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Daria Bylieva


Alfred Nordmann *Editors*

# The World of Games: Technologies for Experimenting, Thinking, Learning

XXIII Professional Culture of the  
Specialist of the Future, Volume 1

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Daria Bylieva · Alfred Nordmann  
Editors

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XXIII Professional Culture of the Specialist  
of the Future, Volume 1

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## Preface

We are living in a world of games. Many embrace this idea. A world of games is fun and engaging, friendly and entertaining. People learn and work better when it feels like playing a game. Social skills can be acquired in playfully competitive and cooperative ways. Others are more reluctant. To imagine a world of games is to indulge in deceptive pleasures that distract from and perhaps devalue the real world. What may seem like fun usually serves ulterior purposes that are far from harmless. There are scarce resources and wars, power relations and conflicting interests. One must not sleepwalk through such a world but be wakeful and attentive to its dangers. Games have a place in our world but it must be a well-defined place. Their value lies in offering an alternative logic to that of public life as with the Olympic Games in antiquity that were a festive interruption for which one would take a break from the war.

And then there is a third point of view which seeks to discover how we learn to know the world through games and in the mode of play. It does not endorse gamification nor does it insist on a purist clear-cut division of spheres. It might look, quite literally, at the way in which chemists know the world. In the nineteenth century, they developed ball-and-stick-models of molecules, and these were actually billiard balls and sticks. These human constructions required considerable work, one molecule at a time. In the twentieth century, quite another generation of chemists had grown up playing with modularized building blocks such as Lego bricks, and they imagined a world of atoms and molecules that can be nanotechnologically combined at will, the whole world a toolbox where things can be broken apart and put together, infinitely plastic. Today's biochemists grew up in the digital age of video games. They are less interested in the building blocks of matter and in constructing things from the bottom up. Instead, they intervene in the flow of things, optimizing their strategies as they become attuned to the dynamic processes which they seek to modulate and control. For all these scientists one can say that they learned from games that showed them a way of being in the world. At the same time, the games they played guided their imagination in specific ways, perhaps limiting and constraining them.

Today's world of games is primarily a digital world, though one should not underestimate the continuing power of playing ball on streets, backyards, and parks, or the continuing power of board games that assemble players around a table, or the continuing power of role-playing games that begin with children interacting with their dolls and continues with cosplay and very adult battle reenactments. However, if only by virtue of its much-discussed virtualization of reality, digital technologies seem to be a new kind of driving force towards gamification. It is not that games can now be played in the computer as well, but the logic of digitalization thrives on and promotes gaming. Just one example of this is that self-learning algorithms develop protein-folding strategies or image recognition capabilities through digital gaming by users who do something just for fun and thereby advance knowledge production. The game thus turns out to be the principle of the modern world order, informing its worldview, cultural practices and

social dramaturgy. The game serves as a model or mechanism for organizing and simulating urban, organizational and production processes. Games therefore play a special role also in the educational process. Games, virtual and augmented reality, metaverse explorations, simulations, application skills and routines become a natural part of the process of edutainment. This proves useful in a variety of educational contexts: teaching hard and soft skills, developing professional competencies, teaching languages and addressing ethical issues.

This collection of papers reflects the world of games in these various aspects. On the one hand and mostly in the second volume, it provides examples, developing and assessing tools, and gathering together experience with old and new features of games. In this first volume, on the other hand, it reflects the human condition in this world of games as it becomes a digital world. We neither inhabit the closed world of the ancient cosmos anymore where everything has a meaningful place in the order of things, nor the modern universe which is governed by general principles and rules that might unify the infinite variety of events. Instead, the world of games might turn out to be a semiverse which draws on two orders at once, the digital order of game-like rule-governed structures and a seemingly irrational real world, with a mindset from the digital world extending to, permeating, and shaping expectations.

