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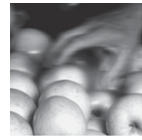
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Epic, Steam, and the role of skin-betting in game (platform) economies

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Abstract

In this article, we discuss how and why virtual items known as “skins” travel beyond games and into wider online ecosystems where they become tokens in gambling games. We argue that betting with skins purchased on the Steam platform contributes to the wider platform economy. We do this on the basis of a comparative analysis of *Counter-Strike: Global Offensive* and *Fortnite: Battle Royale* as well as the two platforms on which these games exist. First, we discuss the notion of platform economies in relation to the two cases in question and how this positions the consumer as “prosumer” and “micro-entrepreneur.” Second, we introduce our analytical framework related to game economies and skins as commodities and currencies. On the basis of this, we compare the ways skins are acquired in the two games and the degree to which they extend exist beyond the game. We argue that Epic retains a “skin-monopoly,” within the game, whereas Steam features a free “skin market” that transgresses the platform and turns the “prosumer” into a “micro-entrepreneur” and the “modder” into a “speculator.”

Keywords

Steam, skin-betting, market structure, platform economy, application programming interfaces, skins, gambling, video games

Introduction

Skins are cosmetic game items that are usually acquired by way of play or micro-transactions. Skins have become a key monetization method in the so-called free-to-play business models, and in games that allow player-trading, they can reach surprisingly high values of exchange. As skins start to gain value in this way, skin-betting is made possible

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as a new aspect of online game consumption. Players (including minors) may choose to use skins as “tokens” on various casino sites. This poses real challenges to gambling authorities and legislators. Indeed, acquiring, exchanging, gambling with, and speculating in skins have become a game in its own right and show clear similarities with traditional gambling.

The aim of this article is to analyze the role of skin-betting in platform economies. Valve, the company behind a platform called “Steam,” already makes a considerable profit on legal transactions, so why do they allow their platform to be used for illegal skin-betting as well? In what ways does this support Steam’s current business model and what are the implications for the consumers? In order to answer these questions, we will compare the interfaces and application programming interfaces (APIs) of the Steam platform and the Epic online store, another major player with a considerable investment in the skin economy. The comparison is relevant for several reasons. At the end of 2018, Epic games announced that they would open a regular game store offering developers more advantageous revenue splits than those offered by Steam (Sweeney, 2018). In this way, Epic seems to use the immense popularity of *Fortnite*¹ to leverage a platform that can successfully compete with Steam—a de facto monopoly on the Western PC game market for more than a decade. However, the specific strategies applied to establish and harness these platforms differ considerably, and these differences may yield important insights into the role of skins, player-driven economies, and skin-betting in the business models of the two platforms. Hence, we will argue that Epic uses a monopolistic strategy with a relatively traditional distinction between game provider/seller and game player/buyer, whereas Steam practices a free market strategy, including players as “micro-entrepreneurs” within the broader skin economy.

Moreover, we will argue that this free market strategy calls for alternative controls and regulation mechanisms of which skin-betting can be seen as one. In the coming section, we will introduce the notions of platforms and platform economies from the perspective of Steam’s historical development and Epic’s more recent aspirations and the changing roles of the consumers during this historical development. After this, we will introduce some key concepts from the literature on virtual economies that can be used to conceptualize and compare these differences. On the basis of these initial clarifications, we will conduct a comparative analysis of the “markets” supported by Steam’s and Epic’s game launchers and the underlying market structures they represent. Finally, we will discuss the wider implications of these strategies, most notably how skin-betting can be seen as an integrated part of Steam’s free market strategy and as an indication of wider platform economic ambitions.

From retail to platform: Steam and the Epic online store

Within recent years, the notion of platforms and platform economies has received increased attention in Internet studies and beyond (Plantin et al., 2018; Srnicek 2017; Van Dijck et al., 2018). Indeed, platforms as a primary principle of digital economic distribution and capitalization have replaced the “software as service” mantra introduced with Web 2.0 (O’Reilly 2007). The platform from this perspective is defined as a digital architecture designed to organize interactions between users (Van Dijck et al., 2018: 4),

and the associated business model consists of capturing and capitalizing on the values created by user interactions (Van Dijck et al., 2018: 10). The emergence of platform economies has been theorized in the field of game studies by Jöckel et al. (2008), Prato et al. (2014) and Nieborg (2015), among others, and represents a relevant perspective on the strategic role of platforms and platform ownership in the games business (Kerr, 2017).

