

EVIDENCE EXCHANGE

HOW ARE VIDEO GAMES AND GAMBLING CONVERGING?

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JANUARY, 2019

In the past five years we have seen digital games and gambling shifting closer together than ever before. Although gambling per se has been available on digital platforms for several decades now, even the most video-game-like gambling experiences—such as the poker site PKR, which included game-like humanoid “avatars” for each player—rarely achieved much success. However, more recently a number of very new phenomena have emerged, and become highly successful, which blur video games and gambling in ways not before seen. Specifically, we are seeing video games increasingly shift to using gambling systems in a number of ways, while gambling systems are developing tropes of video games to appeal to new demographics. These are important new shifts for understanding the contemporary gambling landscape, and in this document we seek to outline several of the key ways this is taking place, and why they should be of interest to scholars, policymakers, and the public with an interest in the cutting-edge state of digital gambling.

WHY DOES THIS MATTER?

These topics matter for a number of reasons. First, what we are witnessing is the emergence of a new gambling audience - one that appears to be typically younger as adolescents are increasingly exposed to online gambling through video game play. ‘Loot boxes’, ‘skin’, and ‘esports betting’, ‘daily fantasy sports’, and ‘live-streaming’ are all new practices that in various ways blur the boundaries between video game play and gambling. It is suggested that 54% of 11-16 years olds are now aware that they can pay money to gamble for in-game items, and that 31% have participated with this practice in some way.¹ This indicates a shift in traditional gambling communities as more young people become aware of gambling and betting regularly through video game play.

Secondly, an important change has taken place within the video games industry that contextualizes these new gambling practices; most notably, the industry has moved from an ‘off-the-shelf’ game sales model, where the consumer purchases a game for a set price (e.g.,

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\$50), to a 'free-to-play' service model, where the consumer acquires the game for free but must pay to unlock content through microtransactions. One major appeal of this new model is that companies can create additional assets cheaply (e.g., skins, items, dance moves), and then monetize these through microtransactions or subscription fees. The scale of this new funding model cannot be understated: last year, Activision-Blizzard, publisher of popular online video games such as *Call of Duty* and *Overwatch*,² generated \$7.16bn in revenue through microtransactions. Similarly, Epic Games' *Fortnite* is currently generating \$318M a month, from 125 million players worldwide, through microtransactions.³ Many microtransactions entail a gambling element, placing the wagering of real-world money at the core of these games.

Thirdly, the blurring of gambling and video game play is affecting how video game communities perceive skill and success. The option to now 'pay-to-win'—that is, to purchase powerful in-game items, or 'boosts' to experience or survivability—has had the effect of shifting understandings of meritocracy within video game culture. Historically, video game culture has been built on an assumption that all games are an equal playing field and that skill, through practice and strategic thinking, is what determines success. The introduction of a 'pay-to-win' mechanic is seen to undermine this ethic, and players typically speak-out against video game publishers who generate revenue in this way. Paying for power-ups may be considered amateurish and a greedy attempt by publishers to cash-in on player skill.

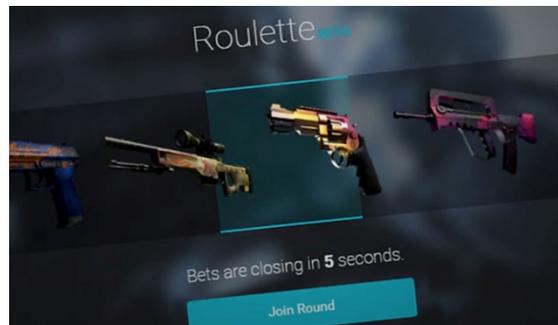
Finally, these are important to explore precisely because there is a very little data on the relationship between video game play and gambling. The two relevant academic disciplines—gambling studies and game studies—have, historically, been treated as quite separate and distinct. It is only recently, largely due to concerns about loot boxes and skin betting, that researchers have begun to consider the intersection between the two fields. This means that there are a lot of unanswered questions with regards to the similarities and differences between gambling and video games—differences which are often expressed by video game publishers when positioning their games as akin to trading card games, rather than casino-style games. It also means that there is very little data on how the video game player might be drawn into gambling, and how this should be licensed and regulated, particularly given the international reach of many video game titles and the different jurisdictions and legal definitions that operate around gambling as a 'game of chance'. It is therefore important to recognize that what makes video game gambling so unique is how closely integrated it is with new media ecosystems, such as ecommerce and live-streaming. As a result, new research will be needed to understand how video game players are drawn to and navigate many different platforms when participating in gambling today.