If these are theoretical considerations that are more and less explicit in many of the contributions to this volume, there is also a practical conviction that motivates many papers, especially in the second volume: The notion that game-based learning motivates and engages students has not lost its popularity for a long time. We offer not only to look at how games can influence education, what are the positive and negative aspects of gamification and edutainment, but also the specific application of games in the educational process. The second volume presents the multifaceted practical experience of teachers and developers. There are games that draw on the latest technological developments as well as traditional role-playing games. There are games to be played and games to be created or studied; games for the development of skills, for communication, for feedback or for evaluation.

In particular, the book is divided into several sections: The first half of the collection begins with “Games of Life” which considers how human identity is questioned and framed through games in the present condition. “Cities and Societies, Organization and Cooperation” shifts the focus to human sociality and communication, considering how it is shaped through games. The third section of part I finally concerns “Edutainment and Gamification” and ambivalent attitudes towards them. Part II then explores in many facets the practices of game-based learning. “From Building Blocks to Augmented Reality Glasses—Technologies for Gaming” looks at educational benefits from the technical side of things: What do gaming techniques and technology enable, and how do students appreciate and evaluate them? The final section looks at matters from the educational side of things which includes the wide spectrum of educational environments.

Even as they appeal to somewhat different interests, the two parts belong together like the two sides of a coin and the two halves of a fractured world of games.

Daria Bylieva  
Alfred Nordmann

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# **Games of Life**



# Games of Existence: The Digital Transformation of Fictionality

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**Abstract.** The article is devoted to the digital transformation of fictionality in the context of philosophical ontology. The used methodology is semiotic modeling. The traditional ontological question “what does it mean to exist?” is considered from the position of the general semiotics. We define existence through the notion of sign. We interpret the classical criteria of existence - observability, calculability, consistency, accountability - through semantic, syntactic, and pragmatic rules of the sign process. We introduce the criteria of existence for the object and for the subject, revealed as fulfillment of semiosis these or those rules in these or those layers of reality. We use Kant’s transcendental scheme to distinguish between the layers of existence: *sensus*, *ratio*, *intellectus*, which can also be expressed in other terminological ways, such as perception, language and reference. We show the difference in the definition of existence for natural and artificial objects. We define the role of interpretation as a procedure for identifying types of existing and their corresponding specific semantic rules of communication language. We understand fictionality as double signification or auto-referential negation - the designation in the act of communication of incalculable and unobservable entities as existing, that is, as calculable and observable. Thus, the game of existence is played by shifting the boundaries of the conceivable and the inconceivable, the possible and the impossible. The subject part of the work is constructed as an application of philosophical ontology theoretical constructs for the analysis of fictional subjects communicated by the science fiction. Examples of the subject possible digital transformation modeled by the science fiction are considered: the mind upload to a non-biological medium, distributed consciousness, artificial additions or transformations of corporeality, “intelligent environment” - situations when the functions of reflexion are transferred from the subject to the environment.



**Keywords:** Existence · Existence game · Fictionality · Fiction · Interpretation · Science fiction · Semiotic criteria of existence · Semantics · Syntactics · Pragmatics

## 1 Criteria for Existence. Existence in the Context of General Semiotics

The question of existence is the ontology classical problem. Within the analytical philosophy of language, the substantive questions “what does exist?” or “what is the world really like?” are replaced by functional questions about what it means to “exist,” what



# Liability in the World of Games: The Interaction of Positive and Soft Law

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**Abstract.** The gaming industry is currently one of the most rapidly developing sectors of the economy, generating billions of dollars for developers. A video game represents not a simple, but a complex object of intellectual property law, encompassing various distinct results of intellectual activity, such as music, screenplay, plot, video, and game characters. The issue of regulating relationships arising from video games has been a longstanding one. This article analyzes global and Russian judicial practices regarding liability for actions committed in the gaming world or the real world with the aim of obtaining rights and advantages in the game. It demonstrates that two regulatory spheres actively interact in this domain: the slowly evolving domestic legislation and “soft law” in the form of sets of rules established by game platform owners. The conclusion is drawn that the “soft law” of gaming and technological platforms assumes the role of a new source of law.

