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Instituto Universitário de Lisboa

IS FREEMIUM A GOOD REVENUE MODEL FOR MOBAS? -

ANALYSIS OF SUCCESS FACTORS

Dinis António Silva Maia

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Supervisor:

Prof. Dr. Waldemar Pförtsch

Co-Supervisor:

Prof. Dr. António Robalo

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ABSTRACT

MOBAs for the personal computer generated $2.4 billion in 2014 and the user base in the genre has been growing exponentially in the last few years. With freemium being the revenue model of the leading MOBA titles and 75% of the overall MMOs, we set to investigate whether alternative revenue models or monetization strategies and which underlying game designs would make sense for MOBAs. We considered titles for the personal computer within the Western world market.

We try to determine how important user bases are to these games and how, by their never-ending, persistent nature, a sustainable approach should be preferred. We look specifically into the top four leading titles and how they monetize their offers. Furthermore, some light is shed into how current competitors and new entrants to the market can expect to achieve success: the former mainly by maintaining user bases and innovating within the boundaries of continuity whilst the latter by creating meaningful differentiation.

Keywords: MOBA, revenue model, freemium, monetization, game design, user base, differentiation.

RESUMO

As MOBA para o computador pessoal geraram $2.4 biliões em 2014 e o número de utilizadores tem crescido exponencialmente nos últimos anos. Uma vez que o *freemium* é o modelo de receitas predominante nos MOBA e constitui 75% dos modelos de receita dos MMO em geral, foi tomado como ponto de partida para investigar da possibilidade de modelos de receita alternativos ou estratégias de monetização – bem como o *game design* subjacente – serem aplicáveis aos MOBA. Foram considerados apenas jogos para o computador pessoal no mercado Ocidental.

Procurámos determinar o quão importantes são os utilizadores para estes jogos e como, pela sua natureza interminável e persistente, é preferível adoptar uma postura virada para a sustentabilidade. Foram tomados em consideração especificamente os quatro jogos de topo e a forma como monetizam as suas ofertas. Também foi tida em atenção a forma como os actuais ou futuros competidores poderão esperar alcançar o sucesso: os primeiros essencialmente pela manutenção dos utilizadores e pela inovação dentro das fronteiras da continuidade e os segundos através da criação de diferenciação significativa.

Palavras-chave: MOBA, modelo de receitas, *freemium*, monetização, *game design*, utilizadores, diferenciação.

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List of Abbreviations

AI	Artificial Intelligence
ARPU	Average Revenue per User
DLC	Downloadable Content
DotA	Defense of the Ancients
EEDAR	Electronic Entertainment Design and Research
FPS	First-person Shooter
HoN	Heroes of Newerth
HotS	Heroes of the Storm
HUD	Heads-up Display
IP	Influence Points
LAN	Local Arena Network
LoL	League of Legends
MIT	Massachusetts Institute of Technology
MMO	Massive Multiplayer Online
MMORPG	Massive Multiplayer Online Roleplaying Game
MOBA	Multiplayer Online Battle Arena
Mod	Modification
NPC	Non-playing Character
PC	Playing Character
PvE	Player versus Environment
PvP	Player versus Player
RP	Riot Points
RPG	Roleplaying Game
RTS	Real-time Strategy
SoDA	Sins of a Dark Age
URF	Ultra-rapid Fire
WoW	World of Warcraft
XP	Experience

1 Introduction

The videogame industry has been growing in the last years reaching increasing numbers. These figures are expected to rise as videogames are associated with a younger population which means there is still potential for growth as generations are renewed and the younger populations adheres to the gaming industry as it seems to be adhering.

Hardware developers progressively tapped into the new possibilities offered by devices such as mobile phones or tablets. Furthermore, consoles further innovated with sensors enabling gaming first with the Nintendo Wii and then spreading to Sony and Microsoft platforms as well. Other hardware developers such as Oculus or HTC began prototyping “virtual reality” devices which promise to revolutionize gaming.

All in all, game (and business) design is intimately tied to its revenue model. The question of “How to make money from a product/service?” cannot be dissociated from the very product or service offered. Thus, the design of such a product or service should keep in mind, from inception, how it is going to generate revenue.

In a similar manner, revenue models cannot be effectively assessed in dissociation from the products or services that enable them. This happens not just at an industry level, but also at the product/service level. To further clarify, this means that even the type of game and its specific characteristics – which also determine or significantly influence a target audience and intend to satisfy somewhat different needs within the industry – are crucial to understand how a revenue model works and how effective it can be.

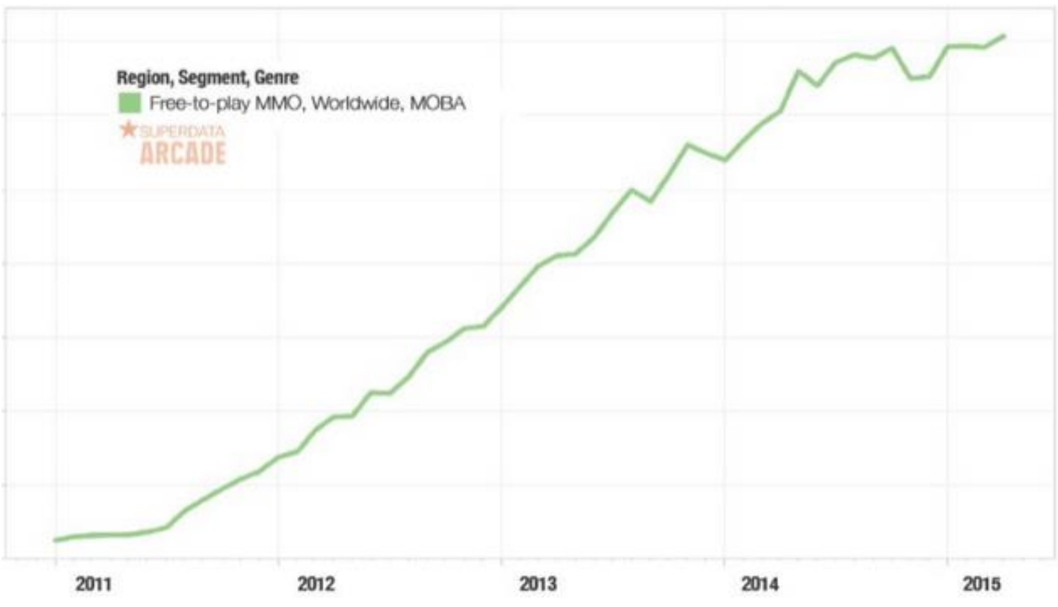
We aim to study MOBAs and understand their revenue models and monetization mechanics as well the key elements, including game design, that make the path to success in the genre’s market. We will focus on the market for the personal computer in the western world (which could be mainly, if not entirely accurately, portrayed by Europe and the American continent). This distinction is important as player profile and user behavior differ in other regions, such as Asia, the most mature market (Weidemann, Dissecting League of Legends Monetization | Teut Weidemann, 2014).

As the predominant revenue model for MOBAs is the freemium one, we decided to take it as a starting point to explore other possibilities. In an effort to further focus our work in what we believe makes more sense for this genre, we decided to evaluate also the premium and the subscription models as the main revenue drivers. We aim to search for alternatives while highlighting what is most important to succeed both for current competitors in the market as well as for new entrants.

2 Personal Computer videogame industry – MOBA

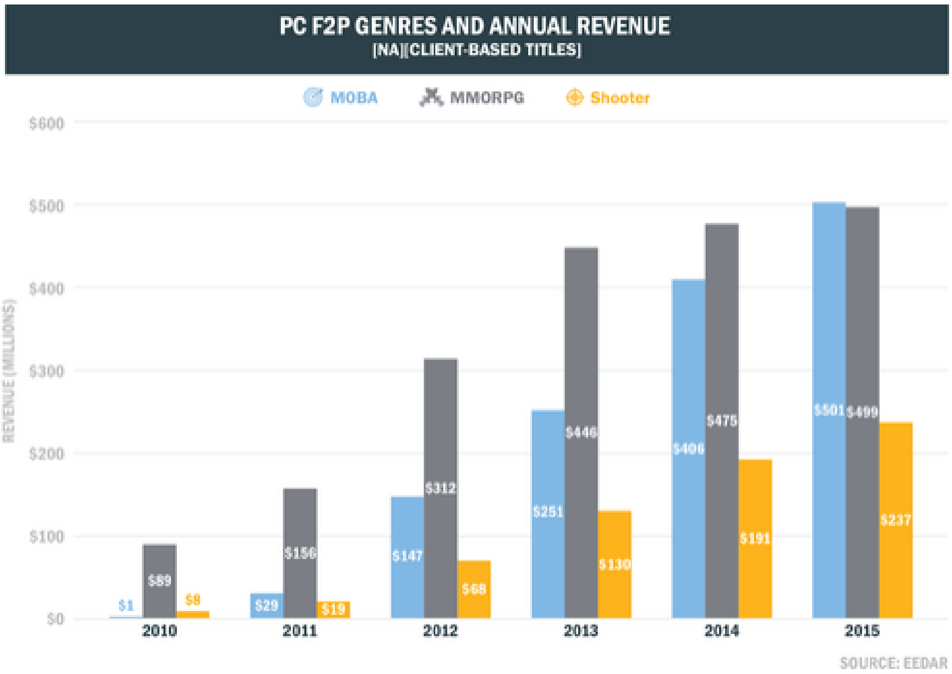
According to Superdata (Superdata research, 2014), in 2014, the worldwide digital games revenue was a market worth $49 billion, from which only $6.4 billion were generated by the personal computer and only $2.4 billion by consoles. From the overall amount, Superdata estimates that roughly $10.5 billion – more than 20% – were generated by MMO games, including MOBAs. The genre generated an estimated $2.4 billion in 2014, for the personal computer. In fact, two titles within the genre made it to the top 10 list of MMOs per revenue generated, with League of Legends taking the top spot. The same two games featured in the top 10 list of MMOs by ARPU, but placed in eight and tenth (Superdata research, 2014). In 2014, still according to the same source, the freemium MMOs represented roughly 3 out of every 4 games.

Figure 1: Total monthly active user base for MOBA genre, worldwide (source: Superdata)



The total monthly active user base for the MOBA genre has seen an exponential increase since 2011, as can be seen on figure 1, and is estimated to have reached around 140 million monthly active users in early 2015. The genre has grown in popularity while others, such as MMORPG have been decreasing. Furthermore, e-sports viewers keep growing worldwide boosted by MOBAs such as LoL and Dota 2: from 36.3 million in 2012 to an estimated 134 million in 2015 – an average yearly increase of 55%. Underlining this growth was Amazon's acquisition, in 2014, of Twitch.tv, a major e-sports online broadcaster, for almost $1 billion.

Figure 2: Personal computer: revenue of free to play genres (client based) in North America (source: EEDAR)



All in all, MOBAs are the driving force behind the growing market of personal computer and digital games, predicted to catch up to MMORPG, as seen on figure 2. (MMOSITE, 2015). Nevertheless, the MOBA market begins to show some signs of saturation making it increasingly interesting to understand how to succeed in it (Superdata research, 2015).

3 Revenue models

The three revenue models considered will be Freemium, Premium and Subscription. This has to do with how they have been used historically in the videogame industry and how, theoretically, they would fit personal computer videogames and the specific genre of MOBAs.

3.1 Freemium

Freemium was coined through the contraction of "free" and "premium". It refers to a revenue model which enables consumers to have a certain product or service for free and getting revenue from additional features provided, usually to a small percentage of the user base. Thus, a general product or service is provided to a wider population with the revenue coming only from a reduced number of users within.

It should clearly be distinguished from a free trial or demo. In this case, the prospective customer can test the product or service before purchasing it. It should be also distinguished from other types of free products or services – namely: those not intending to monetize (e.g. based on donations, gifts); those who intend to use other forms of revenue such as advertising (in this case the revenue comes from a third party); those who give away something for free as part of a deal where the customer pays for another product or service (Freemium.org).

Freemium is more popular with digital goods which can be used by companies to provide their offer with residual to virtually no marginal costs. Providing a product or service for free is only sustainable and profitable if the costs to supply all interested users are lower than what paying users are paying for the service they are getting. This implies a clever design weighting what is given out for free, which should be interesting enough to attract a large user base, and what should be paid for, which should be interesting enough for a sufficient amount of users with specific needs.