WHAT DOES IT ENTAIL?

We propose that there are currently four major ways in which video games and gambling are moving closer together than ever before. The first of these is the growth of “esports betting”; this takes two forms and involves wagering on the outcomes of competitive video game contests, either via digital items with real-world monetary value, or directly with real-world currency. The second of these is the development of new forms of game monetization known as “loot boxes”, where players spend real currency to purchase digital containers which yield an unknown set of items when opened. These can enhance a player’s social status or gameplay ability, but getting the desired item(s) is never certain. The third of these is the phenomenon of “daily fantasy sports”, a new kind of online gambling designed to resemble “sports management” video games in aesthetic, mechanical, and thematic ways, and encourage players who enjoy these video games (which use fake in-game money) to play daily fantasy sports (for real money). The fourth is how the live-streaming (live internet-enabled broadcast) of video game content has become increasingly “gamblified”, with the live broadcast of online poker, and the use of gambling techniques to elicit donations from viewers, defining these shifts. In all cases we see gambling forms becoming increasingly video-game-like, and video games increasingly utilizing gambling systems to secure profit, while independent creators of gaming content are engaging with gambling and the play of many games is entangled with existing gambling systems. We will now cover each of these in turn, looking at the kind of gaming-gambling manifesting in each, the kinds of players engaging in each one, and why we should be interested in them.

ESPORTS BETTING

“Esports” entails the professionalized competitive play of video games. In 2017 over \$100M was given out to the world’s most skilled game players,⁴ in games including *League of Legends*, *Dota II*, *Counter-Strike: Global Offensive*, *StarCraft II*, *Super Smash Brothers Melee*, *Hearthstone*, and many others. The largest prize pools can be over one million dollars, and these competitions are watched by approximately 100 million people. An even larger number of people play the range of games that possess these sorts of competitive communities, and new esports games are constantly being released (while older ones fade into obscurity). Although competitive gaming has been around for several decades, it is only in the past ten years that this scale of tournaments and competitive rankings has emerged; and alongside it two



Screenshot of a skin gambling service for *Counter-Strike: Global Offensive*, Valve Corporation. © 2018 ITwatch.dk. Retrieved from <https://itwatch.dk/ITNyt/Brancher/tele/article10282602.ece>

distinctive new forms of gambling have also been developed. One of these is “internal” to these video games, which is known as “skin betting”, and the other is “external” to these games, and requires the presence of external agencies and organizations in order to be played. In both cases we see many players coming to regard gambling as an acceptable and integrated activity that surrounds and intersects with their play of competitive video games, which has never been the case in any significant sense until recently.

“INTERNAL” (SKIN BETTING)

Gambling on esports games takes place in part through the wagering of “skins”. These are virtual images which change some element of a player’s cosmetic experience within the game: for example, how an item of their clothing looks, or how a weapon looks, or the broader overall colour palette their character uses. Although these sorts of visual changes have been popular in games for decades, recently “skins” have become distinct digital items which one can trade between players, and in many cases, even “cash out” for a real world value (the corollary to this, of course, is that players can also directly purchase skins for a fee). Although most skins are relatively low in value, being worth perhaps several dollars at most, the most expensive skin ever sold was worth approximately \$50,000, and many other very rare and valuable skins can regularly fetch three or even four figure prices. Skin *gambling*, specifically, entails generally the use of third-party grey-market websites or platforms through which one’s skins can be wagered on virtual games such as blackjack, roulette, or craps, and skins are then won or lost (or traded between people) depending on the outcomes of these games. Many skins can be “cashed out”, leading to clear real-world value for the skins being wagered: some players claim to have won or lost tens of thousands of dollars gambling on competitive gaming “skins”. The close integration of this kind of gambling with competitive games, meanwhile, makes it trivial for many players to shift from earning and using skins in-game to wagering them on these sites. With skins being digital items which can be easily bought, it is easy to consider skins as akin to “chips” in this regard—of the sort found in many casino table games—where players utilize skins to place bets and cash out at the end of their play. Esports itself is thought to be worth somewhere in the area of one billion USD at time of writing;⁵ skin betting, by contrast, might be worth as much as seven billion USD,⁶ dwarfing the industry of competitive gaming it relies upon. It is a major phenomenon where gaming and gambling are blurring, but given the grey-market nature of much of it, research is currently quite challenging to carry out.