**Keywords:** Protection of private rights by the means of criminal law and criminal procedure · Judicial lawmaking · “Soft law” · Videogame · Legal regulation · Gambling

## 1 Introduction

The gaming industry is currently one of the most rapidly developing sectors of the economy, bringing billions of dollars to developers. A video game is not a simple, but a complex object of intellectual property law, encompassing a multitude of distinct intellectual creations, including music, screenplay, plot, videos, and both playable and non-playable characters. The issue of regulating relationships arising from video games has been a longstanding one. It ranges from recognizing the necessity of regulating certain aspects of video game-related matters to completely denying such necessity for various reasons [1].

According to the research conducted by the Analytical Center of the National Agency for Financial Studies (NAFI), 60% of Russians aged 18 and above engage in video gaming activities regularly or episodically, amounting to approximately 88 million individuals. In comparison to the data from the year 2018, the proportion of gamers in Russia has more than tripled [2].

This gives rise to a range of conflicting situations, including so-called “cheating” (unauthorized interference in a computer game resulting in gaining an advantage with

the intention of obtaining specific in-game benefits such as: winning a game round, acquiring a large amount of resources, inflicting significant damage to opponents, etc.), unlawful appropriation of virtual objects belonging to other players, as well as disputes between the game rights holder and the player regarding access to the game itself or the specific items and advantages provided by the rights holder.

According to the data from the Main Information-Analytical Center of the Ministry of Internal Affairs of the Russian Federation, there were 517.7 thousand crimes committed in 2021 involving information and communication technologies (ICT) and computer information, which accounts for a quarter of the total number of crimes registered throughout the year [3]. A similar trend is observed in the report for the year 2022. However, these are more of “traditional” ICT crimes, including the distribution of malicious software, password hacking, theft of funds from accounts through the use of banking programs, phishing, as well as the dissemination of unlawful information online. This statistic does not include information about criminal cases related to crimes committed in virtual worlds, such as theft of virtual items used in games, and so on. In contrast, for example, in the Republic of Belarus, in 2014, a criminal case was initiated under Article 349, Part 2 of the Criminal Code of Belarus for unauthorized access to computer information involving the “hijacking” of a virtual tank in the game World of Tanks [4]. It is difficult to disagree with the authors’ claim that a similar criminal case would not have been initiated in Russia. The approach to prosecuting crimes related to virtual worlds and theft of virtual items is not as prevalent in Russia as it might be in other jurisdictions. [5] Meanwhile, in Russian Federation, there is a precedent of holding individuals criminally liable for unauthorized interference in the gaming computer industry through the distribution of malicious software (bots and cheat programs) that allowed users to gain unfair advantages over other players in games like World of Tanks and World of Warships. [6].

Legal regulation issues arise in several areas in relation to this matter.

**The first issue** revolves around the question of who can be held accountable and who can be considered a victim in cases where rights violations occur in a virtual world, such as within a computer game.

The fact that the longer an individual utilizes computers and various electronic gadgets, the more extensive their “digital footprint” becomes, is beyond dispute. Indeed, the current landscape is characterized by the emergence of a digital replica, or digital counterpart, of a person within the virtual realm. This phenomenon is accompanied by the advent of new entities—virtual personalities. The question of virtual identity subjectivity remains unresolved to this day. Can virtual identities serve as bearers of rights and obligations? Are they entitled to legal protection? How can the verification of virtual identity be ensured? How can the protection of virtual identities from theft, harassment, and other unlawful interventions be safeguarded?

**The second issue** pertains to the relationship between the game developer, as the rights holder, and the player regarding access to the game itself, as well as the items and advantages provided by the rights holder. Do the traditional norms of contractual law apply to these relationships? Or do these situations fall outside the scope of legal regulation by the state and should be determined exclusively in accordance with the rules established by the game developer?

**The third** is related to the need to determine the limits of legal intervention in the relationships between players. Should players be held accountable for the theft of virtual property belonging to digital counterparts within the virtual realm? Should punitive measures be imposed for the destruction of structures built by players in the virtual space?