While its appeal will surely be related to what kind of offer is provided and how well it tends to the needs of an audience, being free is a solid and very attractive proposition in itself. A renowned and widely quoted MIT research (Ariely) illustrates this point quite eloquently. The study argues that something being free adds an extra value to it beyond the usual cost-benefit reasoning. The authors state their main finding being that "people «overreact» to free products, in a sense that in order to get a free product, people are eager to forgo an option that they «should» find preferable".

The study was based in an experiment which consisted of offering a group of people the possibility to purchase either a quality chocolate at a higher price (14 cents) or a not so good chocolate at a lower price (1cent) - or even nothing. At first a larger percentage of people opted for the value for money proposition represented by the combination of the best chocolate and the 14 cents. In a second phase, as prices are decreased by the same amount – 1 cent – making the lower grade chocolate free, the percentage of people taking the lower value chocolate increased while the best chocolate saw its preference decrease. The authors thus conclude that a product becoming free makes it “not only cost less, but consumers act as if being free also adds intrinsic value to the product”.

In the videogame industry, Freemium has been a quite popular revenue model for products designed for mobile phones and internet browsers, sometimes coupled with social networks such as Facebook. These games usually focus on a certain social component involving getting a player’s friend to help him with the game, by adding certain benefits. In these cases, it holds true that the more friends are playing the game and actively helping the more progress can be achieved. The sense of progression seems to be fundamental in keeping users coming back to the game, which in turn is fundamental to increase the conversion rate. Other mechanisms include limiting playing sessions (for not so deep games) and/or offering daily bonuses to keep players coming back regularly. The idea is thus to maximize the transactions connected to the game aiming to generate a steady revenue flow. In many cases, this also means that the game should be periodically updated and potentially improved (Weidemann, Teut Weidemann - Beginnes's Intro to F2P, Aalto Game Monetization Design, 2014).

The premium part of freemium videogames can generally fit into two categories: functional upgrade or cosmetic change. The former allows paying customers to have some sort of advantage in the game whilst the latter does not. This division is tied to one of the main issues free to play games have had in the western world, known as the “free to play stigma”. The stigma is based on the “perception that freemium is nothing more than a thinly veiled monetization scheme, designed to maximize micro-transactions from so-called whales rather than putting a focus first on fun” (Brightman, 2014). The reputation of these games as not sufficiently well designed for non-paying players was built upon a few pillars, namely: poor pricing, especially if it is too expensive; repetitive suggestions to purchase something during gameplay, mixing the transactional part with the actual game; elements that allow paying players to have a very noticeable advantage over non-paying ones (Extra Credits, 2014) (Pocket Gamer - Comments and Opinions, 2015).

Western audiences don't enjoy games which endorse a strong "pay to win" element, particularly in PvP games, where functional upgrades offer great advantage towards a win. (Weidemann, Dissecting League of Legends Monetization | Teut Weidemann, 2014) The general balancing act followed by developers to level the playing field is to contra pose time to money. Paying customers are offered either to progress at a faster pace or a certain advantage also available to non-playing users willing to invest enough time into the game. In light of this, some games function with a dual currency system. Hard currency is obtained only by putting money into the game and soft currency is only obtained through time spent in game or logons (or though other mechanism such as number of wins). Offers for sale can be priced then in one or both of these currencies, determining then what can be bought with money, with time or with either one or the other.

3.2 Premium

Premium is a revenue model basing income on a transaction with a given price which is agreed, and many times paid for, prior to getting the product or service. It is the most widespread form of revenue, coming from a simple trade. In most cases, price is not negotiable and is set by the seller with the prospective buyer having the option of purchase. It can be either with or without resorting to credit. It is the kind of transaction present in our daily life when shopping from groceries going to the restaurant or just from buying a coffee. Nowadays, as consumers pay more and more using the credit card, the money is perhaps not deduced from our accounts prior to getting the goods. Nevertheless, the business owners receiving this payment get the money instantly into their account thus being paid as they deliver the goods. In cases where we pay in the end, such as in a restaurant, the delay is not significant.

In the videogame industry, it was the traditional revenue model. More popular in the past, arcades allowed players to pay for iterations of the game. As games became more liberalized and available at home, they were purchasable for a one-time fee to be enjoyed as many times as wanted. At first they were only available this way in retail stores but lately digital copies have been made available and one can pay for game and just download it without even leaving the comfort of his or her home.

Historically, for the consumers, this generally had two implications. Firstly, it was usually the case that they would buy a game without testing it first. Although specialized magazines would offer insight into what the titles were about, they could not cover all games and they could only do it until a certain point. Still, this was not really getting access to the game before purchasing. This happened mostly through demos that were made available representing the game only partially as players could play only up to a certain point or only for a certain duration or even both. This provided some sampling but it was far from being available for all games.

Secondly, the product was sold “as is” and no additional free updates would be released. If patches were released it would have been to correct a main flaw in the game. Therefore, from the developer’s side it generally meant a quite low additional investment after release.

For games purchased as purely “pay to play”, the former changed remarkably with the advent of widespread internet usage, as demos became more and more available and reviewed content became available online. Furthermore, gameplay footage of several games can now be seen on sites such as You Tube for a feel of how they play prior to purchase. The latter, has only slightly changed. What is offered online in the form of patches is up to minimum and DLC is often paid for making it a new instance of the same game and not distant from the original concept of an expansion.

3.3 Subscription

Subscription is a revenue model based on periodic payments in return for a periodic or continuous service and/or product deliveries. Magazines and newspapers were probably the most known for using this kind of revenue model as consumers saw convenience in setting up a subscription to get a product they would get anyway without the hassle of several transactions. Instead they could just pay a yearly fee and get the publication delivered to their doorsteps. For the publishers, the costs of shipping their products were surpassed by a potential increase in sales as it guaranteed the fee or a given period, during which consumers may not have otherwise bought all editions. Moreover, it provided cash flow as they would receive the money beforehand and allowed for better planning as they could have a better understanding of the minimum copies they would need to print, for example.

In the videogame industry, it was pioneered by MMORPG. As a never-ending game with periodic updates and continuous maintenance it made sense, at least from the developer's perspective, to keep a steady stream of revenue. These games differed from traditional offline games as they were not just a product but a product with services attached. Aside from server maintenance and keeping the game balanced and bug ridden, periodic updates were part of the core of the game. Furthermore, community management and support for players would also be in place.

After World of Warcraft (2004), arguably the most successful MMORPG, and still the market leader, some other games in the genre started with a subscription model, often coupled with a freemium component mimicking WoW. Many of those ended up going free to play as they were facing high churn levels and increasingly lower user bases. Players would initially come and test the game and realizing it offered no meaningful difference to the market leader's offer they would revert back (Tedeev, 2015). New players to the genre would likely start with WoW anyway, as the most hyped game. Since the social aspect of the game is so strong that players would find themselves playing the game their friends were playing.

As it seemed that basing this sort of games mainly on a subscription revenue stream proved difficult to all the market leader challengers, the approach soon evolved. Some MMORPG like Eve Online (2003) and Wildstar (2014) employ a subscription revenue stream I their business model with the option of grinding to pay for the games periodic fee. As it allows players to use in-game currency to pay for the subscription fees, it puts the game closer to freemium model. Wildstar is a good example of a hybrid revenue model combining elements of premium, subscription and free to play: the game is available today for 29.99€ (44.99€ deluxe edition) (NCSoft), but requires a subscription to keep playing and it can be either paid for in real world currency or with in-game currency (NCSoft). This is probably as hybrid as it gets as a way to mix "free" and some form of payment. In fact, the game can only be "free" after paying for the initial fee. Replacing the real world paid subscription with in-game currency is a kind of approach similar to what has been done by some freemium games.

4 MOBA

A MOBA is a videogame genre, played in real time, where two teams fight for victory in a predefined map. The objective is generally to destroy a specific structure of the enemy team on the opposite side of the map. Each player controls a single character that "levels up", becoming stronger as the match goes on. Several weaker AI controlled units are also usually part of such a game, even if the fewer player controlled characters are the ones decisively influencing the course of events (Kalor, 2015).

4.1 Origins

The origins of the genre can be traced back to Blizzard Entertainment's Starcraft (released in April 1998). The renowned publisher and developer had released yet another RTS game, following their Warcraft series. This particular game, however, had an inbuilt editor that allowed players or fans to create their own maps and design their own mini games using StarCraft's engine. One of these mods was "Aeon of strife", which featured already many of the aspects that make up the genre today.

In July 2002, Warcraft III: Reign of Chaos (Blizzard Entertainment) was released introducing a more powerful editor for players and fans to mod with. The concept previously seen on Starcraft was revamped, improved and renamed DotA. It grew popular within the community and when Warcraft III: The Frozen Throne (expansion to the aforementioned game) had been released in July 2003 the mod was already a phenomenon and one of the most played mods ever. Several improvements ensued with DotA achieving a considerable level of polish in par with the highest standards for commercial products at the time.

The mod required continuous maintenance as one of the key features for replay value was the sheer number of available playing characters to choose from. The mod developers ensured a steady flow of new characters as well as a healthy balance between their power levels so as to keep them all at some level of relevance. At this point, DotA had never been a commercial product. The game was only playable inside another game: players would have to own one of these Blizzard titles, download and install the mod and then play it.

By the end of 2008 there were already titles with similar principles available in the western market – such as the web browser game, Minions – but it was only in 2009, with Demigod and League of Legends, that it became truly a commercial product. At that time new titles were announced and, what started as just a fan made mod, became a videogame genre in its own right with several titles to its name and played by millions worldwide (Machimina, 2012).

4.2 Nature

We would like to clarify the essence, the defining characteristics of games that would belong to this genre as we propose to analyze it. Furthermore, we would like to highlight these specific features for a better understanding of how these games work and how a revenue model could be design for them. It may encompass certain features which did not belong in the original mod or may remove others, as long as it keeps true to the general principles established and meanwhile taken into consideration as essential to being a MOBA. The acronym does help to a point, but we have to move beyond it to truly understand the nature of the genre. It is still a fairly new one, and some features could be open for debate but we tried to keep in mind the principles which are generally agreed to be part of it.

It should be, at its core, an online game. This does not mean that an iteration of a certain game played in LAN with others or even alone totally disconnected would stop it from being a MOBA. However, the core of the game should be played online.

The game should be played in real time. Any kind of recreation of what traditionally would be a MOBA as, for example, a turn based game would make it more of a pure strategy game than an RTS or Action RTS. It is thus a face paced game which demands quick strategic decisions and a great deal of mechanic ability from players.

These two combined features already stress the importance of a reliable internet connection. Both stability and reasonable ping are required for the best experience within matches. Although the access to the internet has become more and more widespread, there are still many locations, perhaps in smaller cities, in the Western world where connections are not as reliable or ensuring the best latency to play such a fast paced game.

At its core, the game should be designed to and played by several players. The multiplayer component is also essential. The game is also a team game and, to feel more like so, most MOBAs employ teams of at least 3 players and, traditionally, no more than two teams per match. This does not mean that a duel with the same principles cannot be part of the genre, but the focus should remain on team play. Similarly, although some game mode can be PvE, in its essence, a MOBA should be PvP. These two features emphasize the social component of the genre and the way it can forge relationships as players learn to co-operate to achieve victory throughout the time they play matches together.

A MOBA is also a match played on a specific map (or set of maps, for different game modes) in which the objective is the destruction of the opposing team's base. Some game modes in MOBAs having a "death match" kind of approach are fine as long as the core proposition of the title features a map, or maps, with the aforementioned objective, and, for example not that of defending a base – which is the proposition of tower defense games. The lanes (or a specific number thereof) are not mandatory even if many MOBA feature them.

PC generally become very strong to a point of decisively impacting the game, as they level up. This progression in the match is also a trademark of the genre, missing in some traditional RPG elements, like ability choices and upgrades. Usually, during matches players can acquires a certain currency enabling them to acquire items to make their PCs even stronger. It is very common to see periodically spawned NPC fight for each team.

4.3 Player profile

In order to understand how best to make money out of a game, like with any product or service, it is paramount to understand its audience: who are the people already playing this genre?

