



VAVUUM

Next Generation Gaming Platform & Marketplace

WHITEPAPER v1.2

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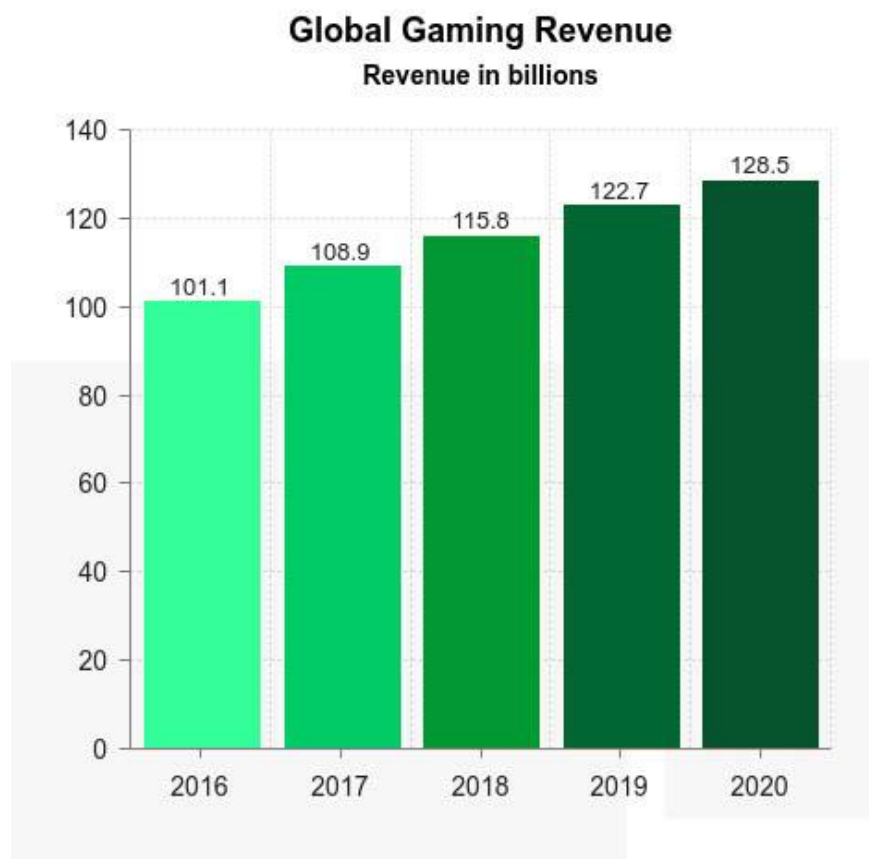
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1. Abstract

This whitepaper will describe the PC gaming industry and the problems with it. The solution proposed is Vacuum, a revolutionary platform that will change the PC gaming industry as we know it.

2. Background

The global gaming industry is one of the fastest growing segments worldwide. 2.2 billion gamers across the globe are expected to generate \$108.9 billion in game revenues in 2017. This represents an increase of \$7.8 billion, or 7.8%, from the year before. The global gaming market is projected to reach US\$128.5BN by year 2020.^[1]



Digital game revenues will account for \$94.4 billion or 87% of the global market.^[1] The PC gaming industry represents \$36 billion.^[2] This makes gaming the largest and fastest growing segment of the entertainment industry.

While console and mobile gaming platforms are dominated by players like Microsoft's Xbox, Sony's PlayStation, Nintendo, Google and Apple, the PC gaming industry is currently dominated by a single corporation, known as Valve Corporation.

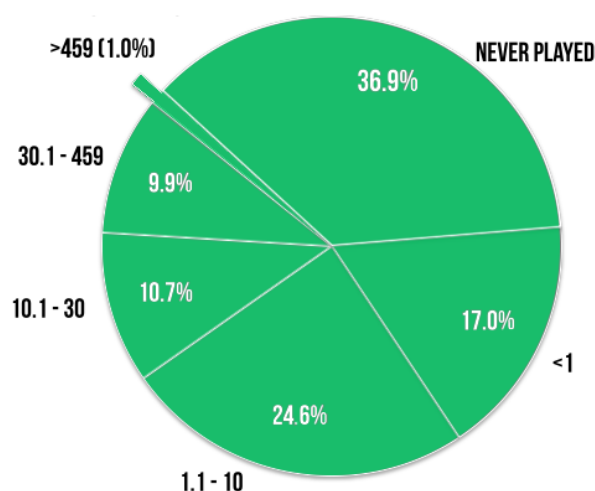
The Steam platform, owned by Valve, controls a significant percentage of the PC gaming market — 50 percent to 70 percent of all PC game downloads happen on Steam, selling titles from bigger firms such as EA and Activision, as well as Valve's own games. Its sci-fi shoot-'em-up thriller Half-Life 2 has sold 12 million copies since 2004 and is the highest-rated PC game on the Web site Metacritic.^[3]

Steam is a digital games distribution platform which gives consumers centralized multiplayer gaming and social networking, and gives developers digital rights management and seamless publishing and distribution.

3. The Problem

3.1 Overwhelming number of games

TOTAL PLAY TIME PER REGISTERED GAME (HOURS)
Percent of all registered games



The average Steam customer has purchased 11 to 25 games in the past 12 months and had not played 40% of those, according to a survey done by Ars Technica.^[4] Due to the incessant sales held by Steam, it's too easy to spend money on all these games only to realize later that you'll never have time to play them all.

Not all games are equal. Some games aren't geared with multiplayer features but have incredible single player storylines and cinematics. Others may have no storyline but easy to understand mechanics and fun to play for a few hours such as 2D side scroller games. The end result is having a library filled with completed games or games that have gotten boring that are just collecting digital dust.

3.2 Pricing Power

Steam currently takes a minimum of 30% of digital game sales from game developers to a high 50%, depending on the contract discussed with individual game developers. Exact figures are not disclosed due to the NDA (Non-Disclosure Agreement) nature of contracts.