A well-considered and appropriate resolution of these issues is of utmost importance, as individuals, without legal protection, may come to perceive themselves as unprotected by the state and may even resort to vigilante justice as a means of restoring violated rights or interests. For instance, in China, a young man named Qui Chengwei lent his unique in-game sword to a friend, who subsequently sold the sword on eBay. Since his complaint to law enforcement authorities was rejected, the young man ended up killing his friend. [7].

## 2 Methods

We have decided to conduct a comparative analysis of how different national courts tackle the task of striking a balance between various interests in this field and how they address the three aforementioned issues.

As a criterion for analyzing judicial decisions, we have chosen the “Magic Circle Test” developed by B.T. Duranske and S.F. Cain. The essence of this test is that activities taking place in the virtual world are subject to the laws of the real world if the user participating in these activities reasonably understands or should reasonably understand that they have consequences in the real world [8]. The essence of the “Magic Circle Test” is as follows: the game world is enclosed within a “magic circle” where actions are only influenced by the real world when a person foresees or should foresee consequences for reality. For example, if a game allows theft of in-game items (such as in *Ultima Online*) and the advancement of thieving skills for corresponding characters, it remains within the boundaries of the “circle” (the online game) and, consequently, should not be subject to legal regulation since it is governed by the laws of the game.

It should be noted that the “Magic Circle Test” is not considered axiomatic by researchers dealing with issues of responsibility for actions in the realm of computer games. Some authors suggest shifting the focus from which rules apply to the real world versus virtual values, to examining which actions the player agreed to as a member of the community engaged in a particular game. It is argued that there is no separate real world distinct from the virtual world, but there are actions within the virtual space that exceed the scope of the player’s real consent (as well as the consent of other players). According to researchers, the distinction between the real and virtual worlds is rapidly fading, rendering the concept of the “magic circle” outdated [9].

However, we believe that the “Magic Circle Test” is convenient for legal practitioners as it allows the distinction between cases where a person should be held liable for tortious conduct and cases where contractual liability arises. For instance, if prohibited methods of causing harm are used in the game, such as various cheats, hacks, or other actions that violate the game’s rules, in such cases, the player will be held responsible, but the nature of the liability will be contractual. After all, the player breached the terms of the game’s usage (usually, End-User License Agreement – EULA), which are the conditions of

the contract under which the game was provided to them. However, in situations where players' actions (a) extend beyond the virtual world or (b) their effects start manifesting in the real world, the law needs to intervene beyond the scope of the contractual relationship between the parties. For example, in the case of an account hack, the laws of the real world fully apply to users of the virtual world since the player's actions go beyond the confines of the virtual world, and general legislative rules governing liability for such actions should be applied.

## 3 Results

### 3.1 The Digital Double and Responsibility

In recent times, there has been an increasing discussion in the academic community regarding digital doubles as digital replicas of individuals. V.N. Nazarov writes about the digital double as a subject of information ethics and points out that the digital prototype of such a double is a static model of the double: a collection of moral data about an individual that is necessary and sufficient for describing and creating an ethical model of their digital double in various spheres of life and fields of activity. The digital instance, on the other hand, is characterized as a "comprehensive informational copy of the individual in their dynamics, in the probabilistic ambiguity of their behavioral reactions" [10]. Other authors introduce the concept of a virtual persona, which refers to "a blog account or web page where a real person attempts to present themselves as a significant informational entity possessing characteristics of an idealized human individual, representing a virtual persona" [11]. Additionally, the term "digital identity" is used to denote the "outline of a subject's activity traces that they leave in the electronic space as their digital profile" [12]. Despite the different terminology, all the examined definitions converge on one point: they indicate how a real person interacts with the virtual space and how they present themselves within it.