We have resorted to Alexa.com to get some information regarding the users flowing to the mains sites of two of the most popular MOBA games. The outcomes have to be taken with a pinch of salt as what we are getting is an estimation, based on a sample, of demographics regarding users that access the website. However, it is a fair assumption that people accessing the website, or a vast majority thereof, is actually playing the game. Furthermore, it is a method used by industry veterans such as Teut Weidemann as he dissects some games for their monetization mechanics.

Figure 3: League of legends audience demographics profile (source: Alexa.com)

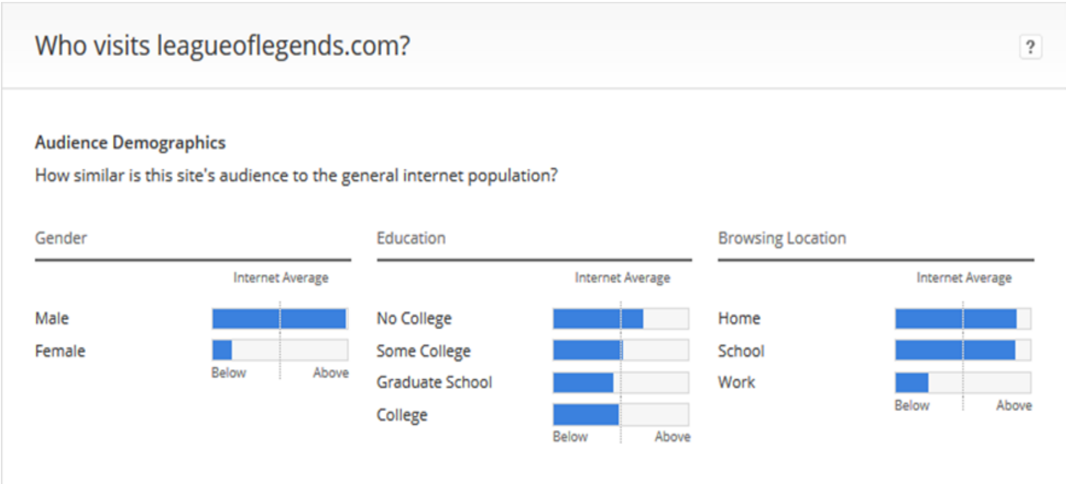
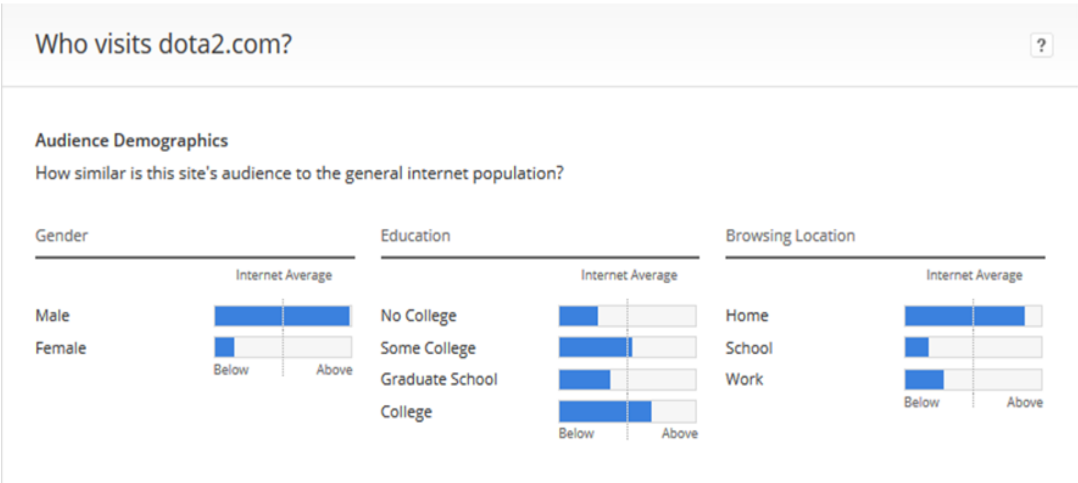


Figure 4: Dota 2 audience demographics profile (source: Alexa.com)



Alexa.com compares data relative to the "general internet population". As we can determine by analyzing figures 3 and 4, both League of Legends and Dota 2 the male population is greatly overrepresented (maximum visible on metrics) and the female one, greatly underrepresented.

As for level of education, visitors of LoL website come from a variety of levels of education, but there is a clear overrepresentation of people who did not go to college. As Teut Wiedemann suggests this is probably not because they did not have the ability to pursue their studies but it is rather representative of youngster still in high school (under 18 years old). In fact, for LoL the pattern is that of a slight decline in visitors as the education level grows higher. This is underlined by the vast overrepresentation of accesses at school, which are as high as those made from home.

On the other hand, visitors of the Dota 2 website are mostly those with a college education, followed by those with some college education, whom are most likely still in college (ca. ages 18-23). People who went to graduate school are already referred to by Alexa as “underrepresented”. Although work and school are but underrepresented as browsing locations, it is interesting to remark how “school” is really below what we see for LoL and how “work” is just slightly above.

Taking into consideration the above, we would describe the MOBA player population as being vastly male and young (taking into account “education” as also some indication of age groups). Teut Weidemann supports this point as he describes LoL gameplay as “very hardcore” and “not designed for women”. He further comments on the age as he mentions “most action based PvP games have a younger player base” as people between 16-30 years love a game which is “hard to learn and hard to master”. Mr. Weidemann further stresses this point as he says that for those “over 30 it is impossible to master”. (Weidemann, Dissecting League of Legends Monetization | Teut Weidemann, 2014)

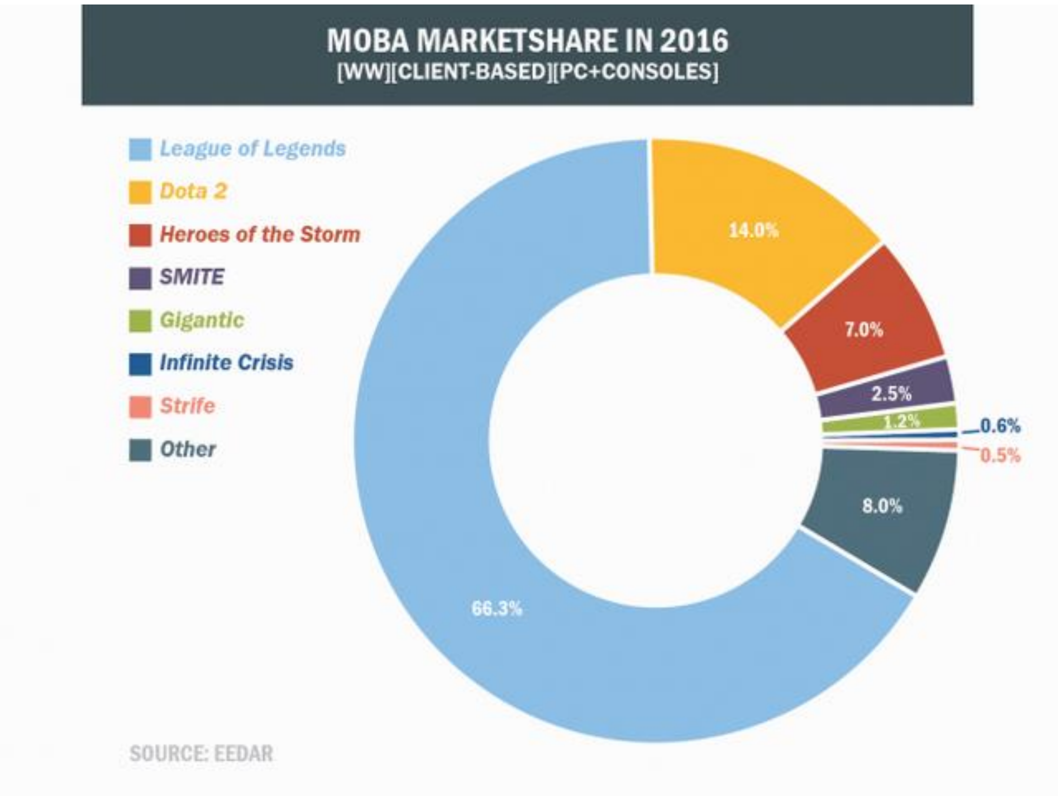
It is curious to remark that Dota 2 players may be older than LoL. This could be explained perhaps by the differences in gameplay. Even if both games offer similar experiences, Dota 2 is a loyal and accurate depiction of the experience of the original Dota mod, thus attracting those that played it at the time.

5 Monetization of MOBA

As we look at a few specific titles we take into account their revenue models and monetization mechanics as well as the overall game design philosophy. However, as there are so many MOBAs out there, which should we take into account?

Since user base is probably the main success factor behind these games we looked into market shares to determine which titles we should focus our analysis on. A recent EEDAR study predicts the MOBA market share in 2016 (Zhao, 2015).

Figure 5: Estimated worldwide MOBA (client based for personal computer and consoles) market share in 2016 (source: EEDAR)



We can realize from figure 5 that four games make up 90% of the whole market and that one game alone, League of Legends owns two thirds of the whole market. The second player in the market, Dota 2 comes at only 14%, almost five times less than LoL. In spite of its recent launch and of being in beta development at the time of the study, Heroes of the Storm comes in as the third contender for market share in 2016.

According to the study, Smite, the fourth title in this list, would only achieve 2.5% of the market. EEDAR analyst, Edward Zhao, believes these two last games "succeed largely due to their innovative approaches" (Zhao, 2015).

The remainder 10% of the market comprises many titles of little impact. Of those, Infinite Crisis has been meanwhile forced to shut down ending its service on August 2015 (Infinite Crisis, 2015). It is not an isolated case as many of these titles feel the pressure to achieve a certain size and end up failing to live up to their expectations. Even titles backed up by giant publishers such as Electronic Arts' Dawngate ended up being cancelled after significant investment and 18 months of beta development (Bromberg, 2014).

5.1 Freemium games

Freemium titles allow players to access the core game for free and then charge for some options. They can differ regarding what they give for free, what they make players pay for and how much is charged.

As the MOBA genre is complex and skill based, catering to hardcore gamers, it is generally averse to "pay to win" monetization mechanics in the western world. The challenge is then to provide a richer experience to paying customers – otherwise why would anyone pay? – while keeping a fair PvP game environment for all.

The key advantage in this regard is that games in the genre tend to generate, as Nicolas Lovell would put it, "superfans". These became more players of a specific game, than of the genre or gaming in general. The game becomes their hobby and they are thus more likely to spend money on it and perhaps for things they would not consider spending money for in other games (Lovell, 2014).

The following games are ordered by release date as it is important to understand the development of newcomers to the market. According to analysts, these will be the top four games in 2016, reaching a combined market share of roughly 90%. League of legends is the first of these and is also the market leader. It slightly simplified the original Dota mod, making it accessible to a wider audience, and has been seen as a case of right product at the right time. For these reasons, many comparisons are made against this title. Dota 2 is the most faithful to the original mod and the one requiring more skill to play. Smite introduces afresh gameplay differentiation to the genre with its third person view. Heroes of the storm is interesting as it has been released very recently in early June 2015 and showcases a big player's approach to the genre, trying to cater to a more casual audience.

5.1.1 League of Legends

Riot Games developed a market leading game with the help of some of the staff that worked in the original mod. The most famous amongst them is probably Steve Feak, best known as "Guinsoo". He had worked in the development of the original mod and had an in-match item named after him. "Guinsoo's Scythe of Vyse" does not feature in the original mod's sequel, but LoL has also an item named after him which is still in the game today.

Taking the experience from the original mod, Riot created a simplified version of the game with a more "cartoony" look and feel. At the time, competition was not as rampant but there were some games like Demigod or Heroes of Newerth. They both adopted a premium revenue model. It seems to have been no stranger to LoL's success that the freemium approach was taken (Machimina, 2012).

As a new user starting the game, options are somewhat limited as players are restricted in the game modes and PC they can play. At first, only tutorials and PvE can be played, which is a good way for beginners to start learning a complex game. Nevertheless, PvP becomes soon available. More game modes become available through in game progression. There is no other way to unlock them but to actually play the game. A leveling up system rewards players as they reach certain thresholds gradually granting access to other game modes. In addition to game modes, there are two other key features gained by progression which allows for added advantages in each match: "masteries" and "summoner spells". The former consists of a set of points, 30 at maximum level, which can be distributed at the start of each match amongst a series of options to fine tune a given PC. The latter unlocks a few abilities which are common to all PC.

