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### The avatar's new clothes

Understanding why players purchase non-functional items in free-to-play games

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## **The Avatar's New Clothes: Understanding Why Players Purchase Non-functional Items in Free-to-play Games**

### **Abstract**

Free-to-play online games create significant revenues through sales of virtual items. The argument that the sale of items that provide a competitive advantage (functional items) fuels a pay-to-win culture has attracted developers to business models that are solely based on the sale of non-functional items (items that provide no objective competitive advantage). However, the motivations for purchasing non-functional items remain under-examined. The present study therefore provides an exploration of hedonic, social, and utilitarian motivations underpinning purchase of virtual items within the top-grossing free-to-play game *League of Legends*. From interviews with 32 players, a number of motivations are identified and presented. In addition, a novel finding is that motivation for purchase may not stem from the value in the item but lie in the act of purchasing itself as a means of transferring money to the developer.

**Keywords:** Virtual-items, motivation, free-to-play, online games, purchase

# The Avatar's New Clothes: Understanding Why Players Purchase Non-functional Items in Free-to-play Games

## Introduction

Over 1.7 billion people around the world play online games - a number that continues to grow rapidly (Newzoo, 2014). Online games are defined by Kim et al. (2002) as those in “which many people can participate at the same time through online communication networks” (p.72). Revenue generated in the online games industry has now surpassed Hollywood movies and is soon to reach \$100 billion. In recent years, the industry has seen the highest growth in free-to-play games. On the mobile front, PokemonGo, a free-to-play location-based game, was the fastest growing application of all time (Swatman, 2016). On desktops and laptops, the most popular game and top grossing in 2016 was the free-to-play *League of Legends* (LoL). LoL attracted 67 million players every month (Tassi, 2014) and raised \$1.6 billion in revenue in 2015 alone (Walker, 2016). LoL players competed in live stadium events in front of live audiences in their thousands and broadcast live online to millions of others (Effendi, 2015).

Free-to-play games can, as the name suggests, be played for free. However, the games are usually heavily monetized through in-game sales of so-called virtual items. These virtual items largely fall into two categories: functional and non-functional. Functional items grant objective, in-game advantages. For instance, the purchase of a more powerful fighting sword offers the player better opportunities for game progression. However, among players, there is a growing disdain towards such functional items due to the perception that they are fueling a “heinous pay-to-win” culture where success may not just be based on the player’s skill but on their monetary investment (Hjorth and Khoo, 2015, p.339; see also Davis, 2013). In an endeavor to maintain equality for players and a level of purity in the game itself, free-to-play games, such as LoL, *Smite*, and *Dota 2*, are strictly monetized by means of purely non-functional virtual items. Buying a so-called ‘skin’ or a hat, for example, simply changes the look of a player’s avatar. These non-functional items offer no in-game advantage and are purely aesthetic (Lin and Sun, 2007; 2011). Both types of virtual goods, functional and non-functional, are very popular among players, collectively contributing to revenues in excess of \$15 billion of in-platform purchases annually (Bonder, 2016). Furthermore, rare items may sell for large sums of ‘real’ world money, for instance, a one-off sword sold within *Age of Wulin* fetched \$16,000, and an ‘Ethereal Flames Pink War Dog’ within *Dota 2* sold for \$38,000 (Gibson, 2014).

Despite their popularity and economic significance to game developers, little is known about *why* players buy virtual items. Existing studies have provided important insights into the motivations that drive purchase for virtual items as a whole; however, no prior work has focused specifically on non-functional items (Lehdonvirta, 2009; Guo and Barnes, 2007, 2009; Li, 2012). This is an important gap for two reasons. First, non-functional items are gaining in popularity by game developers in response to their consumers’ disdain for the abovementioned pay-to-win culture (Hjorth and Khoo, 2015). Second, previous research on virtual items has largely uncovered motivations associated with in-game advantages, and as a result the findings are not relevant to our understanding of non-functional items. In response, we conducted a qualitative study among LoL players to explicitly *explore the motivations underpinning their purchases of non-functional items within free-to-play games*. Building on existing motivation research, we

explored the possible utilitarian, social, and hedonic purchasing drivers. Our data yielded additional motivations for buying non-functional items. Furthermore, the findings revealed that players were motivated to buy items, largely unconcerned by the characteristics of the item itself but as a means to transfer money to the developer.

The following section provides a discussion of the related literature, before we present details of our study, its findings, and the overall contributions of this research.

### **Virtual Items and Free-To-Play Games**

Van Dreunen (2018) defines virtual items within games as items or game-related services, such as a virtual currency or objects that enable or enrich game play. In most part, such virtual offerings are “inspired” by or are “virtual versions of possible ‘real-world’ items” (Lehdonvirta, 2009, p.99). Within games these may include new playable characters, weapons, maps, or player enhancement upgrades (e.g., potions to increase strength). Time spent playing a game is positively related to the willingness to spend real money on in-game virtual items (Greer, 2013; Kaburuan, Chen, and Jeng, 2009; Mäntymäki and Salo, 2011; Hamari, 2015). However, the proportion of users who choose to buy items is approximately 2.5% of the total user base (SuperData Research, 2012). The average amount spent in 2011 was \$67 per gamer, approximately equivalent to the price of a console game (Epson, 2012). It is clear that there are strong opportunities for publishers to benefit from converting players into payers. As alluded to above, a commonly referred to dichotomization of virtual items is that they are either functional or non-functional in nature (Lin and Sun, 2007, 2011; Oh and Rui, 2007). The former grant players in-game advantages through increased competitive strength or speed of game progression. Conversely, the latter are purely ornamental, changing only the visual appearance of a player’s digital character and/or associated artifacts.

#### *The free-to-play business*

The business models of free-to-play games rely predominately on the purchase of virtual items, offering players autonomy through flexible price points. Players can choose how to engage with a game depending on their willingness to spend money on additional content, thus opening the game up to more players and player segments (Paavilainen, Hamari, Stenros, and Kinnunen, 2013). The purchase of functional items has, however, become a contentious issue for players and developers of free-to-play games. It has been argued that they break the “magic circle”, the barrier that keeps the virtual world distinct from the offline world, particularly as users’ offline standing can influence their online status (Hjorth and Khoo, 2015; Alha, Koskinen, Paavilainen and Hamari, 2014; Bartle, 2004). Purchases of functional items can skew competitive environments by granting players who invest more an in-game advantage. Consequently, business models based on the sale of functional items are being renounced in favor of those based on non-functional items by large online multiplayer games, such as LoL, Smite, and Dota 2. In LoL, players can buy skins for their characters and for some in-game items (e.g., wards) and special profile pictures, all of which have no functional value. With more free-to-play games adopting this ‘purist’ stance, a rigorous understanding of what motivates players to purchase non-functional items becomes more crucial.

