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"Play, Connect, Create": Delineating Valve's *Steam* Platformisation Strategy Through its Affordances

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Abstract

One could argue that we live in the era of digital platforms: organisations, which by accumulating and analysing our data, aim at maximising not only their revenues but also their strategic vantage points in our 'datafied' society. Platformisation has, thus, come to connotate the dipole of ubiquity and standardisation that digital platforms aim to achieve via numerous sociotechnical features. *Steam*, since its inauguration in 2003, has amassed thousands of titles of video-games, attracting millions of users, placing itself as the leading digital distributor of video-games. However, during the last decade, *Steam* has progressively adopted the model of a social entertainment platform by adopting characteristics that were previously only found on social media, while 'pushing' a gamification of its own platform. Therefore, with this thesis I am contending that *Steam* has fully adopted a platformisation strategy, aiming to consolidate its position within and across the video-game distribution, and industry in general. To accentuate and delineate this development, I have chosen to proceed with an affordance analysis of three unique *Steam* features that interconnect in order to create the necessary conditions for the aforesaid strategy to take place. Finally, I have constructed my analysis' findings according to four patterns, which are, essentially, the cornerstones of *Steam*'s complex platformisation mechanism.

Keywords

Steam, Valve, platformisation, social media, platform, feedback loop, procedural rhetoric, affordances, meta-game, Steam Economy, Steam Trading Cards, Steam Community Market, Steam API, API, Warframe, PUBG, Team Fortress 2

1. Introduction

The idea for this thesis arose from an elusive impression that struck me while using *Steam*: I was casually playing *PlayerUnknown's Battlegrounds* (PUBG Corp.) when I realised that I had a couple of loot-boxes containing various in-game cosmetics, a practice widely spread nowadays. However, I could not actually unlock them because I was missing some special required keys; then, I decided to search what was all the fuss about. So, I hit 'Shift + Tab' to open the *in-game* Steam Overlay, went through a couple of forum topics and found out that I had to actually buy these keys. Since I could not care less about in-game cosmetics, I decided to leave the loot-boxes as they were; but, it was then that *Steam* informed me (i.e. by hovering my mouse's cursor over them) that they were of actual cost, and that I could sell them on the Steam Community Market for roughly €1. It was my first listing and I actually received the corresponding Steam Wallet Funds. When reflecting on the whole event, I was surprised by how *Steam* has evolved over the years; when joining the platform on 2009 it was still a digital distributor of video-games. Nine years later, the landscape is completely different.

Steam, since its inauguration in 2003 ("Steam (Software)") has amassed thousands of titles of video-games, attracting millions of users[1], placing itself as the leading digital distributor of video-games. However, during the last decade, *Steam* has progressively adopted the model of a "social entertainment platform," as they also admit (Figure 1). Possibly related to that, *Steam* has been steadily increasing its digital titles year after year, with 7,672 games getting released on the platform only in 2017 (Kuchera). The number seen in Figure 2, especially from 2012-13 onwards, beget some questions, such as "what exactly happened to create such an upsurge?"

[1] Today, the 22nd of April 2018, *Steam* has 15 million concurrent users http://store.steampowered.com/stats/).

Certainly, one could hastily respond that the culprit has to be the *Steam Direct* (former *Greenlight*) program, which allows indie developers to release their work for $100 (Matulef), and though it is a sound explanation, I hesitate to name it as the absolute cause.

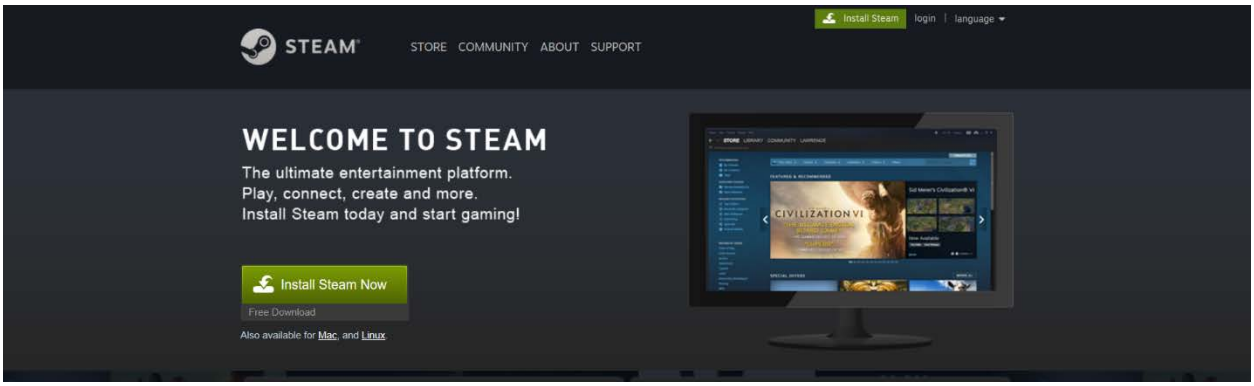


Figure 1. Steam's Frontpage

1.1. Thesis Statement & Research Question

With this thesis, I am contending that *Steam* has fully adopted a **platformisation strategy** by integrating features that foster *sociality*, resembling that of *Social Networking Sites* (SNSs), as well as, by providing users with the necessary tools to partake in *content creation* and *further expansion* of the platform itself; the latter can even refer to channels that go beyond *Steam* (i.e. third-party apps) but, which, in any case feed back to the platform, hence creating a *feedback loop*. Moreover, *Steam* has pushed forward a "gamification" (Deterding et al.) of its own platform by adopting meta-game elements, such as achievements, badges etc., similarly to how social media platforms have done so in the past (e.g. *Foursquare*).

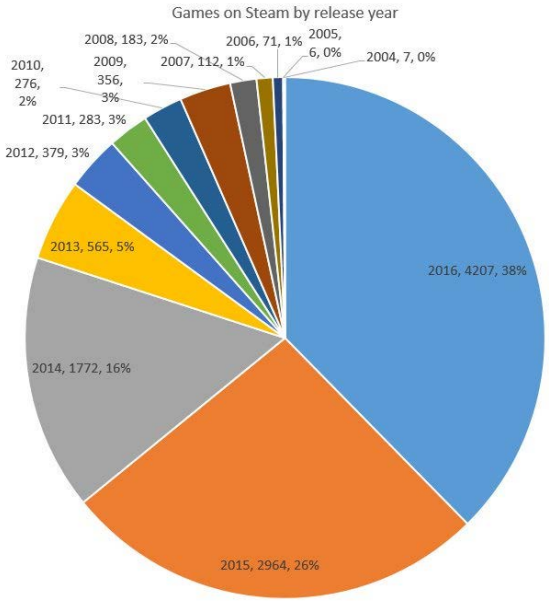


Figure 2. SteamSpy's Chart of Games Released

What is unique about *Steam*, though, is the way in which this meta-game layer is entangled with video-games released on the platform and how this layer, eventually, supports the constitution of the aforesaid platformisation strategy.

Therefore, I aim to highlight and explain how this is taking shape by delving into some of *Steam*'s unique features, namely **Steam's Community Market**, **Steam Trading Cards**, and **Steam's Application Programming Interface**, so as to enquire their affordances and how they underpin *Steam*'s platformisation strategy. An intriguing fact is that these three features were released in temporal proximity[2], which might also hint a specific turning point for *Steam*, whereupon its platformisation strategy began to formulate. As a result, the thesis' leading research question will be:

RQ: How do *Steam*'s platform and features affordances, specifically the Steam Community Market, Steam Trading Cards and Steam API, interrelate in order to constitute a platformisation strategy?

In order to be as precise and concrete as possible, I have chosen the following sub-questions:

SQ1: How is platform defined in this instance, and what does platformisation mean in the case of *Steam*?

SQ2: How is a *Steam*-bound feedback loop instigated through the affordances of these three features?

SQ3: How is *Steam* adopting elements of social media platforms built on gaming as a central form of online social interaction?

[2] Steam Community Market & Steam Trading Cards were launched in 2013 (Makuch; "Steam Trading Cards Wiki") coincidentally it was also in 2013 that Steam decided to expand its products' range from solely video-games to non-video game software (Petitte). Steam API began being widely distributed and used after 2010 ("Steam (Software)").

The above research sub-questions, essentially, author the structure and flow of my thesis. The first SQ answers to platforms at large and introduces the discussion around them while situating it within the context of *Steam*. The second SQ accounts for the corpus selection and the methodological approach, which is an affordance analysis, targeting to delineate the processes enabled by these features. Finally, the third SQ seeks to address the social media characteristics of *Steam*, which are a fundamental component of the platformisation strategy, and play a crucial role regarding the analytical chapter of my thesis.

Concluding, I have chosen to discuss and structure my affordance analysis' findings according to four patterns which are: (i) the 'ubiquitous presence' pattern, (ii) the 'social media affordances' pattern, (iii) the 'feedback loops' pattern, and (iv) the 'meta-game elements' pattern. The manner in which I have decided to operationalise the analysis in my thesis is by **demonstrating illustrative examples** of how these features interconnect, essentially delineating a designer-envisioned path for the user; what is more, I have borrowed the conceptual framework for investigating and analysing affordances as proposed by Matthew Curinga, in which he approaches affordances as quasi- textual characteristics that enable the meaning-making process (Curinga 4). In other words, the procedural rhetoric of "computational arguments" (Bogost and Montfort 2), that have been developed for *Steam*, will assist me in exploring how "users are imagined" (Weltevrede 14) and guided to perform certain actions.

1.2. Academic Relevance

The sources that I draw upon to contribute to the platformisation discourse originate mainly from literature that has tackled phenomena relating to digital platforms, platformisation, game studies, and affordances within the context of software analysis. Though due to space restrictions it would be impossible to extensively elaborate on each source; hence, I will briefly mention a few

indicating scholars that have contributed to this project. Regarding the platforms and platformisation strategy, I have consulted scholars like José van Dijck, who has written two books concerning the platform paradigm and introduced the term “platform society,” Tarleton Gillespie, who has elaborated on the metaphoric use of platforms and its inevitable implications and obfuscations, and Nick Montfort and Ian Bogost, who attempted to establish their interpretation of “platform studies” by elevating the material-technical aspect of platforms.