In philosophy, the question of identifying the virtual and real personalities as the same is of utmost importance, and it also holds significant legal implications. It should be noted that many authors consider the real and digital personas as separate entities, stating that the digital persona "should be interpreted independently and not as one of the identities" [13]. This perspective is intriguing; however, it should not imply that the real person is not accountable for the actions of their digital counterpart. On the contrary, the responsibility for the actions of a digital replica should lie with the individual who directly controls it. This may include not only the lawful owner but also someone who gained unauthorized access to another person's account, regardless of whether such access was obtained with or without the owner's consent.

When discussing the identification of a digital persona as a real one, we cannot overlook the question of the accuracy of the information provided by an individual about themselves in a game or other virtual spaces. In other words, the digital persona may completely differ from the real persona, including all its attributes such as name, surname, gender, age, appearance, and so on. Modern computer neural networks enable the creation of appearances for nonexistent individuals, thereby allowing the digital persona to be entirely fabricated from start to finish. A digital persona can be entirely real, accurately reflecting all information about a specific person, while also being dishonestly



created with the specific purpose of someone else appearing in the online space under a false identity. Therefore, we can categorize all digital personas into conscientious ones, where the real persona coincides with the virtual one, and unconscientious ones, where the real persona does not match the virtual one, and anonymous ones, where the digital persona lacks a known or identifiable real prototype. Since digital personas can range from being an exact replica of a real person to a virtual reflection with varying degrees of distortion, it is only with a certain level of conventionality that we can refer to online accounts as precise digital duplicates. The term “digital persona” is also not entirely suitable, as we cannot consider a social media account a complete personality. Hence, the term “digital twin of a persona” would be more appropriate.

Thus, for the purposes of legal regulation of relationships in cyberspace, it is appropriate to use the term “digital twin of a persona” to denote the digital reflection of a real person in the online environment, in the form of a social media account or other internet resources that allow for the creation of personalized and unique virtual profiles. Through these virtual profiles, the physical person can interact with cyberspace itself, other participants in cyberspace, and leave various electronic traces.

At the same time, such a digital persona cannot be regarded as an autonomous subject since it lacks and cannot possess its own will (at least presently). It functions as a tool through which a real person interacts with cyberspace. Moreover, as previously observed, not only the lawful owner of the digital persona but also other individuals can make use of this tool. Consequently, a multitude of legal consequences arise that must be considered both in theory and in the practice of law. Specifically, when it comes to holding an individual accountable for committing a crime in the gaming world, it is insufficient to merely identify the account from which the offense was committed along with its owner. It is necessary to establish which specific person, utilizing that particular account, engaged in the said activities [14]. In this context, an analogy can be drawn to the familiar example among legal professionals of footprints left on the crime scene. A forensic expert-trassologist can never definitively determine who precisely left the discovered footprints. They can only provide an answer to the question of whose footwear left the trace—whether it belongs to the suspect or someone else. However, identifying who was wearing the footwear at the time of the crime necessitates the undertaking of additional investigative measures.

It must be noted that we did not find any precedents in Russian practice specifically addressing the differentiation of accountability between the account owner and an unauthorized user of the said account. However, Russian courts generally examine whether an individual used their own account or someone else’s account to which they gained unauthorized access. For instance, in the case of L., he was convicted under Part 1 of Article 272 of the Criminal Code of the Russian Federation for using third-party login credentials to access Lineage 2 game accounts on the internet. He repeatedly played the game through the “hacked” account, thus utilizing the virtual assets of a legitimate player [15]. In this case, the “magic circle test” is entirely applicable since the actions of the player who knowingly used someone else’s account extend beyond the virtual realm. However, the court’s decision indicates that no real or in-game harm was inflicted upon the victim. Upon discovering that his account for the online game had been hacked from a different computer and blocked, he sought assistance from the technical support

team. The technical support staff transferred the existing information from his previous account to a new account, thereby restoring the qualities and abilities of his in-game character that existed prior to the account breach. The application of Part 1 of Article 272 of the Criminal Code of the Russian Federation to this situation raises doubts since the defendant's actions did not result in the blocking or modification of computer information.