## Motivations for Purchasing Virtual Items

What motivates purchasing has been well examined within the fields of marketing and e-commerce. Although different models exist, there is consensus that purchase only occurs if it provides value to customers. This value is broadly understood as the benefit customers get from buying and using a market offering (Woodruff, 1997), it is this value that consumers are motivated to gain. For non-functional items, this value is not obvious, and it becomes ever more interesting to examine what value players see in buying non-functional virtual items. Value has long been conceptualized in different ways. Zeithaml (1988) expresses value as a tradeoff between perceived benefit and price. Holbrook (1994; 1999) conceptualizes value existing along the continua between extrinsic/intrinsic, and active/reactive with benefits either self-associated or associated with others. Sheth, Newman, and Gross (1991) contend that value that underpins motivations can exist as functional, social, emotional, epistemic, and conditional. We view motivation as being tri-dimensional, being utilitarian, hedonic, and social. We explain these in more detail below, but put briefly, utilitarian motivations pertain to the effective and efficient accomplishment of a task at the best price; hedonic motivation resonates with Holbrook and Hirschman's (1982) notions of fun, feelings and fantasy; and social value concerns the value added to an individual's social relationships (Belk, 1988; Solomon, 1983). This approach has, for example, been followed by Rintamaki et al. (2006) in a critical overview of the value literature.

The *utilitarian* viewpoint assumes consumption occurs to accomplish a known outcome, underpinned by the assumptions that consumers approach problems rationally (Bettman, 1979). In essence, the consumer is viewed as motivated by such drivers as cost savings, convenience, and product functionality (Holbrook, 1999; Holbrook and Hirschman, 1982; Babin, Darden and Griffin, 1994). In the context of functional virtual items in games, such utility can result in improved in-game performance and functionality (Lehdonvirta, 2009). Performance-related purchases, on the one hand, are motivated by a desire to gain an advantage through improving existing features. For example, these purchases may upgrade characteristics relating to the player's avatar, such as increased strength or fire rate of a weapon. Functionality-related purchases, on the other hand, relate to the acquisition of new in-game items that are not already available to the player.

Value for money matters for purchasing functional items (Guo and Barnes, 2009; Turel, Serenko and Bontis, 2010; Whang and Kim, 2005), and in this context, is interpreted as a ratio of how much the player's effectiveness increases relative to the investment (e.g., for new weapons, spells or abilities). Indeed, this economic tradeoff plays a role in the overarching utilitarian motivation for functional item purchases (Park and Lee, 2011). This remains the case whether the items create a competitive advantage, level the playing field with competitors, or increase the player's ability for game progression (Lin and Sun, 2007; Guo and Barnes, 2007, 2009; Whang and Kim, 2005; Lehdonvirta 2005).

However, these motivations do not as clearly explain the purchase of non-functional items that do not provide such objective advantages. Holbrook and Hirschman (1982) introduced the notion of *hedonic* value within consumption, proposing it is underpinned by the three Fs: fun, feelings, and fantasies. In essence, hedonic consumption describes

multisensory, emotive, and fantasy-related elements that surround a consumer's experience with a product (Guo and Barnes, 2009; Turel, Serenko and Bontis, 2010; Whang and Kim, 2005). Previous research has found non-functional virtual items to be largely hedonically motivated. First, these items broadly increase enjoyment through increased multisensory (e.g., visual or audio) appeal in the game (Turel, Serenko, and Bontis, 2010; Hamari, Keronen and Alha, 2015). Second, these items operate as a means of self-expression, allowing players to express their actual or ideal selves through their online characters (Lehdonvirta, 2005, 2009; see also Berthon et al., 2010). Guitton (2011) finds that hedonic factors, such as visuals, are important for immersion in digital environments, however that social aspects are crucial, too.

*Social* motivations may also be of relevance to non-functional virtual items and have been defined as products or services having symbolic meaning important to a consumer's social relationships and externalized identity (Belk, 1988; Solomon, 1983). Social motivations are particularly important given LoL is at heart a team game, or even known by some as a 'team esport' (Beck, 2017). Consumption can be used to show status in social settings, which can increase a consumer's self-esteem (Babin, Darden and Griffin, 1994; Richins and Dawson, 1992; Veblen, 1960). Further social value emerges from consumption creating a sense of belonging or shared social identity within a group (Lehdonvirta 2005; Homburg, Wieseke, and Hoyer, 2009) as well as through creating a social distinction from other groups and by showing 'visual authority' (Lehdonvirta, 2009). Guitton (2011) found similar effects in a Second Life study, in which apparently nonessential social actions contribute to reinforce the inner cohesion of groups in virtual worlds.

Overall, existing research into the motivations for the purchase of virtual items has largely focused on the value gained from the item itself (e.g., value in the way the item sounds or performs) or the attributes of the item (e.g., the look of the item in projecting distinctiveness to others). While interesting, the existence of additional motivations beyond these warrants further investigation. Our interest in alternate motives stems from the following research-based arguments. Holbrook (1994; 1999) supports that customers can be less concerned with value gained from the purchased item itself and more compelled by the shopping and purchasing activity (see also Rintamaki et al, 2006; Chanson, Wansink and Laurent, 2000; Belk, 2000; Babin and Attaway, 2000). We propose in free-to-play games that the payment, that is, transferring funds to the developer, may be for some players more important than the item itself. There is presently no closely related literature to this potential phenomenon. However, indirect insight can be gleaned from the context of charitable giving, when a person purchases a product where proceeds go to charity, known as charity-linked products (Poença and Pereira, 2008). Such purchases may be motivated less or more by the item itself versus the donation to charity. Thus, it useful to review motivations to donate to charity as they may shed light on the phenomena under consideration here. Dawson (1988) provides four overarching motivations for charitable donation. First, reciprocity refers to instances where a person who benefitted from charitable activities wishes to give back. Second, self-esteem relates to cases where people want to improve their self-image or personal self-worth. Third, people aim to enhance their careers, as charitable giving is a prosocial behavior that reflects well with employers. Finally, utility refers to people who wish to maximize tax benefits. Although the last is not relevant in our context, reciprocity or self-enhancement in some way may provide important insights for understanding the

purchase of non-functional items. Ariely et al.'s (2009) work on social gains from such prosocial behavior is extended by Cox et al (2018), who show that making donations more publicly visible increases donation amount, as the contributor perceives greater social reward.