Other limitations exist beyond those set by game progression. These features can be unlocked, according to the case, by spending Influence Points, Riot Points or either of those separately. This dual currency system employs IP as the soft currency earned by playing the game – at the end of each match, each player earns a quantity of points which varies according to the match result and time spent amongst other criteria; and RP as the hard currency, which can only be acquired by spending money.

Regarding IP we can only roughly estimate the amount gained per gameplay hour. If we assume 40 minute games (map: summoner's rift 5v5), with a 50% win ratio, with no boosts enabled, we would come to roughly a 138.4 IP per gameplay hour. We will assume these calculations to provide an estimate on the gameplay time needed to acquire certain items.

For RP, the same number of points is required for a given in-game item purchase across all servers, but the amount purchasable per unit of currency differs in three ways. Firstly, it differs by server with different currencies; secondly, it varies according to the amount purchased thirdly, it changes according to payment method, as different charges apply. In the example above, taken from the European servers, each euro allows for getting between 140 to 165 RP. For purposes of roughly indicating a price in euro we will assume a 20€ purchase of RP was made, i.e. 162.5 RP per euro spent.

There are several types of in-game items purchasable with IP and/or RP. These include PC, runes, rune pages, skins (wards and PC skins), summoner icons, XP and IP boosts, server transfers and summoner name changes.

At the moment there are 125 PC in LoL, but they are not available from the start. Non-paying users have access to a set of 8 weekly rotating PC. These are selected as to ensure a certain level of diversity suited for the different roles generally assumed in matches. However, certain game modes are only available to players who own a minimum of 16 PC (excluding the free ones). Moreover, the availability of several PC allows for richer gameplay. They can be acquired by either IP or RP becoming cheaper as they have been available for longer as prices vary according to the time elapsed since their release date.

Runes are upgrades attachable to any PC to enhance its in-match capabilities, thus bringing gameplay advantages to players using them. They can only be acquired with IP and 3 tiers are available according to level progression. They open strategic options to players and although 68 types are available at tier 3 there is a maximum of 27 can used at the same time (of which a maximum of 9 of the same type). Prices for runes vary between 205 and 820 IP. A more powerful type of runes, the quintessence is available in 30 types, from which only 3 in total can be used per match. Prices vary between 1,025 (18 types) and 2,050 IP (12 types). Because runes are mostly used by roles, that is, many PC in the same role can use the same runes appropriately, a player would not need all of these runes to reach a great level of suitability for his or her set of runes. Nevertheless, it could take as much as 12 days of gameplay to get to a very good and sufficiently diversified rune stash.

Runes have to be fitted into rune pages before matches in order to be used. At first only 2 rune pages are available and having more is important to being able to play diversified roles and strategies. Players can have a maximum of 20 rune pages.

Skins in LoL enable players to change the look of a ward (item used in matches) or a PC. Ward skins cost 640 RP and are quite few (16) when compared to the number of PC skins and the range in costs: 390 available ranging from 390 to 3,250 RP. To add to those available at this moment, others exist that have been taken out of the shop as they were only of limited availability or given at special events. Another cosmetic features showable in game but not inside a match are summoner icons. There are 31 available at the price of 250 RP each.

Available on the shop are also boosts. These enable, for a limited time or number of wins, either an increased intake of experience – needed for in-game progression until reaching maximum level – or IP. The IP boosts cost from 51 to 80 RP per boosted win and 116 to 290 RP per boosted day. The experience boost costs from 20 to 35 RP per boosted win to 74 to 150 RP per boosted day.

There are two additional services available to players. The server transfer allows a player to move his or her account with its unlocked features. While transfer to some severs may be free, transfer to most costs 2,600 RP. The summoner name change service allows for players to change their current in-game chosen name for a cost of 1,300 RP or 13,900 IP.

Most of these prices are quite stable. However, there are some seasonal offers and sales as well as bundles which allow players to unlock some of these features at a discounted price. Apart from those, every four days there are 3 PC and 3 PC skins made available at half their RP cost (but not half of their IP cost).

The game developers have made what are now common monetization options namely in the form of cosmetic upgrades such as skins. Other purchasing options focus rather on time: boosts allow for faster game progression/IP, but a player playing more games can catch up and thus unlock several functional features via IP (runes, PC). It is a traditional tradeoff in freemium games to have the money/time dimensions as both ways to progress. Furthermore, there are two services which, at first seem to have lower indexes of recurrent use: the server transfer and the name change. The former aims also to save time, as it is possible to create multiple accounts one could simply start from the beginning in another server. The latter can also be acquired via IP and would seem less recurrent as players tend to keep a certain identity, although it can be used to insert a certain affiliation tag, which can then be changed again according to affiliation changes. There is, however, no enhanced support in terms of user interface to organizations of players such as guilds or clans.

League of Legends developers have also chosen to monetize on a key feature of the MOBA genre: the playing character diversity. This option allows for the players who keep playing the game for longer periods of time to spend money to speed up the rhythm at which they pick up new PC instead of grinding for IP to do so. As players discover the game and unlock new game modes, it soon is clear that the handful of them or the PvP aspect alone could not keep the “replaybility” value as high. In fact, the desire to keep playing the game is deeply tied to the strategic options open by being able to play diverse PC. The game gets more complex and fun and could get boring otherwise for fans of the genre.

If we take the example of PC, which can be acquired both via IP and RP, we quickly can understand that their IP price ramps up more considerably than their RP price. For instance, the amount of IP required for a tier 4 PC purchase is around 52% more than what is needed for a tier 3, whereas it is only around 12% more in RP. This makes it more cost efficient to acquire cheaper PC with IP and more expensive ones with RP.

It seems to be common belief within the community that LoL is not a “pay to win” game as all purchasing options are either cosmetic and do not affect the match or can also be acquired with IP. Items and upgrades customizable outside matches such as runes and summoner spells cannot be bought and it is ultimately skill that makes the difference in a match without the amount of money spent being a factor.

Nevertheless, while there are no purchasing options inside a given match or none that can directly affect it, we should mention that it could take non-paying players a while to reach the same level of a player spending some money in either PC, rune pages or boosts. What happens is that if non-payers are using their IP to purchase one item they will lag behind in other types of upgrades, whereas someone buying the boosts or PC will achieve a larger amount of game progression or IP and using the latter to buy runes. The possibility to "buy time" is one of the aspects we believe make the experience more enjoyable for paying users: it confers them an advantage – in progress, in time – which does not translate into a match advantage.

The other main aspect being the customization possibilities and the way they can be showed off, especially in matches. Differentiation and a certain "cool" effect show also how much players are fans of the game, of a particular character or theme. This is emphasized by the developers' care in making some skins unavailable, ensuring that they were only available to a certain group of players. These include skins given at special events such as Gamescom or for as a reward for achieving a certain rank at the end of the year. Other skins are also just made unavailable and sometimes brought in for short periods of time as a promotion.

5.1.2 Dota 2

Valve enlisted one of the most iconic developers of the original mod. "Icefrog", as he is known, was the lead developer behind "Dota allstars", the latest and most polished version of the mod and had earned acclaim from the player base for his dedication and for bringing the mod to a high standard of quality in design and game balance. With Valve's resources, Icefrog could achieve the superior quality experience in Dota 2, evolving the game to fit the freemium market without betraying the principles that made it great in the first place. Dota 2 is a faithful recreation of the original mod, with only slight changes and some added content namely to enable its monetization (Machimina, 2012).

In a market increasingly changing toward simplicity – to widen the reach of the genre – Valve's game stands out as arguably one of the hardest in the genre. It is hard for beginners as there is no clear tutorial and information seems prepared for those already well acquainted with the genre. For veterans of other games it is also hard to get into such a rich game with a large amount of information to potentially explore since the beginning and with a few mechanics which reward player skill. It differs from LoL by being a more difficult game, with a couple more layers of complexity (denying, gold lost on death, day and night abilities, river runes, couriers, secret shops, more "juking" possibilities) and a gloomier look.

As most MOBAs it uses game progress as a way to unlock some game modes and features but not as much as LoL does. At first, players are limited to non-ranked play but all PC are accessible even if there are some recommended ones for beginners. As the account is leveled up, simply by playing the game, players can access ranked play sooner than in LoL.

This is a sign of a major difference in design philosophy. What is offered for free in Dota 2 is actually the full game in all its strategic options available. There is nothing like “runes” which can be acquired before matches granting advantages therein. All items sold are either accessory or are not functioning as a performance enabler in any way. There is no “pay wall” just normal game progress to unlock modes and such is has been a staple of video gaming for a very long time.

There are several types of items available in the shop, only purchasable with real money. Dota 2 makes available a plethora of item types including PC skins, HUD skins, screen savers, tournament tickets, player icons, tools, charms, treasures, couriers, announcers, music, and wards. It is, by far, the game we researched with the greatest variety of purchasable items despite PC being freely available.

To add to this diversity and complexity of the game, PC skins can be gained by pieces through playing the game. Pieces can be equipped separately and their variety also depends on the PC. Weapon, armguards or headgear are examples of these pieces allowing for partial customization of characters. Generally a full set would have between 4 to 8 pieces and these can be sometimes given as a reward at the end of a match. Alternatively, a whole set can be bought at the store. At the moment we write, and contrary to LoL, not all PC have skins available and Valve has engaged the community to submit their designs for skins, which get voted and can be later taken into the game.

The developers sell cosmetic upgrades connected to some game mechanics in matches such as skins for wards and couriers but also for many aspects involving the game such as HUD skins and player icons. They go a step further selling a limited assortment of music and announcing packs. These replace the standard in-match announcements with customized voices delivering the same information when certain events occur. A few other innovative items revolve take customization to a new level as players can change not only their names but also the names of some items they play with.

There are two types of items which come with a sort of gambling angle. Treasures can be bought and give players one of a given set of possible skins, for different PC. Players cannot receive a skin they already own, but it is a very random way to acquire items as, usually, players would like a skin for a specific character. Charms feel also a bit like gambling as they serve to place a bet that the player’s team will be victorious in a match. If three correctly predicted victories are achieved before making two incorrect predictions, the player wins a given treasure.

Tournament tickets can be purchased to access live or recently played events in the Dota 2 e-sports scene. There is a great variety raging from world championships to regional or country specific tournaments.

5.1.3 Smite

Developer Hi-Rez had released Global Agenda in 2010, described as an MMO shooter and a free to play title, and Tribes Ascend, released in 2012, another free to play shooter. Therefore, in 2014, when Smite came out, Hi-Rez had already substantial experience in managing a freemium game. As they entered the MOBA genre they decided to do so by implementing a key feature of the FPS/Action titles previously developed: the third person view.

Gameplay is probably the cornerstone of a videogame and changing something as important as the top-down view MOBAs are characterized by, with success, is testament to the innovation capabilities of Hi-Rez. It is still considered within the genre as this is the key main feature changing. The maps, game flow and general principles were unchanged but the gameplay change gives it a totally different feel. This enabled appealing to a vaster audience, those already comfortable with FPS/Action games and their controls whilst challenging traditional MOBA players, familiar with the game flow and general principles, to try a new approach. The gambit seems to have paid off as analysts predict Smite to be within the top 4 MOBAs by market share in 2016.

In Smite, as players start the game with their level one account, they are limited in the game modes they can experiment with. After a few matches they can play most maps with the exception of ranked play. PC are not available at start and the game uses a weekly rotation for them making a few of them free to play for a given week. There is however a PvE practice mode where players can experiment with any of them. Another interesting design feature is masteries: players will accumulate “worshipers” per match played with a given PC which pretend to symbolize the level of mastery a player has with it. Mastery levels go up to 10 for each PC and special skins are available at levels 5 and 10 for players to purchase for each PC.

Smite uses a dual currency system, with favor being the soft currency and gems the hard currency. Favor is won for playing the game, increasing with the time spent in match and with wins providing more of it. It is also won while leveling up as part of the game’s progressing system or just by logging into the game. Gems on the other hand can be purchased or acquired via logging into the game. If the player logs in every day, gems are earned on the sixth and seventh days, at a low rate per week. This can be considered to make the hard currency a bit softer but in fact has reduced impact in what users can purchase with it: it takes four weeks of logging in every day in order to acquire a PC with gems earned this way.

