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The saturation of the Steam platform game market and the noticeability of the saturation by Steam users.

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Abstract

The goal of this paper is to explore the exponential increase of the released games on Steam's digital distribution platform and its possible impact on Steam's users. The paper focuses on the perception of the users of such phenomena as market saturation and possible change in the perceived quality of the games presented on the store front.

Tags: steam, saturation, indiepocalypse

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1. Introduction

Steam is a digital distribution platform developed by Valve Corporation for purchasing and playing video games. Over the course of the years Steam has introduced several methods for developers to submit products to its platform (for ex. Steam Greenlight, Steam Direct). These changes have allowed for smaller developers to have a higher chance at getting their product to the Steam store, which was previously dominated by established publishers. However, lately the game developers started a discussion about the topic of there being too many games on Steam, which in economics is known as market saturation.

Saturation of Steam platform, also sometimes referred to as “Indieocalypse” (Wright, 2018) is a term that appeared in the language of game developers recently. It is mainly used when describing the change in the digital market scenery of Steam platform, such as the significant increase in the number of games available on Steam. Part of this paper explores the possible chronology of events causing the eventual saturation of Steam platform.

This paper aims to explore:

- the possible indications of saturation
- the possible ways for the Steam users to perceive the saturation
- the possible consequences of the saturation for the community (both users and developers, who might consider developing games in a saturated market environment)

The main focus of the paper is to examine the impression of the Steam users who, unlike the developers, do not have a clear understanding of the inner mechanisms of the platform.

Thus the research question of the paper is: Is the saturation within the Steam game market perceived by the Steam users and how could it impact users and, potentially, developers?

2. Background

2.1 Digital game market and distribution platforms

The overall structure of the digital game market consists of multiple digital distributors who use separate digital platforms to sell the games to consumers. This global market encompasses the digital games for PC, mobile and consoles. In this paper the discussion only focuses on the digital PC market. In the digital PC market segment exist multiple platforms for distribution, such as Steam, GoG.com, Battle.net, Origin, Uplay and several other distributors.

“Steam platform in particular has been dominating the digital PC gaming market, with claims to 70% of the market in 2009” (Graft 2009) and up to “75% of the market share in 2013” (Edwards 2013)

When this paper discusses the market saturation, it operates on the assumption of the continuation of the influence that Steam has had on the overall digital market due to it having the biggest share of the said market.

2.2 Steam and it's timeline

2.2.1 What is Steam?

Steam is a digital distribution platform developed by Valve corporation for purchasing and playing video games, but also other software. The game aspect of Steam is the primary focus of this paper. The mechanisms for submitting the games to the Steam store has changed over the years and allowed for more games be added directly by developers where previously it was done by publishers.

“By 2019 Steam was reported to have reached a total of over 30000 games without including software, DLC (downloadable content) or videos.” (Steampowered 2019)

“According to SteamSpy about 6,700 games were released in 2017, while about 9,300 games were released in 2018.” (Bolding 2019).

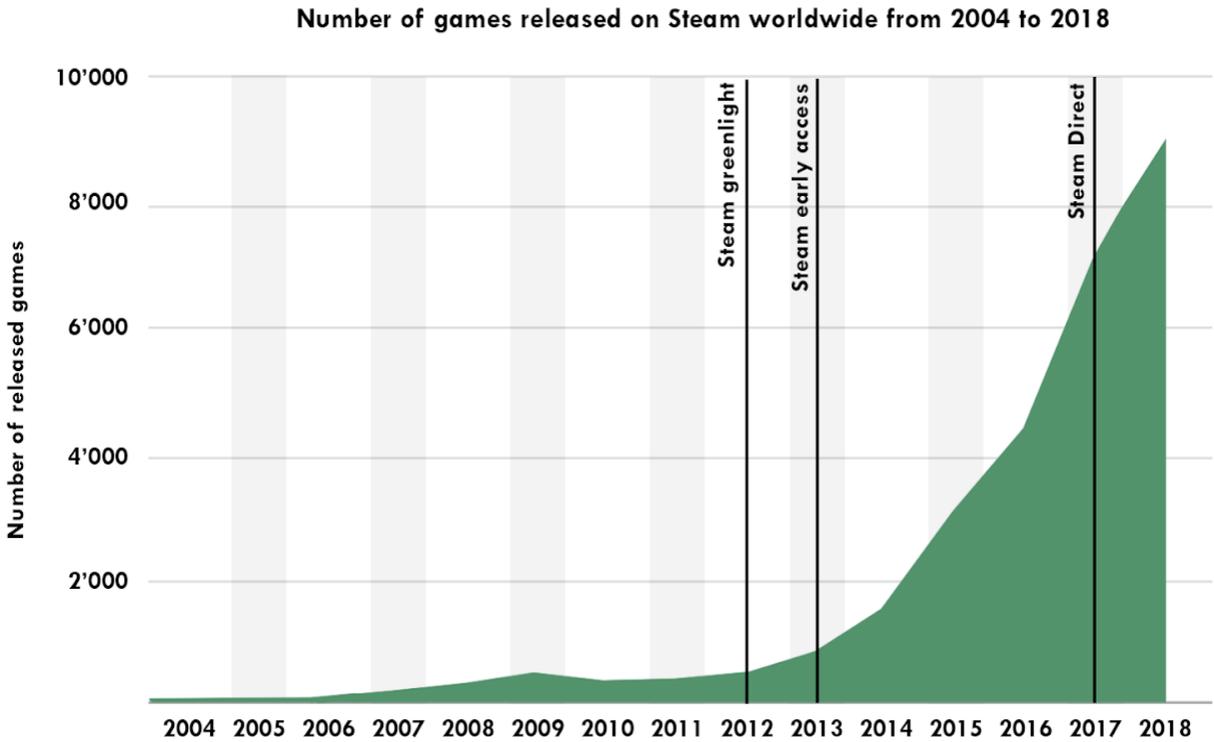


CHART 1. The demonstration of a sharp increase of the released games on Steam and through the years and the appearance of different submission mechanisms.

2.2.2 Steam greenlight

Steam Greenlight was released in August 2012.