Game developers are able to get lower commission costs from direct ecommerce channels, however most of them choose to launch on Steam due to Steam's perceived popularity.

Despite not pushing any pre-sales through Steam, EA managed to break presales records entirely through a direct channel. Even though EA is a house-hold name in the video-game sphere, the important lesson here is that gamers will make purchases outside of Steam. ^[5] This shows that the idea of getting better sales through Steam is a misconception.

This type of pricing structure also forces out the little guys, middle to low level game developers are unable to compete with big gaming companies. They price their games higher to compensate for these high commission rates and gamers are turned off even before giving their games a chance.

3.3 Creative Innovation Stifled

Getting onto Steam is becoming harder and harder. The PC has always been an open platform on which it is easy to distribute games. Due to Steam's market dominance, Valve decides which games see the light of day.

Games which don't meet their criteria or will create direct competition to their games aren't allowed on their platform. Being a game development company as well, they have a clash of interest between protecting their games' popularity and giving gamers exposure to better games. ^[6]

3.4 Negative Treatment

Due to Valve's large market share, they have lost sight of the most important thing within the gaming industry and neglected both game developers as well as gamers. They are often cited for mistreating customers such as waiving customer's rights to refunds as a condition for buying software. ^[7]

Valve's worst behavior may be its treatment of artists who sell goods via Steam Workshop. In 2011, Valve announced it would allow 3D modelers to sell hats, skins, and items for games like Team Fortress 2, Dota 2, and CS:GO. In 2015, the company boasted that it had paid out \$57 million to 1,500 contributors in 75 countries, a respectable achievement. But given that Valve only paid out 25 percent of the total, which means the company pocketed \$171 million during the same period from the sale of those same goods. ^[8]

Valve slashed the royalty rate for items included in the 5th international DOTA 2 championship to 12.5%, down from 25%. In 2016, it made further changes to how it calculates royalties and pay-outs that slashed earnings further.

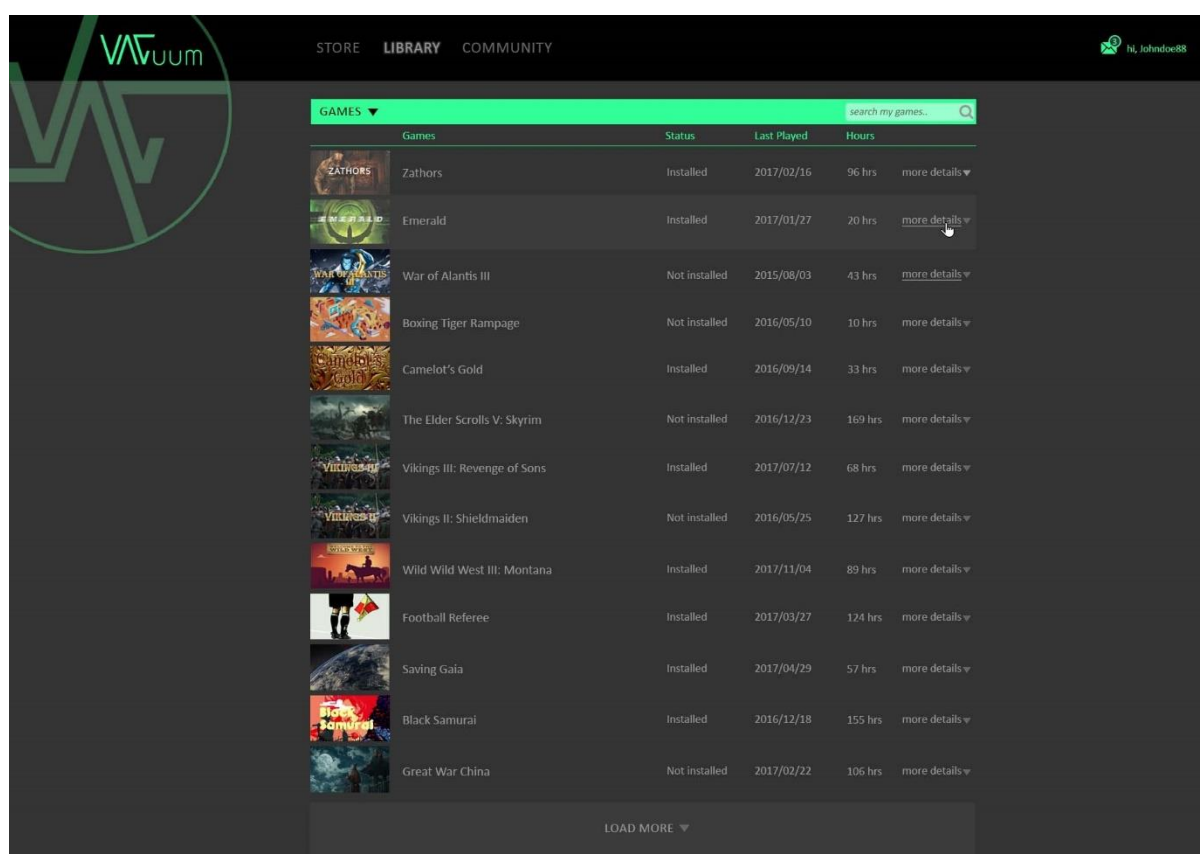
In general, profit has been on the rise for Valve. Yet, they have not been reflecting that growth in terms of better customer experience for both gamers and game developers alike.

4. The Solution

The PC gaming industry is flourishing and the cryptocurrency market reveals exponential growth. Vacuum is the explosive combination of the two. We aim to revolutionize the PC gaming industry and give back the power to the people. We believe that we can improve the current state of PC gaming without the need of greedy large gaming companies.