Game platform ownership has historically been a key principle in the organization and distribution of power among various market actors (publishers, studios, retailers, etc.), and more recent developments in gaming platforms have turned players and their active contributions into another important source of profit in game platform economies. Steam's historical development from a software update client and digital rights management (DRM) tool to digital store to fully fledged platform represents one case in point (see Joseph, 2018). The line of gradual extensions bear witness to a strong platform strategy including the integration of user-generated content into the value chain (Jöckel et al., 2008) and extending the gaming service into an "infrastructural platform" connecting "complementors" with users (Van Dijck et al., 2018) in a broad range of domains. In other words, with the current version of Steam, Valve is to a lesser degree, in the business of making and selling games, and to a larger degree in the business of taxing transactions between sellers and buyers on their platform.

For more than a decade, Steam has been a de facto monopoly in the Western PC game market. However, in late 2018, Epic Games took up the challenge and announced that they would turn their game launcher into a competing marketplace, opening their storefront to other publishers. It is most likely the booming player base of *Fortnite* that has given Epic the means to pursue such aims, and it has been backed up with a number of additional initiatives, including the "Unreal Engine Marketplace" where players can buy and sell their own creations, and an ongoing development of community features that allow players to connect above the level of the individual game. As quite a few of these features are still on the drawing board, it is difficult to make any firm conclusions regarding the future strategies of Epic as compared to Steam. However, a few statements point in the direction of a more actively curated storefront and at the moment, the "Unreal Engine Marketplace" is limited to players' own creations and does not allow them to buy and sell skins obtained in the *Fortnite: Battle Royale* or *Save the World* PvE version. In our analysis, we will explain why this is hugely important.

Prosumers, micro-entrepreneurs, and (game) platform economies

The question of (game) platform economies is relevant to the field of consumer culture because it draws on player contributions in ways that turn gameplay activities into distinct forms of "prosumption." The notion of "prosumption" has a long history in consumer studies and beyond (Bruns, 2007; Ritzer, 2013; Ritzer and Jurgenson, 2010; Toffler and Alvin, 1980) and points to the complex relationship between processes of production and consumption in general (Ritzer, 2013) and digital media in particular (Bruns, 2007; Jenkins, 2006a, 2006b). Indeed, the concept has been used to describe the transformation

of media use in the age of digital media (Bruns, 2007; Jenkins, 2006a) where “user-generated content” becomes key to platform economies.

One key example is the context of “modding,” that is, player communities’ active contributions to commercial games. Such contributions range from minor items and additions to “total conversions” (Nieborg and Van der Graaf, 2008), with the majority of contributions in the modest end of this spectrum (Postigo, 2007). Research here considers the complex relationship between market and nonmarket actors in terms of the organization of modding communities (Nieborg and Van der Graaf, 2008) and the commercial value of mods (Banks, 2013; Joseph, 2018). Thus, Nieborg and Van der Graaf (2008) address certain modding teams’ *striking resemblance to the organization of the game industry’s production and marketing logic* (p. 182), while Joseph (2018) demonstrates how the transformation of modding into contract labor in the context of the *Skyrim* modding community on Steam reveals the antagonistic relationship between labor and capital (p. 703). Accordingly, “the complex coevolution of markets and nonmarkets” (Banks, 2013) involves an uneasy relationship between user-generated content on one hand and processes of commodification on the other, which is embedded in end user license agreement and game engine architectures (Banks, 2013; Nieborg and Van der Graaf, 2008) as well as in modding communities themselves (Banks, 2013; Joseph, 2018). However, Steam’s current platform strategy seems to dissolve this dichotomy by turning the players into economic actors per se. While mods at the outset are considered “common goods” that are not supposed to be sold or marketed in commercial terms (Joseph, 2018; Nieborg and Van der Graaf, 2008), players are *supposed* to engage in economic entrepreneurship within Steam’s new platform logic, that is, presumption is turned into a full-blown capitalist endeavor.