Although free-to-play games that are monetized through virtual items are not charities, they are somewhat similar to free online technologies that are monetized through donations (e.g., Wikipedia). Veale (2000) argues that donation-based e-commerce models are driven by users' motivations for reciprocity and possibly social and self-enhancements associated with giving back. Users of free-to-play games, monetized through in-game purchases of virtual items, may indeed share motivations similar to those of users of other free Internet technologies that are donation-based or similar to contributors to charitable organizations. Therefore, it is conceivable that users of free-to-play games are also motivated by factors, such as reciprocity and self-enhancement, associated with the act of purchasing rather than the specific attributes of the purchased items themselves.

The above argument combined with the growing pressure to maintain fairness in online games through the sale of non-functional items sparked our interest in alternative motivations for in-game purchases. Previous research has failed to adequately explore the motivations for purchasing non-functional items, and this is therefore the aim of the current paper. Specifically, we aim to use the tri-dimensional view of motivation as being either utilitarian, hedonic, or social motivations to understand purchasing behavior. Furthermore, we aim to explore whether motivations may transcend the attributes of the virtual item itself. If so, this will have novel implications for the e-commerce and human-computer literature and more broadly, consumer behavior, demonstrating that the act of purchasing, rather than the purchase itself, creates value.

### **3. Methodology**

In-depth, semi-structured interviews were conducted in accordance with previous e-commerce research (Angelakopoulos and Mihiotis, 2011; Aloudat and Michael, 2011). Interviews were conducted by one member of the research team as they had detailed prior knowledge of the LoL platform. Interviews took place via video conferencing due to the geographic dispersion of the interviewees. Participants were made aware that the interviews would be conducted in English within communications prior to the interview, thus respondents were satisfactorily proficient in English.

Participants were selected following completion of a screening survey, assessing the following criteria: participants had to be over 18 years of age, players of LoL (the top grossing PC game), and they had to have purchased non-functional virtual items within this game at least once before. In return for participation, interviewees were given the opportunity to receive a summary of the research findings. We purposely targeted a sample of 'hardcore' and 'ultra-hardcore' players of LoL as these have the greatest impact on gaming markets (Bin and Qiang, 2015). Adams (2000) defines hardcore gamers as those who play for the exhilaration of winning and for longer periods of time as well as those who are more interested in discussing gaming with friends and finding gaming related information.

Whether or not participants fell into these categories was determined using Adams and Ip's (2002) Gamer Dedication Scale. This scale consists of 15 items assessing the subject's attitude towards gaming, gaming behavior, and interest in gaming-related content, measured on a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). Akin to the criteria of Adam and Ip's scale, respondents who scored greater than 56 out of a possible 75 were considered 'hardcore', and those scoring over 70 were considered 'ultra-hardcore', obsessive players. In addition to this measure, the survey also asked for the participants' age, whether they played LoL, and whether they had purchased a virtual item in the game.

This survey was sent out through the official LoL player forums, and a total of 146 complete responses were received. After the selection criteria were applied, 44 eligible participants were identified, all of whom were invited for interviews. If participants did not reply, follow-up emails were sent out. Participants who took part were also asked if they recommended others to be interviewed who fit the criteria.

The interview guide, included first, questions to understand the players' experience with the game and build rapport e.g. "How long have you been playing LoL?". This was followed by asking participants to recall times when they had bought items for their champions; they were then questioned about 'why' and 'what motivated' these purchases and further probed why that specific item was purchased over possible others. Furthermore, participants were asked to reflect on how they perceive other players who they could see had purchased items. At 30 interviews, theoretical saturation was reached. However, two further interviews were conducted to reaffirm saturation, providing a total of 32 interviews. Each interview lasted between 20 to 60 minutes. Overall, the sample included 28 interviewees between 18-29 years and four 30 years and above, of which 27 are males (84%). Nine participants were hardcore players whereas 16 were ultra-hardcore, the gamer dedication scores however were not available for seven respondents who were gathered through snowballing. Participant details are provided in Appendix A. Transcriptions were cross-checked for accuracy by two members of the research team, and NVivo 10 was used. Thematic analysis acted as the analytical method and was conducted by two researchers. Specifically, a 'bottom-up' method within an interpretivist theoretical framework was employed to interpret the participants' reality uncovering latent themes (Braun and Clarke, 2006). This method involves six steps: familiarization, generation of initial codes, searching for themes, theme revision, defining themes, and finally the production of the report. Themes and codes were cross-examined and refined by the research team.

#### **4. Findings**

The core analysis involved two distinct stages. First, an inductive thematic analysis was conducted, where ten themes revealing different motivation for the purchase of non-functional items within LoL emerged. Second, these themes were then viewed through the lens of consumer motivations as tri-dimensional (utilitarian, hedonic, and social). This process first required two individual researchers in the team to categorize the emergent themes within the framework, before consensus was reached through a group discussion, known as the investigator triangulation method (Denzin, 1973). The resulting themes within the tri-dimensional categorization are summarized in Table 1.

The *hedonic motivations* were: *Novelty, Aesthetics, Self-Gratification, Character Dedication, and Reciprocity*. We present these motivations in the following. Note that interview participants are identified based on M/F for their gender.

### *Novelty*

Many of the participants expressed that their purchase of non-functional items was to keep the game novel. Our data support Nojima's (2007) finding that novelty soon wears off after the initial excitement from establishing oneself within a new gaming environment. Given our sample of hardcore/ultra-hardcore gamers, the early novelty of the game was far behind, although they were still highly dedicated to the game. Therefore, they sought ways to keep their experience novel. Buying non-functional items was seen as a means to do this.

*"The skins are products that, make my experience with the game new and more enjoyable, so I would be willing to pay for a skin."* (M4, Employed)

For this ultra-hardcore gamer (M4), who held a full-time job, time spent playing the game was very valuable. Thus it was important for him to invest money into new skins as this maximized his enjoyment with the time spent playing.

*"Maybe you play this game hours on end, and when you are staring at the sort of [laughs], when you are staring at the sort of simple, vanilla so to speak, skin or gun or texture, maybe that's repetitive, maybe that's boring and maybe there are skins that just kind of spice up your visuals."* (M6, student)

This quote from M6 provides further support, expressing that with increasing hours of play comes boredom with the initial free visuals offered by the developer and therefore to 'spice' up his gaming experience would buy new skins.

### *Aesthetics*

Most participants felt the aesthetics (visual appearance, sound, or animation) of the items was a motivating factor in purchasing.

