (Castronova 2005; Huhh 2008). In these games, normal gameplay involved hundreds of thousands of players trading game items, accumulated during months of play, to other game items. The designers intended the games to be like *Monopoly*: no real money would change hands. But around 1999, some players began to put their game goods on auction at ecommerce sites such as eBay. Perhaps surprisingly, they soon received bids from other players. When an auction was completed, payment was carried out using ordinary means, such as cheque or money order. The two players then met up in the game and the seller handed the auctioned object to the buyer. This way, an exchange value measured in U.S. dollars or Korean won could soon be observed for virtual goods ranging from characters to gold nuggets (Lehdonvirta 2008). A major object such as a castle

could easily be worth hundreds of dollars. The biggest publicly reported player-to-player trade we are aware of is the 2007 sale of a character in the online game *World of Warcraft* for approximately 7,000 euros (Jimenez,2007).

As trade volumes increased, what started as a player-to-player phenomenon soon attracted commercial interest. Third-party intermediaries such as *IGE* bought valuable virtual goods from players, repackaged them, and resold them to other players for considerable profit (Dibbell 2006). The growing demand for virtual goods inspired entrepreneurs in low-income but game savvy countries such as China to set up so-called “gold farms”: rooms crammed full of computers, each manned by a youth earning a small wage by harvesting valuable game items. The entrepreneur would then sell the items through intermediaries to gamers in wealthier countries, such as Korea and the United States. According to one estimate, approximately 400,000 people were employed this way in 2008 (Heeks 2010).

Before long, game publishers and online community operators realised that they could themselves sell virtual goods to their users. Instead of charging users a subscription fee or inundating them with advertisements, they could generate revenues by selling virtual items. This so-called item payment or micropayment model first reached popularity in East Asia (Wi 2009). In 2006, Korean online social networking phenomenon *Cyworld*, similar in popularity and societal impact to today’s *Facebook* in the West, was making over 75 million euros per year from virtual goods sales (Lehdonvirta 2009a). In 2007, revenues from item payment games reached two thirds of the whole Chinese online gaming market (So & Westland 2010). In Japan, most new online games and the most popular social networking sites sell virtual goods and currencies to their users (Nojima 2008). According to one analyst, Asians spent approximately 3.8 billion euros on virtual goods and currencies last year (Plus Eight Star 2009).

For a long time, Western game publishers and online community operators regarded virtual goods sales as something of an Asian cultural peculiarity, and stuck with their more traditional revenue models. One of the few exceptions was Finland based teenage online community *Habbo*, which has been selling virtual furniture since 2000. Only during the past 18 months or so have virtual goods broken into mainstream Western online business. This has happened largely due to the massive popularity of so-called social games on social networking sites such as *Bebo*, *Hi5* and especially *Facebook*. For example, farming simulation *FarmVille* had over 80 million active players in April 2010, according to Facebook statistics. A recent market study claims that 24 percent of adult Internet users in the United States and United Kingdom play social games regularly (Information Solutions Group 2010). A third of these players report having spent money on virtual currencies and virtual gifts. Virtual goods are also increasingly appearing on other platforms, such as game consoles and mobile phones. Console

makers Microsoft, Sony and Nintendo have made virtual currencies, badges and items an integral part of their latest generation of connected gaming hardware. Last year, games and applications running on the Apple iPhone platform began offering virtual items, currencies and powerups to tens of millions of iPhone users. This year, a similar system has been launched for competing smartphone platform Android.

Why are so many people suddenly willing to spend money on such seemingly frivolous objects? Is it a fad that will die away as suddenly as it started? Lehdonvirta (2009b) suggests that the value attached to virtual objects is a reflection of how important digital spaces have become in our lives: how many aspects of life from hobbies, friendships and work are now played out in part through mobile phones, social networking sites, console games and online communities. Virtual goods are built so as to have very tangible functions in these digital spaces. Sociologists moreover note that goods are valued not only for their functional and aesthetic attributes, but also for their symbolic uses in demarcating identities and social relationships (Featherstone 1991; Lury 1996). As a result, consumers are now buying virtual goods for many of the same reasons as they are used to buying material goods for. As long as we live in a consumer society where digital spaces increasingly pervade into everyday life, the present attraction to virtual goods is unlikely to die away.

The emergence of virtual goods as a new mode of consumption, “virtual consumption”, is an example of long-term societal change driven by Internet adoption. Consequently, it is pertinent to ask what kind of implications this change should have for public policy. In fact, policy makers and regulators in various countries have already had to respond to questions arising from virtual goods trade. In the following sections, we proceed to examine some of the most illustrative cases.

## **Ownership: Protection of Virtual Goods Against Misappropriation**

According to security researcher Brian Krebs, virtual goods are “among the most sought-after commodities in the general hacking scene” (Krebs 2009). Cybercriminals use the same kinds of fishing and scamming attacks that are used to obtain credit card numbers and online banking credentials to obtain access to online game accounts. The accounts and their contents are then quickly liquidated into real money. As with credit card number crackers, these professional criminals are rarely caught, and we are not aware of any court cases pertaining to them. But the following two cases illustrate another kind of virtual goods misappropriation:

a kind where the perpetrator is not a professional and the motives not necessarily financial, but consequences nevertheless serious.