“Steam Greenlight was an entry platform for new game developers inside the digital distribution platform Steam created by Valve Corporation. Steam Greenlight’s purpose was to allow the Steam user base to choose and vote which games were accepted to be sold in the Steam store.” (Minna Eloranta 2016, p.7)

“In January 2013, Valve recognized that enough games were not getting Greenlit. As a change of direction, they immediately Greenlit 100 games and announced the Discovery update in September 2013, which made it easier for users to recommend and vote for Greenlight submissions as well as see user-recommended submissions.” (Minna Eloranta 2016, p.8)

“By January 2015, 1955 games had been Greenlit on Steam and by September 2015, 5200 games had been Greenlit. Around half of the Greenlit titles have been released on the Steam Store.” (Minna Eloranta 2016, p.8)

2.2.3 Steam Early access

“Steam Early Access was launched on March 20, 2013. The platform allowed developers to release unfinished, yet playable games, so-called Early Access Games. By purchasing an Early Access game, players were allowed to download and play that game in its current state and as it evolves, even after the game leaves the early access stage.

The Steam Early Access provided developers with early access sales and distribution mechanisms. Players were aware of the risk that a game may be incomplete, buggy, or unfinished when purchasing an early access game.” (Lin et al. 2017 p.4-5)

“By 2017, 15% of the games on Steam used the early access model.” (Lin et al. 2017 p.3)

2.2.4 Steam Direct

“Steam Direct replaced Steam Greenlight as an entry platform for new developers in 2017.” (Crider 2017) The name changed but the principle stayed the same.

“Valve has added a more serious financial barrier to entry for Steam Direct. Greenlight required only a \$100 donation (which went to charity, not Valve itself) in order to put a small hurdle in the way of would-be spammers and shovelware developers. The fee for Steam Direct is also \$100, but instead of opening up a mostly restriction-free developer account, it will allow developers to submit only one game or app to Steam with a single unique application ID. Additional game submissions, each of which will go through the same vetting process, will also be \$100.” (Crider 2017)

“In addition to the new \$100 fee for each individual game, developers will need to submit personal and/or company identification, including verifiable tax info.. That’s a step too far for many less committed users, and a good way of differentiating Steam Direct from more open platforms like Itch.io or the Google Play Store.” (Crider 2017)

2.3 Developer's perspective and the "Indiepocalypse"

According to numbers presented in Section 2.2.1 there is an exponential increase of games on Steam. This section is going to examine how this is portrayed by developers. Although this paper primarily focuses on the users' perception of the situation, it is useful to mention how this phenomenon was brought to light in the first place.

In several articles (Wright 2018, Bolding 2019) the developers have mentioned that there is an increase of games on the market. They have perceived this increase through how they are affected by it. A steady decrease of sales for the new releases was mentioned and a rising competition and hardship to make a breakthrough. This exponential increase of releases was referred to by some developers as the indiepocalypse.

"Jeff Pobst's CEO of Hidden Path Entertainment's take on the situation back in 2017: '...That opportunity is being challenged because there is such a large number of games at low prices in the marketplace. That takes the market, which gives lots of people choice and is really good for gamers in the one sense, and it splits the amount of money against a large number of people.

I know a large number of individual indies who are closing up shop because they aren't now even making enough money to pay for their own well-being. And that used to be a pretty sure thing. If you had a three-person shop or a four-person shop, you could sell enough to actually make a living. Now that's becoming challenging with so many games available for purchase.' " (Palumbo 2017)

3. Theory

What is market saturation?

According to Cambridge dictionary “saturation” within the fields of marketing and commerce means:

- “a situation in which too much of a product or service is provided so that there is more available than there are people who want to buy it.” (Cambridge University Press. 2019)

According to the same Cambridge dictionary “market saturation” means:

- “a situation in which no more of the product or service can be sold or because there are no more possible customers.” (Cambridge University Press. 2019)

Another definition by Capstone Encyclopaedia of Business states (Cohan, Peter S., and Press Staff Capstone. 2003 p.294) :

- “When a market becomes saturated, it means that all of the consumers who wish to purchase a product have done so. Therefore, a saturated market is usually a stable market. Once a market is saturated, the majority of sales, in the case of consumer durables, will come from replacement of items. The market for sports shoes worn for leisure purposes (i.e. trainers) is an example of a market that became saturated during the 1990s, as Nike found out to its cost when revenues stagnated after a long period of growth.”

It’s important to note that these formulations do not strictly apply to the modern digital markets where there is no direct replacement of the physical goods. On the example of Steam, it means that there is a constantly increasing number of possible titles to be purchased by the consumers with no limit on the amount of purchases.

Through the collection of data this paper explores possible ways of indicating the digital market saturation via an example of a digital game distribution platform.

4. Data collection and presentation

The method for data collection for this paper was an internet Google survey that was posted on a Reddit Steam sub-forum, which is a network of communities based on people's interests. (Reddit 2019)

The survey contained 15 questions. These were divided into three categories:

- Questions inquiring about the state of Steam library: age, size, last added game, method of exposure to new games within Steam, Wishlist size, latest manipulation of Wishlist
- Questions inquiring about the perception of user, changes in presentation quality of games, repetitiveness in game presentation and game presentation quality. Those questions were presented under the Likert scale format which is used "to allow respondents to express both the direction and strength of their opinion about a topic" (Chyung et al. 2017 p.17).
- Question connected to the possible impacts of saturation on Steam users such as: personal satisfaction regarding games, asset flips (Grayson 2018), refunds, malware, migration to another distribution platform.

The survey was completely anonymous. It was open to the Reddit community for one week and accumulated 160 finished surveys.

Question 1. Do you currently own a Steam account?

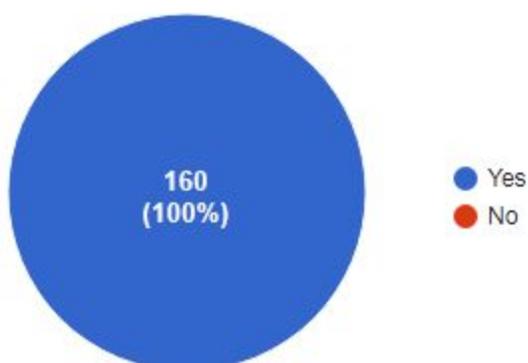


FIGURE 1. Responses from the survey question: Do you currently own a Steam account?

The purpose of this question was to establish that the subject fits the demographic of Steam users from among the general public of Reddit users who could have viewed and possibly participated in the survey. In other words, this was a screening question.

The total yield of participants of the survey was, as shown in Figure 1: 160 participants.