*"I am a kind of aesthete. And if I see what I like visually and I know that I will enjoy having it on my character, I buy it."* (M8, employed)

Participant M8, describing himself as an aesthete (i.e., someone who appreciates art and beauty) was highly driven by visual appearance of new items he would enjoy attaching to his character. Because his employment provided him the funds to afford whichever non-functional items he preferred, his goal was to increase his aesthetical enjoyment, reminiscent of true hedonic consumption (Babin et al., 1994). The following quote provides further support of the hedonic motivation of aesthetics:

*“Although if there is a skin that completely changes how the character looks or even sounds or how the skills look or sound, it definitely has more appeal than just a simple recolor or something.”* (M12, student)

M12 is referring to “legendary” skins within the game that are premium more expensive non-functional items that dramatically change the aesthetics of a character had more appeal than other items, which only led to minor aesthetic adjustments. Colliander and Marder (2018) support that aesthetics within computer-mediated environments are particular important for younger generations.

#### *Self-gratification*

Many participants expressed they were motivated by self-gratification, a means of rewarding oneself as an important reason for people to engage in the purchasing of goods and services (Tauber, 1972; Arnold and Reynolds, 2003). The following quote exemplifies this.

*“I have finished my first internship two years ago, and I got my salary, and I decided to treat myself, and I got the skins for Tristana.”* (M4, employed)

M4 felt the need to reward himself for an accomplishment in the offline realm and chose to purchase skins for his champion, which provided him with emotional satisfaction. The drive for self-gratification in virtual item purchase more generally is supported by Hassouneh and Brengman (2011). The data further showed that purchase occurred as a reward for in-game achievement.

*“To kind of celebrate that my character hit the max level and yeah, I was just in the mood to get something that looks unique, you know.”* (M12, student)

The findings clearly illustrate that purchase of non-functional items may be motivated by the celebration of an achievement which may occur either offline or within-game.

#### *Character dedication*

Akin with previous research, almost all the gamers interviewed revealed they had strong emotional connections with their characters, in which they invested the most time (Vasalou et al., 2008).

*“Yeah. I would say mostly when you buy a skin for your champion that you play it a lot. But I wouldn’t [...] purchase a skin for a champion that I don’t like [...].”* (M8 male, employed)

M8, an ultra-hardcore gamer, invests the majority of his free-time into the game and particularly within a handful of characters. He expresses that he would only buy skins for characters he is dedicated too. This sentiment is mirrored in the quote below:

*"I wanted to have them all for my main character. It just shows that this is my main character, this is what I like about the game."* (M12, student)

As players progress through the game they often become dedicated to one character, in which they invest emotionally, with their game-play time, and financially. M12 chooses to buy items for his 'main character' to show his dedication to his character as well as to other players. The skin that was bought for a character, to which the player is dedicated, is carefully considered shown in the following quote:

*"The first skin I bought was for Super Galaxy Rumble. I felt it was really cool and referenced one of my favorite anime, and also the default skin for Rumble isn't very nice to look at, and I like my characters to look as awesome as possible!"* (M15, employed)

Player M15 who was very dedicated to the character Super Galaxy felt the aesthetics of the default skin was bad and therefore purchased a new skin. This quote illustrates the cross-over of motivations relating to aesthetics and character dedication. Purchasing to show dedication to their characters symbolizes the strong connection people have with their digital representations, evidenced in other computer-mediated environments (Smahel, Blinka, and Ledabyl, 2008). However, it is important to keep in mind that the separation between the characters and players is somewhat uneasy, as research has shown that digital characters are often molded on the ideals of the players on character. In essence, one may argue that dedication to the character (i.e., an extended self) is, to an extent, dedication to the 'self' (see Banks and Bowman, 2016).

### *Reciprocity*

Many participants expressed that they bought skins to give back to the developer, who has provided them with so many free hours of enjoyment. The following quotes exemplify this:

*"Sometimes I pay for the skins just because I want to give money to the developer, not necessarily because I want something in the game."* (M8, employed)

*"I feel by making a few purchases, I was making a personal investment to the company that provided my entertainment to show them they are loved."* (M16, employed)

This represents a hedonic motive as participants expressed that they felt satisfaction, enjoyment, or alternatively less guilt when giving money to the developer. In the context of charities, the pleasure of giving back is often termed as a 'warm glow' (Luccasen and Grossman, 2013). The sample of hardcore/ultra-hardcore players were acutely aware that they were in-debt to the developer, who gave them many hours of entertainment for free and felt pleasure in giving back. Here, non-functional items were purchased not for the item itself but just a vessel to reciprocate value to the developer. Burnett and Lunsford (1994) express such consumer behavior exists to uphold moral standards of the

consumer. The following quote illustrates how the motivation for reciprocity is to help reduce negative emotions potentially accompanying a purchase.

*"I don't feel guilty at all when I buy a skin from them. Obviously, that's how they make the majority of their money, and I'm happy to pay something towards a game that I've pumped so many hours into." (M15, employed)*

Player M15 provided the above response when discussing how much money he spends in-game, which he admitted was quite a lot. He discussed that his purchases often may have been driven by other motivation factors, for example, character dedication (see above). However, to rationalize and reduce guilt of purchasing items he was strongly aware had no functional value, he did so on the basis of reciprocity. Overall, the need for reciprocity found here is similar to that which drives charitable giving; thus, as a person who has benefitted from the actions of a charity in the past feels they should donate (Dawson, 1988), and so does a player who benefits from the game. In addition to hedonic motivations, the data revealed a number of social motivations to purchase non-functional items, those which have symbolic importance to the players, social relationships, and externalized identity (Belk, 1988; Solomon, 1983). These are presented below.

### *Gifts*

Virtual items have become important means of maintaining relationships (Schmargad, 2016; Tay, 2005). As defined by Davies et al. (2010), gifts or gifting is something given without receiving payment, and is generally given in the expectation of changing the relationship with the recipient and of reciprocation. Approximately half the participants had bought items as gifts.

*"I enjoy playing with a lot of people, and I like gifting them to make them happy." (M11, employed)*

Participant M11 felt a strong connection with other players that he often allied within-game and bought them gifts as a means of making them happy, strengthening their relationship. The importance of the gift giving is reminiscent of the overall social focus of LoL - a team game that fosters prolonged social relationships between players. Gifts were given to players known within-game but also to those to whom they already had strong connection offline, illustrated by the following quote.

*"So, there are 2 reasons why I gift a skin, one if a friend has gifted me a particularly expensive one, I feel bad that they spent money on me, so I usually gift them back. Another one is I use it as a present for like birthdays. I have given skins to cheer my boyfriend up. If he is particularly upset, I bought him a skin he always wanted. Yeah, those are pretty much the only reasons why I gift skins." (F3, student)*

F3 further reveals, akin with offline gift-giving practices, the social obligation for reciprocity, stating she would feel bad if she received a gift and did not reciprocate, especially if this was an expensive one (Qian, Razzaque, and Keng, 2007). This highlights the notion of reciprocity occurring between players and between players and the developer.