The following account is based on the original criminal complaint, correspondence between the parties, and undisputed facts indicated in the prosecutor's application for summons (Prosecutor's Office of Central Finland, diary no. R 09/1092). In 2006, Finnish disability pensioner P purchased a copy of the online game *World of Warcraft* second-hand from W, an acquaintance. W had tried the game briefly, but did not enjoy it, so he sold it to P for 50 euros, close to the original retail price. The sale included the installation discs as well as the online user account that is necessary to play the game. For the next two years, P played the game intensively, developed a remarkable array of game characters and amassed a virtual fortune. He was aware that *World of Warcraft* accounts containing exceptional assets were being traded for significant amounts real money, but that was not what he was interested in. "Playing fills a large hole in my life. It doesn't require physical endeavor. With little effort I can communicate and socialise, within the limited world offered by the computer," he later explained in an interview (Ahlroth 2009). P said that the virtual possessions were a way for him to assert his status and gain respect among his online peers.

On 27 July 2008, P suddenly lost access to his game account and consequently to all his virtual possessions. He was deeply upset, but thanks to some clever maneuvers, he was able to find out that it was W who had taken control over the account, and obtain proof to the effect. W, who had sold the game to him, had surreptitiously held on to a master password (CD key). For some reason, W had decided to use the password on that day to regain control over the account, and meddle with the account's contents, selling many of the items off for virtual currency. P retained a lawyer and requested the police to investigate the matter. One year after, in July 2009, the public prosecutor charged W with unauthorised use (Criminal Code (Act 39/1889) Chapter 28 - Section 7) and criminal damage (Criminal Code (Act 39/1889) Chapter 35 - Section 1). On 28 October 2009, the parties reached a settlement in court. W agreed to pay P a sum of 4,000 euros in compensation, and the criminal charges were dropped. This illustrates that, although the motives of the perpetrator were probably not financial, the loss experienced by the victim was seen to be real.

Before going into analysis, let us consider a similar case from the Netherlands. Two defendants had used the threat of physical violence to coerce the plaintiff to handing over virtual goods in *RuneScape*, an online game similar to *World of Warcraft* (Rechtspraak 2009). The plaintiff transferred the virtual goods, a mask and an amulet, from his game account to a defendant's game account. The court found the defendants guilty of robbery (*diefstal met geweld*) under Article 312 of the Dutch Criminal Code. The court stated in its verdict that the said virtual goods qualified as goods under Dutch law. This was a prerequisite

for the defendants' actions to qualify as robbery. Computer crimes are typically prosecuted as unauthorised access, trespass to chattels or some similar claim, as in the Finnish case. This was most likely not possible in the Dutch case, because the defendants never accessed the plaintiff's account: the plaintiff conducted the transfer himself. Had the court been unable to consider the mask and the amulet as goods, the claim might have been restricted to a mere illegal threat instead of the much more serious charge of robbery. Had the item transfer been effected through deception instead of intimidation, there might not have been any cause of action at all. This suggests that if courts are to protect virtual goods against misappropriation effectively, they need to be able to treat them similarly to personal property.

Some virtual world and game industry veterans such as Richard Bartle have been very skeptical towards the idea of recognising virtual goods as some kind of personal property (Bartle 2004). One of the reasons behind this skepticism is the concern that virtual property rights would conflict with publishers' intellectual property rights, copyright and trademark in particular. But examining the specific rights contained within copyright and trademark reveals that there is in fact little or no overlap between virtual property rights and intellectual property rights (Fairfield 2005). Holding a piece of virtual property does not entail a right to make copies of it. Conversely, holding copyright in a sequence of bits that describes the appearance and behaviour of a virtual object does not automatically imply control over each instance of that object, similarly to how copyright in a book is distinct from the ownership of individual copies of that book.

The difference to books, however, is that virtual goods always exist as part of a platform owned by a publisher. The good and the platform are inseparable; therefore, rights pertaining to a virtual good can easily bear on the platform as well. Indeed, one of the biggest reasons why Bartle (2004) and others would prefer to regard virtual goods as mere bits is the concern that virtual property rights would severely impinge on the publishers' ability to operate their games and platforms. The normal maintenance and upgrade operations of online games involve tweaking the attributes of players' virtual possessions, and sometimes even completely removing objects or even whole user accounts. Bartle is concerned that

“if the law accepts [...] virtual property as a concept, you as a developer become a custodian rather than an owner – you have responsibilities. Of these, [one] is an obligation to ensure that virtual property retains its value.” (2004, 9)

We would like to suggest that this concern is founded on an unnecessarily absolutist view of property. In popular discourse, when something is classified as

property, it is perhaps thought to enjoy protection against any and all possible intrusions. In law, the reality is much more nuanced. Property is thought of as a “bundle of rights”. What particular rights the bundle contains varies from one type of property to another. A leaseholder’s lot may be protected against appropriation by outsiders but not against the landlord. Virtual goods can be legally protected against misappropriation by third parties without necessarily having to include any other rights in the bundle, particularly rights against the operator of the platform (we will discuss rights against the operator below).