4.1 Buying, Selling & Renting Digital Game Rights

The video game industry has been observing a shift from physical CDs to online download of digital games. Despite this, used physical games still remain popular. GameStop, an American video game, consumer electronics, and wireless services retailer operates 7,117 retail stores throughout the United States, Canada, Australia, New Zealand, and Europe. ^[9] Used game products contribute to more than half of GameStop's profit despite accounting for only a third of the net sales. ^[10]













The screenshot shows the VAVUUM application interface. At the top, there is a navigation bar with 'STORE', 'LIBRARY', and 'COMMUNITY' tabs. The 'LIBRARY' tab is active. Below the navigation bar, there is a search bar labeled 'search my games...'. The main content area displays a list of games in a table format. The table has columns for 'Games', 'Status', 'Last Played', and 'Hours'. Each row represents a game with its cover art, title, status, last played date, and play hours. A 'LOAD MORE' button is visible at the bottom of the table.

Games	Status	Last Played	Hours
Zathors	Installed	2017/02/16	96 hrs
Emerald	Installed	2017/01/27	20 hrs
War of Atlantis III	Not installed	2015/08/03	43 hrs
Boxing Tiger Rampage	Not installed	2016/05/10	10 hrs
Camelot's Gold	Installed	2016/09/14	33 hrs
The Elder Scrolls V: Skyrim	Not installed	2016/12/23	169 hrs
Vikings III: Revenge of Sons	Installed	2017/07/12	68 hrs
Vikings II: Shieldmaiden	Not installed	2016/05/25	127 hrs
Wild Wild West III: Montana	Installed	2017/11/04	89 hrs
Football Referee	Installed	2017/03/27	124 hrs
Saving Gaia	Installed	2017/04/29	57 hrs
Black Samurai	Installed	2016/12/18	155 hrs
Great War China	Not installed	2017/02/22	106 hrs

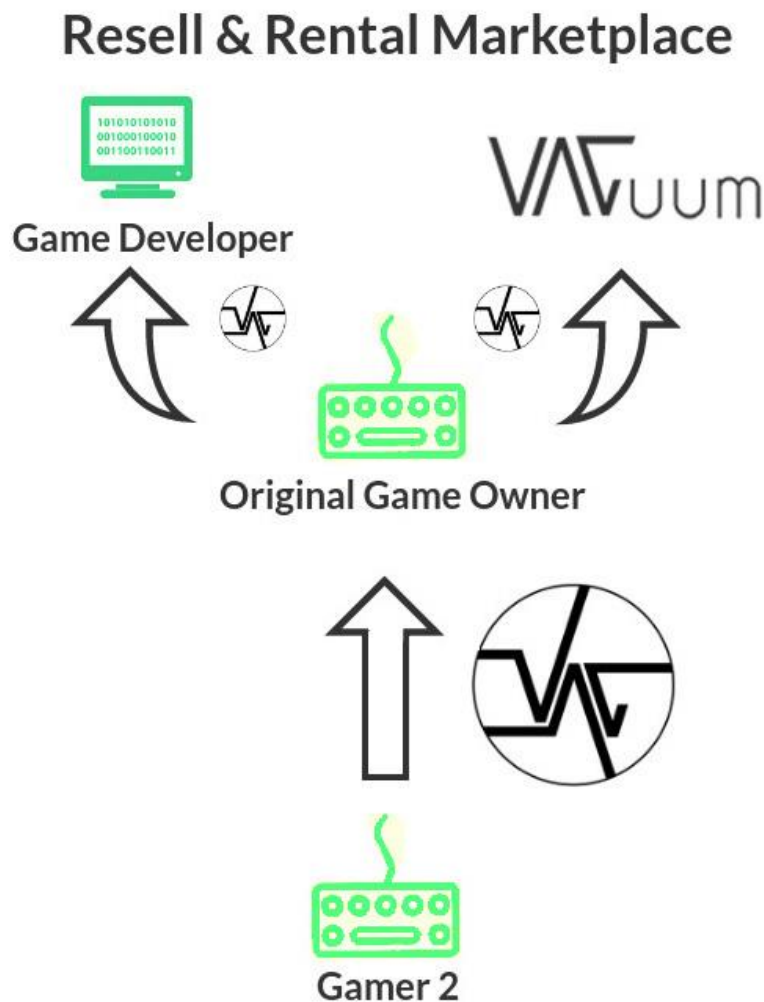
Taking the concept of the used games market and applying it to today's digital game market, we believe that this will create a new market that is currently non-existent. Through the use of block chain technology, digital game rights can be transferred between users on our platform.

Vacuum users will be able to buy, sell and even rent out their digital games to other users. Essentially, we are creating a "second hand" market for digital games. This allows users to re-sell or rent games that they have completed or bored with to another user that has yet to try the game.

RENTALS ▼					search my rentals...
Games	Status	Rent Date	Rental Hours		
	Rob the Builder: Garden City	Out-for-rent	2017/09/02	74 hrs	more details ▼
	Vikings: Wrath of Ragnar	Out-for-rent	2017/08/27	101 hrs	more details ▼
	Dungeon Riders II	Out-for-rent	2017/07/30	280 hrs	more details ▼
	Wild Wild West II: Colorado	Out-for-rent	2017/08/21	89 hrs	more details ▼
	Wild Wild West: Texas	Returned	2017/07/27	107 hrs	more details ▼
	Vegetable hunt	Returned	2017/06/19	48 hrs	more details ▼
LOAD MORE ▼					
RENTED ▼					search my rented...
Games	Status	Rent Date	Rented Hours		
	Red Storm	Renting	2017/08/31	80 hrs	more details ▼
	Sleeping Cats	Renting	2017/09/01	8 hrs	more details ▼
	Flaming Horse race	Returned	2016/07/10	4 hrs	more details ▼
	Yokai Attack: Tokyo	Renting	2017/08/22	129 hrs	more details ▼
LOAD MORE ▼					

The game rental market is a very exciting feature. Users will be able to rent games at a minimum duration, for example 30 days. This allows users to try out games for a period of time before deciding if they should purchase. Users that put games on the rental market place can make passive income on games that would otherwise be left untouched in their library.