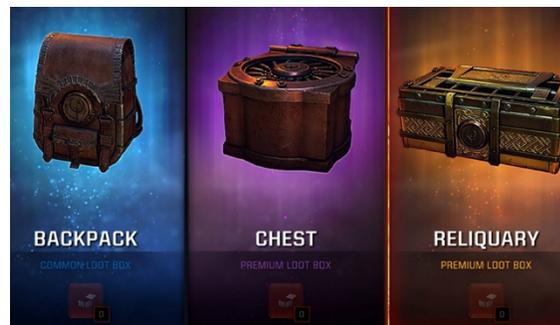
“EXTERNAL” (BETTING WEBSITES)

The role of gambling in esports and competitive games also now extends to betting on the outcomes of competitive gaming matches. Sports betting has long been offered on traditional sports matches, whether on the outcomes of specific games, something more detailed like the performances of individual players, or even more nuanced like the ownership of the ball in football or the particular difference in points between two teams. In recent years, however, a

number of agencies and bodies offering sports betting opportunities have begun to expand their portfolios into offering bets on the highest levels of esports competitions. In many cases these bets are comparable to traditional sports—sometimes known in the esports context as “meatsports”—but due to the inherent data richness of esports, these bets can potentially be far more focused and precise, such as “How much damage will be dealt by Player 3?” or “How much gold will Player 4 collect?”, which can be measured exactly and used to base wagering on. Compared to skin betting, this is only a small gambling practice, but one which is expanding, with more players engaging with esports betting and more sites and companies beginning to position it as part of their offerings. Much like skin betting, using betting websites to wager on esports matches seems to be primarily engaged in by young people, especially those who do not necessarily belong to more traditional or expected gambling demographics; in turn, this is changing the act of spectatorship for many, with their leisure-time viewing coming to also possess a monetized, financial component. It is also raising ongoing debates about whether gambling companies should be allowed to sponsor esports tournaments as in traditional sports events, and what precisely esports is understood as being (more akin to gaming, or more akin to sports?). Esports betting of this sort is also an understudied area of enquiry, with only a little work directly examining this especially new kind of sports or “event” betting.

LOOT BOXES

A loot box is an in-game item purchase consisting of a virtual ‘box’ (or ‘crate’ or ‘chest’) that rewards in-game items to players based on mechanics of chance and probability. It is similar to ‘gacha’ games, popular in Japan, which reward in-game items to players, of differing levels of rarity, through a paid lottery-draw system.⁷ Loot boxes too are purchased with real money to obtain a chance at receiving a random selection of virtual items of differing levels of rarity. Like gacha games, the low probability of obtaining a rare item from a loot box means that players will have to purchase an indeterminable number of them to obtain a desired item. As such, loot boxes share similarities with gambling slot machines, as no player skill is needed to open the loot box (a button press or mouse click) nor to receive the randomly determined prize. Loot boxes do not meet some definitions of gambling because paying for them is not considered to be a financial ‘loss’—players make the purchase of loot boxes using virtual currency, which they buy for real money—nor are the virtual items inside considered ‘something of value’⁸, despite third-party websites allowing players to bet and trade these virtual items for real money.



Screenshot of loot box options in *Quake Champions*, Bethesda Softworks. © 2018 Eurogamer.net. Retrieved from <https://playstation-online.info/wp-content/uploads/2018/11/2010544-800x445.jpg>

Is it also important to understand the economic context in which this game design mechanic has become popular. Loot boxes are increasingly popular in online social games and major video titles, including esports titles. Here, loot boxes function as a *microtransaction*; a term that applies to small financial transactions that happen within digital games and apps. These transactions are typically around \$10 and often involve the sale of an in-game (or in-app) virtual good or digital content. Users typically purchase these virtual goods by sharing their credit card information with the game (or app), which can then be used to acquire goods directly or purchase virtual currency that can be used to acquire content (e.g., loot boxes).