Another concern is that having to assist authorities in investigating claims of virtual property misappropriation could increase the operating costs of online games. For example, Habbo’s Sulake significantly assisted the Dutch police in catching a teenager who reportedly stole 4,000 euros worth of virtual furniture (BBC News 2007). Such assistance does not necessarily represent an additional cost, however. Dealing with virtual goods related disputes is already a significant cause of customer support costs for some operators (Robischon 2007). Having the police handle the most serious cases might reduce the operator’s support burden, especially if the police are well equipped to deal with this type of crime (as Korean police apparently are; see Yoon 2004). Having the police involved might also deter casual perpetrators, although it would probably have little effect on professional cybercriminals.

The more fundamental policy question in these cases is whether courts should protect virtual goods against misappropriation in the first place. Since we have argued that virtual goods can be as meaningful as material consumer goods and often attract similar economic value, it would seem that they deserve a similar standard of protection. However, there are some complications. Even though virtual goods theft can be a serious matter, there are also instances where what appears to be “theft” is actually only a part of the game. For example, in an online game called *EVE Online*, one player used a Ponzi scheme<sup>1</sup> to defraud other players of an amount of virtual currency that would have been worth approximately 125,000 USD on unsanctioned player-to-player marketplaces (Glushko 2007). No legal action was taken; players as well as the publisher of the game felt that the fraud was simply part of the harsh fictional world of the game. How can courts be expected to protect virtual property if some claims are serious, while others are not?

The issue described above has been addressed by American legal scholars Joshua Fairfield (2008) and Greg Lastowka (2009). They point out that similar ambiguity exists in other areas where law is applied, especially sports. Actions taking place on a football pitch or in a boxing ring might be considered criminal if

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<sup>1</sup> A fraudulent investment arrangement paying returns to investors from their own money or money paid by subsequent investors, rather than from any real profit.

examined out of context. When the rules of the game and the implied consent of the participants is taken into account, only actions that go beyond the rules and the consent remain liable to legal sanctions. Fairfield in particular emphasises that courts have to consider consent and community standards whenever they apply law, not just in games and sports. No special treatment is thus required in the judicial protection of virtual goods, only the usual sensitivity to context.

A more serious challenge to the idea that courts should protect virtual goods holders against misappropriation is the fact that companies operating online games and other virtual goods platforms are already handling the issue. If an account is taken over by a cracker, the user can typically contact the operator to request that control be handed back to the user. The operator can accomplish this because it maintains a registry of persons considered the legitimate owners of each account. However, the operator's views of legitimate ownership do not always coincide with the players'. In the World of Warcraft case described above, the game's operator, Blizzard, would certainly have considered A to be the legitimate owner of the account, despite the fact that A sold the account to P. As part of the Terms of Service (ToS) that every player must accept to play the game, Blizzard requires players to agree not to transfer control over their account to anyone else. A most likely breached this agreement when he sold the game and the account to P. Even though the sale was legally binding and enforceable in Finland, Blizzard is not likely to recognise it. P's only recourse was thus the judicial system. In the Dutch case, the operator would have been unable to offer recourse for a different reason: an operator has no practical way of ascertaining whether a seemingly legitimate transfer of items is in fact coerced outside the game.

As noted above, the outcome of the Finnish World of Warcraft case went against the expressed policies of the game's operator. In the next section, we discuss why operators might want to prevent account transfers in the first place, and whether this interest is strong enough to merit some kind of regulatory intervention.

## **Trade: Statutory Regulation of Virtual Goods Markets in Korea**

If the protection of virtual goods against misappropriation by third-parties is a relatively straightforward issue, regulating the relationships between the users and operators of virtual goods platforms is a much thornier territory. Typically this relationship is governed by a general framework regulation on electronic commerce, such as implementations of the E-Commerce Directive (2000/31/EC) in the EU context. Frameworks offer little guidance when it comes to rights related to virtual goods, however. Such matters are usually covered in the terms of

service or end-user license agreement that users have to click to accept when accessing an online game or other platform. Most typically, users have to agree that their virtual possessions are mere bits and nothing like actual property. They also have to agree not to sell or buy any of the virtual assets for real money, and not to transfer control over their account to anyone else. However, there are two ways in which this contractual governance may not be sufficient. The first stems from the difficulty of enforcing such contracts, while the second stems from the unequal bargaining power of the parties. The first issue is addressed in this section, and the second issue in the section after.