4.1.1 Obstacle & Customer Psychology



Used game sales are viewed among some developers as the industry's silent killer. The main reason for this is that game developers don't see revenue from the second hand games market. Recognizing this, we have made it such that it is a win-win situation for everyone.

When a transaction is done on Vacuum, a percentage of the sale is returned back to the game developer as well. This allows game developers to get something in return for the games being resold.

Our platform would allow consumers with average to low income to purchase games that they might never purchase due to the lack of disposable income. Users that have average to low income will also be able to sell off their old games to purchase

more games within our marketplace, either at full retail or second hand prices.

Basically, there would be a flow of money where the average gamer can buy and sell new games easily.

By allowing people to sell off old games, coupled with getting games at a discounted price, they would be able to purchase more games in the same period of time.

Gamers that have disposable income will always purchase good games at retail price when a new game is launched. This is akin to when a new iPhone is launched by Apple. People will gladly pay retail price for a highly anticipated game. These gamers want to be the first to experience it and not have to wait until the game is on sale.

This feature will not be taking away any potential purchases at full retail price. Our marketplace is for the average gamer that may not have disposable income to buy new games at full retail price. We would be catering to a group of people that game developers would never have been able to make money off them to begin with. We believe game developers and gamers alike will see the value in this feature.

4.2 Lower Commission Fees - New Game Releases

Our aim is to take lesser commission fees than the competition out in the industry currently. A similar platform to Steam, GOG also charges 30% commission fees. We plan to do 15-20% in commission fees for the release of new games. We believe that this is a fair rate that allows us to operate as a business as well as to bring value to the PC gaming community.

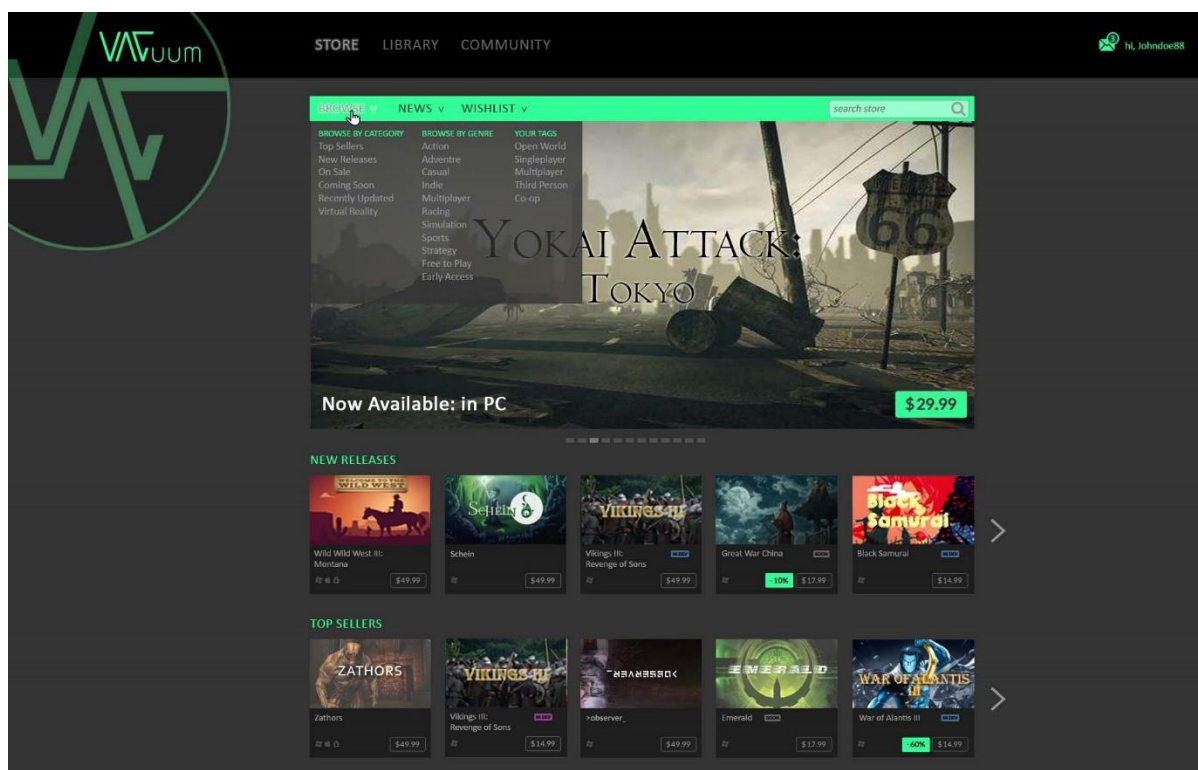
We will be able to achieve this by using our token (VAC token) as the currency on Vacuum. Without 3rd party merchant services, we will be able to cut out middle man payment processors.

4.3 Quality Control & No Clash of Interest

Unlike Valve, we do not own any games of our own. As such, we are focused on providing the best platform for our users. There will be no clash of interests and no worries of bringing in games that might compete with one another. However, we will have strict quality controls on the games that are allowed on our platforms to ensure the quality of the game is of an acceptable standard.