### **3.2 Disputes Between the Game Rights Holder and the Player Regarding Access to the Game Itself or the Items and Advantages Provided by the Rights Holder**

An example of a case in which the court denied protection to players' rights is the Lineage game case, which significantly influenced the practice in Russia regarding the resolution of disputes in this field. The player filed multiple lawsuits against the company LLC "Innova Systems," seeking compensation for the blocking of his account, the inability to use a "rented" virtual item called the "Experience Rune" for three days, and a reduction in the duration of his paid subscription to the Lineage 2 game service. The court rejected the claims, citing the impossibility of judicial protection of the gaming process, even in accordance with Article 1062, Part 1 of the Civil Code of the Russian Federation, which states that the claims of individuals and legal entities related to the organization of games and gambling or participation in them are not subject to judicial protection. Another court decision involved a user of the MMORPG Lineage 2 and Rising Force Online who acquired virtual objects amounting to a total of 235,508.26 RUB, allegedly under the influence of deception, according to the plaintiff's statement. The defendant, LLC "Innova Systems," objected, asserting that the paid services were not mandatory for participating in the game. In denying the claim, the court, similarly to the previous case, referred to Article 1062 of the Civil Code of the Russian Federation.

The position in this matter is not unequivocal. In a later case, the plaintiff filed a claim against LLC "Mail.Ru Games" due to the blocking of his account, which prevented him from accessing a service he had paid for. The court granted the claim, justifying its decision based on Article 13 of the Law on Consumer Protection, which stipulates that the manufacturer (performer, seller, authorized organization, or authorized individual entrepreneur, importer) is liable for violations of consumer rights as provided by law or contract. The court stated: "The plaintiff, as a consumer, ordered a paid service from the defendant, as a performer engaged in entrepreneurial activities, for personal purposes unrelated to entrepreneurial activities. However, he was unable to use this service due to the defendant's blocking of his account, i.e., due to the defendant's refusal to fulfill its obligations to provide the paid service." Furthermore, in this case, the court recognized the online game as computer software (although this decision is highly disputed but is not the subject matter of this paper) and stated that, due to the absence of a winning condition, it does not qualify as gambling. Nevertheless, the court did not dispute the right of the game's rights holder to block the plaintiff's account but only decided that the rights holder should reimburse the plaintiff for the money spent on acquiring additional in-game features that the plaintiff was unable to use.

In our view, it is impossible to agree with the courts that seek to simplify their work by not considering exceptional cases and refusing to protect the rights of players, citing the

fact that the cases involve games and gambling. Such qualification of the relationships is fundamentally incorrect, as the relationship between the player and the rights holder is of a different nature - either it involves the conclusion of a license agreement or a mixed agreement containing elements of a contract for remunerated services and a license. Therefore, a formal-legal analysis of Article 1062 of the Civil Code of the Russian Federation does not allow classifying the game itself as a gambling game. However, it appears that the courts use this provision not because they consider a computer game to be gambling, but because they believe that certain actions of players should be evaluated not based on legislation but solely in accordance with the norms of “soft law” established by the game’s rights holders.

In a relatively recent judicial decision [19], the court once again referred to the provisions of paragraph 1 of Article 1062 of the Civil Code of the Russian Federation. However, when analyzing this court decision, attention should be drawn to the fact that the court prioritized the rules established by the game’s rights holder. The considered the following factors:

- The player’s actions regarding the use of in-game currency, including exchanging it for other in-game assets/items, participating in game events, and further utilizing in-game items, are performed by the players themselves within the game (“magic circle test”).
- Upon registration in the game, the user accepts the End-User License Agreement and the Game Rules by clicking the “Enter” button, which, according to the meaning of Articles 435 and 438 of the Civil Code of the Russian Federation, constitutes acceptance of the offer and the conclusion of a contract that imposes obligations on the player to comply with the conditions of the End-User License Agreement and the Game Rules.
- Violation of the provisions of the aforementioned documents results in the application of in-game sanctions to players or their characters (thus, the court effectively acknowledged that an in-game character may be subject to responsibility for in-game actions).
- The plaintiff, while controlling the character, violated the Game Rules. It was established that during the period of 2012–2013, the player, both during gameplay and on the game’s forums, made statements that, according to the Game Administration, were offensive in nature and contained elements of threats against other players or members of the Game Moderation Service. Additionally, the plaintiff used vulgar language in communications within the game and on the game’s forum. As a result, an in-game sanction was imposed on the player, partially restricting in-game functionality.