Subsequently, other research material derives from Anne Helmond, who not only has done extensive research on the platforms’ structure but, also, coined the term “platformisation,” which eloquently describes the on-going process of the paradigmatic shift in the gulps of online digital platforms, Nick Srnicek, who has harshly criticised platforms for obscuring the fact of being unneutral and tending to monopolisation strategies, and others who I will be referring to the following chapters. In addition, regarding the game-studies aspect, I have mainly referred to Ian Bogost’s book *Persuasive Games* and his proposed concept of “procedural rhetoric.” Lastly, relating to affordances, I have primarily used Matthew Curinga’s paper, in which he basically discusses how affordance analysis can prove more than fruitful towards examining software, and Anne Helmond’s and Taina Bucher’s work on investigating social media-specific affordances.

The need and desire for my research arose while I was going through all of the above sources. I reckon that my thesis contributes to the platformisation discourse from an angle which has yet to be thoroughly explored, that of closing in on a video-games’ distribution/ “social entertainment” (Figure 1) platform. I consider my research to be of help in further studying the extensions of platformisation in general but, also, in the context of video-games. This is the reason why I have decided to also incorporate the concept of “procedural rhetoric” (Bogost); I believe that game-analytical terminology helps in better perceiving the meta-layers of *Steam*.

Consequently, I purport that *Steam* has accumulated such great power, to the extent that one could argue of a monopoly, and I feel that as scholars, it is our duty to critically investigate and unveil such phenomena. An example, which will be expounded on in the analytical chapter, is Steam Economy, a feature that enables *Steam* users to purchase in-game goods with Steam Wallet Funds, even on third-party sites (e.g. video-games' websites), thus, potentially, creating a parallel 'virtual' economy.

Recapitulating, I wish to examine the affordances of three features, which play, in my opinion, a major role in organising and actualising the platformisation strategy of *Steam*. In the second chapter, I expound on my theoretical framework, which draws from relevant literature regarding digital platforms and platformisation, as well as, the game-analytical concept of procedural rhetoric. In the third chapter, I explicate the reason why I chose to proceed with an affordance analysis, as well as, how I intend to operationalise it in my research. In the fourth chapter, I move on to the analysis of my corpus, which is constructed according to four patterns, which include illustrative examples of how these features establish the platformisation strategy of *Steam*. In the concluding chapter, I will summarise my findings, and reflect on my research as a whole.

2. Theoretical Framework

2.1. Platforms & Platformisation

2.1.1. Platforms' Discourse

A platform could be perceived as a mutable term, depending on the environment within which is being investigated. Initially, platforms were the elevated surface from which politicians would address the public, hence, gradually becoming interwoven with the idea of a place from which ideas could be voiced (Gillespie "The Politics of Platforms" 350). Benjamin Bratton, in his book

The Stack: On Software and Sovereignty, argues that the term 'platform' is as old as it is complex to define (Bratton 42), and suggests that a platform is a place where technological and economic systems converge and collide in order to create "*a standards-based technical-economic system that simultaneously distributes interfaces through their remote coordination and centralizes their integrated control through that same coordination*." (ibid; emphasis his). In other words, Bratton is attempting to define platforms as a system, which might be dispersed and spread over several places, having *numerous entry points* ("interfaces") for users, while both maintaining the control and capital, a concept that will be very useful to tackle *Steam*'s platformisation strategy; *Steam* itself has developed various access points via the distribution of its API, as we will see in the analytical chapter.

As hinted in the introduction, there is a whole discussion regarding the usability of the term 'platform'. Some scholars, as Nick Montfort and Ian Bogost, appeal to the technical and computational aspect of the term, while others, as Tarleton Gillespie or Nick Srnicek, address the term from a more metaphorical and "Web 2.0" aspect (Bogost and Montfort 3). As made clear, my stance on the matter is closer to the latter interpretation. In other words, as Gillespie admits, modern platforms are digital infrastructures, upon which applications can be built and run (Gillespie "The Politics of Platforms" 346-347) but that can also afford specific social exchanges to take place, such as "an opportunity to communicate, interact or sell" (347). Certainly, these two interpretations may hold differences but there is an underlying unifying point in my opinion: they are inviting us to stop thinking of platforms only in regard to their context, or in regard to their users' perception, and start taking into consideration the *platforms' own affordances and procedures*.

This idea also goes in line with Curinga's impression of studying "software and ideology" through both the "linguistic and technical" lenses of software (Curinga 5). Gillespie's impression that platforms embody particular agendas or politics, which "[move] beyond [their] computational meaning" (Helmond 2), does not necessarily contradict what Bogost and Montfort are arguing about the technical-material aspect of platforms. On the contrary, their focus lies on moving a step backward and redefining what a platform's core is; see past the tip of the iceberg and try to 'break-down' the black-boxes that they have become. Moreover, this kind of opinion has gained traction within academic circles during the last few years, and increasingly more scholars call for a shift in our way of thinking the platforms, so as to unveil what is beneath their interfaces (Langlois & Elmer 14; Bucher 105); to this end, affordances prove to be quite fruitful in divulging platforms' goals and dormant procedures.

Having briefly situated the discussion around platforms, I reckon that I should clarify here the way, in which I will be talking about platforms in my thesis. Specifically, I will be borrowing the interpretation of the term, as made by scholars who have occupied themselves with the concepts of platforms and platformisation, like José van Dijck's definition: "[a platform is] an online site that deploys automated technologies and business models to organise data streams, economic interactions, and social exchanges between users of the Internet" (van Dijck "The Platform Society"). As can be inferred, a critical notion to platforms is their capacity to situate themselves as an intermediary, bridging two or more parties (Srnicek; Gillespie; Helmond), figuratively proving, thus, that they are 'indeed' an in-between place that promotes and *facilitates* expression (Gillespie "The Politics of Platforms" 352). However, we should be careful of the word 'facilitate' because as van Dijck points out: "platforms are not simple facilitators" (van Dijck "The Platform Society"). Having all of the above traits in mind, we can begin to consider *Steam* as such a platform,

which has succeeded in enabling these kinds of socioeconomic transactions, applications' development, data's accumulation and analysis by situating itself between players (users) and video-games (publishers/developers).

2.1.2. Platformisation's Discourse

> "Some platforms try to 'lock-in' apps and users by making their features and services incompatible with their competitors', others opt for ubiquitous presence (emphasis mine) of all features on all platforms, while complementary apps try to bridge the gap." (van Dijck "The Culture of Connectivity" 156).

This essentially describes every social media platform, which makes use of features that amass traffic to their site, even if a user does not visit it directly (e.g. clicking *Facebook*'s "Like" on another platform/website); thus, additionally, generating "network effects," (Srnicek; Hagiu et al.; Choudary et al.) which means that "the more numerous the users who use a platform, the more valuable the platform becomes for everyone else" (Srnicek 45) simultaneously augmenting the platform's social value (Choudary et al. 34).

Throughout my research, I have been talking about 'platformisation', a term which is also under debate; the concept of the platformisation strategy, being the underpinning of my research's argument, requires a brief explanation in order to contextualise the discussion. In my research's interpretation, it involves a certain socio-technical infrastructure and has as its ultimate goal the commodification of information. Anne Helmond was the first to use the term of platformisation in the manner that is being employed in this thesis, as well as, in the current scholarly discourse surrounding digital platforms. She talked about how "platformization entails the **extension** of social media platforms into the rest of the web and their drive to make external web data '**platform ready**'" (Helmond 1). From her definition, we can distil two key notions,

extension" and "platform ready," which are also not far from what Bratton was claiming, as shown earlier. These notions practically frame what platformisation has come to mean in this context: *ubiquity* and *standardisation*.

We discussed earlier how platforms allow for socioeconomic exchanges to take place on them; in the same manner, van Dijck, by taking a step forward Helmond's definition, talks about how: "a platform's business model and governance defines the way in which datafied information is transformed into (social, economic) value" (van Dijck "The Platform Society"). Thus, we can discern the crucial role which sociality plays in commodifying data gathered by platforms from these kinds of exchanges. This is also in line with Bucher's voice on the matter of SNSs, a crucial concept to the platformisation strategy, in that they enable the

"(i) construction of a public or semi-public profile within a bounded system; (ii) the articulation of a list of other users with whom they share a connection; (iii) the possibility to view and traverse their list of connections and those made by others within the system […] and [make] possible the production of user-generated content" (Bucher 13-14).

Lastly, the above characteristics, which can also be found on *Steam*, lead me to the second expounding point, which draws a certain line from the seer computational aspect of platforms that Nick Montfort and Ian Bogost propose, that is: I will be employing the terms 'platformisation' and 'platformisation strategy' to refer to practices and procedures that are being followed and executed by *Steam* in order to corroborate its presence within and across the video-game (and lately software in general[3]) industry. Therefore, I will not be talking about 'platform strategy' to avoid any confusion with other concepts, such as the economic approach to platform strategy which discusses how companies should make their technology open to "complementors

[3] https://www.pcgamer.com/steam-offering-non-game-software/.

and create economic incentives for other firms to join the same 'ecosystem'" (Cusumano 33). What is more, I feel that 'platform strategy' lacks a certain element that 'platformisation' contains: *mutability*. In other words, the platformisation strategy encapsulates all of those steps and procedures that permit a platform to be **flexible**, **adaptive**, and **ubiquitous**.

2.2.Procedural Rhetoric

Procedural rhetoric was introduced as a novel way of examining video-games; it proposes to look at the processes which constitute a game, "rule-based representations and interactions" (Bogost 1), instead of sole "spoken word, writing, imagery or moving pictures" (ibid). The "procedurality," which refers to ways of understanding, explaining or even creating processes (ibid 2-3), thus, can be implicitly connected to the affordances of a medium, which in turn may favour some actions over others (Curinga 3). By drawing from other forms of rhetoric, like verbal or written, Bogost claims that procedural rhetoric can not only be perceived as a means of developing arguments through procedures and processes but, also, deducing them. In other words, as he put it: "Procedural rhetoric is a technique for making arguments with computational systems and for unpacking computational arguments others have created" (Bogost 2).