The first problem with relying on contractual governance was demonstrated in the Finnish case above. Even though operators can use contracts to prohibit second-hand trading, it is difficult for them to enforce such contracts in practice. Trading flourishes even though it is contractually prohibited in many games. Thus, if the policy maker believes that the prohibition on secondary market trading is an important public interest, a regulatory intervention that beefs up the contractual prohibitions might be called for. But the question of whether and in what circumstances is secondary market trading against public interest is perhaps the most difficult question in the whole virtual goods policy debate. As a general rule, trade is a social good; it is restraints on trade that are against public interest. But there are also many arguments against secondary market trading. Below, we will present some of these arguments through an account of virtual goods trade regulation in Korea (for additional arguments, see Lehdonvirta 2005; Castronova 2004; Castronova 2005). As we will show, the solution that was eventually adopted in Korea was to use statutory law to prohibit those types of real-money trading that were seen to represent a social problem, whilst leaving other types up to contractual governance – what judge and game law scholar Unggi Yoon described as “selective bombing of RMT”.

South Korea, a country of 48 million inhabitants, has one of the world’s largest game industries. In 2008, it employed approximately 43,000 people and generated 3.5 billion euros in revenues, of which 23 percent were from export (Korea Creative Content Agency 2009). The growth of the industry owes much to the Korean government’s industrial and technology policies since 1990s, which promoted Internet adoption and recognised online gaming as a future export industry. Today, the government continues to be active in promoting and regulating the game industry and game culture in general through a statutory agency and sometimes through legislation.

Due to the massive popularity of online gaming, trading game accounts, virtual items and virtual currencies for real money has been a widespread phenomenon in Korea for almost ten years (Yoon 2008). The country is home to some of the world’s first virtual goods intermediaries and secondary marketplaces, such as *Itembay* and *ItemPF*. A government agency estimated that

the value of this second-hand virtual goods trade or “secondary market trade” may have exceeded one trillion won (700 million euros) in 2008 (Park 2010). This would equal approximately 20 euros per every Internet user in Korea.

The online game industry’s relationship with secondary market trading activities has been complex. On one hand, it can be argued that real-money trading was an integral part of the rise of the Korean online gaming culture and contributed to the industry’s success. Real-money trading was first born when Korea’s ubiquitous gaming cafés or “PC bangs” purchased game items from their expert customers (Huhh 2008). The shops used these items as promotional gifts to attract new players, which expanded the customer base of the gaming industry. Active secondary market trading is also thought to have contributed to the success of the major hit title *Lineage*, an online role-playing game (Huhh and Park 2005). Players with little disposable income could finance their play by selling goods they had gathered online. Players with little free time but more income could keep up with their gaming friends by purchasing the necessary virtual equipment for real money.

On the other hand, real-money trading activities are also blamed for harming the industry and contributing to various societal ills. Game developers feel that intermediaries profiting from the game item trade are pocketing revenues that rightly belong to the developers (Yoon 2008). Arrays of automated “bot” characters set up by professional players for the purposes of harvesting valuable items are blamed for degrading the game experience in many titles. Real-money trading has been singled out as a possible cause for the “premature aging” and poor performance of *Lineage 2*, a sequel to the hit title (Huhh 2005). The fact that game accounts can now have significant market value has made them prime targets for cybercriminals, forcing game companies to invest heavily in security. Furthermore, the ability to redeem virtual coins for real money can turn chance-based online games into the equivalent of real gambling. Gambling is considered a social problem in Korea, and is for the most part illegal.

In January 2007, the National Assembly adopted a law that directly addresses the real-money trading of virtual goods; a world first to our knowledge. It was issued as an amendment to the existing Game Industry Promotion Act (Act no. 7941, enacted on 28 April 2006), which originally dealt with more mundane matters, such as content ratings. The new law makes it illegal to trade virtual goods for real money if the goods either 1) are used as an instrument in a game of chance, such as a virtual card game; or 2) are obtained through exploiting security holes, using automated bot characters or other “abnormal” play (Yoon 2007). Those violating the law may be sentenced to a maximum of five years in prison or a fine not exceeding 50 million won (32,000 euros). This way, the legislator attempted to curb some of the negative consequences of secondary market trading

while leaving trading activities pertaining to normal players and role-playing games unregulated. The law came into effect in May 2007.

The meaning of the law was further clarified in 2009 when a case based on it reached the Supreme Court (Yoon 2010). A virtual goods reseller had been buying and selling Aden, the virtual currency of the hit game *Lineage*. The public prosecutor alleged that the reseller had purchased an amount of Aden worth 234 million won (160,000 euros) from various sources and sold it to individual players for a profit of at least 20 million won (14,000 euros) (Park 2010). Since no evidence was put forward at any point during the proceedings purporting that the currency was originally generated by any other means than normal gameplay, the case turned on whether *Lineage* was a game of chance. The public prosecutor asserted that luck is an element in the game in the same way as it is in poker, although its role is less clear (Yoon 2010).

The first instance court found the traders guilty. An appellate court overruled the decision, explaining that *Lineage* is foremost a game of sweat: Aden can only be earned through expending time and effort by hunting monsters, fighting against other players or profiting through trade on virtual marketplaces. In December 2009, the Supreme Court confirmed the appellate court's ruling, finding the traders not guilty. The contours of Korea's statutory regulation of second-hand virtual goods marketplaces were now clear: selling virtual goods obtained through cybercrime activities or automated characters is prohibited by law and subject to fines or imprisonment. Selling virtual goods obtained through normal gameplay is not illegal, but may still be contractually prohibited by the operator.