### *Social Distinction*

Participants used skins to express their individuality or, in contrast, their membership to a group. Such motivations are well understood in the study of consumer behavior (Homburg, Wieseke, and Hoyer, 2009). The majority of the data provided evidence of skin purchase to maintain an in-group social identity, illustrated by the following quotes.

*“In LoL there are skins that have a theme. One of these themes are called Project Skins (a bit like Tron) – everyone [in reference to their team members] had a champion with this skin. So, I thought it would be cool to buy this skin for my champion, so we could all appear in the game with the same style. This made me feel like I was more part of the group and to intimidate the opponents at the same time.”* (M27, employed)

Just as players in team games in the offline world wear same kit to promote cohesion (Martin et al., 2018), players in LoL may choose the same skin. Our interview participants wanted their teams to have some form of visual similarity and identity to differentiate themselves from other teams. Also, it appears this purchase was to an extent motivated by visual authority, as appearing as one may help “intimidate opponents”. Although presentational matching was more abundant within the data, there were a couple of instances where individuals wanted to stand out as individuals. For example:

*“Taric has never been my favorite champion, but I mean it’s pink, it’s sparkly [laughs]. It was just fun, I don’t know. No one was liking the skin but me. I think that was the reason I bought it and used it all the time - just to annoy everyone.”* (F2, student)

F2 conveys that she bought a pink sparkly skin because she liked it and part of the reason for her preferences was that it annoyed others. This participant, an ultra-hardcore player, put a lot of emphasis on her identity within the game outwards towards others and valued making herself distinct from other players.

### *Visual Authority*

Some participants used non-functional items to communicate status to other players, a phenomenon coined visual authority by Park and Lee (2011). The general feeling from these participants is that acquiring and wearing rare skins signals to others an increased time playing the game and therefore a higher level of mastery. The following quotes exemplify this:

*“If you are like showing off with your skins, then of course it makes those people that don’t have any look a bit, I don’t know how to say it, inferior.”* (F2, student)

*“Because those [rare] skins tend to be expensive, so why would people buy an expensive skin if they are really really bad at the champion? [...] Well, rare skins are limited, so you can’t buy them anymore, which means often they are*

*playing for a long time and when you play a game for a long time, I guess you get better. So, I guess if someone has a rare skin, they are better at the game than general people.” (M11, employed)*

M11 expressed that skins can show a player is better, or conversely, as F3 elaborated, not inferior. The reason given by M11 is that as some skins are rare and only available for a short period, players who acquire them must have been playing for a long time, acquiring greater experience, and therefore are better players. Furthermore, to unlock certain skins, players must reach a certain level. Many participants were, however, cynical of the notion that skins communicate authority.

*“The problem with that is, I know someone who owns 273 skins. This particular person can play like five champions on a half proficient basis. And for every other champion she just bought the skins because they look nice. And this is why I think that you don’t need a skin to show that you are proficient because the other way around a lot of people own skins and are not proficient with the champion.” (M1, employed)*

This participant M1 articulates that because it is easy to buy skins and they are relatively low value, anyone can do so and therefore owning skins does not signal proficiency. This is supported by a study of attire worn by sailors, which purports that others are often skeptical of a sailor’s proficiency if they wear matching trousers and jackets, in essence, as if they were trying too hard (Hogg, Horne, and Carmichael, 1999). At a deeper level this cynicism is reminiscent of the participants’ overall disdain for pay-to-win mentality in games, or, in this case, pay-to-symbolize you are winning. This supports prior research which highlights this phenomenon for western gamers (Hjorth and Khoo, 2015; Davis, 2013). In contrast to hardcore gamers, ultra-hardcore gamers believed more that skins can communicate status; a reason for this is that given their increased game-play they are better able to distinguish skins that have been earned versus those bought.

#### *Showing reciprocity*

A small number of participants expressed they were motivated to purchase skins to appear favorable to other players, through showing to others that they help keep the game alive. This is shown in the following quotes.

*“So, I think if players see me running around with special skins, that I probably spent money on, they will feel like, maybe a little bit grateful, I don’t know, but they see those people are keeping the game going.” (M12, student)*

*“By buying skins you show to other gamers that you are paying back to something you get for free. I see people who buy skins as doing their part, as it is the right thing to do, when you play a game for free, it is only fair to pay money for it.” (M20, student)*

Player M12 asserts that he believes that other players seeing him wearing special skins signals that he has spent money in the game, and therefore he is part of the keeping the game alive for others., Hence they “may be a little grateful”, whereas M20 states this as “*doing their part*”. This, similarly to showing you donate money to charity,

results in positive impressions given off to others (Ellis et al., 2000; Ariely, Bracha and Meier, 2009) and consuming to increase self-esteem (Babin et al., 1994; Richins and Dawson, 1992). However, the closest support for our finding is provided by Cox et al. (2018) who show that conspicuousness of crowdfunding donations, increases contributions as it enhances the self-presentation of the contributor. One utilitarian motivation emerged from the data as presented in the following:

#### *Pay-to-play*

As we expected, the majority of the motivations uncovered were hedonic or social, but one utilitarian motivation emerged. This is paying-to-play, where participants acted as rational problems solvers (Bettman, 1979), purchasing items not for the pleasure of giving back to the developer but as a calculated necessity in order to keep the game alive. The following quote exemplifies this.

*"If there weren't people spending real money on the game, on in-game skins and stuff like that, the game wouldn't be going anymore. The game wouldn't be running, and so no one else could play it." (M8, employed)*

M8 expresses knowledge of the developer's business model, and that if he and others were not investing in the game, it would not keep going. His motivation is indeed a rationale to achieve the object outcome and, therefore, is utilitarian in nature. Other participants support the motive in order for them to benefit from further offerings from the development. This is highlighted in the quotes below:

*"I want updated features and further upkeep, I suppose. So, I want to see this money [provided by buying skins] invested into any future projects Riot plan on taking on." (M15, employed)*

*"Because it is so good, I invest in it, to further develop the game, new champions, new modus, and so on. And to replay system. Soon." (M17, Student)*

Both M15 and M17 state they purchase non-functional items as a means to ensure further developments in the game (e.g., updated features, new champions). Given the hardcore nature of the sample it was felt by participants that new game developments were needed to maintain enjoyment in the game. Therefore, as rational utility calculators, they invested in items to ensure these future developments (Rintamaki et al; 2006). In a charitable context, a person donating money for a specific reward has been known as "selfish utility-maximizer" (Halfpenny, 1999, p. 199). In addition to different motivations that emerged, further analysis provided the existence of a continuum of item-versus Payment-dominant motivations, which sheds further light on the phenomenon.