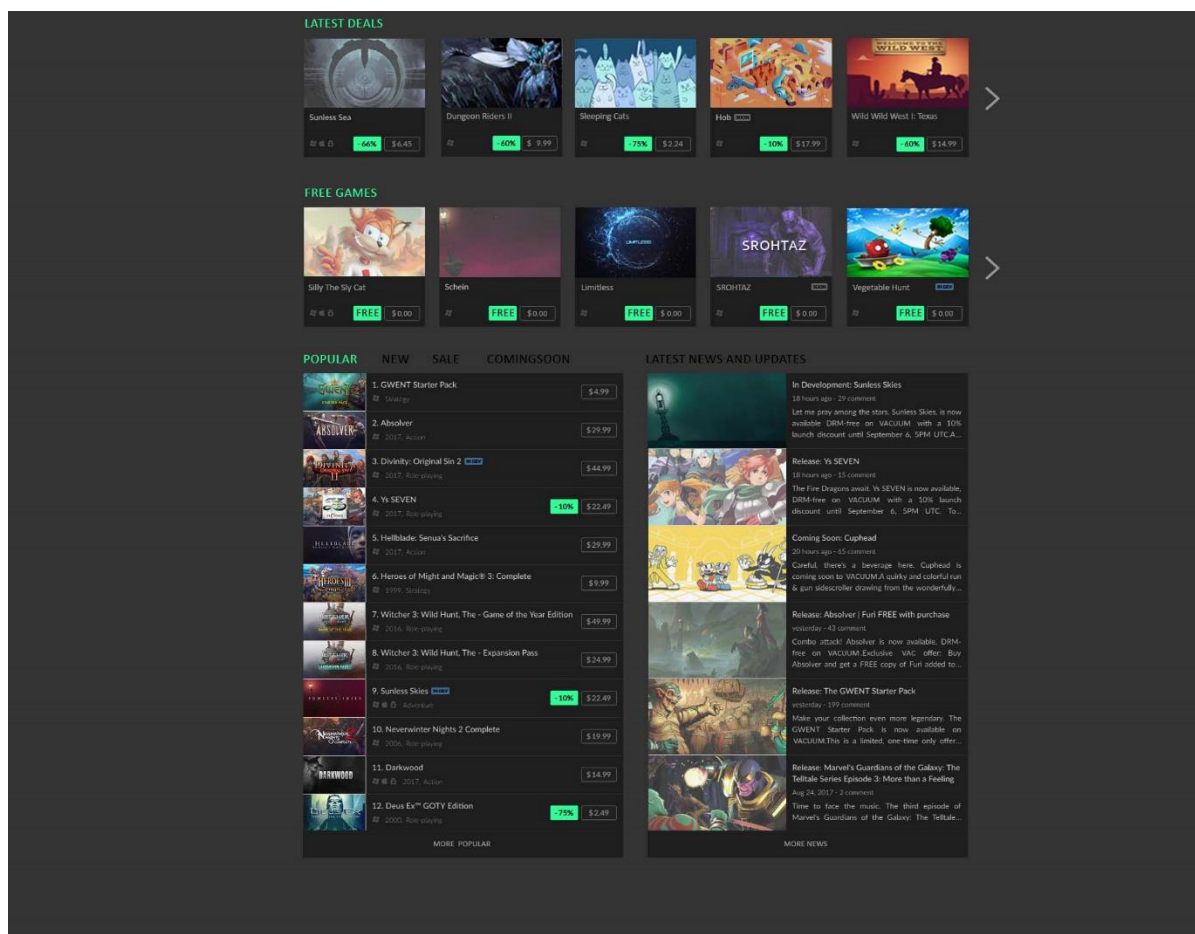
5. Vacuum Platform

The platform will be a video game marketplace that will facilitate the buying, selling and renting of PC games. Only games launched on Vacuum will be able to be resold, as they could otherwise not have the rights to the game. The overall platform will have a few components to it.



1. Webpage where people have all the visual content to navigate new games and read about upcoming game related new.
2. Standard back-end where the visual and other non-critical content is stored and used.
3. Block chain component that will handle all the secure information and transactions.

The block chain component, where sensitive information, payments and game ownership are managed, will employ smart contracts to secure the data and transactions. The smart contracts will create and distribute encrypted keys and tokens.



Because block chain is immutable, not able to be tampered with, these keys and tokens can be traded safely with less risk than conventional methods of transactions. When the keys get created they are stored on the block chain and are set in stone until you make a change to the smart contract, but that change is 100% transparent. This is how it is for all block chain interactions including token transactions.

Vacuum Tokens (VAC) are used as money specific to the platform and are created during an ICO. All transactions must be completed using only Vacuum Tokens (VAC) in this kind of market place or platform, this includes in-game purchases. Each creator and user/player will open an account/smart contract that works in conjunction with all the other smart contracts. The platform contract will be used to enforce the agreements between the platform, creators, and users. The platform contract will also deal with all financial transactions, in Vacuum Tokens (VAC) only.

5.1 Game Developers

An account for a game developer will allow for the safe and secure distribution of its digital content. This will be achieved through the use of smart contracts. Game developer contracts will be an umbrella that holds its individual game contracts. Each game contract has the transaction information defined, for example, in-game purchases, game total cost, rental cost, etc.

The game contract will also make digital encryption keys that can be sold to users to provide individual access to a video game. The encryption keys cannot be changed or altered in any way or even be copied because the smart contracts will know who owns them, and what game they belong to. Game developer will receive the platform tokens in exchange for the keys, or in game purchases. This will keep purchase costs to a minimum because users now buy Vacuum Tokens (VAC) from an exchange, rather than using credit cards. Game developers can then sell Vacuum Tokens (VAC) on the exchanges to players that will want them for further purchases.

5.2 Users

Users create an account on the platform, the account must have a provable identity component that a contract can be created with, example, John Smith of "Random home address" is enough detail to enter into a contract. Age and other information

will likely need to be provided by persons of legal majority in order to have legal viability. This will protect the IP of the game creator in the event an account owner/user attempts to be fraudulent.

When you create an account you get a specific wallet address (blockchain) that is associated with your account only. The platform will manage your private key information as the chain interactions are internal. Your information will be put into the blockchain but hashed so that it is not legible. The wallet will be able to hold any number of encryption keys.