What intrigues me in this concept is how procedures are perceived as expressions; in this light, they overcome their unilateral computational nature and transform into vital components of a system and, equally importantly, highlight the role of (en)actors. This is the reason why I reckon that procedural rhetoric can be revealing in my thesis' project; because it helps shed a light on the way that *Steam*'s designers and programmers practically envisioned the ideal users' behaviour and reaction to their platform's features. Certainly, this does not mean that procedures enforce any type of behaviour but, rather, encourage or discourage: dana boyd also attests to that by arguing that "affordances […] configure the environment in a way that shapes participants' engagement" (boyd

39). Moreover, this seems to be very close to Esther Weltevrede's interpretation of the relation between digital media's interfaces and their users, when she claims that if we zoom in on media's affordances, we could perhaps outline how users are "imagined and prescribed into the interface" (Weltevrede 14).

What is more, I believe that there is an intriguing connection between the concept of platforms and procedural rhetoric. Gillespie attempts to interpret older and more narrowed connotations of platforms, in a modern digital way; hence, apart from their innovative computational aspect, he claims that platforms also embody: "politics," giving users a step to voice their opinions, "metaphors," figuratively producing premises that obscure their original goals, and "architecture," meaning that the way they have been built and developed is innately connected to what they afford and foster to exist upon them (Gillespie "The Politics of Platforms" 352). Likewise, procedural rhetoric suggests that the way, in which video-games are designed, constructs and distributes messages (Bogost 2). Consequently, it could be argued that the way, in which *Steam* has developed its features, affords certain messages to be generated, as we will see in some of the examples examined in the analytical chapter.

In addition, I feel that the concept behind the relation between affordances and a contingent users' path is quite an interesting way of studying platforms. Especially in the case of *Steam*, where there exist several constructed layers of user-interaction and metagame, I propose that procedural rhetoric not only elucidates how *Steam* users are guided in performing certain social interactions but, also, how by doing so, they trigger the activation of an intrinsic socioeconomic ecosystem. For instance, a user is nudged to play a specific video-game to acquire STCs in order to craft a *Steam* Badge, which results in levelling up the *Steam* account and rewarding him/her with out-of-game commodities, such as "profile showcases" (e.g. featured screenshots of a game) or "extra

friends list slots"[4]. Therefore, by looking at such examples through the prism of the procedural rhetoric concept, we can deduce that the processes developed by *Steam* have a persuasive rhetoric transcribed into them, which surfaces the platform's desired outcome.

Finally, Although Bogost proposed this concept as a new way of researching video-games, I strongly believe that it could be further extended to the scrutiny of software and applications at large. Even he himself, considers procedural rhetoric as "a domain much broader than that of videogames, encompassing any medium […] that accomplishes its inscription via processes" (Bogost 46); hence, I find this to be of further validation of my reasoning to apply the concept of procedural rhetoric to an indirect (i.e. you can do a myriad of other things on top of solely playing) video-game software as is *Steam*. Specifically, this helps in informing both my methodological approach, in that it further polishes the enquiry of affordances and my theoretical understanding of meta-game elements, which is also one of the four cornerstone pillars of my analysis' structure.

3. Methodology

3.1. Affordances

In order to answer the leading research question, an affordance analysis of three *Steam*'s features was selected as the fitting methodological approach. My approach draws mainly from Matthew Curinga's paper on "[analysing] interactive media with software affordances," in which he reckons that affordances "offer a useful lens for considering the social and political implications of interactive software" (Curinga 1). Perhaps the most elucidating aspect of Curinga's approach is the "interpretist" (ibid 4) perspective that an affordance-informed analysis allows for; this concept will be further unpacked later in this chapter. In any case, Curinga's contribution to my thesis cannot be stressed enough: he has basically provided me, on the one hand, with the

[4] https://steamcommunity.com/tradingcards.

necessary vernacular to engage with the topic of enquiring *Steam* and, on the other hand, he has guided my analytical interpretation of *Steam*'s affordances.

The concept of affordances was first met in the field of psychology and ecology in 1979, by James Gibson, to define the contingent actions that an animal could perform in its physical environment (Curinga 6; Helmond and Bucher 4;). Gibson himself describes the affordances as "that what it offers the animal, what it provides or furnishes, either for good or ill" (Bucher 56), and as a concept, which is to be understood primarily as relational: "something that refers to both the environment and the animal in a way that no existing term does" (ibid 119). Later in 1990, Donald Norman, built upon the conceptual framework of Gibsonian affordances to develop his own interpretation in the context of studying human-computer interaction (HCI).

Norman, specifically, focused on the notion of affordances' perception and thought of them as design elements, which are perceived by the user and enable an action (Bucher and Helmond 9). This recontextualisation of the concept brought new ways of engaging with HCI, because a certain "semiotic system of communication between the designer and the user" (Curinga 6) became visible, aiming to stimulate and guide user behaviour. Under this light, it would be safe to assume "that affordances also carry the ideological views of the system's designers" (Curinga 7). Without getting deeply involved into the debate of social constructivism and technological determinism concerning technology's agency, I believe that affordances also help to alleviate this matter, in that they provide "a middle term that both takes into account the ways in which technologies are socially constructed and situated […] and materially constraining and enabling on the other hand" (Bucher and Helmond 10).

Having briefly introduced the historical and evolutional trajectory of the affordances' concept, I reckon that it would be beneficial to connect it with this thesis' goal. As discussed in

the Theoretical Framework chapter, the concept of procedural rhetoric (Bogost) was proposed as a novel way of analysing games and, especially, their procedures, which in turn were interpreted as rhetoric vehicles that enable the construction and distribution of messages (ibid 2). In my opinion, this impression ties in greatly both with Curinga's take on analysing software because both of them respect the software's agency in direct correlation with its user's agency: on the one part, Bogost claims that the interactivity occurring between players and video-games provides the stage for both of them to exercise their agency insofar as one's allowed or prohibited by the system's procedures to perform certain actions (Bogost 45) and, on the other part, Curinga asserts that affordances "describe the relation between the user and the system" (Curinga 7) to the extent that such a relationship is reciprocal rather than unilateral.

Therefore, I aim to proceed with an affordance analysis, informed by Curinga's "interpretist" approach and Bogost's "procedural rhetoric" concept. Moreover, though Bogost's concept comes from game-studies, I reckon that it becomes truly useful when considered in the context of *Steam*, a gamified social entertainment platform, as I will try to demonstrate in the analytical chapter, where I will be searching for meta-game elements embedded in the platform of *Steam*, along with its features. As mentioned in the introduction, *Steam* has been gradually transforming into a complex meta-game by adopting meta-game elements; a telling example is *Steam*'s Achievement System. Moreover, I believe that such an analytical approach will also help me in divulging the way that meta-game layers of user interaction are constructed on *Steam* (i.e. how *Steam*, with video-games at its heart, wants its users to be social but, also, how sociality is framed by the platform itself).

Curinga also claims that technology has to be interpreted by its users "to have any meaning" (Curinga 4); this "interpretist" (ibid) approach resembles that of Bucher and Helmond

referenced earlier in that both of them acknowledge the inherent dormant meaning existing in software – which is built by designers with various ideological/political/social characteristics – as well as the users' (again with various characteristics) role in activating the meaning-making process (Curinga 7; Bucher and Helmond 31). We could infer, therefore, that the designed software and features highlight some actions over others (or even obscure others), on the one hand, and, on the other hand, that users are invited to make meaning out of these design decisions. In other words, affordances could be studied as textual or even rhetorical vehicles, awaiting the users' input to activate their envisioned path to interpretation and meaning-making process, similar to how video-games require "user action to complete their procedural representations" (Bogost 45).

Of course, this does not mean that this envisioned path is absolute and definite but, rather, predesigned to privilege certain courses of actions that cause the users' activation of a platform's constellation of activities. Put it simply, as platforms tend to create and invite users into their constellations of activities, what enables such phenomena are their features' affordances, which, at the same time, emphasise certain actions that are being encouraged by the platform itself (Curinga 3). For instance, when a user presses a button on a platform or is nudged to do so by the interface's specificities, a series of other next potential steps are being enabled (e.g. *Steam*'s pop-up display when a friend joins a game; see Figure 5). Finally, Curinga also claims that, **when we study affordances, we study established, as well as, potential relations**; hence, it makes sense to proceed with an affordance analysis as "a robust framework for understanding the capabilities of software" (Curinga 6). It is, fundamentally, a way of bridging the gap between implying that everything is interpreted and that technology authors everything.