Question 2. When was your Steam account been created?

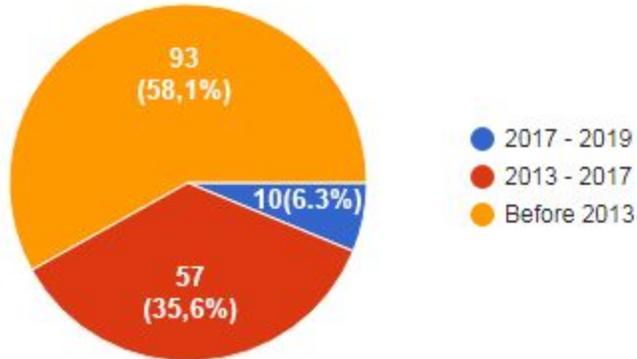


FIGURE 2. Responses from the survey question: When was your Steam account been created?

The purpose of this question was to establish the age of the account owned by the subjects for the purposes of connecting this data to the observation of saturation. For example: a subject who owns the account for a longer period of time could be more observant of the saturation of the market due to the increased amount of the games on the Steam store.

The motivation behind the three possible answers was to separate the subjects into the time periods (as shown in Diagram 2) corresponding to:

1. the platform prior to the release of Steam Greenlight
2. the period after the release of Steam Greenlight
3. the release of Steam Direct as shown.

The collected data shows that the majority, 93 subjects or almost 60% of respondents, have created their account prior to the release of Steam Greenlight and Steam Direct. Only 10 subjects joined Steam after 2017, that is after the release of Steam Direct.

3. How many games does your Steam account contain? This answer shouldn't include: various DLC (downloadable content), addons, software or videos.

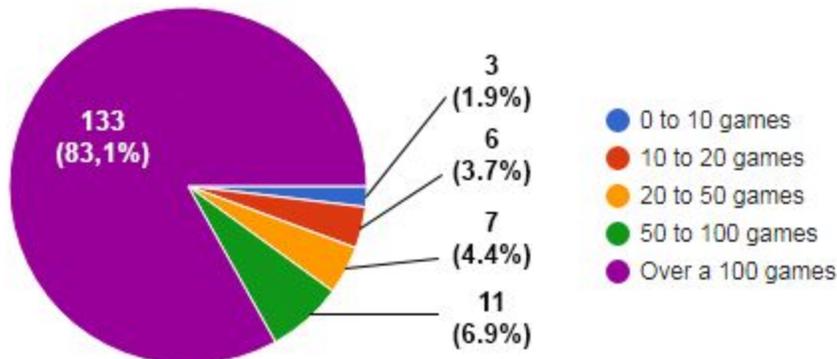


FIGURE 3. Responses from the survey question: How many games does your Steam account contain?

The purpose of this question was to establish the amount of games in the libraries of the subject for the purposes of possible observation of saturation by the subjects.

The collected data shows that the majority, 133 subjects or slightly over 80% of respondents have more than 100 games in their Steam libraries.

4. When was the last time you purchased a game on Steam platform? This shouldn't include games added to your Steam library through codes purchased via other retailers such as HumbleBundle, G2A et al..

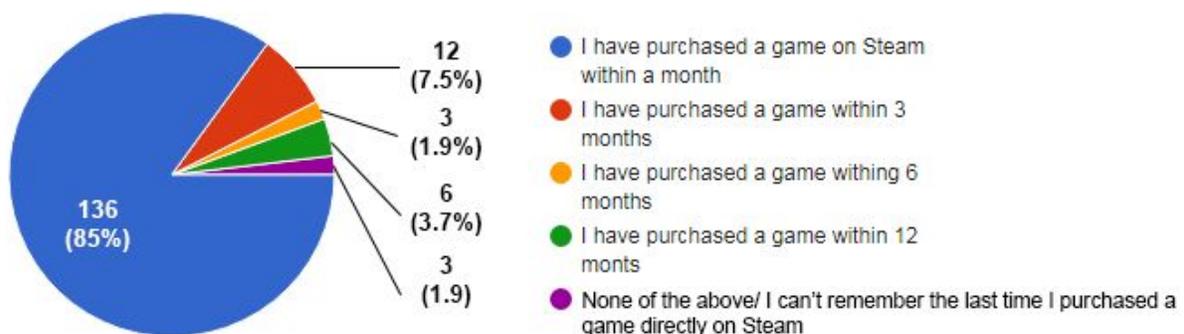


FIGURE 4. Responses from the survey question: When was the last time you purchased a game on Steam platform?

The purpose of this question was to establish the frequency of purchasing of the subject from the Steam shop which in turn could lead to a better possibility of them observing the saturation of the Steam market.

The collected data shows that the majority, 136 subjects or 85% of the correspondents, have purchased at least one game in the last month.

5. What features do you currently use to search for new game titles when using Steam?

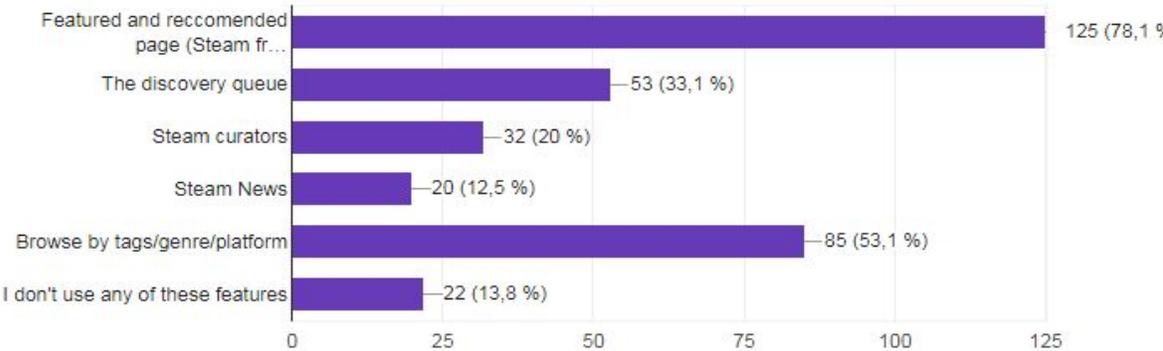


FIGURE 5. Responses from the survey question: What features do you currently use to search for new game titles when using Steam?