Accordingly, in this article, we will argue that skin-trading and skin-betting take presumption to a new level in that business models related to the acquisition and exchange of skins not only integrate players as content providers in the wider platform economy (Jöckel et al., 2008; Joseph, 2018; Postigo, 2007), they rather address players as micro-entrepreneurs (Van Dijck et al., 2018) who contribute to the general growth of the market through various types of strategic economic action. The key difference between Epic and Steam, as we will argue on the basis of our analysis, is that Epic seems to address their players as micro-entrepreneurs, on the basis of a traditional distinction between players and publishers, by inviting players to “become their own publishers,” that is, to take the step from player to publisher. In comparison, Steam seems to address their players as “market speculators” or “stockbrokers” and turn player-driven economies into a primary source of profit. Accordingly, the players contribute by taking an active part in a player-driven economy which, in various ways, is monetized by the platform that supports it.²

Games as economic systems and skins as a currency

Game economies have been studied from a range of perspectives, including their globally organized networks of production and distribution (Kerr, 2017), the intersection between game economies and wider platform economies (Nieborg, 2015), and player-driven

economies (Lehdonvirta and Castronova, 2014). In this article, we will apply the relatively classic concepts of markets and market regulation because our focus is on the way markets are enabled and constituted across individual games, platforms, and beyond. Thus, we will introduce a number of economic concepts that will be applied in our comparative analysis of *Counter-Strike: Global Offensive (CS: GO)*/Steam and *Fortnite*/Epic. The notion of “game economies” and “game markets” is by no means a new thing. In fact, the intricate prioritizing and micro-coordination of resources in real-time strategy, or the strategic grinding for experience points and gold in role-playing games, are clear examples of gameplay activities that derive more or less directly from the games as “economic systems,” that is, strategically designed constellations of resources and dependencies.

In his book, on synthetic worlds, Castronova (2008) demonstrates how digital games’ economic systems when introduced to online communities start behaving like actual economies that can be described with classic economic concepts, such as supply, demand, and fluctuation of prices. In fact, Castronova (2008) points out that the only major difference between game economies and “real” economies is the fact that scarcity in the context of digital games tends to be a designed phenomenon rather than a given physical condition. Castronova continues to argue that the border between “synthetic” and real economies is permeable and game economies tend to overlap with the surrounding economies. One clear example of this is the phenomenon of “gold farmers” in *World of Warcraft* (2004) grinding gold in the game to sell it for euros or dollars (Liboriussen, 2015). In the case of *World of Warcraft*, the publisher actively counteracts such practices with the threat of sanctions or the deletion of accounts. Yet, the gradual introduction of gameplay features supporting economic transactions between players (such as auction houses) bears witness to a growing awareness of game economies as an important aspect of the gameplay experience. Accordingly, with their book on virtual economies, Lehdonvirta and Castronova (2014) introduce a range of classic economic concepts as guidelines for the design of games’ economic systems. This includes the definition of virtual goods, supply and demand, market structures, externalities, and currencies.

For the purposes of this analysis, we will give a short introduction to the concept of market structures, secondary market trade, and various definitions of money, which are all important to the analysis of business strategies across the Steam and Epic platforms. In terms of “market structures,” this concept refers to the way the market is regulated or, more specifically, who is allowed to sell or buy goods at the market in question. Lehdonvirta and Castronova distinguish between eight different types of game market structures and a ‘nonmarket,’ listed in the table below (Table 1).

As the table shows, monopolies are market structures where only one actor, the publisher, is allowed to sell items. Conversely, monopsonies are market structures where the publisher is the only one that is allowed to buy items. In cases where the buying and selling of items is handled by users exclusively, we have an unregulated market, and in cases where the publisher participates as buyer, seller, or both, we have various types of price policies, such as price ceiling, price floor, or price window. For instance, the introduction of auction houses in *World of Warcraft* marks a change toward a price window

Table I. Table of market structures.

		Can buy items		
		Publisher	User	Both
Can sell items	Publisher	No market	Monopoly	Monopoly
	User	Monopsony	Unregulated	Price floor
	Both	Monopsony	Price ceiling	Price window

(Lehdonvirta and Castronova, 2014: 86)

strategy where users can buy and sell items among themselves but where the existence of buyer and seller non-player characters ensures an upper and a lower price limit.