#### *Item versus payment dominance*

Additional analysis of the themes revealed that the core motivation existed as either item-dominant or payment-dominant. Item-dominant purchases were intrinsically linked with attributes of the virtual item (e.g., players bought an item because they liked the way it looked), whereas payment-dominant purchases occurred as a means to transfer

funds to the developer (e.g., they bought items to just give back to the developer). For the latter, the attributes of the items were either secondary or not important at all. Through further investigator triangulation, the research team agreed that the themes *Novelty, Aesthetics, Self-Gratification, Character Dedication, Visual Authority, Social Distinction, and Gifting*, on the one hand, are item-dominant. *Reciprocity, Showing reciprocity, and Pay-to-play*, on the other hand, are *payment-dominant*. Existing literature has not previously drawn attention directly to this distinction. However, a body of work that supports that the motivation for shopping transcends the value in the items sought provides some indirect support, finding that people are often motivated to go shopping for the experience of shopping itself rather than the need for a specific item (Holbrook, 1994, 1999; Belk, 2000; Babin and Attaway, 2000). Although this is not explicit within the literature, similarity can be drawn to motivations to buy charity-linked products – that is, when purchasing provides a donation to charity (see Proença and Pereira, 2008). Motivating the consumption of this product may be more due to the item itself (i.e., item-dominant) or due to the fact money will be given to charity (i.e., payment dominant). An example of the latter may be a person who goes into a charity shop and buys some Christmas cards but not so much because they like the cards but because they want to donate to the cause.

Similarly, players of LoL were found sometimes to be motivated predominantly by making a payment itself, in the case of *reciprocity* and *pay-to-play*, rather than due to any intrinsic value in the item purchased. This highlights the interesting notion that the value in the purchase is in some cases intrinsically linked to the payment, that is, the transfer of resources from the player to the developer. We propose that item versus payment dominance is not necessarily dichotomous but rather continuous. Our findings showed that purchases were often predominantly driven by either the item or the payment, but there were accounts of the co-existence of both item and payment as a driver. The quote below exemplifies this.

*“I get a rare or unique skin to make my character look good on the Rift and give myself more of a unique identity, but I feel, personally for me, it was to support the brand.”* (M16, Male, working)

Player M16 asserts that he is mainly driven to purchase in order to support the brand, suggesting a value in the transfer of funds; however, the item purchased is also important, in that it enhances the way his character looks. This portrays a form of continuum where purchase may be driven by more so the value in the payment for the item but may not have occurred with the secondary value provided by the less dominant factor. Based on the sentiment of M16 above, we interpret that although he is primarily motivated to give back to the developer, he is more likely to do so if the item has some value in itself (i.e., payment as primary vs. item as secondary). In contrast, M15’s quote, referred to in the previous theme of reciprocity, suggests that the item may be the primary driver and the payment the secondary. Although he is driven to purchase the item due to some value associated, he does not *“feel guilty at all”*, as money spent equals providing reciprocity to the developer. This is similar to people purchasing charity-linked products, using the charity as an excuse to buy the product (Proença and Pereira, 2008).

Table 1: Utilitarian, hedonic, and social motivations

Theme	Motivation	Empirical Examples
<p><b>Hedonic Motivations</b> increase the fun, feelings and fantasies within the gaming experience (Holbrook and Hirschman, 1982).</p>	<p><b>Novelty</b> Purchase is motivated by a need for novelty within the gaming experience, when players become fatigued by the monotony of their character appearance (Nojima, 2007).</p>	<p><i>"The skins are products that, make my experience with the game new and more enjoyable so I would be willing to pay for a skin." (M4, Employed)</i></p> <p><i>"Maybe you play this game [for] hours on end and when you are staring at the sort of [laughs] when you are staring at the sort of simple, vanilla so to speak skin or gun or texture, maybe that's repetitive, maybe that's boring and maybe there are skins that just kind of spice up your visuals." (M6, Student)</i></p>
	<p><b>Aesthetics</b> The multisensory appeal of the appearance, animation or sounds of the items provide entertainment value for players (Babin et al., 1994).</p>	<p><i>"I am a kind of aesthete. And if I see what I like visually and I know that I will enjoy having it on my character, I buy it." (M8, Employed)</i></p> <p><i>"Although if there is a skin that completely changes how the character looks or even sounds or how the skills look or sound, it definitely has more appeal than just a simple recolor or something." (M12, Student)</i></p>
	<p><b>Reciprocity</b> Players feel motivated to purchase items to reciprocate value to the developer and to uphold their moral standards (Burnett and Lunsford, 1994).</p>	<p><i>"Sometimes I pay for the skins just because I want to give money to the developer not necessarily because I want something in the game." (M8, Employed)</i></p> <p><i>"In fact I don't feel guilty at all when I buy a skin from them. Obviously that's how they make the majority of their money and I'm happy to pay something towards a game that I've pumped so many hours into" (M25, Employed)</i></p>
	<p><b>Self-gratification</b> A means of rewarding oneself is a important reason for people to engage in the purchasing of goods and services (Tauber, 1972; Arnold and Reynolds, 2003).</p>	<p><i>"I have finished my first internship two years ago, and I got my salary and I decided to treat myself and I got the skins for Tristana." (M4, Employed)</i></p> <p><i>"To kind of celebrate that my character hit the max level and yeah I was just in the mood to get something that looks unique, you know."(M12, Student)</i></p>
	<p><b>Character dedication</b> Players feel emotional connections with and dedication to the characters they invested the most time in</p>	<p><i>"Yeah. I would say mostly when you buy a skin for your champion that you play it a lot. But I wouldn't [...] purchase a skin for a champion that I don't like [...]." (M8, Employed)</i></p> <p><i>"I wanted to have them all for my main character. It just shows that this is my main</i></p>
<p><b>Utilitarian Motivations</b> participants acted as rationale problems solvers (Bettman, 1979).</p>	<p><b>Pay-to-play</b> Players purchase items as rational 'utility calculators' they invested in items to ensure future developments of the game (Rintamaki et al; 2006)</p>	<p><i>"if there wasn't people spending real money on the game, on in-game skins and stuff like that, the game wouldn't be going anymore. The game wouldn't be running, and so no one else could play it." (M8 male, Employed)</i></p> <p><i>"I want updated features and further upkeep I suppose. So I want to see this money [provided by buying skins] invested into any future projects Riot plan on taking on" (M15, Employed)</i></p> <p><i>"Because it is so good I invest in it, to further develop the game, new champions, new modus and so on. And the replay system. soon." (M27, Employed)</i></p>