The purpose of this question was to establish the range of possible methods used by the subjects in the search for new games with a consequential observation of the saturation. This question had a possibility of multiple choices, thus the percentage in this graph shows the most popular chosen method, and not the percentage of people.

The data collected showed that the most popular way to get exposed to the new content on the Store, chosen by 125 subjects at least once, was via the “Featured and Recommended page” that is the Store front.

6. How many games do you currently have on your Steam Wishlist?

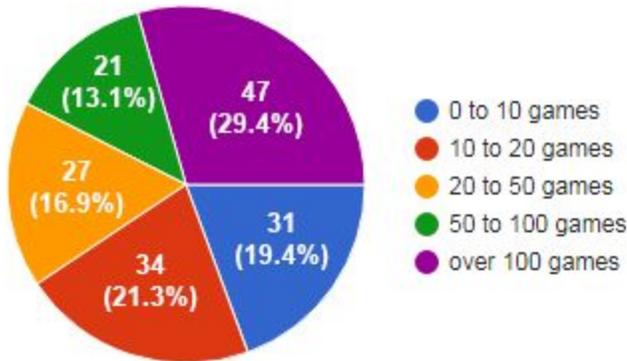


FIGURE 6. Responses from the survey question: How many games do you currently have on your Steam Wishlist?

The purpose of this question was to establish the importance of the Wishlist and the amount of game in it with a possible observation of saturation. The connection between the Wishlist and the saturation is explored in more detail in the Discussion section of this paper.

The collected data shows that the majority, 47 subjects or almost 30% of the respondents, have over 100 games on their wishlist.

7. Has your Steam Wishlist been adjusted due to the Steam Summer Sale 2019?

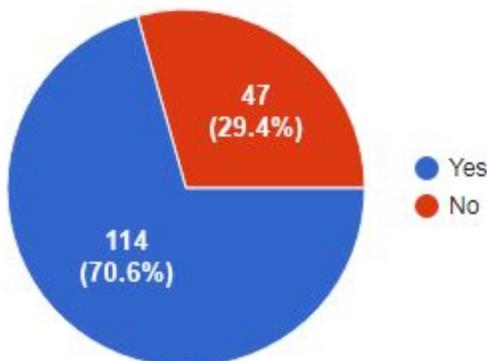


FIGURE 7. Responses from the survey question: Has your Steam Wishlist been adjusted due to the Steam Summer Sale 2019?

The purpose of this question was to account for the possibility of manipulations to the subject's Wishlist due a recent Steam event.

The collected data shows that more than half of the participant, 114 subjects or 70% of the respondents, have adjusted their Wishlist recently.

The connection between the Wishlist and the saturation is explored in more detail in the Discussion section of this paper.

8. Do you experience that the presentation quality (screenshots, trailers, descriptions) of the games on your store page has changed recently?

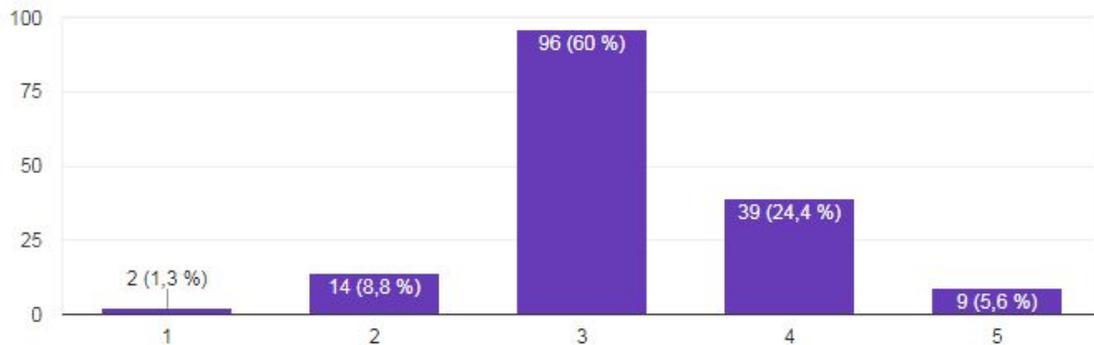


FIGURE 8. Responses from the survey question: Do you experience that the presentation quality (screenshots, trailers, descriptions) of the games on your store page has changed recently?

The purpose of this question was to use the Likert scale, where 1 is “ The presentation has gotten worse and/or less informative” and 5 is “The presentation has gotten better and/or more informative”, to examine the perception of the quality and a possible change in perception due to the saturation.

The collected data shows that the majority, 96 subjects or 60% of respondents, did not experience any change in the quality at the moment of the survey with the second biggest group, 39 subjects or almost 25% of respondents, claiming and improvement in the experienced quality.

9. Do you experience that the new games on Steam store pages are similar to the already existing titles or different from them?

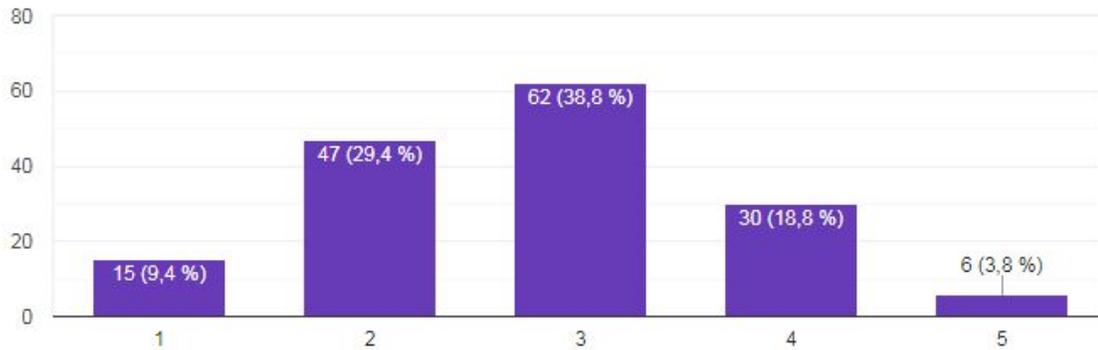


FIGURE 9. Responses from the survey question: Do you experience that the new games on Steam store pages are similar to the already existing titles or different from them?

The purpose of the question was to use the Likert scale, where 1 is “The new games I see are mostly similar to the already existing titles” and the 5 is “The new games I see are mostly different from the already existing titles”, to examine the possibility of repetitiveness of products due to the saturation and the perception of this in subjects.