These market structures are relatively simple to apply in individual game worlds, but as soon as we move above the level of the individual games, things become a little more complicated. For instance, players may buy their skins within a monopolistic in-game market and sell them elsewhere. In this case, secondary markets emerge, which are regulated in different ways, and which may or may not be directly supported by the game in question. There are pros and cons for supporting such secondary markets from the perspective of the individual platform. [Lehdonvirta and Castronova's \(2014: 244\)](#) key example is Amazon's opening of their market space to secondhand booksellers. On the one hand, this represents a risk because the trading of used books may "cannibalize" the existing business; on the other hand, it increases the total value of the market as the same book can be bought and sold on several occasions. In the case of Amazon, the emphasis seems to be on the latter. Similarly, the introduction of the "Steam Community Market" can be interpreted as a secondary market strategy with the aim of growing the total value of the market. Before we continue, however, we have to clarify one final concept: that of money and how money is constituted.

While it may seem common sense that national currencies represent "real money," while those exchanged in virtual game worlds represent "unreal money," this distinction is increasingly uncertain, not least since the advent of "crypto-currencies," such as "Bitcoin" and "Facebook Libra," started challenging the global system of national currencies upheld by national banks and policies ([Lehdonvirta and Castronova, 2014: 244](#)). This is because any item with the relevant properties may be attributed the status of money as soon as a sufficiently large group of people decide to conceive of it as such. In principle, game items can be transformed into any type of money if a game community starts treating it as such. Lehdonvirta and Castronova describe how plastic chairs became objects of exchange in the virtual world of *Habbo Hotel*. While this item was originally designed for the furnishing of virtual apartments, it gradually earned the status as money as it was used as a "monetary standard" of other items in the game. In the same manner, skins obtained in *CS: GO* may change status from collectibles and status objects into monetary standards. This characteristic of skins may be key to understanding the business strategy of Valve and how this is embedded into Steam's design.

Method

In the following analysis, we will apply the concepts of market structures, secondary market strategies, and skins as currencies in our comparative analysis of Steam and Epic. We will track the way skins can be acquired and exchanged across the chosen game titles and platforms and beyond to understand how the exchange of skins is part of the wider economies of the two platforms. In our analysis, we will focus on the “affordances” (Gibson, 1979; Hutchby, 2001; Norman, 2013; Shaw, 2017) of the games and platforms in question, that is, how these technologies “render available (...) different ranges of uses and subject those possible uses to different ranges of effects and constraints” (Hutchby, 2001: 447). In other words, our focus is not on players’ interpretations or actual practices, it is on the range of possible actions enabled by games and platforms for exchanging, trading, and betting with skins and the more general market strategy this may reflect. More specifically, we will conduct an analysis of the games and platforms as programmed systems with the aim of mapping the market structures they reflect. Moreover, we will compare the APIs of the two platforms in order to understand how these markets extend beyond the level of the platform. The critical analysis of software and programmed systems has received a great deal of attention (Beer, 2017; Gillespie, 2014; Kitchin, 2017; Rieder, 2017) due to the increasingly important role programmed systems play in the configuration of communication and interaction processes in society. Critical analyses can be conducted at a range of levels going from the detailed mapping of individual algorithms to ethnographic studies of the way algorithms “do work in the world” (Kitchin, 2017). For instance, Nieborg and Poell (2018) analyze the way platform infrastructures shape strategies of user attraction, retention, and monetization in the domain of mobile gaming.

In a similar manner, we will analyze the way *CS: GO*’s and *Fortnite*’s micro-transaction-based business models are built into their respective platforms. Our key focus will be on the way economic transactions are constrained and enabled across game level, platform level, and beyond, and the characteristics of the markets that are constituted in this way. In the first section of the analysis, we will describe the way skins are acquired and exchanged in the game economies of *Fortnite: Battle Royale* and *Counter-Strike: Global Offensive*—the “flagship titles” of Epic and Valve, respectively. These are the contexts where skins “originate” and gain their initial (monetary) status. However, depending on the platform design, skins may continue to live an economic life in the markets of the platforms in which they are embedded, as well as beyond these platforms. Accordingly, we will describe the components of the desktop clients in order to identify the types of market structures they afford, and how skin-trading is or is not integrated into these. Finally, we will compare the APIs offered to third-party developers working at or beyond the platforms with a special focus on the economic transactions they afford and how this does or does not extend the markets beyond the level of the individual game and platform. As pointed out by Helmond (2015), the very logic of platforms resides in the way they connect to the wider Internet by way of their API.