Thus, in this case, the court not only recognized the application of the rules established by the game’s rights holder (“soft law”) but also applied them by correctly analyzing whether the norms of soft law were properly applied to the specific individual. In this case, the “magic circle test” was correctly applied, and in-game violations resulted in in-game liability established by the game’s rights holder.

Another situation where, according to the “magic circle test” rule, soft law prevails over domestic legislation arises in cases of theft of in-game property/special abilities when such theft is permitted by the game’s rules. A prominent example is Ultima Online,

where the game's rules allow one player to steal an item, they find appealing from another player's inventory. The game's rights holders argue that the owner of the item is not the player but their in-game character, who, in turn, is robbed by another character, whereas only a natural person can be considered the perpetrator of a crime. The rights holders of Ultima Online present another argument: they assert that the game's rules explicitly state that thefts are permitted on this Internet platform, meaning that the purchaser of a sword or armor was aware that their virtual property was at risk of being stolen, thus precluding any liability from arising.

### 3.3 Actions at the “Intersection” of the Game and the Real World

The following example demonstrates how players' actions can extend beyond the virtual realm. In 2012, the Supreme Court of the Netherlands upheld the conviction of a young man who stole another boy's property in a popular online game, sentencing the offender to community service. In 2007, an amulet and mask constituted virtual property belonging to a 13-year-old boy in the online game RuneScape. In the real world, he was physically assaulted and threatened with a knife to coerce him into accessing his game account and “drop” these items. The suspect's attorney argued that the game items were “neither material nor immaterial and, unlike electricity, had no economic value”. However, the Supreme Court of the Netherlands declared that virtual objects have intrinsic value for gamers due to the “time and energy they invested” in acquiring them during gameplay. Essentially, it was stated that while millions of dollars are being brought into and withdrawn from virtual worlds every year, lawmakers need to develop new legislation to protect the rights of individuals who invest time and money in virtual environments.

Despite the reasonably logical argumentation presented by the judicial authorities of the Netherlands, it can be expanded through the application of the “magic circle test,” as it is evident in this case that players' actions took place outside the virtual world – the player's real-life was threatened, not the virtual one. It appears that if the players had made the victim's life “unbearable” within the game by continuously killing his character until he surrendered the requested item, it would be difficult to speak of any responsibility, especially if such actions align with the rules of the game world. In the event of rule violations, contractual measures of liability may be applied (such as an account “ban” – temporary or permanent suspension of access to the game), but not tortious or criminal liability.

Another example is the well-known case of Andrey Kirsanov, who was charged with distributing bots and cheat codes for the games “World of Tanks” and “World of Warships.” In July 2022, the Verkh-Isetsky District Court of Yekaterinburg issued a guilty verdict against Andrey, sentencing him to a 2 years and 6 months term of restricted freedom [6]. It should be noted that the punishment was not applied to the individuals who used the bots and cheat codes (as they may only face in-game consequences) for this action, but specifically for the distribution of “malicious programs”.

In foreign jurisdictions, a similar approach is followed. For example, China is actively taking steps to develop its own virtual property rights as part of its program to build a competitive industry for the sale of virtual assets. One significant case illustrating this development is the Li Hongchen v. Beijing Arctic Ice Technology Development Co.

Case, heard by the Second Appellate Court in Beijing. The dispute involved a user of an online game and the rights holder. The plaintiff's account was hacked and stolen by a third party. The court ordered the rights holder to return the account, thereby restoring the ownership rights to its original owner. This is not an isolated judicial decision concerning virtual property in the country, as there have been other similar cases regarding virtual property rights in China [20, 21]. Matthew Chew notes that the majority of China's gamers believes that rights to in-game assets should be protected by the government from unlawful interference by third parties [22].