The data shows that the majority, 62 subjects or almost 40% or respondents, did not experience a difference in perception regarding the similarity in games, with the second biggest groups, 47 subject or almost 30% of respondent, inclined towards there being some level of similarity from their point of view.

10. When browsing the Steam store for games, do you feel that the quality of the games you see is not up to your standard?

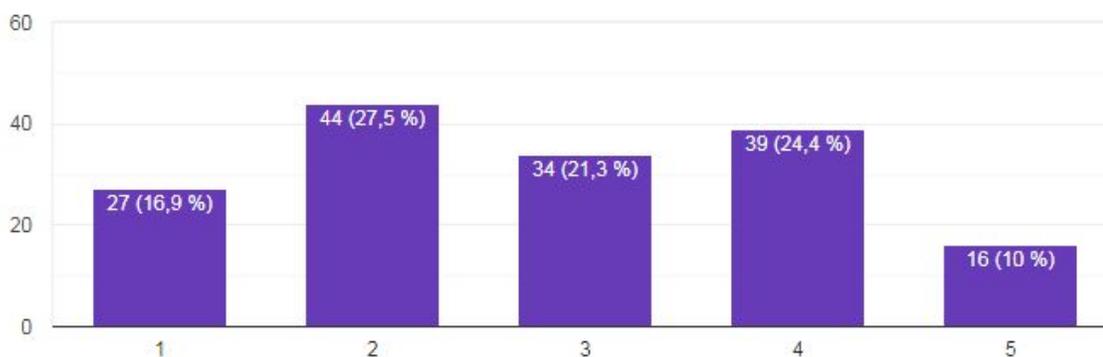


FIGURE 10. Responses from the survey question: When browsing the Steam store for games, do you feel that the quality of the games you see is not up to your standard?

The purpose of this question was to use the Likert scale, where 1 is “I feel that the games are mostly not up to my standard” and 5 is “I feel that the games are mostly up to my standard” to examine if the perception of a subject’s individual standards of Steam games has changed with a possible connection to the saturation.

The collected data shows that there is a wide distribution in opinions regarding the quality of games on Steam store among the subjects of the survey.

11. Has your level of satisfaction with Steam store increased or decreased since you first started to use it?

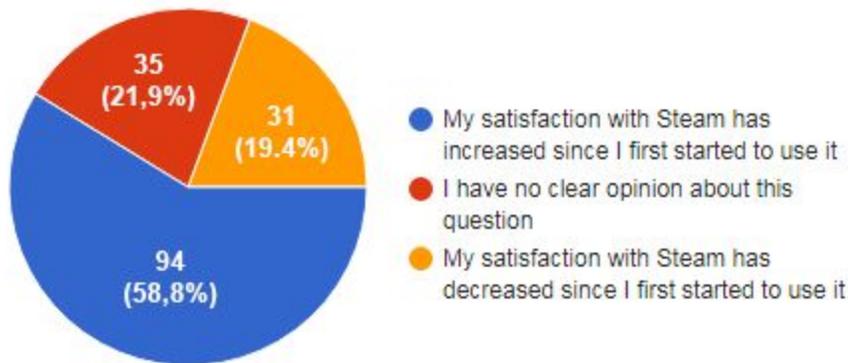


FIGURE 11. Responses from the survey question: Has your level of satisfaction with Steam store increased or decreased since you first started to use it?

The purpose of this question was to examine the change in the perception over time of the subjects regarding the overall quality of Steam as a service with the connection to the saturation.

The collected data shows that the majority, 94 subjects or almost 60% of respondents, have felt an increase their satisfaction with Steam store.

12. Have you ever come across any game on Steam that you perceived to be an asset flip? ("Asset Flipping" is a term that refers to the practice of building a game almost entirely out of premade assets with little original work.)

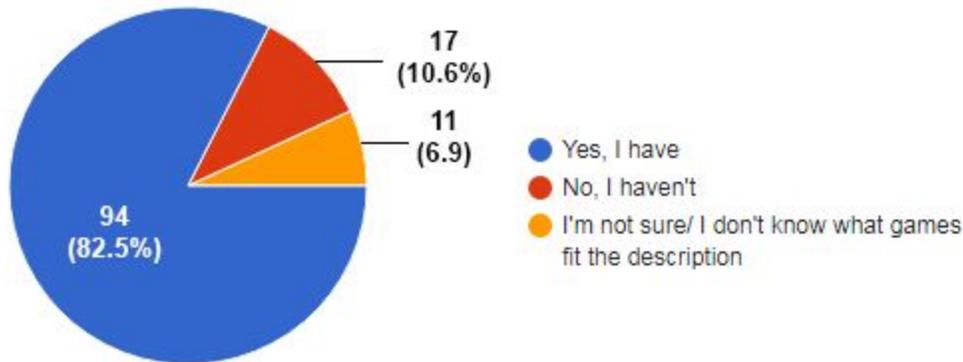


FIGURE 12. Responses from the survey question: Have you ever come across any game on Steam that you perceived to be an asset flip?

The purpose of this question was to explore if subjects were aware of such phenomena as an asset flip. This question was created with the possibility of subject not knowing the definition of an asset flip kept in mind.

The connection between Asset flips and the saturation is explored in more detail in the Discussion section of this paper.

The collected data, 94 subjects or over 80% of respondents, claimed to have seen games that they have recognised as asset flips.

13. Have you used the Steam refund option for a game because the quality of the game didn't match the game's presentation on the Steam store page within the past 6 months?

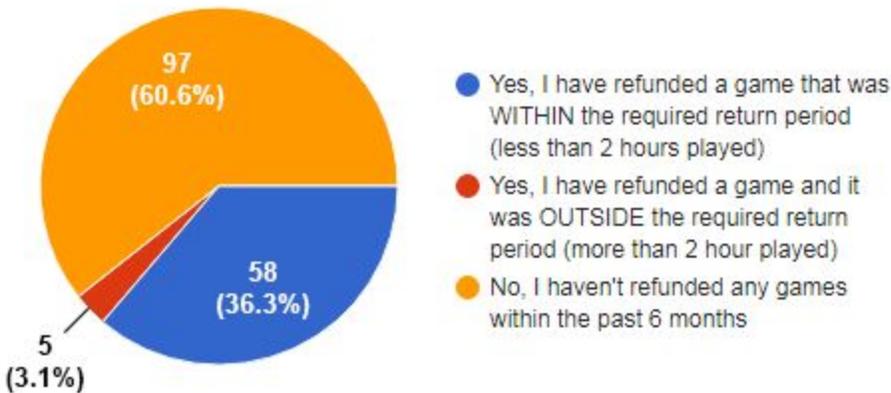


FIGURE 13. Responses from the survey question: Have you used the Steam refund option for a game because the quality of the game didn't match the game's presentation on the Steam store page within the past 6 months?