The role of skins in *Fortnite: Battle Royale* and *Counter-Strike: Global Offensive*

CS: GO and *Fortnite* are games that both use skins as a way to generate income. Aesthetically, skins play similar roles in the two games: they are cosmetic items that do not impact gameplay. *CS: GO* and *Fortnite* are both free-to-play games and generate income through the sale of these cosmetic items in a variety of ways. In *Fortnite*, skins can only be obtained from the developer, Epic. Skins can either be bought directly from the store or be earned through playing the game, or by a combination known as the “Battle Pass” where players pay to be eligible to earn skins as they play.

The Battle Pass can be best understood as a reward structure that is placed on top of the game. You do not need to buy a Battle Pass in order to play the game, and it does not affect your chances of winning, but it does add an extra layer of challenge. Every time a player finishes a round of *Fortnite*, they are awarded a certain amount of experience points and Battle Stars, and these allow the player to progress from level 1 to level 100 of the Battle Pass. Players can also choose to pay to advance through the levels of the Battle Pass. Unlike “loot boxes” or any such opaque random reward mechanisms (see Nielsen and Grabarczyk, 2019), the Battle Pass is fully transparent. You know before you buy it what you can or will get (depending on whether you buy it before or after you reach level 100). In *Fortnite*, players cannot sell or trade their skins, so they only have use value as opposed to exchange value. However, some players try to sell entire accounts (against the terms of service) as a way to get around what the software allows them to do. *Fortnite* skins exist only in the game and cannot be accessed through Epic Launcher or Epic Store.

This is distinct from *CS: GO* where players are randomly rewarded with skins or containers (that contain skins) after finishing matches. Containers come in different varieties and require corresponding keys to open. These keys need to be purchased using fiat currency. For example, a “Prisma Case” can be purchased from the market starting at €0.35, while the prices for the corresponding “Prisma Case key” start at €2.45. At the time of writing, the skins that one might get from this container are offered on the market, ranging in price from under €0.20 at the lowest tier, to over €800 for the second-highest tier, to thousands of euros for the highest-tier skins. Just as certain skins are only available for a limited time in *Fortnite*, different containers are available at different times in *CS: GO* and often are connected to events, such as eSports tournaments. Skins in *CS: GO* are not isolated inside the game as in the case of *Fortnite*. In *CS: GO*, skins exist both in the inventory in the game and in the inventory of the Steam platform. In the game, skins only have cosmetic use value, but on Steam, they have trade and selling value. In this sense, the skins become a part of the broader Steam economy where trading skins from other games are also bought, sold, and traded. This is a significant difference from *Fortnite*, where the skins only exist in the game. In other words, skins in both games have use value, but only *CS: GO* skins have exchange value and thus function as money.

In the next section, we describe the components making up the two client interfaces to map the different types of “markets” or contexts of economic exchange they enable, how players are framed as economic entrepreneurs within those contexts, and how this can be interpreted in extension of the skin-market strategies observed in the individual games.

Key components in the platform interface

An initial glance at the interfaces of the two platforms shows a set of quite comparable components. Both platforms feature a store, a library, a set of community features, and a personal page. However, the platforms differ considerably with regard to what is offered beneath these headlines. In the Steam client, the store offers a set of options for curation while the library is organized across a variety of content types offered on the Steam platform (i.e. games, audio, and video). The community features include discussions, workshop, market, and broadcast (streaming). Finally, the personal page offers different options for customization, an inventory, and the possibility of entering personal info as well as an overview of group affiliations. The most notable aspect of this interface is that market and development tools are placed under community features. For inspiration, the client offers examples of items created by other players. “Steamworks,” the development tool for professional partners, is not featured in the interface. By comparison, the Epic online store seems quite pared down, which is probably due to its relatively unfinished status. The store offers a variety of games as well as current offers, the library shows the player’s collection of games, the “friends” tab allows the player to add friends or import them from Steam, while the Unreal Engine tab leads to a few more options: a page about the engine; a page with tutorials, demos, and a download link; a marketplace where users can sell their creations; and a library where the user can see his or her projects.

Accordingly, while the Steam client organizes the marketplace and workshop under the “community headlines,” the Epic launcher organizes its marketplace under the Unreal Engine. As game platform economies, the two clients show interesting similarities and differences. The most important similarity is the division of economic transactions into two different contexts of trade: the “store” where more or less established studios sell their games to users, and the “markets” where users can participate as creators and traders of content. The stores of both clients build on the same business models as those of the App Store and Google Play, that is, the platforms connect app developers and app users and get a share of the sales (Müller et al., 2011). However, the stores differ with regard to the size of the share (Steam 30%; Epic 12%) as well as the level of curation.