As a final note, Yoon (2008) opines that the best way to deal with the fraud and crime associated with secondary market trading is to legalise the trade instead of driving it underground through contractual prohibitions. There is some evidence to support this idea: in one game, time spent on customer service dropped 30 percent when the publisher introduced a safe, sanctioned secondary marketplace for the game's assets (Robischon 2007). New game designs have made games somewhat more resistant to the negative effects of secondary market trading. Interestingly, most game publishers today are also selling virtual goods themselves, as in the case that will be described in the next section.

## **Consumer Protection: Cap On Virtual Goods Spending in Finland**

In the previous section, we discussed how agreements between users and operators can be too weak to govern virtual goods trade effectively. Another failing of such agreements is that they can be too powerful. So-called click-wrap

license agreements or contracts of adhesion are notorious for containing one-sided contract terms that favour the supplier. This stems from the unequal bargaining power between the parties. In the case of virtual goods platforms, users must usually agree to have no compensation or recourse in case their virtual possessions are removed by the operator for any reason. This seems harsh especially for paid-for items and currencies.

We are aware of one case in which a contract between a user and a virtual goods platform operator has been examined in court: *Bragg vs. Linden* in the U.S. District Court for the Eastern District of Pennsylvania (Duranske 2008, 27-30). Bragg's account in the virtual world *Second Life* was closed by the operator, Linden Lab, due to what Linden saw as a breach of the Terms of Service. As a result, Bragg lost his virtual possessions, which he valued at between 4,000 and 6,000 USD (3,000–4,500 euros). Bragg sued Linden to get his virtual possessions reinstated. The court found parts of the contract unconscionable, that is, so one-sided as to be unenforceable. The parties settled, and Bragg got his account back.

In countries with a strong tradition of consumer protection, it is typical to try to prevent such one-sided dealing before it happens, instead of relying solely on courts to assess contracts after trouble arises. This is achieved through e-commerce regulation and consumer protection law in general. This suggests that we should consider consumer protection and how it applies to virtual goods as one area of virtual goods policy. However, in a novel area such as this, it may not be easy for a regulator to determine the limits of reasonable dealing. The following case and discussion are intended to illustrate this challenge.

One of the more popular online environments where virtual goods are in a central role is Habbo: an avatar-based isometric virtual environment operated by Finnish company Sulake. It was launched in 2000 and a local-language version is today offered in 31 countries. According to Sulake (2010), Habbo has approximately 16.5 million unique visitors in a month, which is more than an order of magnitude more than, for example, *Second Life*. Habbo's main target group is teenagers: according to Sulake, 90 percent of its visitors are between 13-18 years old.

Habbo's users engage in a wide variety activities inside the service, from chatting with friends and flirting in cafés to staging sports competitions and re-enacting popular television shows. The venues for all these activities are rooms constructed by the users themselves from building blocks provided by Sulake. Indeed, Sulake's main revenue stream is selling virtual pieces of furniture to its users (Lehdonvirta, Wilska, and Johnson 2009). Its catalogue of virtual goods includes hundreds of items ranging from coffee tables and sofa sets to teleportation machines and hospital equipment. A simple plastic chair costs approximately 0.85 euros, while a wood-paneled 'Tubmaster' jacuzzi is approximately 8.50 euros. Users pay for the goods using Habbo's virtual

currency, which can be purchased using a variety of methods, including credit cards, mobile payments and scratch cards sold at brick-and-mortar outlets. Sulake's earnings were reported to be approximately 44 million euros in 2006, the majority coming from these microtransactions.

Soon after Habbo became a popular hangout for Finnish teenagers, Finland's Consumer Ombudsman began receiving complaints regarding the service from parents. According to the Ombudsman, "The biggest problem was that children could make unlimited text message [SMS] purchases without a guardian's consent." (Consumer Agency 2004) Premium text messages have long been a popular way for young Finns to pay for digital content. This popularity is attributed partly to the historically high penetration of mobile phones and SMS services in Finland, as well as to the lack of other means of digital payment, such as credit cards, among young people. Finnish kids were apparently buying a lot of virtual furniture using their mobile phones.

Finland's Guardianship Act states that minors may only perform legal acts that are of an ordinary and inconsequential nature without a guardian's consent. The Consumer Ombudsman opined that Habbo's virtual goods did not fit into the category of ordinary and inconsequential purchases, and called Sulake in for negotiations. In May 2004, the parties announced the results of the negotiations: Sulake was setting a weekly cap on the amount of money its users could spend in Habbo. In Finland, the cap was set at 7.00 euros. The Consumer Ombudsman "thought that this amount of purchases could be regarded as ordinary for children between the ages of 10 and 15, considering the service as a whole and the possibilities offered by present technology." (Consumer Agency 2004)

On one hand, this outcome can be considered very reasonable. Juvenile consumers are afforded strong protections in Finnish law. Certainly Sulake never protested against the outcome or expressed dissatisfaction with it. Sulake even extended the spending cap to countries other than Finland, even though they were outside the Ombudsman's jurisdiction. According to the company, the spending cap was set to correspond with the local price of a cinema ticket (Grönholm and Haapanen 2008).