Furthermore, he suggests five interrelated components that affordance theory is able to take into consideration, thus rendering it an even more suitable method to investigate software (ibid):

1. “user goals and capacities
2. designer/system goals
3. design features
4. user perception and understanding
5. system potentials, whether actualized or not”

Following suit, I plan to track and trace *Steam*’s designed affordances, which exist embedded in the three features under enquiry, to make meaning of its platformisation strategy. The way that I have decided to operationalise the aforesaid analysis is by delving into prime examples that demarcate how the three features interrelated in order to constitute *Steam*’s platformisation strategy. For instance, when a user customises his/her profile with rewards unlocked by

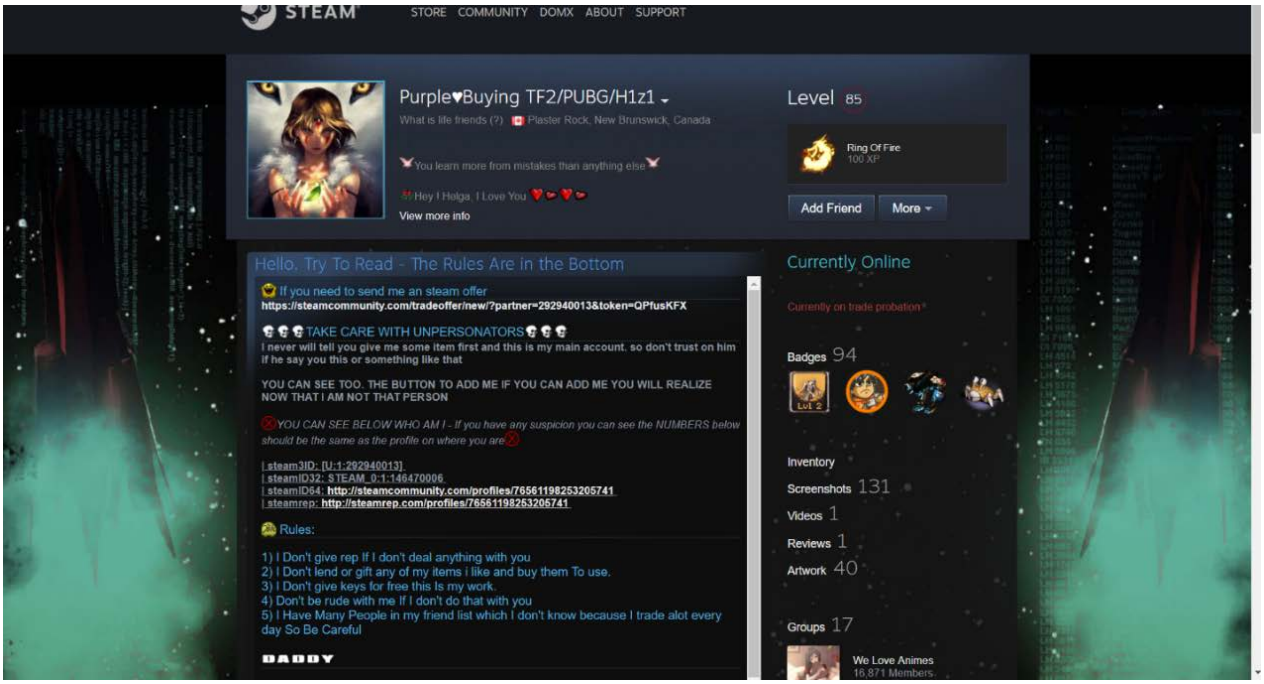


Figure 3. A Steam User's Profile Dedicated to Trading with Customised Features

collecting Steam Trading Cards to resemble an e-shop dedicated to Steam Community Market (Figure 3[5]), it is as much a matter of interpretation by the user's part as it is a matter of allowing (and perhaps encouraging to an extent) such an interpretation.

3.2. Limitations

An affordance analysis has definitely some restrictions that should be pointed out. As mentioned above, when studying affordances, we study "potentials, whether actualized or not" (Curinga 6). What this means, is that the researcher interprets, and makes substantiated claims about the relations between software and user. In other words, there is not something 'objectively' truth or false to examine but, rather, make valid and justified arguments about designed and perceived features. In any case, I believe that affordance analysis is most suitable to proceed with tracing such dynamics, especially in comparison to other traditional research methods. Lev Manovich also agrees that "if we are to focus on software itself, we need new methodologies" (15). Although Manovich and similar figures (see Bogost and Montfort), talk explicitly about scholars who have a deep understanding and knowledge of the software in and of itself, that is, also having the ability to code or at least decipher it, I believe that they do make a valid point by raising the matter of "repurposing digital methods" (Weltevrede). And, lastly, I feel that affordance analysis paves the way for "repurposing" them because it accentuates the flexibility and adaptivity that new digital methods should have since the enquired artefacts are also ever-changing and ever-moving.

[5] Note that on the right side of the screenshot there is an indicator saying "Currently on trade prohibition." This is probably due to violation of rules by the user. For a thorough story on *Steam*'s Trading World see: https://www.polygon.com/features/2014/5/22/5590070/*Steam*-valve-item-trading.

A second limitation that we should bear in mind, when proceeding with affordance analysis, is its detachment from the users' opinion and feelings. Amongst other purposes of qualitative research methods in media studies was to discover how did particular phenomena make people feel, or discover the motives behind certain decisions, often times by interviewing them and letting them speak. Bucher, on the other hand, suggests to "[let] the software 'speak'" ("Programmed Sociality" 74). Whilst not defending either in this potential debate, I think it is a question of what a researcher seeks to enquire; people's voices can be illuminating when dealing with multifaceted communication phenomena but can contribute little to developing a conceptual framework. In that way, theory and methodology are bleeding into one another, perhaps more than was the case with traditional research methods, like semi-structured interviews or ethnographic approaches.

3.3. Corpus

Although I could have focused on several small *Steam*'s features, I chose to specifically delve into three that, in my opinion, are not only unique, in that they cannot be found in other similar video-game distribution platforms (e.g. EA's *Origin*, *GalaxyOfGames* etc.) but, also, are part of a multifaceted and complex system; the inherent multidimensionality of these features' affordances (Evans et al. 37) and multifaceted interconnection provides unrivalled research opportunities. What is more, I believe that by selecting these three features, I would be doing justice to both my thesis' micro- perspective approach and my project's feasibility.

3.3.1. Steam Community Market (SCM)

Steam's Community Market provides the necessary space for users to sell, buy, or trade in-game or out-of-game commodities; these socioeconomic transactions are operated using *Steam* Wallet Funds, a platform-bound currency, while *Steam* gets a percentage of each deal. Tony Paloma, a

head engineer of Valve, stated that with SCM, *Steam* is “extending game economies beyond trades and giving players a way to turn gameplay into funds for new items and games” (Corriea).

3.3.2. Steam Trading Cards (STC)

Steam Trading Cards are virtual cards earned by playing eligible games on *Steam*. Once a user has acquired the appropriate number of cards, he/she can turn them into game badges and other tradable *Steam* items. In order for players to acquire the STCs is through gameplay, though up to a certain point; the remaining necessary cards have to be earned through one’s “*collecting prowess* (emphasis mine),” as we read on *Steam*’s website[6]. The badges crafted by completing a set of cards can reward the users with “marketable items like emoticons, profile backgrounds, and coupons,” as well as with experience points, that level-up one’s profile and offer users with non-marketable items, such as “profile showcases, extra friends list slots, and more.” Furthermore, everything accumulated, from badges to profiles’ levels, can be put on public display to “show-off.”

3.3.3. Steam Application Programming Interface (API)

Steam’s API has two distinct categories: on the one hand, there is the *Steam Web API* and, on the other hand, the *Steam SDK API* (also known as “Steamworks API”*)*. The former enables websites and other platforms, to track, display, and verify a *Steam* user’s statistics, or even authorise an in-game purchase. The latter, essentially, invites programmers and developers to build their ‘own’ applications, which can then be implemented in their video-games to make use of *Steam*’s unique features, such as *Steam Overlay*, *Steam Achievements*, *Steam Scoreboard*, and so forth. Furthermore, as *Steam* states, “integration with the Steamworks API is never

[6] https://steamcommunity.com/tradingcards.

required" albeit "it is highly recommended as it allows you to accomplish many interactions that *Steam* users *expect* (emphasis mine; "Steamworks API Overview").

As a means of conclusion, I would like to explicitly discuss the approach that I have undertaken with my thesis. I believe that affordance analysis does "facilitate theory building […] at multiple levels of analysis," (Evans et al. 36) letting us hypothesise and theorise by building upon the methodological framework. I am not attempting to prove something true or false, as a social researcher might do. On the contrary, I am following the humanitarian tradition of arguing on existing theories and methodologies. It is important to realise that the affordance analysis is based on my own interpretations, guided by previous scholarly and academic efforts on the field, hence the danger of being biased always lurks, something that cannot be really shaken off but, which can be eschewed if perceived and admitted early.

4. Analysis

In the following chapter, I will present my analysis' findings structured according to four patterns: (i) '**ubiquitous presence**', (ii) **'social media affordances**', (iii) '**meta-game elements**' and (iv) '**feedback-loops**'. The **first** one derives from José van Dijck's idea of platformisation, as explicated in the "Platformisation's Discourse" chapter (2.1.2) and demonstrates how *Steam* is aiming for omnipresence through the use of the three interrelated features. The **second** one is connected to the Social Networking Site aspect of *Steam*, a characteristic which, as discussed earlier, is inherently intertwined with digital platforms. The **third** one depicts a core mechanism of *Steam* – and platforms at large -; it is important to note here that the feedback-loop expounded in this thesis is but a fraction of a larger feedback system, which runs through the whole platform. Finally, the **fourth** pattern relates to how *Steam* in and of itself is progressively

becoming a vast and multi-layered meta-game, which makes use of all of the above traits in order to nudge people into remaining on the platform.

I believe that these four patterns reflect both my theoretical and methodological framework because they answer to, on the one hand, platformisation's characteristics along with the meta-level of user interaction that takes place on *Steam* and, on the other hand, Curinga's quasi-textual affordance analysis of software. Furthermore, these four patterns will elucidate the leading research question of my thesis concerning the constitution of *Steam*'s platformisation strategy. Each of them will be presented accompanied by a set of examples stemming from my case so as better ground my findings. Lastly, it should be mentioned here that I have chosen these patterns over discussing each feature separately due to their level of intricacy and interconnection; it is important to keep in mind that we are dealing with features which function together to compose a larger system and strategy, hence making it all the more sensible to study them as such.

'Ubiquitous Presence' Pattern

As discussed in the theoretical chapter, platformisation has become a kind of synonym of the *ubiquity* and *standardisation* dipole regarding digital platforms. Perhaps the most renowned example of this phenomenon is the "Like" button of *Facebook*, which van Dijck believes that "epitomizes the profound modification of a social norm" ("The Culture of Connectivity" 49). Therefore, users can come across a certain platform's features on various other platforms and sites, as the 'original' platform keeps on expanding and the other platforms/sites continue to adopt such developments. The reason is simple: it is beneficial for both parties because it boosts user traffic and potential engagement (ibid 156). Furthermore, the "Like" button reveals to us another paramount capacity of platforms: provision of several entry points. So, users can enter

Facebook's ecosystem – even unbeknownst to them – just by clicking "Like" on a location outside of *Facebook* due to its ability to be easily applicable to other platforms/websites.