Smite offers a few options to spend both favor and gems. There are no functional items available for sale apart from PC which can be considered functional only in the sense they extended the strategic options before a match. There are also boosters available but they are only relevant to acquire faster favor, thus having the option of unlocking PC faster without spending any real money.

PC can be acquired with one of the two currencies available. There are currently 65 PC in Smite, all having the same price in gems, and most of them (86%) having the same cost in favor. The best possible rate for gems is of 100 gems per euro spent, making PC available at 2€ each. There is also, however, a buyout option available, allowing users to purchase all current and future PC for a one-time fee of 23.99€. Boosters in turn are purchasable with gems and increase the experience (required for account progression), favor and worshipers won per match.

On strictly cosmetic items, Hi-Rez makes available a set of skins (PC and wards), emotes, player icons, voice packs and a name change option. Some items, namely skins, are periodically offered for sale and there are always bundled goods available in the shop.

There are 13 ward skins available purchasable at 300 gems. PC skins vary a lot in price and there are some only purchasable with gems while others can be purchasable with the option of using either currency. Generally, emotes can be bought with either currency, with only a few being available with gems. Voice packs are only available to purchase with gems. The player icons are mostly available only to be purchased with gems while a few exceptions can also be bought with favor.

5.1.4 Heroes of the Storm

Blizzard's title is currently in closed beta and leverages the strong branding of the publisher's past titles such as Warcraft, Starcraft or Diablo to enter the MOBA genre. In fact, characters played in these games or belonging to the stories created at the time to support them are now available to play in Hots. The developer is highly acclaimed for the quality put into its products, spearheaded by World of Warcraft, which is still the market leader in MMORPG in the west.

On the other hand, Blizzard had already gained experience in designing a freemium title with the release of Hearthstone and with micro-transactions in general when it decided to make them available in World of Warcraft.

Hots is very interesting to analyze as it recently released in early June 2015. It is still in its early stages and more content is surely yet to be added and tweaked but there are sufficient hints on which direction Blizzard intends to further develop it.

At the moment, Hots features 7 maps which are all inspired by the original MOBA design, but with a bit of a twist. In matches players can interact with maps in different ways which grant bonuses that greatly facilitate victory. In fact, the general philosophy of laning and destroy enemy structure is present, but, since the specific map features are so powerful, players find themselves playing mini-games of collecting drops or zone control in order to achieve victory. These maps are available to test, but some game modes, such as ranked play, are only unlocked as players progress through their accounts.

Other features in the game can be unlocked either via gold, the soft currency earned by playing the game or simply by purchasing them with money. PC and boosters –

granting extra experience for account progression and extra gold per match – are the only borderline functional items available for purchase with money. In fact, there are no truly functional items and all other are purely cosmetic such as PC skins and mounts, both with chromatic variations.

Gold can be acquired through playing the game: income comes from leveling up the account, playing a match or completing quests. The first is a good way to give players a nice amount of gold from every couple of levels until level 10. After that, it becomes less every level and progression becomes slower. In total, 16,000 gold can be made from leveling until maximum level which is 40 and after that, nothing. Matches award 20 gold per win and 10 per defeat. Quests employ a similar system already tested with Hearthstone. They are the sustainable most prolific form of earning gold, awarding from 200 to 800 gold. Even if players are limited to one new quest per day, they can accumulate 3 at the same time. Although there are quests for winning games, most of them can be completed just by playing a certain amount of games, regardless of the outcome.

The currently 37 PC in the game are not available from the start, but Hots employs a weekly rotation of 5 of them, with 2 more available depending on account progression. They can be acquired either with gold (from 2,000 to 10,000) or with real money ranging from 3.99€ to 9.99€ each.

For now, there are about 2 or 3 skins available per PC ranging from 4.99€ to 14.99€. There is always a skin per PC which requires a certain number of matches played with it. Once a certain threshold is achieved, players can purchase a special skin for 10,000 gold. The mounts used in matches also have available skins with prices from 9.99€ to 19.99€. There is also one mount purchasable with gold only, standing at a whopping 20,000 gold. As players level up PC they get access to a couple more colors for the skins they have.

Developers have also introduced weekly sales on real-money prices and a few bundles are available.

5.2 Freemium games monetization analysis

As we look into our chosen games and what developers chose to monetize on, we quickly realize that the same they have the same core game, with the 5v5 map at the heart of it, and very similar features in terms of monetization mechanics. There is a similar account progression and game modes and other features are unlocked as players progress. This allows for a bit of a natural selection in terms of those reaching the end game, i.e. ranked play. This is, generally, what is offered for free and in itself seems a very good proposition. The main difference from the original mod is that PC were all free to play. The cosmetic features enable the greatest offer of purchasable items in these titles.

The second note should be to stress that none of these titles has a strict “pay to win” feature, or is, in general, perceived as such by the community. There is no “super item” purchasable that enables greater advantages. Instead, although most monetize on PC, which add to the strategic diversity of the game, the bulk of options available for purchase are pure cosmetic upgrades. This happens most likely due to the hardcore and competitive nature of the genre coupled with the Western mentality that paying would confer an “unfair advantage” and those with more available income to spend on it would benefit and were more likely to come on top of ranked play.

5.2.1 Currency systems

Dota 2 is the only of the four games without a dual currency system. Items are made available for purchase using the steam platform and can be bought using real world currencies. The game sometimes issues drops at end of matches to reward players with some cosmetic items. These rewards are random and there is no soft currency system allowing players to trade it for an item of their choice. Hots uses a mix of soft currency and real world currency for in-game transactions allowing players to amass it and buy the item of their choosing, within some limitations as some items can only be acquired with real money. Both LoL and Smite employ a dual currency system that converts real world currency into a hard currency in-game. This coupled with the rewards given by buying hard currency in bulk – i.e. the more players buy the best value for their money they get – enables companies to potentially get revenue before they would otherwise get if players would buy an item at a time. Once purchased, hard currency seems “easier to spend” as there is no need to go through the hassle of entering credit card details, or other forms of payment, to buy an item and the relation between it and real money is less perceptible.

There is a difference speaking to game design and monetization mechanisms in how the soft currency is gained in the different games. In LoL it is only gained by playing games, winning more of it for a match win and for longer match duration. There is also a one-time daily bonus for a win in any map. The underlying idea here is to reward skill, as perhaps 2 losses can earn players as much as one win, winners will earn IP at double the rate. Smite, on the other hand, uses not only the same ways to earn favor – with the added difference of enabling players to get the daily win bonus across all available PvP maps – but also rewards players simply by logging into the game. The underlying idea is to get an extra mechanism to reward the user base. By increasing significantly the amount of favor gained in subsequent logins during a week, it aims to keep players coming back to the game, even if they do not have time to play, so they can keep their bonus. Failing to login in a single day will break the streak and bring back players to "day 1" rewards. In Hots, gold is gained by playing matches and even if the amount earned per win is double that of a loss, it pales in comparison to the amount given by completing "quests". These are related to playing games, but only one has the objective of actually winning the game. Others like "play X games" with a specific set of PC, are achievable regardless of the match result. The underlying idea is to reward casual play as grinding for gold when no quests are active is very time consuming in relation to the output gained.

5.2.2 Playing Characters

Dota 2 is the only game choosing not to monetize on PC. At first sight, it may be losing on some revenue by choosing so, but it can be an advantage to those wanting to play a MOBA in which they do not have to wait for a weekly rotation to make available more PC to play with. Furthermore, it appeals to purists and original mod players as they were used to several years of Dota with all PC being available and no strategic options denied: the was no doubt the game was all about skill from the start.

On the other side of the spectrum both LoL and Hots do monetize on PC and in a similar way. Both of these titles price PC differently, enable a weekly rotation, make them available for both hard and soft currency. While in LoL price of PC varies according to how long they have been available, in HotS the criterion behind price differences is not clear. However, these differences result from the need of having stepping stones and allowing players to purchase PC at different price points. That they are available with both currencies also aims at prevent the games from being pay to win driven in what strategic options is concerned. The weekly rotation allows both players and developers to test PC.

Smite has gone for a middle of the road approach by offering a buyout possibility on PC. It makes the title no less free to play, but gives players the options of acquiring all PC, including future releases, for a one-time fee. This allows developers to potentially cash in faster: even if a player does not return to the game, it would have already made his or her contribution. Although this is not the ideal scenario for a “never ending” game in which player retention is fundamental, it also potentially raises the revenue over time of such a user higher when compared to others who purchased several PC at a slower rate. Even if less money was spent, it can be better, for cash flow reasons and value of money over time, to have a lump sum in the present than several micropayments in the future. Moreover, the micropayments for cosmetic are still available to be capitalized on in the long run. When compared to HotS or LoL, it represents the opportunity for players to purchasing the game as if it were a premium title. And from this perspective it open ups to a wider range of user preferences regarding revenue models. Players wanting to have all PC available form start would have to pay a relatively much higher amount for LoL and HotS than with Smite’s buyout option, especially taking into account that it includes any subsequent PC releases.

5.2.3 Cosmetic items

In any of the four titles we have studied, cosmetic items make up the largest amount of available items for sale, divided into a few categories. Unlike other freemium offers in other sectors, these games do not propose a functional part of their service as premium, but rather vow to engage users enough through their core proposition so that they buy these kinds of upgrades.

As PC are such an iconic part of each of games in this genre, they are the main focus for skins. Players have their favorite PC either because they look “cooler”, they favor their playstyle, because they can do a particularly exciting thing in a match or just because of the past experiences with it. There is often a mix of these involved: there is such an “emotional attachment”. Moreover, there is a social pull of seeing others with skins and being able to show off your own: a “cool effect”. Another factor connecting players to games is e-sports. MOBAs are an action packed PvP genre featuring considerable strategic diversity to lure the attention of viewers: users enjoy not only playing the game, but also watching matches, particularly at the highest levels of skill, team interaction and strategic depth. Watching professional players playing the game influences other players twofold: it stimulates them to try strategies seen, thus potentially making them play more and are a good medium to market skins and features. These combined are probably very important in what makes players buy into cosmetic items. Users who buy once are then more likely to buy again.

In rare occasions, in LoL players are gifted skins as a result of end of season ranked play rewards, for attending specific events or other *ad hoc* situations. Otherwise, both in LoL and HotS, PC skins can only be acquired through a purchase involving real world money. The monetization strategy is thus similar for both games aiming mostly to leverage on the abovementioned factors to trigger a purchase.

Smite and Dota 2 also aim to benefit from the engagement of players to sell skins for real money but there are in-game possibilities that allow players to get them without spending any of it. In spite of Dota 2's random nature of drops at the end of matches and high number of PC making it very hard for players to get a complete specific skin, it does allow some customization as parts of skin can be equipped and have direct impact in the in-match model. Nevertheless, it is Smite that comes across as having a strategy focused around incentives to players playing more and more by being able to unlock skins by using favor. Players can acquire roughly half of the PC skins – those least expensive gem-wise – making use of the soft currency. This underlies the developers' intention of additional incentives to have players play more.

HotS has the least cosmetic options beyond PC skins. That would be easily explained just by how recent the game is: getting out a minimal viable product is crucial, taking time later to build upon it and introduce new features, as they would see fit. Smite and Dota 2 are the games with more types of cosmetic options beyond PC skins. Offering music, HuDs, voice emotes, claps, dances: effects are not only visual but also auditory. LoL, despite being the oldest game, has fewer types of cosmetic features found in the above mentioned 2 games. Perhaps Riot Games decided they should focus mostly on a single cosmetic item rather than diversifying into other types which /could be experienced in a more limited way by others in a match. HuDs and music are only enjoyed by the user that bought them. Emotes and claps can be seen by others but are only used at a limited point in time. Skins are ever present during the match and are seen very often.

Dota 2 and Smite aim to diversify their offering trying to reach different users and trying to monetize on a few more item types: it should make them earn more revenue. Even though purchasing these items is an option, there can be a lackluster feel about acquiring them as they feel sensory wise less impactful than a skin. The question would then be if it is worth it to buy such an item or to pay, perhaps the triple, for a more impactful one. Of course users can get both skins and these less impactful items. However, making the latter available may seem more like a “mass market” approach to a product. On the other hand, LoL can feel more like a premium product as the types of items it sells and promotes are more impactful: every cosmetic item in the shop has a certain “coolness” that can be shown to others.