On the other hand, the outcome is also somewhat extraordinary. The spending cap applies to all of Sulake's customers, not just children. Spending caps, even voluntary, have never been used as a regulatory device against, for instance, the purveyors of sweet snacks – even though these are known to be a health hazard for children. We suggest that the reason why Sulake attracted the fury of the parents can be found closer to home. Children's mobile phone contracts in Finland are often in the parents' name. A contemporary study of Finnish teenagers' mobile phone use found that the majority of teenagers had their phone bills paid by their parents (Wilska 2003). Finnish youth were thus placed in a classic moral hazard situation: shopping while someone else picks up the bill.

One could say that the purpose of the spending cap was not so much to protect children from Sulake, but to protect parents from being exploited by their children.

The general aim of consumer protection regulation is to shield consumers from unfair and predatory business practices, and thus ensure the efficiency and competitiveness of markets. The difficult part is determining what constitutes predatory or unfair. For a time, the public opinion of virtual goods sales in Finland was more or less that it “represents taking advantage of children both economically and psychologically” (Lehdonvirta 2009b, 12). In such an opinion climate, it is easy to see how an authority might jump to the conclusion that the only reason why people might buy Sulake’s “nonexistent” furniture is that they have been tricked into it, and shut the whole business down as predatory. Later, virtual consumers’ motivations began to be better represented in the public discussion and attitudes softened, making it easier for authorities to be more lenient. But consumer protection is not intended to be a mechanism of enforcing majority norms of what constitutes appropriate consumption behaviour. As consumer protections are applied to virtual consumption, it is important to ensure that they are based not on preconceived opinions, but on actual appraisals of the relations between consumers and vendors.

## **Conclusion**

In the preceding sections, we hope to have demonstrated that virtual goods regulation is a reality. Courts in several countries have stepped up to protect virtual property against misappropriation, using the legal tools they have available. In countries with strong consumer protection regimes, it is only a matter of time before consumer protection authorities are called to weigh in on virtual goods sales, as happened in Finland. These are examples of ad-hoc regulation responding to emerging issues rather than reflecting any particular policy. By raising the topic of virtual goods regulation, we are not calling for more regulation per se, but for informed policies that will result in better, more consistent regulation where regulation is necessary.

As was the case with the old frontier of digital policy debate that revolves around digital copying and abundance, this new frontier of scarcity based policy debate is complex, because it involves new technologies, new business models and entirely new kinds of consumer behaviour. As in the old debate, the best solutions are likely to require navigating consumers’ rights and publishers’ legitimate business interests; and curbing harmful practices while keeping the ground open for novel business models and social innovations. But many of the issues and positions from the old debate turn on their heads in this new debate: it

is the consumers who claim property protection for bits and want to trade them for real money; and authorities are more worried about excess spending than too little spending on digital contents.

Yet there are also some connecting issues that bridge both debates. One is the question of the future of second-hand trade. It is clear that consumption behaviour is becoming increasingly digital, both when it comes to information goods such as music and movies, as well vanity goods such as those represented by expensive virtual items. In both cases, suppliers are using contractual and technical means to restrict second-hand trade. Sometimes there are good public interest reasons for this, such as maintaining the integrity of online games and curbing online gambling in Korea. At other times, the reasons are founded in business strategy and market power. Policy makers need to seriously reflect on the idea of a digital future where no second hand trading exists. Economists' views on second-hand trade and social welfare should be informative here.

The second issue that connects the two debates is the question of price versus value. Some goods can be highly valuable to an individual and/or society without necessarily having a market value expressed as a price. Interested parties sometimes find it difficult to attract policy makers' attention to such goods, because their value is difficult to quantify. As a result, the goods may be neglected and even adversely affected by policies. The most prominent example of such goods in the copyright debate are orphan works and permanently out-of-print works (Lessig 2004). Policies extending the duration of copyright protection prevent consumers from accessing these works, causing a welfare loss that is difficult to quantify. In the virtual goods arena, plaintiff's counsel in the Finnish World of Warcraft case remarked that it was difficult to get police and prosecutors to take the case seriously until they could put a number on the damage suffered. Given the novel nature of the complaint, this is perfectly understandable. But it does raise the thorny question of whether only those goods that one can put a price on should enjoy the protection of law.

The law has commenced its long course to recognise digital goods as property. One finds it in court decisions concerning the interpretation of criminal law and related damages. The behaviour of gamers and other online users has, both in quantity and quality, exceeded the limits of contract law (Fairfield 2008). Other areas of law, including but not limited to those of criminal law, law of damages, defamation and law of property, will slowly step into play. The natural inertia of law can also be a good thing (Bohannon 1965) in creating the rules that shape behaviour in online environments. One has to bear in mind that law is only one tool available in the toolbox. Technology also provides itself various safety mechanisms, together with informal rules and soft laws, including "netiquettes", to address potential problems.