Following suit, *Steam* has been gradually attempting to develop a similar platform ecosystem within which: on the one side, users are consistently nudged to participate in various socioeconomic activities and, on the other side, video-game stakeholders (i.e. publishers, developers etc.) are prompted to release their content on the platform. Thus, in this pattern I accentuate how *Steam* aims to consolidate its ubiquitous presence via providing various entry points that may even transcend the direct platform's outreach, while expanding its constellation of activities, hence creating an ecosystem. The ubiquity of *Steam* can be made apparent when studying the enlightening example of *Warframe* (Digital Extremes), a free-to-play cooperative third-person shooter; I chose this game because, firstly, it is not owned by Valve and, secondly, its use of the three *Steam* features is almost vital to its existence. *Warframe* was released in 2013, the same year when STCs were released, and very close to the introduction of the two other features (i.e. SCM, API) as well.

Although it is free-to-play, there are plenty methods of monetisation, several of which make use of *Steam*'s features, even though one can actually run and play the game without owning the *Steam* client. However, players who do log on to *Warframe* via *Steam* get several advantages, including access to additional SCM and *Steam* Workshop items. *Warframe* quickly adopted the STCs system ("*Steam* Trading Cards"), thus allowing players to 'farm' cards and badges by playing the game. However, since it is a free-to-play game, users have to spend actual money to collect certain cards (approximately $9 for one card drop[7]); as with every card game, there is two kinds of rarity: common and foil. The required number of cards to craft a badge in

[7] http://Steamtradingcards.wikia.com/wiki/Warframe.

Warframe is eight, and with each badge, a random "Emotion" or "Profile Background" (ibid) is rewarded to the users.

In addition, during special periods, such as the annual *Steam* Holiday Sales, the rewards are being enriched and even more special and rarer prizes are offered to STCs collectors. For instance, the most expensive item currently on sale on the *Warframe* section of SCM, starting at €186,89, is the "Phased Tigris Skin," which was a reward for crafting the *Steam* Holiday Sale 2013 badge[8]. Moreover, *Warframe* has also adopted the Steam Economy feature [9], which falls under the umbrella of *Steam* API, and which essentially enables users to directly pay for in-game commodities, like bonus packs or in-game money, using Steam Wallet Funds.

By exploring this example through the lens of an affordance analysis, we can begin to lucidly discern the characteristics' affordances that foster *Steam*'s ubiquitous presence and, consequently, its platformisation strategy. So, when *Steam* offers the opportunity for users to collect, buy or sell cards and in-game commodities under the premise of showing-off or becoming more powerful in *Warframe*, we can distinguish the affordances of the designed features. In this context, *Steam* creates the conditions for developers of free-to-play video-games to easily monetise their releases, while nudging players into participating in social transactions (e.g. trading a missing card with a friend). Moreover, players who are able and willing to pay more for those cards are favoured over others, while *Steam* successfully usurps a cut for each and every one of these transactions.

[8] https://Steamcommunity.com/market/listings/230410/Phased%20Tigris%20Skin.

[9] For the full documentation of "Steam Economy" please refer to: https://partner.Steamgames.com/doc/features/inventory/economy.

In other words, *Steam*, by offering its features as potential video-games integrations (i.e. with the use of the *Steam* API), it designs a latent activation of other interrelated features that exist on the platform itself. This contingent path requires both users, as well as, video-game developers to reify. Thus, video-games, in this light, become a sort of continuation of the platform's assemblage, that is "heterogenous components that resonate through their causal relations" (Hopkins 2). Therefore, *Steam* focuses on producing network and lock-in effects, which, in turn, increase the possibilities of the activation of the aforesaid features; this is where affordances become of vital importance. *Steam* might have designed the three features to interconnect, but they remain inactive without user input; though, their affordances gradually guide users into activating them. Subsequently, when *Warframe* implements the STCs system, it also adopts its socioeconomic traits which permit a user to take advantage of *Steam* to become more powerful in-game or, even, make money. It does not matter in this case if users' and designers' perceptions coincide, as the ultimate goal of commodification and, consequently, of platformisation is being met.

Finally, by going back to what Bratton said about platforms having various entry points (Bratton 42) and tying it with the Steam Economy feature, we can clearly see here the manifestation of a pervasive and omnipresent strategy that *Steam* has assumed. Its platform-bound currency traverses and becomes a 'facilitator' for transactions that are ostensibly outside of the platform but, in reality, appertain to its **expanding ecosystem**. Hence, the potential of *Steam*, cannot be contained solely to its platform but travels beyond that and engulf as many objects as possible. In this case, users might perceive the use of Steam Wallet Funds as an easy way of purchasing in-game commodities for *Warframe* on the game's website via the Steam

Economy feature[10] but, in fact, they assist in consolidating a parallel economy, where the 'virtual' *Steam* currency translates into real. This occurs by enabling such transactions to take place out of the direct context of *Steam*, while transgressing the game's boundaries by permitting the purchase of virtual in-game goods with a virtual platform currency.

'Social Media Affordances' Pattern

Throughout this thesis, I have attempted to highlight, along with the help of prevalent scholars, the importance that sociality and social affordances have to digital platforms. As Gillespie and van Dijck admit, these platforms do not only provide digital infrastructures but, also, afford specific social exchanges to take place, while enabling the development and employment of applications on them (Gillespie 346-347; van Dijck "The Platform Society"). This is actualised when such platforms situate themselves between two or more parties in order to bridge and serve them, as they claim, while regulating the conditions of this connection (ibid; Srnicek). As a result, they are not by any means neutral, and are responsible for their content, as Mark Zuckerberg also attested in front of the Senate on the 4th of April 2018[11]. This should not be mistaken as dictating behaviour though; dana boyd put it eloquently: "networked publics' affordances […] configure the environment in a way that shapes participants' engagement" (boyd 39).

Steam itself boasts that it is a "social entertainment platform" ("About Steam"), and not a simple digital retailer or distributor of video-games. This 'rebranding' indicates the shift in the platform's ideology and practices (i.e. bridging and serving users and developers/publishers

[10] https://www.warframe.com/buyplatinum.

[11] https://www.businessinsider.nl/mark-zuckerberg-Facebook-is-responsible-for-the-content-on-its-platform-2018-4/?international=true&r=US.

while setting the rules and conditions of the connection) which in my opinion is best illustrated by the social-rich features that exist within *Steam*, along with the three features investigated here. It is interesting to even carefully look at their names: *Steam Community Market*, with **Community** being they key-word here, *Steam Trading Cards*, with **Trading** describing a social exchange that takes place with two or more people, and *Steam Application Programming Interface*, which itself affords the building and running of applications on the platform even **by its own users**[12]. In this pattern, I am going to provide a couple of illustrative examples of the capacities afforded by the platform's features which comprise the platform's quasi-social media profile.

One of the most intriguing and intrinsic features of *Steam* is its achievement system; not only are users rewarded for performing certain in-game actions, but they are also rewarded for performing actions on the platform itself, similar to how other SNSs have adopted the model of gamified online social interactions, like *Foursquare* (Foxman). A prevalent example of that is the badge called "Pillar of Community," which requires users to accomplish certain "*Steam* Community" activities, like uploading a screenshot or a video, or posting a video-game review (see Figure 4), ergo being socially active on *Steam*. This idea goes in tandem with assuming a variety of roles from the users' part as well: from *Steam* Curators and Reviewers to Content Creators and Group Moderators, *Steam* manages to offer a mixture of roles awaiting to be

[12] A famous example of that, is *SteamSpy*, a third-party app which makes use of *Steam*'s Web API to gather and analyse data regarding various aspects of video-games released on *Steam*, such as gameplay time, active users, owners' number, sales etc. It is currently threatened to be shut down due to changes on *Steam*'s privacy settings (for more info on that: https://www.gamesindustry.biz/articles/2018-04-12-*Steam*spy-creator-warns-pc-market-is-once-again-open-to-abuse).

assumed by its users, in the same fashion that other SNSs have been doing as well[13]. For each and every action completed, a user receives experience points, which are then used to level-up the badge, which can then be publicly displayed on one's profile.

What we can discern from this example by proceeding with an affordance analysis, is the ambition of the platform to make its users **as socially active as possible**. *Steam* nudges its users into becoming more social, because the more social exchanges take place the more possible it is to generate network effects (Choudary et al. 34), which will prompt more users into participating in these events. So, in order to craft the "Community Pillar" badge, one has to have made a trade with a friend or to have posted a status to his/her friends, which requires a friend list; for a *Steam* user to have a friend, he/she has to have spent at least $5[14] in order to have a verified account. As Bucher asserts, the ability to have a public profile, along with the capacity to have friends and share content with them, is fundamental to SNSs (Bucher "Networked Sociality" 13-14).

[13] While top-of-mind examples mainly stem from *Facebook*, an earlier and utterly captivating case is *Wikipedia*, where the first contributors were mostly amateur editors without many restrictions in juxtaposition to its current (to an extent) hierarchical structure (cf. Niederer and van Dijck "The Wisdom of the Crowd"; van Dijck "Wikipedia and the Neutrality Principle").

[14] https://www.eurogamer.net/articles/2015-04-20-you-now-have-to-spend-at-least-usd5-to-access-some-steam-features/.

With that in mind, it is safe to assume that *Steam* pushes its users to have friends and complete certain tasks with their (in)direct help. At the same time, by being able to see when and what your friends are playing – similar to *Facebook*'s "Discover New Games" sidebar – is, by and of itself, a nudge towards playing that game as well (see Figure 5); that said, it could be argued that the social media characteristics of *Steam* also foster the conditions for virality[15] effects to occur (e.g. old games attracting high rates of gameplay hours out of the blue[16]). Additionally, what *Steam* affords by adopting SNSs traits is creating niche and 'private' communities on its platform. In the same fashion that *Facebook* users can create private groups, *Steam* affords the creation of Steam Community Groups, where users can converge and discuss, share ideas or content, buy, sell or trade, and so on.