<p style="text-align: center;"><b>Social Motivations</b></p> <p>have symbolic importance to the players, social relationships and externalized identity (Belk, 1988; Solomon, 1983).</p>	<p><b>Gifting</b> Gifting happens with the expectation of changing the relationship with the recipient and/or reciprocation (Davies et al., 2010)</p>	<p><i>"I enjoy playing with a lot of people, and I like gifting them to make them happy." (M11, Employed)</i></p> <p><i>"So there are 2 reasons why I gift a skin, one if a friend has gifted me a particularly expensive one I feel bad that they spent money on me, so I usually gift them back. Another one is I use it as a present for like birthdays. I have given skins to cheer my boyfriend up. If he is particularly upset, I bought him a skin he always wanted. Yeah, those are pretty much the only reasons why I gift skins." (F3, Student).</i></p>
	<p><b>Social Distinction</b> Non-functional items can create social distinction and their possession can separate one group from another (Homburg, Wieseke, and Hoyer, 2009).</p>	<p><i>"Taric has never been my favorite champion, but I mean it's pink, it's sparkly [laughs]. It was just fun, I don't know. No one was liking the skin but me. I think that was the reason I bought it and used it all the time - just to annoy everyone." (F2, Student)</i></p> <p><i>"I think having a skin is a show your personality and to be unique to other players you are playing against" (M22, Employed)</i></p>
	<p><b>Showing reciprocity</b> Purchasing items is perceived to show generosity to the developer casting a positive impression to other players (Ellis et al., 2000) and to increase self-esteem (Babin et al., 1994; Richins and Dawson, 1992).</p>	<p><i>"So I think if players see me running around with special skins, that I probably spent money on, they [the other players] will feel like, maybe a little bit grateful, I don't know, but they see those people are keeping the game going." (M12, Student)</i></p> <p><i>"By buying skins you show to other gamers that you paying back to something you get for free, I see people who buy skins as doing their part, as it is the right thing to do, when you play a game for free it is only fair to pay money for it" (M20, Student)</i></p>
	<p><b>Visual Authority</b> Goods that are expensive, rare or require an increased game progression to purchase can be used to symbolize visual authority over other players (Park and Lee, 2011).</p>	<p><i>"if you are like showing off with your skins then of course it makes those people that don't have any look a bit, I don't know how to say it, inferior." (F2, Student)</i></p> <p><i>"Because those [rare] skins tend to be expensive, so why would people buy an expensive skin if they are really, really bad at the champion? [...] Well, rare skins are limited so you can't buy them anymore, which means often they are playing for a long time and when you play a game for a long time I guess you get better. So I guess if someone has a rare skin they are better at the game than general people." (M11, Employed).</i></p>

## 5. Conclusion and Discussion

In response to players' growing disdain of the pay-to-win culture in online games, game developers are becoming increasingly reliant on the sale of non-functional items to generate revenue. However, academic work has been largely mute about what motivates players to purchase these non-functional items. To best of our knowledge, this is the first investigation that focuses on this growing phenomenon. In the following, we present two core theoretical contributions of our study, as well as important implications for e-commerce managers.

First, we provide support for hedonic, social, and utilitarian motivations, which drive the purchase of non-functional virtual items. The emergent themes support, merge, and extend the understanding provided by prior research that includes non-functional item purchases but does not treat them as discrete phenomena (Lehdonvirta, 2009; Guo and Barnes, 2007, 2009; Li, 2012). However, akin to Holbrook (1994, 1999), we found that multiple motivations may drive a single purchase. As expected, given the nature of non-functional items, hedonic and social motivations were dominant. This prominence of social motivations, we believe, is linked to the fact that LoL is at its core a social game. Although purchases may have been primarily driven by a specific motivation, players may purchase items for a combination of hedonic, social, *and* utilitarian reasons. Thus, motivations should not be viewed as mutually exclusive. In particular, we found that value in the aesthetics of the item was present in most purchases despite it being not necessarily the primary driver. Aesthetic properties of non-functional items can be viewed as a 'gatekeeper' to purchase in many cases. For example, a person primarily motivated by self-gratification will only purchase an item if it also has aesthetic appeal. This is supported by the prior work, which has upheld the importance of aesthetics in driving non-functional item purchases (Turel, Serenko, and Bontis, 2010; Hamari, Keronen, and Alha, 2015). Motivations may complement each other in a way that encourages purchases when aesthetics are favorable. However, motivations may also stand in conflict. A person may be motivated to buy a skin for aesthetic appearances; however, if this particular skin is not coherent with the aesthetics of others in the team, the person will refrain from the purchase to maintain social coherence. This type of trade-off concurs with prior studies on brand linkages within Facebook, which found that people wishing to enhance different social- versus Private-orientated selves weighed the effects of symbolic brand linkages on different selves before choosing to 'like' a brand (Hollenbeck and Kaikati, 2012, Marder et al., 2018). In LoL, the social-self is a particularly pressing concern given that single players battle within a team. Furthermore, prior research on functional items has asserted that purchases are driven by value for money, that is, increased functionality versus cost (e.g., Guo and Barnes, 2009). However, the notion of 'value for money' has been rarely discussed related to non-functional items. Although this is likely due to the difficulty of analysing the cost and benefits of items with no objective functions, our findings demonstrate that value for money is as important for non-functional items. The players we interviewed discussed the cost of skins vis-à-vis how much this would enhance their playing experience, while they often took into account the value associated with multiple motivators simultaneously. In essence, in discussions of non-functional items and the discourses that surround hedonic and social value, it is easy to lose sight of the rational nature of the consumer. Our results suggest the need for scholars and practitioners to keep in mind that value for money is also important for non-functional items purchase – although the purchase may not appear rational in a utilitarian sense. Overall the motivations found

here provide an important resource for e-commerce managers and researchers to understand purchase behavior of non-functional items.

Our second contribution is the distinction between item-dominant and payment-dominant motivations. Motivations to purchase virtual items uncovered by prior research in the field have all been inextricably linked to the attributes of the item, be they functional or non-functional. Essentially, it has been assumed that a purchase takes place because the item offers value to the consumer. In contrast, our research finds that the core value in acquisition of the item can be the act of the purchase itself, with value provided by the item seen as, at best, a secondary interest. Such purchases are motivated either hedonically (through gaining pleasure from ‘reciprocity’ with the developer), socially (through improving a player’s social standing by showing his/her generosity to others), or utilitarian (by paying to keep the game alive). Prior knowledge from the marketing literature asserts that value can transcend the product or service and can be found in the shopping experience itself, even when a purchase does not take place (Holbrook, 1994, 1999; Belk, 2000; Babin and Attaway, 2000). Our findings extend on this notion by showing that, in the context of free-to-play games, there is value in the payment.