## References

- Ahlroth, J. 2009. World of Warcraft täyttää aukon Hannu Aholan elämässä [World of Warcraft fills a hole in the life of Hannu Ahola]. *Helsingin Sanomat*, 6 November. Online: <http://www.hs.fi/kulttuuri/artikkeli/1135250561086> (accessed 1 May 2010).
- Bartle, R. 2004. *Pitfalls of virtual property*. Online: <http://www.themis-group.com/uploads/Pitfalls%20of%20Virtual%20Property.pdf> (accessed 1 May 2010).
- BBC News, 2007. 'Virtual theft' leads to arrest. *BBC Technology News*. Online: <http://news.bbc.co.uk/2/hi/technology/7094764.stm> (accessed 1 May 2010).
- Bohannan, P. 1965. The differing realms of the law. *American Anthropologist*, 67(6), 33-42.
- Castronova, E. 2004. The Right To Play. *New York Law School Law Review*, 49, 185-210.
- Castronova, E. 2005. *Synthetic Worlds: The Business and Culture of Online Games*. University of Chicago Press: Chicago.
- Consumer Agency 2004. *Consumer Ombudsman concludes negotiations with Sulake Labs Oy: New rules for virtual hotel (press release, 6 May)*. Online: <http://www.kuluttajavirasto.fi/Page/d1bc11a7-7371-4140-8681-eb744f0400c8.aspx?groupId=b2718d80-3e53-429c-a53e-608d6e502f70&announcementId=3df7e1ca-6dd2-4aaf-ad21-9b433e0e27f8> (accessed 1 May 2010).
- Dibbell, J. 2006. *Play Money. Or, How I Quit My Day Job and Made Millions Trading Virtual Loot*. Basic Books: New York.
- Fairfield, J. 2005. Virtual property. *Boston University Law Review*, 85(4), 1047–1102.
- Fairfield, J. 2008. Anti-Social Contracts: The Contractual Governance of Virtual Worlds. *McGill Law Journal*, 53(3), 427-476.
- Featherstone, M. 1991. *Consumer culture & postmodernism*. London: Sage.
- Glusko, R. M. 2007. Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds. *Berkley Technology Law Journal*, 22, 507-532.
- Grönholm, P., & Haapanen, M. 2008. 13-vuotiaan ruotsalaistyön kerrotaan törsänneen tuhansia euroja Habbo Hotelissa [13-year-old Swedish girl said to have squandered thousands of euros in Habbo Hotel]. *Helsingin Sanomat*, 24 March. Online: <http://www.hs.fi/talous/artikkeli/1135235016370> (accessed 1 May 2010).
- Heeks, R. 2010. Understanding “Gold Farming” and Real-Money Trading as the Intersection of Real and Virtual Economies. *Journal of Virtual Worlds*

- Research*, 2(4). Online: <https://journals.tdl.org/jvwr/article/view/868> (accessed 25 July 2010).
- Huhh, J. S. 2005. *Empirical Study on the Decline of Lineage 2 in Korea*. Online: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=833847](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=833847) (accessed 23 April 2010).
- Huhh, J.-S. 2008. Culture and Business of PC Bangs in Korea. *Games and Culture*, Vol. 3, No: 1, 26-37.
- Huhh, J. S., & Park, S. W. 2005. *Game Design, Trading Markets, and Playing Practices. What did Lineage do for enchanting Korean players?* Online: <http://anarinsk.com.ne.kr/data/lineage.pdf> (accessed 23 April 2010).
- Information Solutions Group 2010. *2010 Social Gaming Research*. Online: [http://www.infosolutionsgroup.com/2010\\_PopCap\\_Social\\_Gaming\\_Research\\_Results.pdf](http://www.infosolutionsgroup.com/2010_PopCap_Social_Gaming_Research_Results.pdf) (accessed 23 April 2010).
- Jimenez, C. 2007. The high cost of playing Warcraft. *BBC News Online*, 24 September. Online: <http://news.bbc.co.uk/2/hi/technology/7007026.stm> (accessed 28 July 2010).
- Korea Creative Content Agency. 2009. *Main Statistics of Korea's Content Market*. Online: <http://www.kocca.kr/eng/industry/trend/index.html> (accessed 1 May 2010).
- Krebs, B. 2009. The Scrap Value of a Hacked PC. *The Washington Post / Security Fix*. Online: [http://voices.washingtonpost.com/securityfix/2009/05/the\\_scrap\\_value\\_of\\_a\\_hacked\\_pc.html](http://voices.washingtonpost.com/securityfix/2009/05/the_scrap_value_of_a_hacked_pc.html) (accessed 1 May 2010).
- Lastowka, G. 2009. Rules of Play. *Games and Culture*, 4(4), 379-395.
- Lehdonvirta, V. 2005. Real-Money Trade of Virtual Assets: Ten Different User Perceptions. *Proceedings of Digital Arts and Culture (DAC 2005)*, Copenhagen, Denmark, December 1-3, pp. 52-58. Online: <http://www.hiit.fi/~vlehdonv/documents/Lehdonvirta-2005-RMT-Perceptions.pdf> (accessed 1 May 2010).
- Lehdonvirta, V. 2008. Real-Money Trade of Virtual Assets: New Strategies for Virtual World Operators. In: Ipe, M. (ed.), *Virtual Worlds*, Hyderabad: Icfai University Press, pp. 113-137.
- Lehdonvirta, V. 2009a. Virtual Item Sales as a Revenue Model: Identifying Attributes that Drive Purchase Decisions. *Electronic Commerce Research*, 9(1), 97-113.
- Lehdonvirta, V. 2009b. *Virtual Consumption*. Publications of the Turku School of Economics A-11:2009. Turku: Turku School of Economics. Online: [http://info.tse.fi/julkaisut/vk/Ae11\\_2009.pdf](http://info.tse.fi/julkaisut/vk/Ae11_2009.pdf) (accessed 1 May 2010).
- Lehdonvirta, V., Wilska, T.-A., & Johnson, M. 2009. Virtual Consumerism: Case Habbo Hotel. *Information, Communication & Society*, 12(7), 1059-1079.