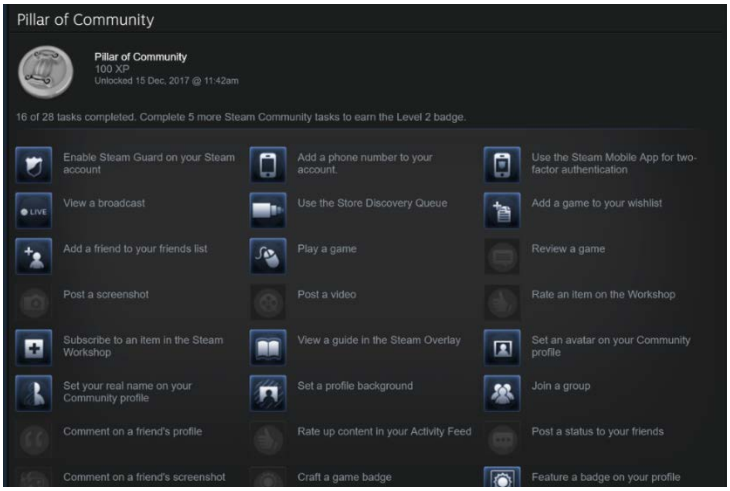


Figure 4. "Pillar of Community" Steam Badge

Those groups are either private or public, have moderation, and are limited to verified *Steam* accounts; all of these attributes resemble virtual communities that exist on the vast majority, if not all, of social media platforms. Therefore, these smaller community hubs might

[15] The term is used here as a way of denoting that something got suddenly very popular and got shared across and within several media and groups. For an in-depth take on the matter of the "viral metaphor" please refer to Jenkins, Henry, Ford, Sam, and Green, Joshua. *Spreadable Media: Creating Value and Meaning in a Networked Culture*. New York: NYU Press, 2013. Web. 17 Apr. 2018.

[16] https://*Steam*ed.kotaku.com/the-*Steam*-players-dedicated-to-reviving-dead-multiplaye-1714999608.

help to build a stronger social cohesion, as participation might be higher in more dispersed "interlinked private" networks (Parks 109). And, as depicted previously, more participation means more users, which means stronger engagement and network effects for the platform. Last but not least, *Steam* API also plays a major role in fuelling up the SNSs elements that construct the social media pattern of *Steam*. One vital consequence of *Steam*'s API is its capacity to provide users with the tools to produce User Generated Content, another crucial characteristic of social media platforms.

Concluding, in the context of *Steam*, this consequence might take place either with the form of in-game commodities that can be circulated through the SCM (e.g. custom-made skins for video-games that can be approved by a game's developers and be introduced in the actual video-game) or with the form of third-party apps. For instance, *SteamTradeMatcher.com* is a third-party website which makes use of *Steam*'s API to track users' inventories and friends' list in order to find users that are willing to trade STCs with others. The latter is very interesting to investigate further because, essentially, *Steam* permits the existence of such applications, potentially, due to the positive effect that they have in regards to *Steam*'s expanding ecosystem.

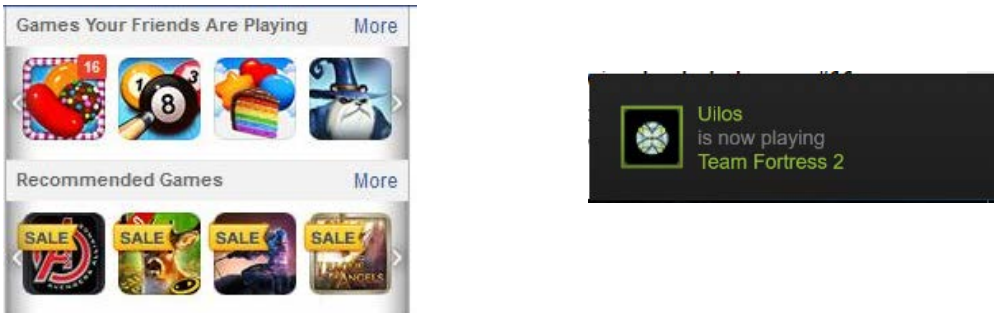


Figure 5. Facebook's Sidebar & Steam's Pop-up Notification System

'Feedback Loops' Pattern

By and large, an innate component of the platformisation strategy, and social media platforms in general, is the *feedback loop*; a concept which is also fundamental to video-game design[17]. This practically points towards a "constant stream of self-reinforcing activity" (Choudary et al. 34); it is a rather simple concept to conceive but a much more perplexed to actualise and study, especially due to the existence of smaller interconnected loops within larger ones. By looking at an example provided by Choudary et al. regarding Uber's feedback loop scheme (Figure 6) we can get a glimpse of how the designers of such loops aim at maximising network effects: more geographic coverage leads to faster pickups, lower prices and less driver downtime, which leads to more demand for the platform, which gathers more drivers, leading once more to an ever-expanding geographic coverage of the platform. What this scheme manages to conceal, however, is how users are being guided into using the service more and more, and why drivers are converged on it. In this pattern, I will surface how *Steam* has developed its own perpetuating feedback loop by zeroing in on the three features enquired in this thesis.

An example quite similar to the one that I discussed in the first pattern is *Team Fortress 2*, a first-person shooter video-game developed by Valve. When examined through the lens of an affordance analysis one can encounter some quite fascinating points in regards to how the concept of feedback loop was originally established. Though *Team Fortress 2* (*TF2*) (Valve 2007) existed prior to the paradigmatic shift that occurred within Valve and *Steam* around the first years of the 2010s, it was not until 2011 that it became a tremendous commercial success

[17] For a thorough discussion on the matter, please refer to Miguel Sicart's "Loops and Metagames: Understanding Game Design Structures." Also, Mark Brown, a 'YouTuber', has created an interesting video-essay on "How Games Use Feedback Loops."

(Dyer) whereupon it became free-to-play and was enriched with in-app purchases and micro-transactions. Furthermore, it was the first game, along with another Valve-owned game, *DOTA 2*, to implement the feature of STCs in 2013 ("Team Fortress 2"). Now, what makes *TF2* so interesting to investigate in this context is two-fold: (a) it existed prior to *Steam*'s changing point, and (b) it is Valve-developed and owned. Therefore, I am claiming that *Steam*, with *TF2*, set the standards for how games should be developed if they wanted to meet the same commercial success as Valve's video-game, and if they wanted to integrate those *Steam* unique features.

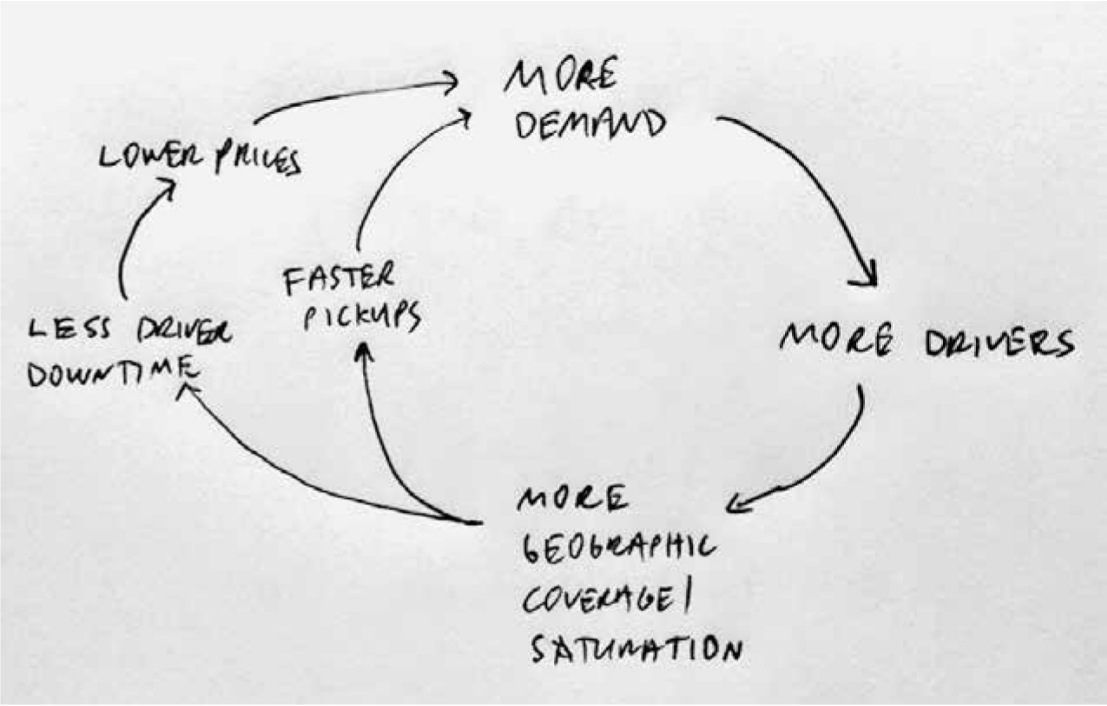


Figure 6. Uber's Feedback Loop Scheme (Choudary et al. 19)

When *Steam* decided to basically re-launch *TF2* as a free-to-play game, a specific and designated plan began to unfold. Generally, free-to-play video-games are based on the users' "virtual [goods] consumption" (Nieborg "Crushing Candy" 2); hence, video-game studios which opt for "freemium" business models, guide their users into turning from "players into payers" (ibid), while extracting and analysing data in order to better optimise the conditions necessary for further monetisation. In Figure 7, I demonstrate how such a feedback loop takes form and shape

in the context of *Steam*, while in Figure 8 I suggest how a contingent user-path leads to another feedback loop itself in the same context. As hinted earlier, when *TF2* was redistributed as free-to-play, its player base quadrupled in comparison to when it was paid to acquire (Dyer); that much can be attributed to the fact that when something is free, people are more likely to, at least, test it. Therefore, more people were attracted to it, which meant that, on the one hand, the revenue from the game copies' purchases was lost and had to be retrieved elsewhere and, on the other hand, that network effects were happening.