As regards, the marketplaces of the two clients, they differ in interesting ways. With the “Unreal Engine 4 Marketplace,” Epic invites players to “become their own publishers” by creating and selling their own assets. This may very likely be part of a more general strategy to accommodate (and benefit from) a community of modders (Banks, 2013; Nieborg and van der Graaf, 2008). In comparison, Steam has split up these activities into “community workshop” and “community market,” which frame players and their contributions in quite different ways. In the “community workshop,” players can create items for different game titles, and this may or may not involve direct economic transactions. For example, the *CS: GO* workshop allows workshop items to be sold in the game and pays the creator a 25% royalty, notably after an extensive process of curation. While “Unreal Engine 4 Marketplace” allows players to put their assets directly on sale in the marketplace, the Steam workshop only allows item sales in some cases, and in these cases,

sales will take place through the game for which the item has been created. By comparison, “Steam Community Market” allows players to buy and sell skins from key game titles such as *CS: GO*, *PUBG*, *Team Fortress 2*, and *DotA 2*. A number of bindings are placed on the users if they want to use this market, including that the user must have bought something on the Steam platform within the past year in order to be able to make any trades, and the users are not able to sell their own items directly on the community market. In the terminology of [Lehdonvirta and Castronova \(2014\)](#), the “Steam Community Market” can be interpreted as a secondary market for the trading of skins and trading cards that are earned through playing the different games on the platform and does not have a counterpart in the Epic client.

In sum, the designs of both clients clearly indicate strategies for integrating user-generated content on their platforms and extend this aspect of player contributions to include various possibilities of economic transactions. Both platforms encourage users to become “micro-entrepreneurs” ([Van Dijck et al., 2018](#)) within the overall platform economy. However, while the economic entrepreneurship afforded by the Epic launcher is closely tied up with content creation on the Steam engine: “*Become a publisher on the Unreal Engine 4 Marketplace*” (Banner, Epic Games, 2018), the “Steam Community Market” revolves around skin-trading. On Steam, players can exchange recirculated items from established game titles rather than creating and selling their own. In the following section, we would like to focus on the close connection between skin-trading and economic entrepreneurship on Steam, and how this is enabled beyond the level of the platform by way of the Web API.

Web APIs and the extension of markets to the wider web

As we pointed out in our introduction, a proper analysis of skin economies will have to move beyond the level of games and platforms as the economic rationale of modern platform economies resides in the wider “ecosystem of platforms” ([Van Dijck, 2013](#)). For this reason, one final component will have to be subjected to systematic analysis: the APIs that allow third-party developers to integrate specific aspects of the two platforms in their game (or on third-party websites). Put simply, the API is that aspect of the software development kit (SDK) that enables interaction between different software systems, such as systems developed by third parties. An API enables such interaction by defining a set of functions or procedures with which a system can access features or data in another system. In the context of this analysis, we are particularly interested in those functions or procedures that have to do with economic transactions. Epic’s API is embedded into the SDK named “online services” ([Epic Online Services Documentation, n.d.](#)) and allows third-party developers to develop specifically to the Epic platform. These services cover a range of different interfaces, including data about players’ presence, friends, metrics, user info, and so on. One of these interfaces, the Ecom interface, relates specifically to economic transactions and commerce on the platform. However, a closer look at this API component reveals that it is limited to the Epic games store (a publishers’ market) and primarily deals

with the handling of content access (digital rights management) and economic transactions between game providers and players.

In comparison, Steam's Web API (<https://partner.steamgames.com/doc/webapi>)³ allows third-party developers to draw on Steam's data and services beyond the platform, that is, on third-party websites. This includes a range of services, such as access to player stats, inventories, broadcast services, and server status. Several of these services refer to economic transactions. The "IEconMarketService interface" gives access to the "Steam Community Market," including access to the players' possessions. The "IEconService interface" gives access to players' trade histories and trade offers. The "IGameinventory" and "ISteamEconomy" are different ways of accessing a number of Steam economy features (asset class info, asset prices, and market prices) and enable trade (CanTrade, starttrade and FinalizeAssetTransaction). Some of these functions require a secure server and some require a publisher key. In this way, with a number of web calls, third-party developers can access players' possessions, trading histories as well as sale statistics and values of specific items and, most importantly, facilitate actual exchanges in the context of their own website, be it a skin-trading site, an eSport-betting site, or a casino. The differences are summed up in the table below (Table 2).