The purpose of this question was to establish a possible connection between the return rates of the games by users and the saturations. The motivation behind the time frame of this question (6 months) is connected to the further Question 15 and is explored more in the Discussion section of this paper.

The collected data showed that the majority, 97 subjects or a little over 60% of respondents, have not refunded games within the last 6 months.

14. Have you experienced a problem of downloading a game through Steam that turned out to contain a malware (a software that is specifically designed to disrupt, damage, or gain unauthorized access to the computer system)?

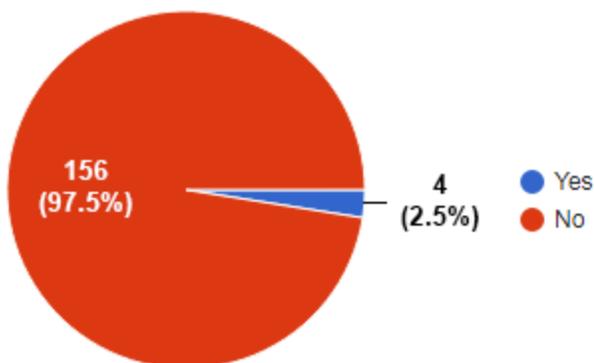


FIGURE 14. Responses from the survey question: Have you experienced a problem of downloading a game through Steam that turned out to contain a malware?

The purpose of this question was to explore the possible negative effects of market saturation, such as increased possibility of malware getting all the way to the consumers through Steam.

The motivation behind this question was a recent case of game software concealing a malware that was using user's computers for malicious intents. (Kent 2018, Gurvin 2018) The collected data showed that the staggering majority hasn't experienced malware problems because of downloaded games through Steam.

15. Do you have an Epic Games Store account?



FIGURE 15. Responses from the survey question: Do you have an Epic Games Store account?

The purpose of this question was to explore a possible connection of customers splitting off to a new distribution platform because of the saturation. Epic Games Store is a new distribution platform that was created in December 2018 (in conjunction with question 13) and has actively been diverting game releases from Steam to the Epic Games Store.

Nearly half of the respondents claimed to have an account on Epic Games Store as well as on Steam

5. Discussion

The Discussion section is separated into three parts based on the nature of different aspects that were asked in the survey: Steam libraries, user perception of the saturation, and possible impacts of the saturation. This discussion is based on the data collected from 160 participants (Picture 1). The research question for this discussion was:

- Is the saturation within the Steam game market perceived by the Steam users and how could it impact users and, potentially, developers?

5.1 User demographic and their Steam libraries (Questions 2, 3, 4, 5, 6, 7)

The nature of the questions in this section was directed at forming a general picture of the respondents via inquiring about the state of the Steam accounts owned by the respondents. An account can be separated into the Library and the Wishlist:

- the Library contains the games the user has already purchased from the Steam catalogue of games.
- the Wishlist contains games that are “bookmarked” by the user in the Steam game catalogue for possible future purchase. The Wishlist also allows the Steam to notify the user about the ongoing sales regarding the games on the list.

The collected data in (Figure 2) indicated that the majority of respondents had been in possession of their accounts for a significant amount of existence of Steam. They also are in possession of a significant amount of games and are frequent buyers (Figure 3,4). Based on these factors the discussion operates on the notions that the majority of respondents could be considered as experienced Steam users. In conjunction to the previous statement the discussion also assumes that these individuals are using at least 2 different ways of browsing Steam store (Figure 5), which makes them frequently exposed to the catalogue of Steam products.

The data from questions regarding the Wishlist (Figure 6, 7) indicates that a lot of respondents have a considerable amount of games bookmarked on their Wishlist and also the recent adjustments to their Wishlist due to a Steam event. This adds to the picture of the users who are both experienced and frequently exposed to the Steam platform.

5.2 User perception of saturation (Questions 8, 9, 10)

This section examines the data that could potentially indicate that the saturation of Steam market is perceived by the respondents. These questions were formed with an assumption that saturation might cause games:

- to have a lower quality of presentation (screenshots, trailers, descriptions) on the store page
- to appear similar to already existing games on Steam
- to have an overall lower quality of the game in the eyes of the users

The data collected showed that there was no strong opinion about any recent change in quality of representation (Figure 8) with a slight incline towards an improvement. There was also no strong opinion on the topic of similarity (Figure 9) with a slight inclination towards similarity between products.

A more unusual result, in a manner where it did not follow the same distribution pattern as the previous result, appeared in the topic of individual perception of quality (Figure 10). While this question doesn't directly indicate any perception of the saturation, it could be suggestive of a wide variety of personal preferences for judging games by this group of respondents. Thus, connecting the previous data (Figure 8, 9) it is possible to speculate that the group of people with a wide range of personal preference who don't indicate strong opinions on the topic of examination of games on the storefront could be an indication of saturation.

The potential flaw of these questions is the lack of a clear time perspective in these questions for a possible relation to such topics like Steam Greenlight and Steam Direct that created several influxes of games on the market or just an increase of the game amount in general.

5.3 Possible impacts of saturation (Questions 11, 12, 13, 14, 15)

This section examines the data that is concerned with Steam platform curation overall and the possibility of saturation leading to an increase in negative or harmful impacts. The questions inquired about such topics as:

- the satisfaction of using Steam

- the possible encounter of asset flips
- the use of refund function
- the encounters of malware in products
- the possible switch to a different distribution platform

The data collected showed that for the majority of the respondents the overall satisfaction of using Steam has increased (Figure 11). The problem with this data is that it encompasses the time period from the start of the usage of the platform. As it was established section 1 of Discussion, the majority of the respondents can be considered as experienced long-time users, so it may be assumed that the increase of satisfaction with Steam could be associated with a general increase in the quality of the Steam functions overtime and not necessarily indicate any connection to the saturation.