These keys will be used to activate individual video games, much the same way as games you purchase from the store require/come with encryption keys. Anytime a player accesses a game, it checks the encryption keys against the smart contracts.

All the code information is open to the public on the network but will be hashed to be unreadable by anyone except the person with the hash key, which will be the platform, and or the game creator only.

The key will be used to download and play the game, and if you want to resell the game the key will be transferred to another wallet/account so that when they go to login it will work for them and not you.

6. Business Model

Vacuum has a very simple and scalable business model. Games listed on our platform can be categorized into 2 sections, new games and second hand games.

For new games, we will take a small percentage of sales that is competitive as well as sufficient for us to operate as a business.

For second hand games, Vacuum users will be able to buy and sell on our designed market place. When users sell a second hand game, the sale will be split into 3 parts. A percentage will go to the game developers, as well as to Vacuum and to the user selling the game.

We realize that some game developers might want to impose minimum second hand prices and that will be implemented to minimize users trying to do quick arbitrage opportunities.

Games can also be rented for a minimum amount of days. This allows users to try out games at a lower price.

All transactions on Vacuum will be using the Vacuum Token (VAC).

7. Competitors

The biggest competitor in the space is Steam. Other competitors include GOG, Green Man Gaming, GamersGate, OnePlay, and Humble Bundle.

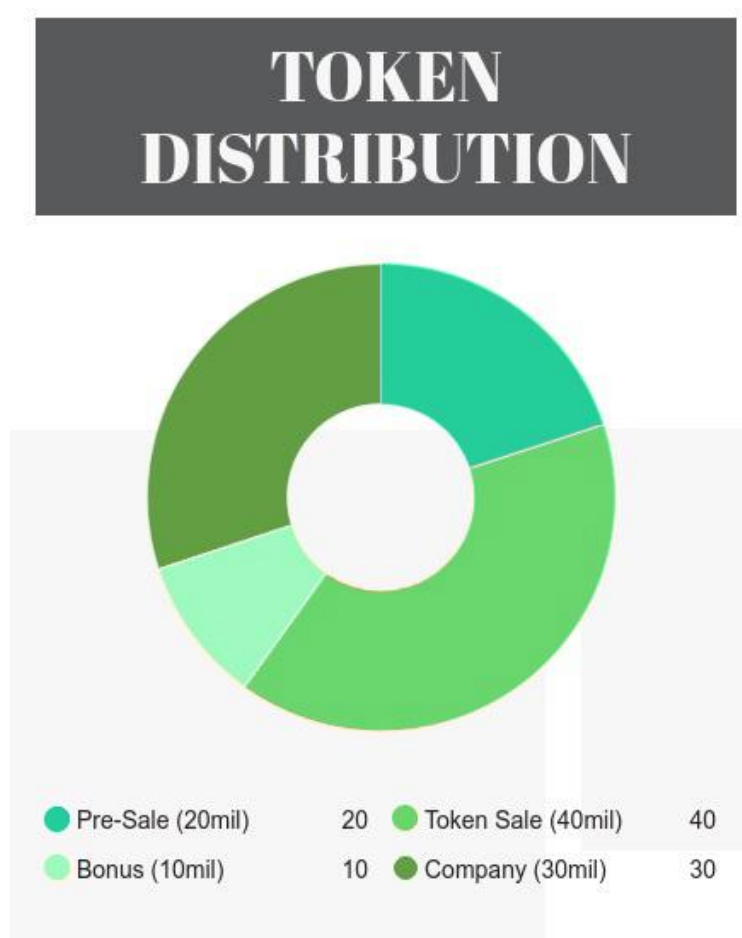
Most of these other competitors aren't platforms but rather websites that sell games at a cheaper price that may or may not be on Steam. As far as creating a digital second hand game marketplace, there is no competitors in this space.

What we are doing is unprecedented and will definitely change how people buy and sell games online.

8. Token Launch

Vacuum is launching a promising Initial Coin Offering (ICO) campaign to support its development. The aim is to raise \$20 million USD through the sale of tokens.

The total number of tokens will be 100 million and they will be distributed as follows:



The remaining of the tokens will be kept by Vacuum.

The price is **1 ETH = 1,000 VAC** and investors can participate with their Ethereum.

The minimum you can contribute is **0.5 ETH**.

Token contract address: To Be Determined (Published through various channels 48hrs before crowd sale launch date).

- Pre-Sale Date: 10th Oct 2017
- Token Sale Date: 24th Oct 2017
- Token Sale Duration: 31 days

Token sale will end when either the maximum number of VAC is issued or 31 days from the token launch has passed.