As the table shows, Steam and Epic handle their markets in quite different ways. The skin economy of *Fortnite* is kept tightly within the context of the game, while the Steam platform facilitates a "double transgression" where skins from specific game titles can be exchanged between players on the Steam Community Market and beyond. Or, put differently, Epic retains a monopoly, while Valve facilitates an unregulated secondary skin market within and beyond their platform. In the following section, we will discuss in more detail what might be the economic incentives for this.

Table 2. Comparison of Steam and Epic across game, platform, and beyond.

	Steam	Epic
Game level	CS: GO: Drops and loot boxes Random reward mechanisms and trade	<i>Fortnite</i> : Battle Pass and in-game item shop Direct purchase and unlocking
Platform level	Store: "Publishers' market" Workshop: Players may create and share/sell their own assets (depending on the game in question) Market: Free trade of "marketable skins" from games	Store: "Publishers' market" Marketplace: Players create and share/sell their own assets Buying/selling skins from games is not enabled
Beyond platform	API gives third-party developers access to store, workshop, and market	API is limited to Epic game store

Note: API: application programming interfaces.

Discussion: The platform economic incentives of skin-betting

In the previous three sections, we have conducted a comparative analysis of the “skin economies” of *Fortnite* and *CS: GO* across game level, platform level, and beyond. The inclusion of the platform components and the APIs in our analysis has allowed us to understand the specific role of skins in the business models of the two games beyond the level of game mechanics. Thus, while the specific game mechanics involved in the acquisition of skins differ considerably across the two game titles, the wider implications of these differences become clear when the analytical scope is widened to include the life of skins beyond the level of the individual game. *Fortnite*’s intricate Battle Pass system, in combination with the in-game item shop, puts primary emphasis on micropayments within the game yet does not extend the exchange of skins beyond the level of the game. This can be defined as a “skin-monopoly” aimed at pushing the amount and relative size of micropayments to the highest level possible within the game.

In comparison, *CS: GO*’s heavy emphasis on random reward mechanisms in the form of drops and loot boxes puts less focus on price differentiation (crate and keys are priced somewhat lower than skins in *Fortnite*), instead, the acquired skins are stored directly in the players’ Steam inventory and made marketable on the “Steam Community Market.” Moreover, the API opens this market to third-party developers, including publishers developing games for the Steam platform and developers turning skin-trade and skin-betting into a game in its own right. While Epic also features a players’ market in the form of the “Unreal Engine 4 Market,” this only involves players’ own assets and mods. It is kept effectively separate from *Fortnite* skins and items from other games sold on the Epic storefront. In short, Valve features a secondary market strategy that extends beyond the game as well as the platform.

As [Lehdonvirta and Castronova \(2014\)](#) point out, the secondary market strategy may on the one hand cannibalize existing sales, yet it may, on the other hand, grow the economic value of the entire market as the “lifetime value” of the individual skin rises when it can be bought and sold on several occasions. The latter effectively seems to be the case regarding *Counter-Strike* and the Steam platform. Each time players buy and sell skins on the Steam Community Market, Valve earns a fee, making up for the somewhat less sophisticated price differentiation at the initial point of sale. However, what is the specific role of skin-betting from this point of view? Is skin-betting a “negative externality,” that is, an unfortunate by-product of Valve’s secondary market strategy? Or does it actually support the economic rationale behind Valve’s skin-market strategy?

From the game-economic perspective of [Lehdonvirta and Castronova \(2014\)](#), we see at least three possible answers to this: skin-betting may represent another secondary market; skin-betting may serve as a market regulation strategy; and skin-betting may be part of a more general attempt at constructing a virtual currency. As regards the first possible explanation, skin-betting may serve the same purposes as the skin community market, that is, to grow the wider skin economy. When players buy and sell skins on the “Steam Community Market” they have to pay a fee, and if we assume that third-party skin-betting sites will have to do the same thing, given that they use the same system, Valve does indeed profit directly from players’ activities on third-party skin-betting sites.