The majority of the respondents have reported encountering the so-called asset flips on Steam store (Figure 12). These asset flips could be impacting the overall number of games thus leading to the overall saturation. It could also be assumed that if Steam allows asset flip on their store, then the overall saturation could be a result of a lower quality control by Steam itself.

The majority also did not seem to use the refund option (Figure 13) or encounter any malware (Figure 14) which could be interpreted as the saturation not having those types of negative impacts. It's important to note that the refund option has a certain condition that must be fulfilled (no longer than 2 hours of the product played). If there exists a decrease in the quality of games and a desire for a refund, users simply may not be eligible for a refund according to Steam policies.

Almost half of the respondents indicated ownership of an account on a separate distribution platform (Figure 15) that existed for less than a year. This could mean that a new platform is created to divert the customers from the existing platform due to an existing saturation.

6. Limitations

In this section the paper points out some of the flaws revealed in the process of data collection.

Question 13 on the topic of refund policies could have seemed confusing, because it required the respondents to clearly know how refund policy work. The question also required the respondents to recall a lengthy period of time which was not associated with anything to help the respondent to provide clearer data. A bias is present in the motivation to ask this question due to an assumption that the saturation might cause the quality of games to become lower.

Question 15 could have been formulated in a different way, for example: "Are you exclusive to Steam?". Asking directly about Epic Store and not any other platform could be interpreted as biased. However the reason behind that question was due to Epic Games aquaring multiple exclusive releases and through that directly infringing on Steam's market share. (St Leger, Hood 2019)

7. Conclusions

Market saturation as a term only covers markets of physical goods and services. Digital distribution platforms, being a relative new phenomena due to the progression of internet connection technology, thus do not fully fit into already established descriptions of market saturation. These platforms do not distribute goods limited by physical space. Nor are they a type of service that customers can only use for a limited amount of time. This way the term saturation only really describes the presence of an overabundance of the product, without the consideration for the amount of customers.

After conducting this research the answer whether the Steam users perceive the saturation remains somewhat inconclusive. The conducted survey did not directly ask this question, but rather tried to identify indirect signs that could indicate the users' awareness of the saturation. The questions about the user perceptions were constructed with an assumption that the saturation of Steam market could lead to some noticeable indications by the users such as: a lower quality of game presentation in the game catalogue, high similarity between new games, or a lower satisfaction by Steam overall. None of these assumptions correlated with the data collected.

Some of the data can be considered to reveal a level of saturation in general: such as the large number of games owned by the respondents or a large number of games on their Wishlist. But this should be treated as a possible indication of the Steam saturation, rather than a perception by the users.

As for the second part of the research question that regards the possible impacts of the saturation - two possible connections were by the collected data. These were: the fact that a lot of respondents have encountered asset flips on Steam and that almost half of the respondents were in possession of an account to a relatively new distribution platform.

In conclusion, the collected data did not reveal a clear perception of the saturation by the Steam users, with some data regarding the potential impacts, and left a place for more improvements on the part of the performed survey.

8. Future Works

The topic examined by this paper is mainly brought to light by the game developers who have access to such data as the numbers of sales and the amount of games released which is crucial for their own business planning. The term saturation is used to indicate that there are a lot of games available for purchase, thus the chance of a player purchasing the game by a specific developer is decreased. But that doesn't tell us if the purchase potential of the consumer has decreased. This way the saturation may not apply to Steam consumers at all. The Steam users might not even be aware of the stream of new games. The games presented by the Steam on the front page are governed by Steam algorithms and also are limited by the amount of place on the front page. This obstructs the fact that many games are entering the market and can only be observed by directly inspecting the game catalogue.

The saturation from user's point of view could possibly be observed by the amount of games purchased or the backlog of games in the Wishlist but requires further precision. Another possible data collection could consider the percentage of games owned, but not yet played by the users. A decrease in relation between games owned and the time spent playing could also be an indication of saturation for the users.

There was also no clear connection established between the saturation and the introduction of different submission mechanisms on Steam. This would have required a more precise formulation of questions with the special focus on time periods. This is a complex issue due to the fact that Steam has operated for a considerable period of time and the majority of users seemed to have joined the platform for a long time too. As for the possible impacts - a tendency for asset flip submissions have been revealed, which could be a result of saturation, but could also be a result of a lower quality control of games on Steam itself.

It could also be suggested that a possible saturation of one distribution platform could cause a rise of a new platform, since there is no actual limit to the amount of games purchased by consumers in the digital game distribution market.

9. References

1. Wright, S.T. 2018. There are too many video games. What now?, *Polygon*, [online] Available at:
<https://www.polygon.com/2018/9/28/17911372/there-are-too-many-video-games-what-now-indieapocalypse>
[last time accessed: 2019-08-25]
2. Graft, K. 2009. Stardock Reveals Impulse, Steam Market Share Estimates, *Gamasutra*, [online] Available at:
https://www.gamasutra.com/php-bin/news_index.php?story=26158
[last time accessed: 2019-08-25]
3. Edwards C. 2013. Valve Lines Up Console Partners in Challenge to Microsoft, Sony, *Bloomberg*, [online] Available at:
<https://web.archive.org/web/20141024081126/https://www.bloomberg.com/news/2013-11-04/valve-lines-up-console-partners-in-challenge-to-microsoft-sony.htm>
[last time accessed: 2019-08-25]
4. Valve Corporation. 2019. *Steam*, [online] Available at:
<https://store.steampowered.com/about/>
[last time accessed: 2019-08-25]
5. Bolding J. 2019. Steam now has 30,000 games, *PC Gamer*, [online] Available at:
<https://www.pcgamer.com/steam-now-has-30000-games/>
[last time accessed: 2019-08-25]
6. Galyonkin S. 2019. *SteamSpy*, [online] Available at:
[Http://steamspy.com/](http://steamspy.com/)
7. Eloranta M. 2016. *Steam Greenlight for first-time developers*. Tampere University of Applied Sciences, [pdf] Available at:
<https://www.theseus.fi/handle/10024/112444>

[last time accessed: 2019-08-25]

8. Crider M. 2017. What Is Steam Direct, and How Is It Different from Greenlight?, *How-To Geek*, [online] Available at:
<https://www.howtogeek.com/311311/what-is-steam-direct-and-how-is-it-different-from-greenlight/>

[last time accessed: 2019-08-25]

9. Cambridge University Press. 2019. *Cambridge Dictionary*. [online] Available at:
<https://dictionary.cambridge.org/dictionary/english/saturation>