This is where *Steam* stepped in and provided the necessary features to make up for the lost purchase revenue stream, as well as, to take advantage of the commercial momentum. First, it enabled in-app purchases, a model widely adopted by many freemium games (Nieborg "Crushing Candy" 5); what was different for *Steam*, though, was that it connected the model with their own SCM, thus allowing exchanges and deals between individuals to happen, rather than only providing content in a top-down fashion. Additionally, the game's socioeconomic value was further enhanced with the introduction of the STCs by making the social value of the game even more effective. Eventually, this led to a deeper engagement from the users' side with the platform and its features in various ways, even by submitting user-generated content on the SCM. Thus, as shown in the feedback loop diagram below, *Steam* was able to take advantage of the engagement's by-products, with data being the most prominent one, in order to ameliorate its services. It still continues to do so by, for instance, customising one's front store page based on data traces (similar to how *Facebook*'s News Feed works) and, of course, personalising recommendations of new games via the *Steam* Discovery Queue.

While the example stemmed from a free-to-play video-game, I argue that these kinds of affordances can be traced in paid video-games as well. For instance, another Valve-owned game,

Counter-Strike GO (2012), has to be paid to be purchased yet it makes use of every *Steam* feature possible in the same manner as *TF2* does. And going beyond Valve's video-games, just by browsing the list of games that participate in the STCs system, which goes hand-in-hand with adopting, at the very least, the other two features as well, one can quickly realise the potential of *Steam*'s interlinked web of activities. The feedback loop instigated through the affordances of the three features chosen in this thesis is but a fraction of a nest of other feedback loops. This is how the platformisation strategy of *Steam* takes flesh and bones: **through an on-going mechanism which constantly extracts and analyses data in order to improve its own products** (e.g. Valve's video-games, *Steam* etc.) and, at the same time, **consolidate the framework and standards** under which other publishers and developers will decide to release their work on the platform of *Steam*.

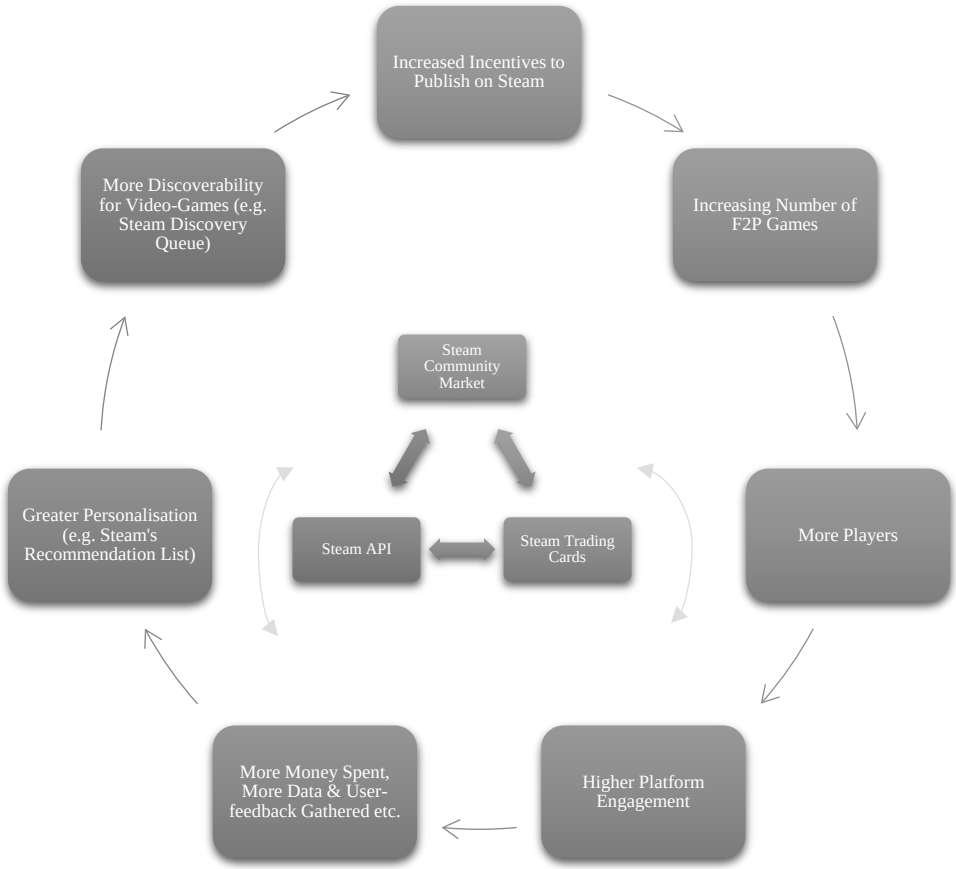
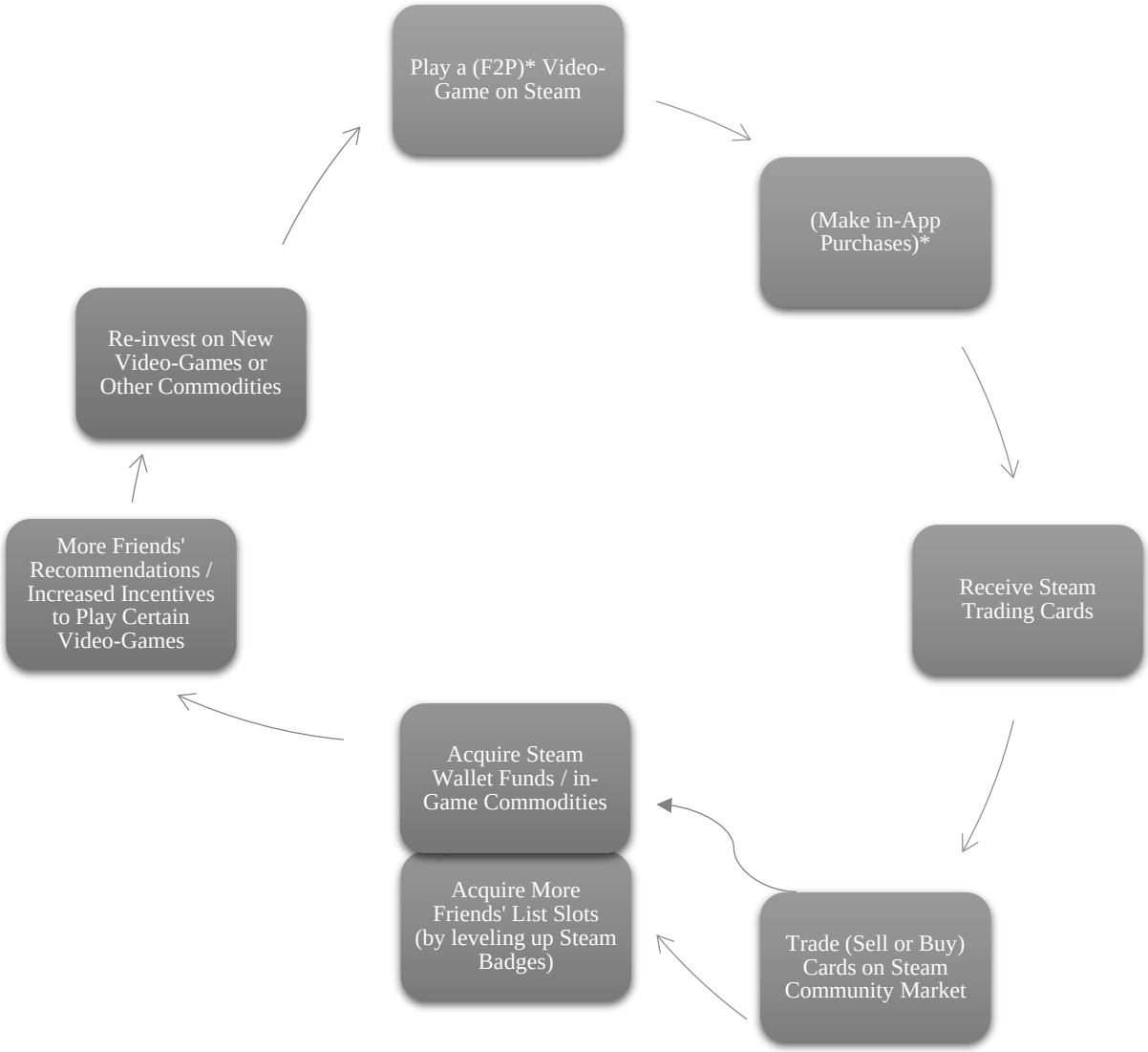


Figure 7. Steam's Interconnected Feedback Loops



**F2P, and 'in-App Purchases' node is in parentheses because this user-path may also apply to non-F2P games.*

Figure 8. User's Contingent Path Feedback Loop.

'Meta-Game Elements' Pattern

In this pattern, I will focus my attention on the affordances that emerge from the interconnected use of the three features under exploration, which have cultivated a complex meta-game layer (Sicart) on *Steam*. My effort is primarily backed up by the game-analytical concept of procedural rhetoric (Bogost), as discussed in the theoretical framework chapter, which helps me in accentuating the role that the processes of these features have come to play, along with the

importance of their activators. Since, in this light, *Steam* is perceived as a meta-game, and we are searching for game-related affordances, procedural rhetoric seems befitting to inform my enquiry. Therefore, by zooming in on some specific examples we can deduce how the designed procedures perceive an ideal user path, what actions are favoured by the designer, and what are their affordances.