The market leader can focus and does not need to breach out too much to retain its user base and to monetize adequately from it, whereas challengers may feel that pressure.

5.2.4 Other items

Except Dota 2, all other three games have boosters available because they use a soft currency and experience is a great part of them. Other than that, and excluding PC which we already covered above, HotS and LoL do not offer other kinds of items, purchasable with money, worth going into detail.

On the other hand, Smite has made an interesting option further expanding its list of offers. Smite has recently released the “Smite 2015 season ticket”, costing 300 gems in the shop, which allows users to play a fantasy league of Smite e-sports (SMITE by Hi-Rez Studios , 2015). Users can pick the professional teams they think will win matches and compete for prizes that include exclusive PC skins. Just by buying into this option, players can already get two free skins, so even if they cannot manage to win the fantasy competition they would have won something for their money. In fact, it is a different way of selling skins, while trying to increase player engagement. Dota 2’s approach is similar but was created previously and it is already at a more advanced stage. Valve also aims to further monetize and help fund the e-sports scene. They make available a similar fantasy game experience players can buy into, with prizes to compete for. Furthermore, they sell tickets into live streams of professional competitive e-sports. Tickets for the most important tournaments are highly sought after and can sell out in minutes (Tedeev, 2015). The prize pool for these competitions comes off a percentage of ticket sales previously announced, but there are also other costs to account for in terms of coverage.

In the end, both for Smite and Dota 2 aim to monetize and fund their e-sports spend to get further engagement from players as they get more and more involved in the game. This engagement can be translated into sales or simply in reducing the churn rate.

It is yet perhaps too soon for HotS to start with e-sports, but LoL’s is well established. Riot Games offers a fantasy e-sports league game that users can access via their website and pick their favorites to win. It is offered free of charge but does not award any prizes. The developer finances its e-sports coverage. That prize pools for competitions are set beforehand and are not a percentage of certain item sales show the commitment and financial power of the market leader.

Finally, certain items which are somewhat instilled with randomness or with some kind of gambling effect in Dota 2 are in fact another way of selling skins. In addition to sales, which all of the abovementioned games are employing periodically on a three or four day rotation of items, Valve makes available items at a lower price than skins that give you a chance of getting one (charms) or give you a random one within a subset of predefined ones (treasures). It is both a diversification mechanism and a price reduction one: players can get more value for their money and can embark in a randomness/surprise effect. The diversification shows just how Valve aims to widen the net over potential buyers.

5.3 Non-freemium games

Most of the players engaged in the MOBA genre play games using freemium as a revenue model. There are some exceptions of titles for the personal computer, all falling into the premium type. We have found no other types of revenue models employed by games within this genre.

Games that we found using this type of revenue model are quite usually conversions of games originally released for a console. Monday night combat, Awsomenauts and Guardians of Middle-Earth are fine examples of that and can be found at the Steam store for 4.99€, 9.99€ and 18.99€ respectively. These had been released for console with a premium revenue model, as most of console titles have been, and with the game design to go with it. When they got converted to the personal computer game design remained the same and thus it made sense to apply the same revenue model. It seemed that developers wanted to increase income generated by the game with a simple conversion, rather than reworking it and keeping periodic updates to try and generate profits in a different way.

Nevertheless, Uber Entertainment did try something different as they released Super Monday night combat which came out exclusively for the personal computer and is a freemium title.

Other games falling into this category were released for the personal computer. An example of such games, Demigod, released in April 2009, is still available on the Steam store for 9.99€.

Another notable example is S2 Games' Heroes of Newerth, released in May 2010. Despite its initial release in a "pay to play" model, HoN was reworked and made into a freemium game little over one year after, in July 2011 (Kolan, 2011). This reflects that the decision was taken a few months before in order to prepare some obvious changes with the shift in revenue model. It is no easy tasks to change monetization mechanics and choosing which features to introduce with the added concern of not upsetting the user base at the time, original buyers of the game.

The same month the game had gone into a freemium revenue model, Jeff Fielding, the Director of Design and Development at S2 Games, admits, in an interview to IGN, it was considered an option as the game was being developed in 2007/2008, but they preferred to go premium with it. In Mr. Fielding's words, approaching freemium was a matter of "timing". He also explained the reasons behind the revenue model change: "the price is still a barrier to a lot of potential players" (Kolan, 2011). We take from his words that the user base growth was stifled by the game's paywall.

Both Uber Entertainment's and S2 Games' decision to go freemium, the former with the sequel, the latter little over a year after release, highlights how much pressure there is to adopt this kind of revenue model for the personal computer. With the exception of HoN, none of the games in this section were successful but that has probably more to do with their lack of quality than their revenue model or monetization choices. HoN did not lack quality, was released at the right time, and made quite an impact with a reported 200,000 copies sold at 30$ each. This success, however, was quickly overshadowed by LoL. They were both quality offers, but LoL's revenue model enabled the game to far outgrow HoN in terms of users and gave Riot the resources to further develop their title. HoN was a case of a good product, at the right time but with the wrong revenue model to grow sustainably.

6 Analysis of success factors – revenue models and monetization

Other kind of freemium offers, such as online newspapers, rely on the freemium revenue model to generate traffic and to convert non-paying users into paying ones. There is usually limited interaction between readers. MOBAs go a step further in the sense that these games rely also on the social pull of their current user base to attract more users, to keep existing ones and to convert users into paying customers.

A key success factor, if not the most important, for leading MOBAs such as LoL and Dota 2 is definitely their user base and that can be seen by the lengths at which developers go to keep and nurture them. Analyst Edward Zhao from EEDAR points out that “Both League and Dota 2 have recently prioritized a retention strategy where limited edition game modes (such as League’s URF), eSports events, and increasingly high-quality aesthetic items are all aimed at appealing to the current user. These titles gained a huge audience and now they’re fighting to keep these users.” (Zhao, 2015)

The battle for current competitors and market leaders, those that amassed a significant number of players such as the four titles we investigated, is that of, first and foremost, conserving their user base. This happens as the cost to acquire new users gets lower the higher the user base is even if it has been getting higher with time as new titles in the genre saturate the market. Developers aim to conserve their user base in order to maximize benefits such as conversion rate and user acquisition, but also to minimize risks.

A game of this genre with fewer people online results in more difficult matchmaking – the cornerstone of an effective game, longer waiting time in queues and potentially less satisfying matches. These kind of online games thrive on social interactions and their underlying communities, further boosted by e-sports. An example is Sins of a Dark Age message, as seen on appendix 1: “Due to low server population all parties larger than 2 will be potentially split up between both teams to create balanced matches”. It goes to show how important matchmaking and balanced matches are and how long queues could be a nuisance. SoDA proposes to somewhat prioritize the balance of teams and to shorten queues – which perhaps otherwise could be unbearable resulting in players leaving them, thus further reducing the amount of players queueing and wait to be matched – at the cost of social interaction. If players want to play with two other friends there is the risk they would end up playing in opposite sides of the fray. This has obviously a negative impact in the gaming experience and shows just how important user base is.

As a competitive team game, MOBAs also offer a distinctive social pull. The adrenaline of intense battles and the comradery spirit forged by the teamplay required to succeed add to the already good thing which is to play with friends. Communities emerge sharing the same enthusiasm for the game, effectively marketing for it. YouTube has been a channel for such user generated marketing.

A larger user base serves then as a retention and recruiting mechanism. This genre is capable of creating "superfan" games as the level of engagement of players significantly rises with time spent in game. Then it is a matter of converting these engaged players into paying ones which is more likely to happen given the engagement and it can be enhanced with some marketing made through e-sports, the community and simple monetization mechanics such as sales, bundles and discounts. In the end, a healthy user base is what triggers the possibility of success.

For these reasons, we decided to take the market share of players as the main factor for success, both present and future as developers aim to retain their users. We will thus discuss what developers can do to fight for a considerable user base, one that allows the game to be sustainable by making sure it is profitable and that it does not die out. For current competitors in the market it is crucial to innovate within the underlying game design philosophy of their titles so as to not antagonize their user base. On the other hand, new entrants to the market will need to invest into meaningful differentiation, maybe somewhat disruptive one, and in growing the market – making MOBAs more accessible to other types of gamers – in order to break into a saturated market with high switching costs.

6.1 Current competitors

Competition is intense in the gaming industry and this genre is no exception. As we described, current competitors in the MOBA genre have opted for a freemium revenue model. This happens for two main reasons.

Firstly, because since Riot launched LoL as a freemium game back in 2009 when MOBAs started being commercialized they set the pace for the genre. It was a quality offer at an unbeatable price. Competing titles that would come into the market risked being a flop, not attracting sufficient players if they would go for a premium and especially a subscription model. HoN, which started as a premium offer charging 30$ per game, soon went freemium following the impact of LoL. As the market leader consolidated its position, challengers seemed to have no other option than to choose the same revenue model.

A similar effect occurred with the rise of WoW as market leader. The comparison makes sense as, like MOBAs, MMORPGs are never-ending games, played online, “superfan” creators and fueled by regular updates. Competitors like Rift or Warhammer entered the scene with a subscription revenue model as WoW did. However, players would sample these and other competitors but would end up not staying and they were soon forced to change it to freemium, even if the market leader was charging around 15$ per month. The fact that WoW had a subscription model and LoL is freemium stresses this point.

The second reason is tied with the first but valid on its own: freemium allows for the possibility of creating a larger user base. Fans are and will be what keeps a specific never-ending title from shutting down in the long run. Users have a twofold importance: contributing directly by purchasing or contributing indirectly by playing (a low populated game is less appealing), advertising, supporting and bringing other users into the game. Revenue models such as premium or subscription – or revenue models which somehow include them – would have the foreseeable impact of reducing a game’s user base and its ability to attract new users.

Nevertheless, WoW does have a revenue model highly based on subscription fees (even if micro-transactions and premium are part of it) and managed to keep it, since launch, for more than a decade now. Blizzard has, however, recently introduced changes allowing users to pay for subscription fees with soft currency following other titles such as Eve online or Wildstar. Would it not be possible for LoL to do something similar as the clear market leader it is?

Clearly having a large user base, particularly if that also entails a high market share, would at least mean that the product/service is good enough to beat competition when priced similarly (the core) or even higher (the micro-transactions). League of legends fits into this scenario. We have mentioned how never ending games require continuous investment in order to keep content flowing, servers online, a happy community and certain standards. A subscription revenue model would fit these needs nicely, ensuring a steady stream of revenue as long as enough players are engaged.

In order to find out if changing to a subscription based model would benefit the company in terms of short term revenue we would have to determine the fee and its periodicity as well as how many people would keep playing and paying on the short term. In spite of potential short term success, the risks of long term user base degradation are too real to ignore. It would raise a significant barrier for newcomers and even for current players, who are already engaged in the game. Where LoL would lose players and market share, rivals would win. In the long run, perhaps in a similar way the market leader has been doing, they could very well capitalize on a growing user base to attract more users and keep the existing ones.

It is true that switching costs are high, as although the genre is the same, games have their own specificities that require learning. It thus takes effort to get into a new title and it undoubtedly takes time to reach the end game as the progression system server as a barrier. Players can sample but if the proposal is not appealing enough, they would ask themselves if it is worth the time and effort to learn a new game if it does not differentiate enough, bringing the value desired to compensate such an effort (Tedeev, 2015).

Nevertheless, in the previous scenario and in the long run, it is expectable that the ratio of new players joining the subscription based market leader lowers in favor of the competitors. Furthermore, current market leader players will balance the switching costs (in time) with the subscription fees. Even if LoL would give out more, i.e. widen the core game and include cosmetic items in it or just give a certain amount of hard currency per month to subscribers, it would still pose a barrier to those who cannot or are not willing to pay for the game, especially when they can find other offers for free.

If a revenue model change can affect the long term sustainability of the game, how can developers adapt to increase, or at least maintain, their market share and thus their profitability?

This is best achieved through further innovation, where applicable and when needed. The games are established and they feature their unique elements. These should be kept as this is most likely the reason they could get players interested in the first place. However, continuous improvement is important as to not lag behind. Even a strong market leader as LoL has recently adopted masteries, a similar feature to that used in Smite, where players have a sort of progression system per PC. If a feature is interesting and fits the design philosophy of a game, it can be incorporated to reduce the differentiation of other titles. Keeping close eyes on competition and their moves is thus as crucial as in other markets. The genre has been evolving with small implementations rather than big revolutions. As the genre expands so do certain features belonging or not to the core game. For example, as e-sports become more prominent within the genre, features like some support for communities, like clans and teams, or in-game spectator enhancements are more frequent.