[last time accessed: 2019-08-25]

10. Cambridge University Press. 2019. *Cambridge Dictionary*. [online] Available at:
<https://dictionary.cambridge.org/dictionary/english/market-saturation>

[last time accessed: 2019-08-25]

11. Cohan, Peter S., and Press Staff Capstone. 2003. *Capstone Encyclopaedia of Business: The Most Up-to-Date and Accessible Guide to Business Ever*, [e-book] John Wiley & Sons, Incorporated. Available through: Uppsala University Library.
<https://ebookcentral.proquest.com/lib/uu/reader.action?docID=822173>

[last time accessed: 2019-08-25]

12. Grayson N. 2018. No, PUBG Is Not An 'Asset Flip'. *Kotaku*, [online] Available at:
<https://kotaku.com/no-pubg-is-not-an-asset-flip-1826935848>

[last time accessed: 2019-08-25]

13. Kent E. 2018. Steam game accused of turning PCs into cryptocurrency miners. *Eurogamer*, [online] Available at:
<https://www.eurogamer.net/articles/2018-07-30-steam-game-abstractism-turns-pcs-into-cryptocurrency-miners>

[last time accessed: 2019-08-25]

14. Gurvin G. 2018. Valve bans Steam game that was installing cryptocurrency mining malware. *Digital Trends*, [online] Available at:
<https://www.digitaltrends.com/gaming/steam-game-allegedly-mining-cryptocurrency/>

[last time accessed: 2019-08-25]

15. Palumbo A. 2017. Mid-Sized Developers Argue That The Market Might Be Saturated with Games, *wccfttech*, [online] Available at:
<https://wccfttech.com/aa-developers-market-saturated-games/>
[last time accessed: 2019-08-25]
16. Lin, Dayi & Bezemer, Cor-Paul & Hassan, Ahmed E.. 2017. An Empirical Study of Early Access Games on the Steam Platform. *Empirical Software Engineering*. [pdf] Available at:
https://www.researchgate.net/publication/317570653_An_Empirical_Study_of_Early_Access_Games_on_the_Steam_Platform
[last time accessed: 2019-08-25]
17. Seung Youn (Yonnie) Chyung Katherine Roberts Ieva Swanson Andrea Hankinson, 2017. *Evidence-Based Survey Design: The Use of a Midpoint on the Likert Scale*. Available through: Uppsala University Library. [pdf] Available at:
<https://web-a-ebSCOhost-com.ezproxy.its.uu.se/ehost/detail/detail?vid=0&sid=25a156f3-21ee-4a34-8fd1-0cc4daf6c1b1%40sdc-v-sessmgr01&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#AN=126315473&db=eue>
[last time accessed: 2019-08-25]
18. Reddit Inc. 2019. *reddit*, [online] Available at:
<https://www.reddit.com>
[last time accessed: 2019-08-25]
19. Henry St Leger, Vic Hood Grayson N. 2019. Epic Games Store: exclusives, early access, and how it could take on Steam. *TechRadar*, [online] Available at:
<https://www.techradar.com/news/epic-games-store-exclusives-early-access-and-how-it-could-take-on-steam>
[last time accessed: 2019-09-08]

10. Appendix

10.1 Survey Questions:

1. Do you currently own a Steam account?

- Yes
- No

2. When was your Steam account been created?

- 2017 - 2019
- 2013 - 2017
- Before 2013

3. How many games does your Steam account contain? This answer shouldn't include: various DLC (downloadable content), addons, software or videos.

- 0 to 10 games
- 10 to 20 games
- 20 to 50 games
- 50 to 100 games
- Over a 100 games

4. When was the last time you purchased a game on Steam platform? This shouldn't include games added to your Steam library through codes purchased via other resellers such as HumbleBundle, G2A et al..0 to 10 games

- I have purchased a game on Steam within a month
- I have purchased a game within 3 months
- I have purchased a game within 6 months
- I have purchased a game within 12 months
- None of the above / I can't remember the last time I purchased a game directly on Steam

5. What features do you currently use to search for new game titles when using Steam?

- Featured and recommended page (Steam front page)
- The discovery queue
- Steam curators
- Steam News
- Browse by tags/genre/platform
- I don't use any of these features

6. How many games do you currently have on your Steam Wishlist?

- 0 to 10 games
- 10 to 20 games
- 20 to 50 games
- 50 to 100 games
- Over a 100 games

7. Has your Steam Wishlist been adjusted due to the Steam Summer Sale 2019?

- Yes
- No

8. Do you experience that the presentation quality (screenshots, trailers, descriptions) of the games on your store page has changed recently?

- 1 (The presentation has gotten worse and/or less informative)
- 2
- 3
- 4
- 5 (The presentation has gotten better and/or more informative)

9. Do you experience that the new games on Steam store pages are similar to the already existing titles or different from them?

- 1 (The new games I see are similar to the already existing titles)
- 2
- 3
- 4
- 5 (The new games I see are different from the already existing titles)

10. When browsing the Steam store for games, do you feel that the quality of the games you see is not up to your standard?

- 1 (I feel that games are mostly not up to my standard)
- 2
- 3
- 4
- 5 (I feel that games are mostly up to my standard)

11. Has your level of satisfaction with Steam store increased or decreased since you first started to use it?

- My satisfaction with Steam has increased since I first started to use it
- I have no clear opinion about this question
- My satisfaction with Steam has decreased since I first started to use it

12. Have you ever come across any game on Steam that you perceived to be an asset flip? ("Asset Flipping" is a term that refers to the practice of building a game almost entirely out of premade assets with little original work.)

- Yes, I have
- No, I haven't
- I'm not sure/ I don't know what games fit the description

13. Have you used the Steam refund option for a game because the quality of the game didn't match the game's presentation on the Steam store page within the past 6 months?

- Yes, I have refunded a game that was WITHIN the required return period (less than 2 hours played)
- Yes, I have refunded a game and it was OUTSIDE the required return period (more than 2 hour played)
- No, I haven't refunded any games within the past 6 months

14. Have you experienced a problem of downloading a game through Steam that turned out to contain a malware (a software that is specifically designed to disrupt, damage, or gain unauthorized access to the computer system)?

- Yes
- No

15. Do you have an Epic Games Store account?

- Yes, I have.
- No, I haven't.
- I don't know what an Epic Games Store is.