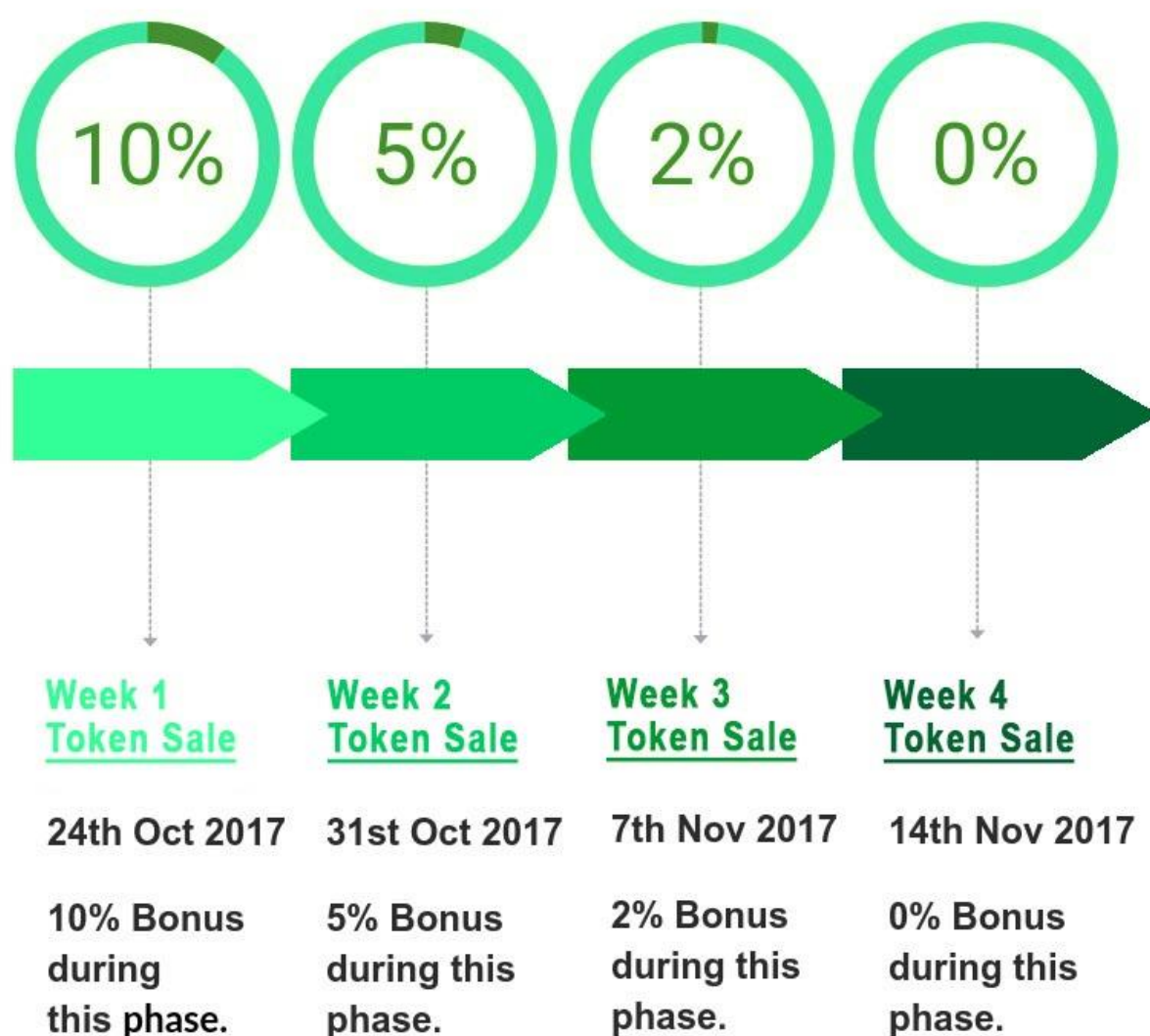
8.1 Pre-ICO Bonus



A special bonus of an additional 20% on the number of tokens will be offered during the pre-sale. Please email us at tokensale@vacuum.io to get on our pre-sale list.