- Lessig, L. 2004. *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. Penguin: New York.
- Lury, C. 1996. *Consumer Culture*. New Brunswick, NJ: Rutgers University Press.
- Nojima, M. 2008. 人はなぜ形のないものを買のか 仮想世界のビジネスモデル [Why do people buy immaterial goods: virtual world business models]. Tokyo: NTT Publishing.
- Park, S. 2010. Ruling to Boost Sale of 'Cyber Money'. *The Korea Times*, 10 January. Online: [http://www.koreatimes.co.kr/www/news/nation/2010/01/116\\_58775.html](http://www.koreatimes.co.kr/www/news/nation/2010/01/116_58775.html) (accessed 1 May 2010).
- Penrose, R. 1998. *The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics*, Oxford University Press, Oxford.
- Plus Eight Star, 2009. Virtual goods in Asia: it's even more than you think! (25 times USA?). Online: <http://www.plus8star.com/?p=196> (accessed 1 May 2010).
- Rechtspraak 2009. RuneScape, LJN: BG0939, Rechtbank Leeuwarden , 17/676123-07 VEV. Online: [http://zoeken.rechtspraak.nl/resultpage.aspx?snelzoeken=true&searchtype=-ljn&ljn=BG0939&u\\_ljn=BG0939](http://zoeken.rechtspraak.nl/resultpage.aspx?snelzoeken=true&searchtype=-ljn&ljn=BG0939&u_ljn=BG0939) (accessed 14 January 2010).
- Robischon, N. 2007. *Station Exchange: Year One*. Online: <http://www.gamasutra.com/features/20070207/SOE%20Station%20Exchange%20White%20Paper%201.19.doc> (accessed 1 May 2010).
- So, S. & Westland, J. C. (2010) *Red Wired: China's Internet Revolution*. Marshall Cavendish: London.
- Schott, G. Penfield's homunculus: a note on cerebral cartography. 1993 *J Neurol Neurosurg Psychiatry* Vol 56, 329-333
- Seto, T. 2009. When is a Game Only a Game?: The Taxation of Virtual Worlds. *U. Cin. L. Rev.*, 77, 1027-1052.
- Sulake, 2010. *Habbo – Where else?* Online: <http://www.sulake.com/habbo> (accessed 15 February 2010).
- Thomas, D., & Brown, J. 2009. Why Virtual Worlds Can Matter. *International Journal of Media and Learning*, 1(1), 37-49.
- Wi, J. H. 2009. *Innovation and Strategy of Online Games*. London: Imperial College Press.
- Wilska, T.-A. 2003. Mobile Phone Use as Part of Young People's Consumption Styles. *Journal of Consumer Policy*, 26(3), 441-63.
- Yoon, U. 2005. A Quest for the Legal Identity of MMORPGs. From a Computer Game, Back to a Play Association. *Journal of Game Industry & Culture*, 10. Online: <http://ssrn.com/abstract=905748> (accessed 23 April 2010).

- Yoon, U. 2007. Selective bombing of RMT in Korea. *Terra Nova*. Online: [http://terranoa.blogs.com/terra\\_nova/2007/05/s\\_koreas\\_bancan.html](http://terranoa.blogs.com/terra_nova/2007/05/s_koreas_bancan.html) (accessed 23 April 2010).
- Yoon, U. 2008. Real Money Trading in MMORPG Items From a Legal and Policy Perspective. *Journal of Korean Judicature*, 1, 418-477. Online: <http://ssrn.com/abstract=1113327> (accessed 23 Apr 2010).
- Yoon, U. 2010. A Rainbow follows Clouds – Korean Supreme Court’s Rule on some RMT. *Terra Nova*. Online: [http://terranoa.blogs.com/terra\\_nova/2010/01/a-rainbow-follows-clouds-korean-supreme-courts-rule-on-some-rmt-.html](http://terranoa.blogs.com/terra_nova/2010/01/a-rainbow-follows-clouds-korean-supreme-courts-rule-on-some-rmt-.html) (accessed 23 April 2010).