However, it should be clarified that Bogost admits that interactivity does not vouch for either meaningful expression or meaningful persuasion but allows for both of them to take shape and form (Bogost 45). This is because the ideal user, as imagined by a designer, and a user's perception of a software do not necessarily coincide; this is very close to Curinga's "interpretist" approach (Curinga 4). In other words, as with other forms of rhetoric, procedures' interpretation can vary depending on the user, the platform, their interconnection, and the context in which they are being triggered. In the case of *Steam*, the largest and most revealing manifestation of such a discourse is the achievements system, a concept discussed in the previous pattern as well. *Steam* rewards users for completing specific tasks, but not every user is aware of these achievements or how they can be unlocked. Thus, the procedural rhetoric of *Steam*'s features imperceptibly guides users into unlocking them by nudging them into participating; so, for instance, users are incentivised to unlock every badge because they want to show off their collection, or they actually learn about badges, previously unknown to them, by others' profiles.

An elucidating case of this idea comes once more from the "Community Pillar" badge. If you launch and play a video-game on *Steam*, you immediately unlock an achievement for that, as seen in Figure 4; it is fair to say that the vast majority of users who own *Steam*, do so in order to play video-games and that they are unaware of such achievements, at least during the first time they launch *Steam*'s client. However, the moment an amateur user plays a game on *Steam* for the

very first time, an “Achievement Unlocked” bubble pops-up at the bottom right of the screen, which if clicked redirects him/her to the “Community Pillar” badge where all of the other social activities await to be activated. As a matter of fact, it might not even be clicked; the mere fact that the nudge has appeared in such a way might leave the impression to the user that something more exists beyond the video-game itself. This could be perceived as a way of “constructing a message while designing [video-games]” (Bogost 2) and, in this case, the message is constructed in concert with designing achievements that afford contingent users’ paths.

What this also affords is a certain play element, which could be compared to the concept of *agôn* as proposed by Caillois, to characterise the competitive nature of play (Frissen et al. 11). Though to exactly pinpoint and define the ‘play’ aspect of *Steam* itself might need another thesis on its own to consolidate, I do believe that there are ludic aspects to be traced here. Even by looking at the premise of STCs one can discern a certain nudging towards users to become competitive: expressions like “collecting prowess” or “show-off”[18] subtly imply that there is not a single way of collecting those cards and that no user is identical to another. Consequently, this means that there might exist strategies that users have to come up with to become better collectors and, eventually, build a more compelling profile to demonstrate in comparison to others, which might also suggest a kind of competitiveness among users.

Furthermore, it is fascinating that these motley communities have converged on *Steam*, mostly due to the unifying factor of gaming, but have ended up building their own networks. I reckon that this is what Gillespie meant when he was saying that the “platform metaphor” obscures the fact that platforms are “populated by many *diverse*, sometimes overlapping, and sometimes *contentious* communities” (Gillespie “The Platform Metaphor”). This was also hinted

[18] https://*Steam*community.com/tradingcards.

in the “Social Media Affordances” pattern with the *Steam* Community Groups. However, it becomes even more revealing in the light of meta-game aspect because it emphasises how meta-game elements strengthen not only the gaming identity of *Steam* users but, also, the gaming nature of *Steam*’s features. The former occurs, at first, as users are drawn to the platform because they share the trait and desire of video-gaming and, the latter, because users can identify gaming characteristics on *Steam* itself, possibly due to their “cognitive capital” (Dyer-Witheford & de Peuter 35) (i.e. they are able to trace gaming elements, like “experience points,” “badges,” etc., because they have met them before in video-games).

As a result, the above signify the gamification of the platform, which could be boiled down to “the use of game design elements in non-game contexts” as defined by Deterding et al. (9); moreover, it is a concept highly connected to modern social media platforms (see Cliff Lampe’s “Gamification and Social Media”). As implied earlier, the gamification is also given away by *Steam* itself due to the use of terms like “level-up,” “badges,” “XP points,” “craft,” and so on. Consequently, it makes a rather intriguing case to investigate *Steam* as a gamified platform, which has video-games as its cornerstone. That said, I claim that ***Steam* has progressively altered the essence of video-games as a medium**, in that the platform’s features afford the video-games to be perceived by its users, as well as, by their developers as *vehicles* to participate in *Steam*’s growing ecosystem.

As with the case of *Warframe* or with the case of *Steam*’s achievements, video-games are seemingly always at the epicentre and are used to elicit platform-bound socioeconomic exchanges. Moreover, these transactions might sometimes have effects both on how people treat video-games, e.g. people playing over and over the same video-games in order to ‘farm’ STCs, and on the in-game economies, as with the case of the skin awarded at the *Steam* Summer Sales

of 2013 for *Warframe*. These instances crystallise Sicart's take on meta-game elements as being "external to the core interaction with the game that has nevertheless importance in the experience of the game" (2). With this in mind, it would not be a long shot to call *Steam* an inseparable component to the experience of playing a – steadily growing – number of video-games released on the platform.

5. Conclusion

One could argue that we live in the era of digital platforms: organisations, which by accumulating and analysing our data, aim at maximising not only their revenues but also their strategic vantage points in our 'datafied' society (van Dijck "The Platform Society"). What makes platforms so intriguing is that very often they tend to present themselves as "empty spaces for others to interact on, while in fact [embodying] a politics," (46-47) as Nick Srnicek notices in his book, *Platform Capitalism*. The academic community has been trying, during the past few years, to scrutinise the so-called 'platformisation' of several segments of our everyday lives, while trying to provide us with the necessary vernacular to engage with these new phenomena. This thesis has sought to address the matter and contribute to the on-going discussion concerning digital platforms and their socio-political implications, from a more micro-perspective, by homing in on Valve's *Steam*. To do so, I decided to delineate *Steam*'s platformisation strategy by proceeding with an affordance analysis on three specific features, Steam Trading Cards, Steam Community Market, and Steam API.

To answer this multi-layered task, I decided to proceed with an affordance analysis informed by Matthew Curinga's approach, in which he takes on affordances as quasi- textual elements that enable the meaning-making process (Curinga 4). However, whilst Curinga certainly was of tremendous help in formulating my research, it would be an oversight and a

fallacy to not underline the high degree of interplay between my methodology and theory. As discussed in the Theoretical Framework chapter, digital platforms and affordances are two concepts which are so intertwined, that, when examined together, the findings can be truly revealing. In my thesis, this became most clear in the Analysis chapter, where I constructed my findings according to four patterns, which emerged from platforms' and platformisation's characteristics, as shaped by prevalent scholars (van Dijck, Helmond, Bucher, Gillespie, and others). In other words, in the same fashion that affordance analysis "facilitate[s] theory building […] at multiple levels of analysis" (Evans et al. 36), theory facilitates enquiring affordances.

Furthermore, through the affordance analysis I have come to the assertion that the interconnection of these three features, as shown with the example of the achievement system in the analytical chapter, has two direct results: on the one hand it establishes the gamification of *Steam*, a concept highly entangled with social media platforms and, on the other hand, the subtle alteration of the video-games' medium. To me, the latter is of utter importance because it surfaced an idea that was not at all conceived prior to writing this thesis and which has extensions to the field of game-studies as well: video-games are perceived by Steam as the cornerstone for its platformisation strategy because, essentially, they enable the activation of a constellation of interrelated activities and processes. Both with the case of *Warframe* (Digital Extremes) and with the case of achievements, video-games are the key to unlocking almost everything on Steam and are seen as a vehicle to carry the expanding ecosystem of the platform.

Most certainly, we have to always take into consideration that the findings of the affordance analysis result from my own interpretations, guided by well-established scholars but which, in any case, are affected by my own biases. As I said in the Limitations sub-chapter (3.2), the only way to confront such a predicament is to admit its existence and be as honest and

transparent as possible. Hence, I am not attempting to prove that something is true or false but, rather, suggest an interpretation, and an approach to the case of *Steam*. What was at first an elusive impression that stirred the idea behind my thesis while playing *PUBG* (PUBG Corp.) is now an indication of *Steam*'s transformation to a vast and complex "social entertainment platform" ("About Steam"). Moreover, I am now able to discern what processes are being enabled by just hitting 'Shift + Tab' to open the in-game overlay, as I did in that example, as well as, what affordances have permitted that capacity to even exist.

Additionally, due to space and time restrictions, my thesis has, inadvertently, left a few unanswered spots concerning *Steam*. More specifically, some very fascinating features, like Steam's Review System or Steam Curators, could be further explored in future researches. For instance, what more do they bring to the table as regards to *Steam*'s platformisation strategy? Or, besides that, how do they contribute to the constitution of *Steam*'s community hubs? The latter could be a very promising research project, which could stem material and sources from José van Dijck's work on *Wikipedia*. Moreover, another paramount feature, which *Steam* offers to video-games published on it, is cost and time efficient updates (i.e. patches) for their works: *SteamPipe*[19] is the tool via which, creators can release their game on *Steam* (from 'closed beta' to 'early access'). So, it seems that, at least for smaller video-game studios, *Steam* is truly a one-way street; thus, what does this mean for indie video-games production in a 'platformised'[20] industry?

I believe that future researches could also help to elucidate the shifting dynamics between video-games and *Steam*. As hinted in the analytical chapter, *Steam* might be gradually

[19] https://partner.steamgames.com/doc/sdk/uploading

[20] cf. David Nieborg's "Free-to-Play Apps and the Intensification of Platformization" *AOIR2017*.

transforming into an inseparable component of experiencing video-games, at least in the 'holistic' way that *Steam* has envisioned; this is given away by the platform itself: "Integration with the Steamworks API is never required to ship your product on Steam, but it is *highly recommended* (emphasis mine) as it allows you to accomplish many interactions that Steam users expect." ("Steamworks API Overview"). Thus, *Steam* wants publishers and developers to comply with its standards, without enforcing anything upon their video-games but with creating the appropriate conditions to make it as the sole way of attracting visibility, profits, and so on.

Therefore, it is rather crucial for scholars to intervene and scrutinise these dynamics from a game-studies perspective in order to study what does this new status quo means for the essence of the video-games' medium. For instance, many video-games are now getting released, especially on *Steam*, as 'Early Access'; this new trend might very well derive from the extremely fast pace of games' production and release, which has resulted in an unprecedented competitive market. In the end, do games still manage to move us (Isbister) when they are feverously released, along with a ton of platformisation features, even as early access, or are they progressively becoming a necessary component to keep the 'engine running'?

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