8.2 ICO Bonus

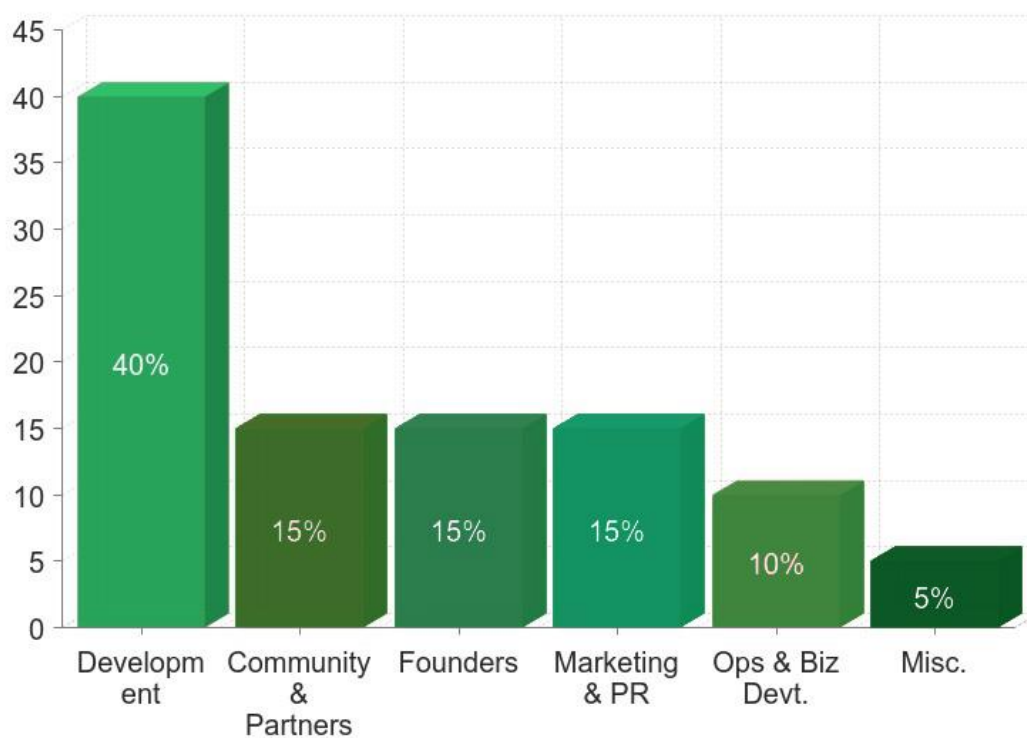
ICO BONUS PROCESS



9. Initial Budget Allocation

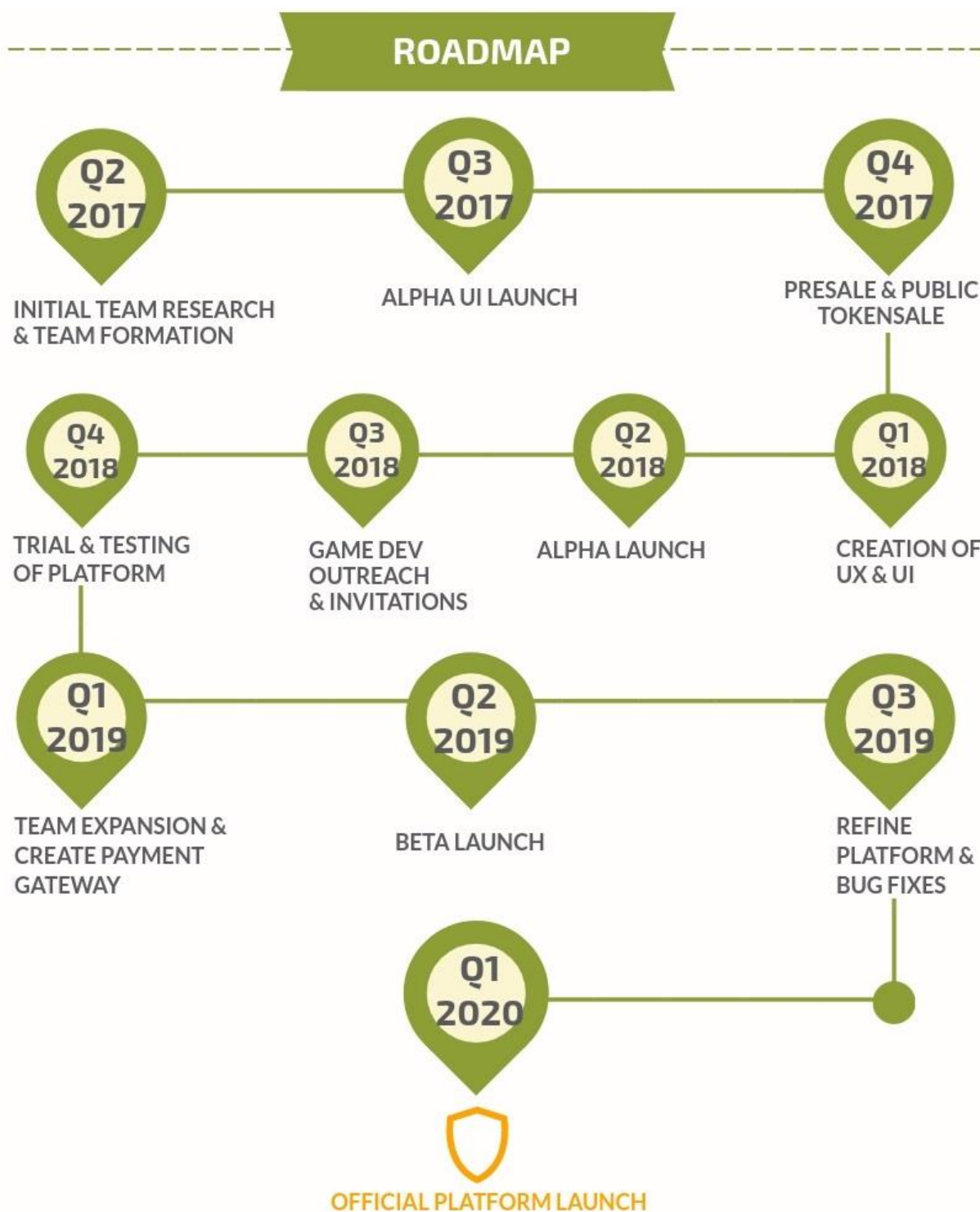


The money raised will be distributed primarily for the development of Vacuum, as follows:



These percentages are subject to change based on Vacuum's needs, and should be considered a proposal for the token allocation.

10. Road Map



11. Conclusion

In this flourishing environment, Vacuum is launched as the next big gaming platform. The main market is the PC gaming market and key competitor is Steam.

Vacuum addresses all key issues that Steam has left unanswered and offers a unique opportunity to its users: On Vacuum, gamers will be able to buy, sell and even rent their digital games. We also aim to have the lowest commission rates in the PC gaming industry.

Vacuum's aim is to create an ecosystem and marketplace in the PC gaming industry that will revolutionize and change the way PC games are bought and sold all around the world.

Disclaimer

As with any project, the development and execution of our platform carries with it the risk of delay and even failure. The core team has a strong track record of development and business management experience, but this is not a guarantee of success. The team will endeavour to hit the milestones outlined in the project roadmap, and will be as transparent as possible regarding our progress and any challenges met.

The described token is not intended to be exchanged for any kind of equities of any company.

The cryptocurrency segment is new and exponentially growing, thus it may include market, technological, and policy risks. We will not be accepting U.S. citizens as part of our Vacuum crowd sale, to ensure we are operating within current regulatory policies.

References

- 1 - <https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42/>
- 2 - <http://www.pcgamer.com/pc-gaming-market-worth-36-billion-in-2016/>
- 3 - <https://www.forbes.com/forbes/2011/0228/technology-gabe-newell-videogames-valve-online-mayhem.html>
- 4 - <https://www.extremetech.com/gaming/249519-valve-steam-helping-pc-gaming-hurting>
- 5 - <https://www.extremetech.com/gaming/249519-valve-steam-helping-pc-gaming-hurting>
- 6 - <https://www.engadget.com/2011/07/26/ea-proclaims-swtor-preorder-breaks-records/>
- 7 - <http://www.gamesbrief.com/2010/05/five-reasons-why-steam-will-destroy-the-pc-games-industry/>
- 8 - <https://www.forbes.com/sites/erikkain/2014/04/17/nearly-37-of-all-registered-steam-games-have-never-been-played/#6e4e485a2146>
- 9 - <https://en.wikipedia.org/wiki/GameStop>
- 10 - <https://www.forbes.com/sites/greatspeculations/2012/11/14/gamestop-earnings-focus-on-used-game-sales-and-digital-revenues/#62dd1cd5f8cf>