Which direction should then the current players in the market pursue? Other than taking away market share from other titles, developers can also aim to grow the whole market by widening the range of their offers. However, they should be careful not to antagonize their current user base.

In the past, Riot had offered a specific skin to every player who would like their YouTube channel or Twitter. However, it was only recently did LoL released an option to allow players to add Facebook friends over the game interface, giving them benefits in the process. LoL also had incentives which rewarded players referring the game to friends, but Riot eventually discontinued the initiative as some users were abusing the system by creating new accounts of their own. Nevertheless, social interactions like these allow to reach further for additional users.

On the other hand, the growing investment in e-sports also speaks to how developers intend to market their products. What is now a $612 million business (Superdata research, 2015) is used mainly as a marketing tool to further engage players, but also as a level to reach out to different audiences. E-sports viewers can be more casual players that remain in the game motivated by this added appeal. It is true that there are yet challenges to tackle for e-sports like the usually non-lasting nature of games or designing them for spectators, general players and professional alike but it is well under way with game such as LoL and Dota 2 (Extra Credits, 2012).

6.2 New entrants

MOBAs have been trailing a path of some innovation since they became a commercial product. The titles predicted as having the highest market share for 2016 have distinguished themselves and brought some meaningful innovations to the table.

When compared to the original mod, League of Legends simplified some game mechanics and introduced the freemium business model into the genre. Dota 2 brought further innovations on the monetization end (e-sports tournament tickets, charms, free PC) and leveraged the strong appeal of the original mod. Valve had used their resources to build upon it, rather than revolutionize it. Smite's contribution is tied mainly with the third person view and shooter-like feel that characterizes the mythological centered title. Hi-Rez Studios stated how they thought ”Smite is expanding the user base of MOBA games by adding many MMO[RPG] and Shooter players.” (Sillis, 2014) Its middle-of-the-road approach regarding PC availability allowing for a buyout was also a breakthrough. Heroes of the Storm further made the genre accessible to a wider range of gamers, further simplifying game mechanics and making players even more dependent on their teams with the introduction of shared in-match experience. The soft currency acquisition also leans more towards the casual gamer than the grinder.

Success, as measured in sustainability and, thus user base – further translated into market share, has been achieved at the cost of meaningful differentiation. Merely changing the setting, look and feel or combining PC abilities in a different fashion are just superficial features that will not make players swap their favorite MOBA. Hi-Rez Studios aligns with this view by saying that “the MOBA genre is popular but will continue to grow if games innovate rather than just re-skin existing games.” (Sillis, 2014)

Switching costs are high within the MOBA genre as players invest a lot of time both in progressing and in learning the specific game. Although the genre features the same principles and even very similar maps to play on, the PC and items are different and they take time to learn. To better understand the game each player should learn what each PC can do, their abilities, strengths and weaknesses, as it proves valuable when playing with and against them. It is true that many similarities can be found between PC of several MOBA; however both for the basics and for the intricate strategies that can be employed are best understood after playing somewhat extensively (e.g. a few months). New players, even those with experience in the MOBA genre, can be punished with losses and frustrating experiences for their lack of knowledge in a new game. Even basic concepts of the genre, like farming (one of the means by which one can acquire advantage in a match), are more complicated as knowledge of the game and their PC is limited.

Switching costs are high within gamers not used to the genre as MOBA are hard to learn and to master. It is arguably one of the genres with the steepest learning curve which at the same time requires a great degree of mechanical skills. As a sub-genre of RTS it requires fast reflexes, mechanical ability and environmental awareness to be able to survive its fast pace. It can also require good communication skills as it is also a team game. Moreover, it requires a great deal of time investment just to learn when compared with most game genres. Some game genres, which attract more casual gamers, do not have such a hurdle to cross in attracting users.

As switching costs are high it gets increasingly difficult for new entrants to exert significant pull on the consumers already playing other titles. Newcomers can perhaps fashion a niche market for themselves, but either way differentiation is key. In order to have some degree of success it would need to bring out something special, which would probably be a mix of various factors. Blizzard Activision seems to have done so with HotS as it made a more casual game, further simplifying mechanics, leveraging the powerful marketing and appeal of the publisher's other games.

Nevertheless, many others have failed. Dawngate is an example of inability to meaningfully innovate. Even if backed by a big publisher with substantial resources, EA's MOBA project ended up being terminated after "almost 18 months, including a full open beta for the past six months." The developers further add that "although the game has grown, we're not seeing the progress we'd hoped for" (Bromberg, 2014), from which we can that it did not raise enough interest to retain a committed and sufficiently larger used base to fuel the game. Another example is the also hyped title Infinite Crisis, which had been predicted by EEDAR to take 0.6% of the MOBA market in 2016. The game did not live up to expectations and the leveraging of comics superheroes and will shut down in August 2015. (Infinite Crisis, 2015)

As we already mentioned, the MOBA market is also showing signs of slowing down and potential new entrants should consider the cost/reward of moving into a crowded landscape. Bringing meaningful differentiation can be a daunting task.

Sins of a Dark Age is an example of a smaller developer's studio attempt at a MOBA. Nevertheless, Ironclad Studios is not unknown to the personal computer gaming communities as it was the developer behind Sins of a Solar Empire. This RTS incorporated standard 4X strategy elements and was a best-seller when it was released back in 2008, achieving a score of 87 on Metacritic (Stardock, 2008). Expansions for the game followed in 2010 and a standalone expansion in 2012 to build upon the success of the game. Gamespot, in its 2008 review, praised the title: “In sum, Sins of a Solar Empire is an absolute must-have if you enjoy strategy games.” It further highlighted the innovative aspect of the game: “It's an addictive, deep game that elevates space strategy to new levels. At the same time, it provides a fresh, original take on one of the oldest and most revered subgenres in all of strategy gaming.” (Ocampo, 2008)

Ironclad tried to use its experience as a successful and groundbreaking RTS developer to bring meaningful, groundbreaking innovation to the MOBA market. The objective was to transform SoDA into the first freemium MOBA-RTS by offering a premium MOBA with RTS elements. To the traditional PC, Ironclad proposed to add another player role, known as “Commander”, who would “be conducting the fight, building bases, training and sending in support, and building up ‘Realm Powers’”. The interaction between Commanders and regular players would push the genre to a new level. When it was presented in 2012, this was a bold proposition that promised to carve a niche for itself (Gamespot, 2012).

However, after about three years of development this original idea ended up not being released. As the game released in June 2015, the groundbreaking idea of the RTS and MOBA merger on the back of the Commander role had been discarded. It eventually happened as the development team realized there were some insurmountable design problems in merging classic MOBA and RTS (Lahti, 2013). The issues had to do with making compatible some key distinctive features of the two genres such as power progression (always growing vs. potentially decreasing), build paths/counters (difficult RTS staple to implement in the variety of MOBA) or composition of power (atomized vs. unified) (Grayson, 2013).

Instead of including a Commander and all the features associated with it, Ironclad highlights the expanding on RPG elements, namely with “quests”. These are dynamic events that occur during matches urging players to fight for certain objectives. They are randomly generated and depend on how the game progresses. This feature cannot be entirely seen as a novelty as HotS already employs a similar strategy in its maps, which revolve around a set of repeating quests that grant significant advantages and are capable of shifting the tides of battle. The “hero kits” it introduces, which allow players to equip items before matches to grant certain advantages also do not seem to differ significantly to the rune system employed in LoL.

SoDA makes all of its PC free to play with, charging only for cosmetic upgrades. However, only 21 available PC are available to play at the end of June 2015. This means that in a core game of 5v5 almost half of the PC would feature. It significantly lowers the strategic diversity versus the market leading titles in the market. Prices for skins are also not cheaper and can even be more expensive, starting at 5.99€ (in LoL there are many skins which can be purchase for half that price).

Had it been what it was originally meant to be, SoDA could have been foreseen by analysts to grab more market share. In its actual offer it seems like a poor competitor not bringing meaningful innovation to the table and with relatively high prices on skins, which seems to indicate developers are just trying to get some revenue back for their work while the game is not shut down. Due to the lack of apparent sustainability, we predict this will come to pass sooner rather than later.

7 Conclusion

Video games are already a sizeable market in their own right but being filled mostly with younger aficionados it seems that it can only grow as generations renew themselves. E-sports, spearheaded by MOBA, has also grown and is especially seen by younger fans showing also a promise of growth. All in all, there is quite the promise for MOBAs to lead the development of video games for the personal computer, further absorbing players as they expand into new and wider audience reaching game designs.

MOBAs are never-ending games. Adding to the already high costs associated to a synchronous PvP game such as high traffic in servers and matchmaking quality, developers have to assure they are shipping a triple A game which should be in continuous development to ensure replayability, PC balance, bug fixes and new content. Customer service and community management are also key and its costs should not be underestimated.

MOBA is a complex, demanding and time consuming genre aimed at hardcore gamers. Users become first and foremost players of a specific title – accounting for a great majority of their time spent playing games – rather than gamers in general. Switching costs are quite high and they include not only the invested time and effort but also the reluctance in leaving the friends made.

Current competitor landscape comprising upwards from 90% market share is using a freemium revenue model. Being a market with high barriers to entry, new entrants with propositions in line with what we described as a MOBA cannot feasibly propose a pay to play or subscription revenue model. Freemium is not just the best revenue model for MOBA; it is, right now, the only possibility for this genre.

Current competitors would have to be aware of the effects a revenue model change would imply. Even market leader LoL would most likely lose an important part of its user base if it would change to a subscription model. Zero price is a great proposition in itself. It would for sure worsen its ability to acquire new users and a sustainable user base is needed for long term survivability. A sufficiently large and active user base is the key for success in a never-ending in need of maintenance and added content genre such as this.

For current players in the market it is important to adapt and tweak their game design to encompass new trends and bring in new features in both game design and monetization as long as they do not compromise their unique selling points. More than knowing which revenue model to apply, it is important to know what to offer for free and how to monetize. The path for years to come seems to be that of innovating within freemium rather than experimenting with other revenue models.

Successful games in the genre have shown a track record of meaningful differentiation and new entrants cannot expect success without significant investment and a meaningfully differentiated game design offer. Furthermore, it can imply a relevantly differentiated monetization design. This should happen for two reasons: firstly, because game design and monetization design are intertwined and should fit together; secondly, because the monetization differences can be relevant propositions in themselves.

In the end, the success and longevity of MOBA as a genre will depend on the ability of current competitors and new players top the market to pursue the innovation making the games more enticing and user friendly. Furthermore, it is important to successfully open the genre to new platforms such as consoles and mobile phones creating a similar, or perhaps an overhauled, equally satisfying experience to that offered for the personal computer.