In terms of the second possible explanation, skin-betting may serve as a control mechanism by draining the markets from skins in order to sustain demand and keep prices high. Thus, while Valve gives away a considerable amount of control over skin prices by facilitating an unregulated secondary market, skin-betting may act as an indirect “drain,” serving to avoid skin inflation. Whether this is the case depends on what actually happens to the skins players lose on the skin-betting sites, which is beyond the scope of this article to answer. Yet, even if skins are re-listed on the community market, players will have to pay a fee to get them back.

Finally, the possible economic incentives of Valve may relate to skins as a (semi) currency. By exchanging skins for real money and by using skins as token money on skin-betting sites, players continuously reconfirm the status of skins as a sort of commodity money, a gamer currency tied to the Steam platform. The further above the level of the platform, this gamer currency extends, the stronger it is. Accordingly, the facilitation of skin-betting on a third party website can be said to support the use of skins as a currency with all the economic perspectives this entails. This situation has been observed in the case of Tencent, whose virtual currency grew to a level where it had to be regulated by the Chinese government (Lehdonvirta and Castronova, 2014: 26) and, obviously, the business and innovation perspectives associated with controlling a (semi)currency cannot be underestimated. Obviously, additional research will have to be conducted in order to test out the relative strength of these explanations. This research presupposes quite inaccessible knowledge, such as how the internal decision processes in the Valve corporation take place as well as how the business models of third-party skin-betting sites work in practice. The relative difficulty of such endeavors should not keep us from embarking on them. Yet, for now, it seems that the economic advantages of allowing skin-betting are greater than the potential risks it may involve, at least as long as authorities’ attempts at preventing skin-betting does not affect Valve or Steam in any direct way.

Conclusion

In this article, we have demonstrated how the game platform economies of Steam and Epic frame their users as micro-entrepreneurs. That is, users are turned into (tiny) economic actors in the overall economic systems of the two platforms. Moreover, we have shown how Epic and Steam differ in their way of implementing this strategy. While Epic deals with a relatively traditional distinction between users/players/buyers and producers/publishers/sellers by inviting users to take the step and “become their own publisher” in a market based on user-generated content, Valve seems to invest its efforts in the players as “brokers” or “speculators” in a skin market based on recirculation of skins from Steam-based games. Thus, the uneasy relationship between market- and nonmarket activities (as addressed in the research on modding and elsewhere (see Joseph, 2018)) is somewhat dissolved in Valve’s platform strategy as the players’ contributions consist of buying and selling items (skins) rather than creating them. Notably, this “skin-market strategy” builds on a specific configuration between the in-game and platform economy. While Epic separates the in-game economy of *Fortnite* from the economic transactions taking place

on the platform, Valve's strategy involves a direct integration between game and platform (and beyond), which extends the market well beyond the game. This contributes to the overall growth of the skin market, while it also makes possible a range of shady economic practices such as skin-betting. It is unclear whether these practices are just "negative externalities" or whether they actually play a vital role in Valve's overall economic strategy. From the perspective of consumer research, this has a range of implications. It marks a transition of player-prosumers from modders who create digital goods to "consumer-speculators" that use and speculate on the values of these goods. A situation that may be understood as analogous to the difference between the farmer who produces goods to bring to the market and the people who trade in these goods and speculate on their future value. Thus, while Epic retains the distinction between player and publisher, inviting the player to "take the step," Valve features a much more radical strategy by opening a fluctuating skin market and inviting the players to become "market speculators." This development of business models in online gaming is an important backdrop to the different types of gambling phenomena that enter the business of online gaming. Skin-betting from this perspective represents another instance of prosumption in the form of the player-entrepreneur, which adds up to the more general economy of the game and further dissolves the boundaries between game economies and wider economic processes in late capitalism, including platforms, marketization, and currencies.

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Notes

1. In this article, we are speaking of Fortnite: Battle Royale whenever we talk about Fortnite. In order to keep a complex discussion relatively simple, this article does not concern itself with Fortnite: Save the World.
2. See Will Partin's Review of Artifact on www.vice.com (13 December 2018) for a similar example.
3. The steam documentation seems to distinguish between a somewhat limited web-api for website developers: <https://steamcommunity.com/dev> and a more extensive one for partners: <https://partner.steamgames.com/doc/webapi>. However, both are equally accessible for ordinary users. An API key is in both cases obtained within a few minutes by logging onto steam, filling in

a domain name and agreeing to terms of service. Moreover, some of the functions require a secure server and some require a publisher key.

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