And similarly, Taiwanese legislators took a comparable approach by stipulating that virtual property is protected as real-world property. The Ministry of Justice of Taiwan issued a resolution on November 23, 2011, stating that virtual property is considered as property in the legal sense, capable of being alienated and transferred. Furthermore, the theft of such virtual property is punishable under criminal law. This resolution solidifies the legal recognition and protection of virtual property rights in Taiwan [23].

## 4 Discussion

Currently, there is a lack of societal consensus and clearly formulated legal norms regarding liability for actions in the gaming world. In these circumstances, the role of judicial authorities becomes particularly significant. The court's resolution of such disputes should be used to find a balance among various interests in this sphere and become a subject of public discourse. Our analysis of court decisions in this field has led us to the conclusion that courts exercise their powers with caution, relying on intuition, but nevertheless distinguishing situations where state intervention and formal legal norms are necessary from those that should be resolved in accordance with "soft law" norms.

The second significant conclusion entails the emergence of a new source of law in practice - rules of conduct that are binding for all individuals acting within specific digital platforms or virtual realms. These rules are established by novel entities - the rights-holders of games, proprietors of digital platforms - and extend to all individuals operating within these platforms, irrespective of their citizenship or physical location. Thus, there is a fundamental transformation of the previously deemed immutable paradigm, in line with which law consisted of behavioral rules created or sanctioned by states (or their unions). Law now encompasses behavioral rules specifically devised and formulated by extraterritorial entities. This form of law, referred to as "soft law," does not inherently rely on enforcement capabilities from states; rather, it is based on voluntary recognition and presumed consent to the rules by players, users of digital platforms, and services. Nevertheless, these rules begin to exert influence beyond the digital realm, extending into the real world. Furthermore, these norms of "soft law" are starting to be acknowledged and protected by courts (including those in the Russian Federation), alongside rules established by the state (conventional understanding of law). This is an extremely significant development that alters the approach to law and its state protection. Attentive consideration should be directed toward its evolution and the transformation of its state-based safeguarding.

Moreover, new means of ensuring compliance with the norms of "soft law" are emerging. For instance, in certain gaming communities, an extremely "toxic" gaming

culture can exist, wherein players may engage in offensive, demeaning, and disruptive behavior towards others in the virtual world's chat environments. In such cases, it is undeniable that actions in the virtual realm begin to manifest in the real world, causing, among other things, emotional harm. Given this scenario, it is both reasonable and admissible for the rights holder to intervene. The rightsholder could assume the responsibility of ensuring the observance of rights and lawful interests of other players, including implementing measures against the violator through contractual mechanisms.

Lastly, it is crucial to highlight the fundamental distinction of this new method of legal development from the traditional approach. Traditionally, the emergence of legal norms is a result of already manifested problems, clashes of various interests, and conflicts. Consequently, the law often reacts "belatedly" to societal changes, struggling to keep pace with them. This "retrospective" response of the state, which formulates legal norms in reaction to established conflicts between divergent interests, does not always guarantee a balanced character of the norms.

In contrast, the norms of "soft law" generated by digital platforms are inherently designed. This signifies that during their creation, it is imperative to anticipate, project, and calculate the hypothetically possible consequences and clashes of interests. There is a pressing need to formulate these rules in a manner that allows them to be adhered to by individuals residing in different territories, within distinct states, and belonging to various cultures. Consequently, this demands a recourse to the most fundamental notions of justice that underlie our interactions with fellow individuals.

Our projection suggests that under these circumstances, a fundamentally new role in the division of labor will emerge – that of the designer of "soft law" norms. Individuals poised to assume this role could possess not only expertise in jurisprudence and digital technologies but also a deep understanding of ethics, philosophy, anthropology, and sociology. They would comprehend the role and function of law, possess the capability to foresee potential risks, "balance" diverse interests, and construct comprehensible and unambiguously interpretable rules based on these considerations.

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