This model was first noted in the mobile gaming market with the rise of “free-to-play” games such as *Candy Crush Saga*. In these the initial acquisition of the game is entirely free, but revenue is generated (billions of dollars, in the case of *Candy Crush*)⁹ through the deployment of microtransactions made appealing to players. More recently, console and PC developers have also started to design their titles to use the same sorts of techniques, and as such tap into the seemingly vast market of potential profit for games that use microtransaction methods along with a minimal or zero up-front cost. For example, *League of Legends* by developer Riot Games costs nothing to play, but generated two billion USD in revenue in 2017 through its microtransactions.¹⁰ Similarly, the game *Fortnite* is currently making several hundred million per month through microtransactions and the sale of in-game currency and items.¹¹ Success in this market relies on creating lock-in – dependency on the game developers – for consumers through encouraging the purchase of items that “gate” content and prevent players from advancing, and must thus be continually unlocked to access what the game has to offer. Loot boxes operate in a similar way, except they add an element of chance to the process of purchasing and acquiring (or not) the desired in-game items. For example, in 2017, there was a notable controversy around Electronic Arts’ game *Star Wars II: Battlefront*. Players noted that some of the weapons, characters, and ‘star cards’—class and character-specific buffs which could vastly change the gameplay experience and drive a lot of a player’s performance in the game—were only attainable through loot boxes, purchased with premium in-game currency. Given the seemingly random nature of the loot box system, first players, then gambling regulators, complained that the company was encouraging gambling by gating content through a series gacha microtransactions. Loot boxes have also been used in a wide range of other major titles, and are now well-established as a leading, and highly controversial, method of integrating video games and gambling.

DAILY FANTASY SPORTS

The third intersection between video games and gambling—the only in this list which is a form of gambling drawing on video games, rather than better understood as a video game drawing upon gambling—is the practice of daily fantasy sports. Emerging from a loophole in the UIGEA which was instrumental in closing down the major online poker sites in the USA after “Black Friday” in 2011, DFS platforms require players to construct “fantasy” teams of real-world athletes in a team, and players then win or lose money based on the performances of these athletes in sporting competitions. Although on one level they represent a more detailed version of existing sports betting regimes, on another they are very much designed to emulate “sports management” video games in three distinct ways: the aesthetic, the mechanical, and the thematic. Each of these works alongside the two other factors to encourage video game players of a particular sort into the play of daily fantasy sports, and to sell a particular kind of fantasy to these platforms’ users.

In the first case, the visual design of DFS platforms is strikingly comparable to that of the “sports management” genre of video game. In sports management games the player is faced with an overwhelming number of statistics, facts and figures, information and updates on players and the sporting contests they took part in. Games of this sort have been scathingly called “spreadsheet simulators” because the manipulation and optimal navigation of those numbers is so key to their gameplay. In DFS platforms the same visual elements can be seen, and to the untrained eye a DFS platform looks little different from a sports management game, given their shared emphasis on stats and figures over the sort of “graphics” one normally sees within contemporary digital game experiences. This contributes to making these sites seem safe and familiar to many sports fans with an interest in digital gaming, by presenting a visual format that is already very familiar to the gamers being targeted.

In the second case, there are strong commonalities between what a player actually *does* in both sports management video games, and on daily fantasy sports platforms. In sports management games players perform the role of a manager of a sporting team, making decisions about who to hire and fire, who to position where in the team’s composition, what training regimes to follow, how to handle media engagements, and much else besides. This is a particular kind of managerial gameplay which we find mirrored again within DFS platforms, where the player constructs a team that they believe to be especially viable, and then pitches

POS	NAME	% DRAFT	GAME	SCORING	PPTS
QB	Cam Newton	9.0%	SF 27 CAR 46	4 PATD, 303 PAVIN, 1 INT, 1 200-yds	34.82
RB	Le'Veon Bell	12.1%	MAA 24 NE 31	1 RUCY, 123 RUCY, 1 100-yds	21.3
RB	David Johnson	14.7%	TB 7 ARI 40	45 RUCY, 88 RUCY, 3 REC	17.3
WR	Kelvin Benjamin	13.0%	SF 27 CAR 46	2 REC'D, 108 RUCY, 7 REC	32.4
WR	Travis Benjamin	15.0%	JAX 14 SD 38	2 REC'D, 83 RUCY, 4 REC	32.4
WR	Marvin Jones Jr.	8.8%	TEN 10 DET 15	118 RUCY, 8 REC, 1 100-yds	22.4
TE	Anthony Gates	3.0%	JAX 14 SD 38	1 REC'D, 15 RUCY, 3 REC	10.5
FLX	Stefon Duggs	5.4%	GB 14 MIN 17	1 REC'D, 182 RUCY, 3 REC	38.3