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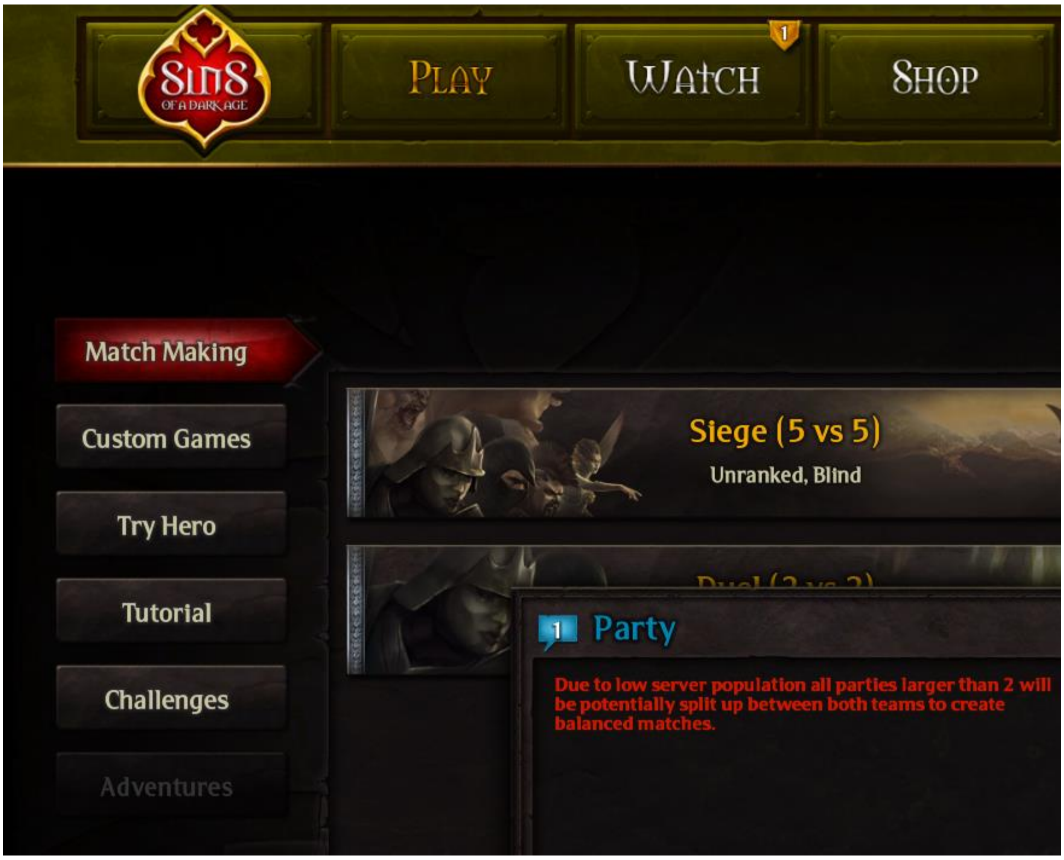
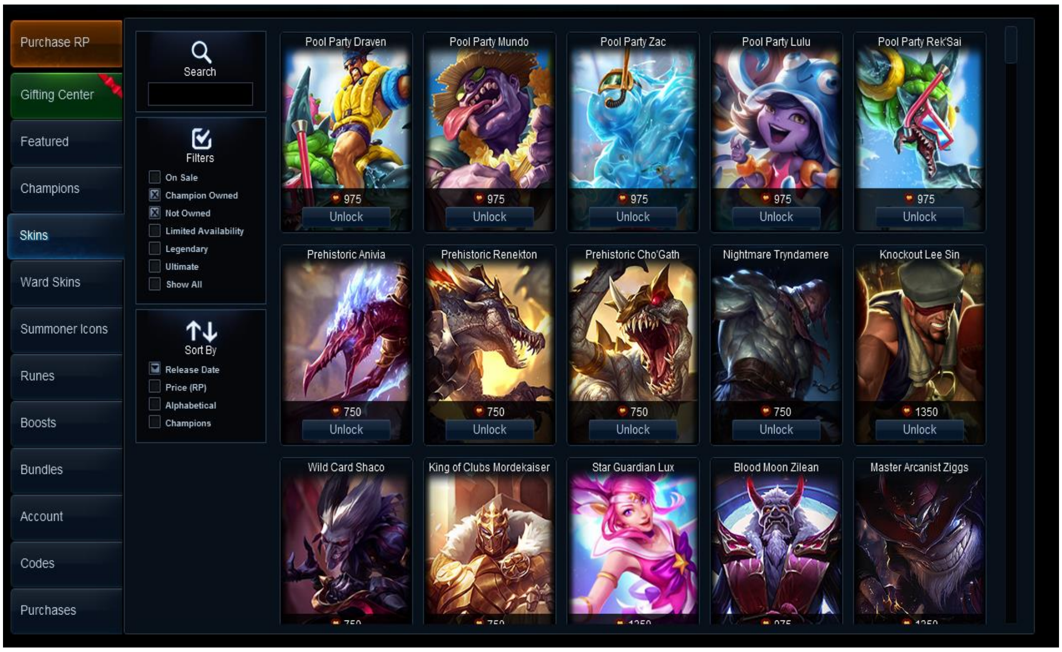
List of Appendices

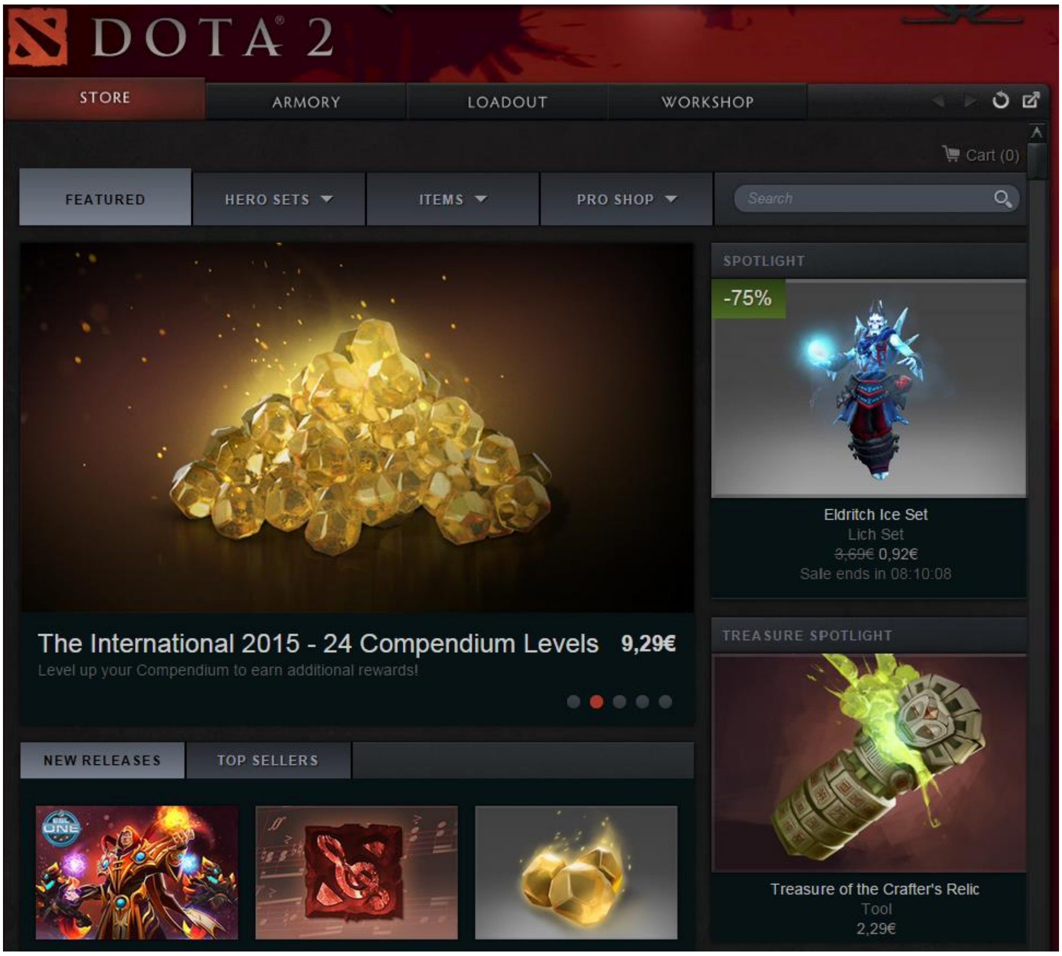
Appendix 1: SoDA low server population message



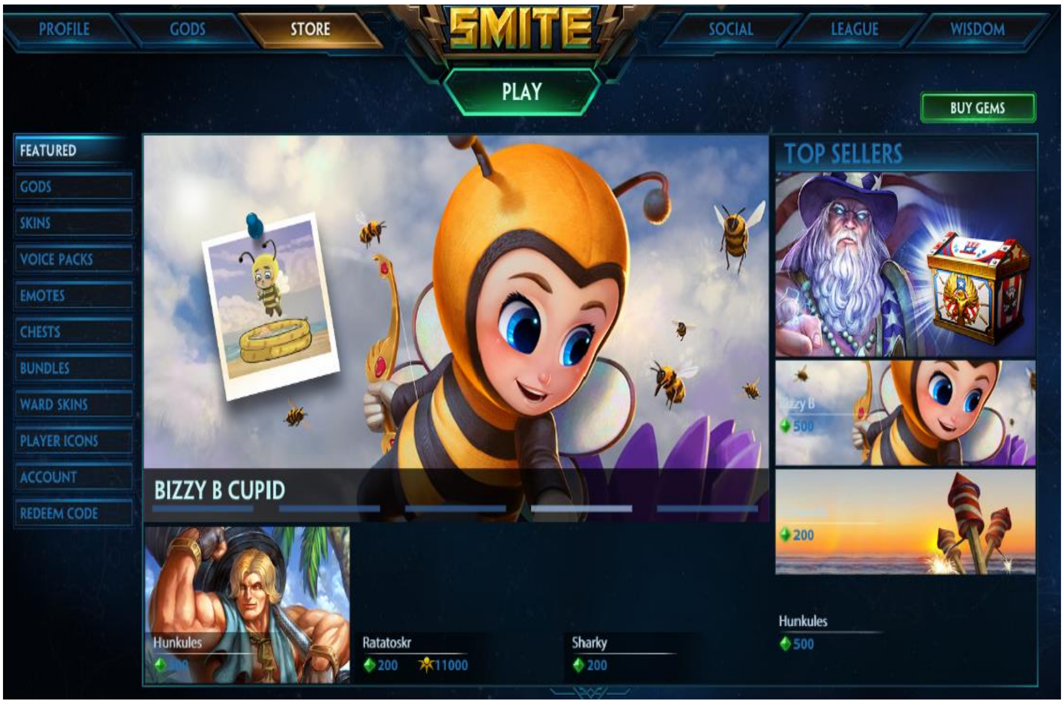
Appendix 2: LoL in-game shop



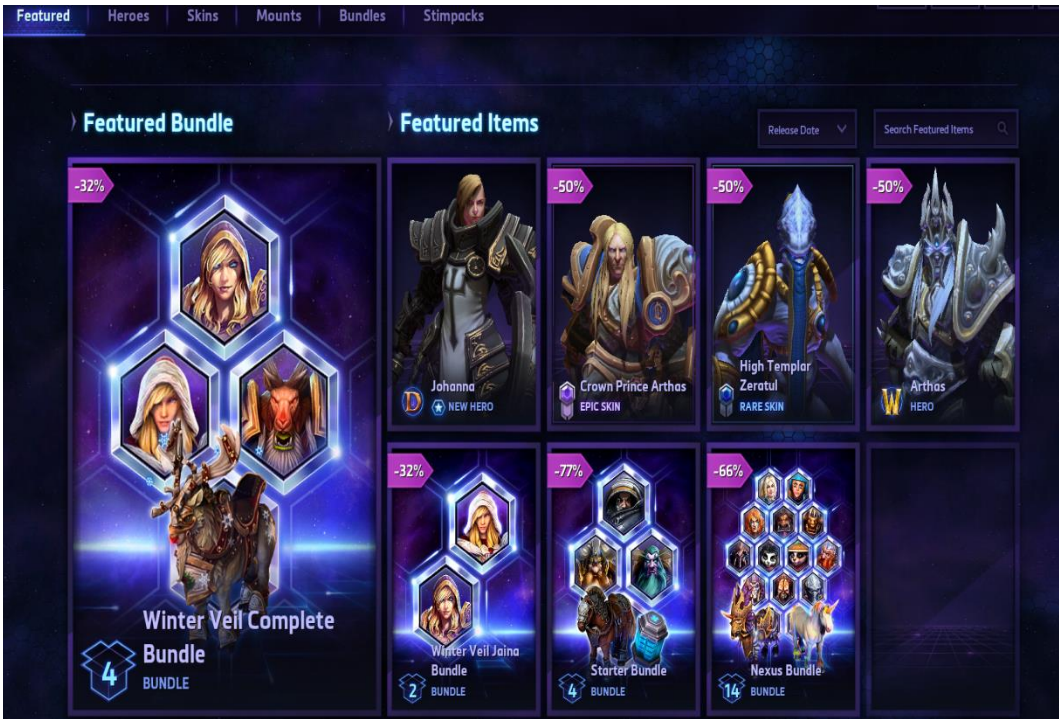
Appendix 3: Dota 2 in-game shop



Appendix 4: Smite in-game shop



Appendix 5: Heroes of the Storm in-game shop



Appendix 6: SoDA in-game shop