Screenshot of a daily fantasy sports scoreboard. © 2018 Celia Dweck. Retrieved from <https://rotogrinders.com/articles/rise-grind-monday-october-10th-1467228>

those teams against the teams of others. In one regard this is an even more “accurate” simulation of sports management than the video games, given that the performances of real players in live sporting competitions generate the outcomes of DFS competitions, while simulated versions of those players compete within sports management games. This commonality means that DFS platforms draw on a kind of digital gameplay very familiar to tens of millions of players around the world, and largely involves carrying out comparable play actions.

In the third case, there are ideological or thematic connections between sports management video games and daily fantasy sports gambling platforms. Specifically, both are designed to create the illusion of managing a team, a common fantasy for sports fans around the world. In a sports management game the rewards remain purely digital, whereas in DFS contexts there is real-world money to potentially be earned. In doing so these both tap into the common sense of knowledge and expertise sports fans have about their games of choice, and play on the perception of high-level knowledge of sports viewers to market the value of their gameplay experiences. They also both suggest that skill is a way to secure victory in these sorts of competitions. In sports management games this is certainly the case, with the games designed to reward the players who know the teams well, and who make the strongest strategic and tactical choices. Daily fantasy sports platforms repurpose this idea, suggesting that sports knowledge will lead to victory which now is worth money, even though only a very small portion of all DFS players are able to make a consistent profit from their play. This also serves to make DFS appear less like gambling than it otherwise might, for gambling and skill are often seen—incorrectly, as games like poker demonstrate—as being contrary to one another. The deployment of tropes regarding sporting knowledge is therefore a move designed to emphasize the skill and control that DFS platforms supposedly offer the player, and downplay the elements of gambling and chance. All three of these factors—the aesthetic, the mechanical, and the thematic—demonstrate how interwoven daily fantasy sports platforms are with the look, the play, and the concepts of sports management video games, and thus represent a third significant blurring of video games and gambling in recent years.

LIVE-STREAMING AND GAMBLING

We are also seeing gambling becoming increasingly central to the “live-streaming” of video game content. On the website and platform *Twitch.tv*, almost 200 million people each year are watching others live-broadcasting their video game play. Over two million people broadcast themselves gaming on the platform, and many tens of thousands make money from the practice;



Screenshot from a live-stream of a game of online poker broadcasted on the Twitch streaming service. © 2017 Jcarverpoker. Retrieved from <https://livestreamfails.com/post/2603>

at the apex of this ecosystem several thousand make full-time incomes through encouraging donations from viewers in exchange for their gaming content. Two elements of the platform in particular are important to consider with regard to gambling.

Firstly, online poker is now being broadcast on *Twitch* to major audiences of tens or even hundreds of thousands of people. The broadcast of poker as a whole is not a new phenomenon, with over a decade of television poker having conveyed the game's play into millions of households. However, these broadcasts have tended to be delayed by weeks or even months before making it onto television, and commentators have—generally—not been high-level professionals able to give the best possible analysis of the play. However, online poker is now being broadcast live—on a delay of just a few minutes—to large audiences, with the live nature of the platform allowing viewers to be “present” to a far greater extent than ever before. In turn, the ability to talk to broadcasters on the *Twitch* platform enables viewers to talk directly to the player, ask them questions, get advice, discuss relevant plays, and therefore receive—through both viewing and conversing—potentially very high-level poker training. Ten years ago training at this level would have cost at least \$1,000 per hour, but now it is free, and massively distributed to large crowds. Some broadcasters host “home games” where viewers are invited to play along with the broadcaster in larger events, wagering their own money in a semi-private poker game alongside other fans of the streamer in question. Poker streamers even have an ongoing competition to make the most money in a single broadcast, with one player's winnings of \$450,000 of real money in a single session currently at the top of this list. This is now by far the primary kind of gambling broadcast being live-streamed to large audiences, and a method by which gambling and gaming communities are increasingly coming to overlap; in turn, the broadcast of poker gambling is being transformed by a site primarily used for video game streaming.

Secondly, lots of *Twitch* streamers—whether or not they broadcast gambling-related content, and indeed, most do not—have discovered the effectiveness of gambling-like systems to encourage their viewers to donate more money to them. Becoming a financially successful streamer on *Twitch* requires a streamer to find ways to encourage their viewers to give them money in exchange for what is, in essence, a free service. There are many ways to achieve this¹² but several of them, used by tens of thousands of broadcasters who reach a collective audience well into the millions, are gambling-based in nature. One example of this is the deployment by many streamers of custom private “lotteries”, where they encourage viewers to donate in exchange for a chance to win some kind of significant prize, such as a games console. The legality of such behaviour is questionable, but the opportunity for a prize has proven to be a highly effective way to encourage donations from loyal viewers. In turn, many streamers also add a minimal element of randomness to the rewards they give viewers for standard rewards. On many streamers a donation is rewarded with a sound or a graphic which viewers eagerly seek, but enterprising streamers have added a degree of randomness to this, with the little animated reward only triggering (for instance) one in five times. A viewer who

donates, and does not get the reward due to the randomness of the system, often then starts donating further amounts of money in pursuit of the desired reward. In this way a very simple psychological trick—with real-world money involved—is being experienced by millions of gamers for the first time. Through both the broadcast of gambling and the gambification of live-streaming monetization, gambling is being experienced by an increasing percentage of the video gaming community.

WHAT DOES THE FUTURE LOOK LIKE?

There are two important considerations when thinking about the future of video game gambling. Firstly, licensing and regulation; and secondly, further changes in video game monetization practices.

In the first case, the most recent development is that 15 gambling regulators from Europe, including signatories from the UK, France, Ireland, Spain, and one from Washington State, USA have announced that they will ‘address the risks created by the blurring of online gaming and gambling’. Their key focus is on challenging unlicensed third-party websites that facilitate illegal gambling by linking to popular video games. As highlighted above, skin betting sites allow users to buy and sell in-game items for real money, and to bet skins also. The regulators have stated that game publishers must ensure that the features within games and platforms, including loot boxes, do not constitute gambling under national laws, and that children and parents need to be made more aware of the risks posed by online gambling through these microtransactions. This movement towards better governance is having an effect on some video game publishers. Blizzard, Valve, and 2K Games have all elected to disable loot boxes in countries where gambling authorities have threatened legal action and are in discussions about licensing future activity. Not all publishers agree. Electronic Arts is currently under criminal investigation by the Belgian Gambling Commission for failing to restrict the sale of FUT packs in FIFA. Any future ruling(s) about whether the sale of these packs constitutes gambling will give much needed clarity to publishers, players, and parents.

Equally, as mobile gaming rises, and the market share for traditional major game companies declines, there is an ongoing incentive for publishers to forego ethical concerns in the name of competition and revenue generation. The ongoing player backlash against ‘power loot boxes’ as seen in *Star Wars: Battlefront II* has created a negative trend towards ‘pay-to-win’ mechanics, but this should mean that a line will be drawn at cosmetic enhancements; most players do not have a problem with cosmetic items. Games like *Destiny* and *Overwatch* have been generating millions in microtransactions without player complaints. As such, loot boxes are here to stay; there is too much revenue to be generated from them in the face of extensive market competition. Indeed, companies are currently experimenting with new models that amalgamate different types of microtransactions—loot boxes, weapon skins, character skins,

XP boosts—with subscription models that allow players to access additional ‘tiers’ of rewards. Epic Games’ *Fortnite* uses a ‘battle pass’ model that monetizes content in this manner, and it currently grosses the biggest revenue per month of any ‘free-to-play’ game; a huge accomplishment given its competition (*League of Legends*, *Pokemon GO*, *Clash of Clans*). As such, while the four phenomena we have outlined here are leading the way, they are in turn being constantly iterated on, improved, and in some places replaced by new systems. The ongoing convergence between video games and gambling is evolving rapidly, and what we present here may soon become only the tip of the iceberg.

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