Our findings are further supported by the scant prior research on motivations to donate to free online technologies (e.g., Wikipedia). Veale (2005) discusses that when people receive a valued service for free, they are motivated to donate in order to maintain reciprocity or to be seen as maintaining reciprocity by others. However, strong parallels can be drawn from literature that understands charitable donation; the players of LoL, just like contributors to charity, are motivated to make payments for reasons of reciprocity and self-enhancement (Dawson, 1988; Ariely, Bracha, and Meier, 2009). Our research finds this is the case with non-functional items within free-to-play games. This finding blurs the boundary between the business models of free online technologies underpinned by virtual item sales and those by user donations. Developers of free-to-play games currently monetized by virtual items should consider in addition to virtual items, options for users to donate and strategies to maximize donation. Our research shows this is in essence what many players of LoL are motivated to do. However, the only current vehicle to do this is through the purchase of virtual items; there is no option to simply donate to the developer or contribute financially in some other way.

Based on our categorization of motivation type (utilitarian, social, hedonic) versus the level of motivation (item vs. non-item related), we further contribute a framework to understand motivations to purchase items within free-to-play games, including implications for managers more broadly. It should be noted that although utilitarian/item-motivated did not emerge from our data as we looked at non-functional items, it is included within the framework based on the insights from prior research (Lehdonvirta, 2009; Li, 2012) to extend the contribution to free-to-play games that monetized by virtual items in general. Table 2 below illustrates six broad categories of motivations for the purchase of virtual items in free-to-play games and six corresponding management implications.

	<b>Utilitarian</b>	<b>Social</b>	<b>Hedonic</b>
<b>Item dominant</b>	<i>Player motivation</i>		
	<p><i>Paying to win</i></p> <p>Players are motivated to gain a competitive edge or increase the speed of their game progression through purchasing items that have functional value to aid them in their pursuit.</p> <p><i>(Applicable only to functional items – see Guo and Barnes, 200).</i></p>	<p><i>Narcissistic &amp; social consumption</i></p> <p>Players are motivated by social enhancement, which may be to show authority over others, strengthen team identity, or make themselves distinct from others. Purchase of items may take place for gifting other players.</p> <p><i>Themes: Visual Authority, Social Distinction, Gifting</i></p>	<p><i>Pleasure consumption</i></p> <p>Purchases are motivated by pleasure, which may be associated with increasing novelty or aesthetic appeal within the game. It may also be a means of celebrating achievements within and outside of the game as well showing devotion to an in-game character.</p> <p><i>Themes: Novelty, Aesthetics, Self-gratification, Character dedication</i></p>
	<i>Management implication</i>		
	<p>Managers may want to design virtual items that help players increase their competitiveness and aid in game progression.</p>	<p>Managers may want to design items to aid players increase their visual authority and distinctiveness from other players as well as provide technologies to encourage gift giving to other players (e.g., a recommendation service based on items bought by potential recipients).</p>	<p>Items could be designed to enhance the players' pleasure in the game, increasing connection to the game by making it more personal. This can be done through maximizing aesthetic and novelty appeal and by creating items that have meaning to the player or player's avatar as they progress.</p>
	<i>Player motivation</i>		
<b>Payment dominant</b>	<p><i>Paying to keep playing</i></p> <p>Motivation to purchase occurs for the rational purpose of ensuring the longevity and growth of the developer as a means to sustain the benefits provided to the player.</p> <p><i>Theme: Pay-to-play</i></p>	<p><i>Conspicuous payment</i></p> <p>Players are motivated to purchase as a means to gain socially from being seen as someone who supports the developer, from whom others gain for free.</p> <p><i>Theme: Showing reciprocity</i></p>	<p><i>Joy of giving</i></p> <p>The value from the purchase comes from the pleasure of reciprocating value back to the developer, in response to the hours of free enjoyment they have provided to the players.</p> <p><i>Theme: Reciprocity</i></p>
	<i>Management implication</i>		
	<p>Managers may want to emphasize to players how the game is monetized and therefore how the game survives. This should encourage purchasing (or possibly donations) by players who wish to</p>	<p>Managers may want to consider technologies to help players appear generous to the developer in the eyes of others. These may include making explicit in-game credits of players' investment</p>	<p>Managers may want to consider means that communicate the pleasure in reciprocity (e.g., "Thank you" messages from the developers).</p>

	keep the game alive, similar to other free services, such as Wikipedia.	visible to others.	
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Table 2: A framework of motivations for purchase of virtual items in free-to-play games, with implications for managers.

*Item-dominant motivations*

Utilitarian, item-motivated purchases (i.e., pay-to-win) occur when a player is motivated to gain increased competitive advantage or accelerate game progression. This is only applicable for games that allow the purchase of functional items, not for games such as LoL. Managers developing business models for new market offerings should consider carefully leveraging this motivation. Although this has proven to create a substantial revenue stream (Hamari, 2015), an overt pay-to-win culture may be created that may be disfavored by gamers (Hjorth and Khoo, 2015) who value fairness. We propose that managers conduct in-depth research with their target markets to understand whether functional items are suitable for their base and if so, to test bundles of price and levels of game advantage with the intention of not just maximizing revenues but also maintaining an acceptable level of perceived fairness.

Social item motivated purchases (i.e., narcissistic and social consumption) arise when a player wants to look good/superior/distinct/similar to other players or as a form of social protocol within gift giving. Here, it is the item itself, which provides the symbolic social value sought. Hedonic item motivated purchases (i.e., pleasure consumption) transpires when people are motivated to purchase items to increase their pleasure within the game, be this aesthetically or through increased connection with their avatar or the game itself. Through research, managers should ensure that there is adequate variation, hierarchical symbolism, and aesthetic appeal in their non-functional offerings. Furthermore, in relation to purchases of gifts or those inspired for reasons of gratification or dedication, managers may want to consider recommendation functions to help guide players in the preference and prompt purchase, similar to recommendation services by well-known e-commerce retailers (Preece, 2004). Examples of these recommendations are, “You have played 400 games with player X - send a gift of your appreciation” or “You have levelled up, celebrate with this custom skin that suits your champion”.

*Payment-dominant motivations*

Utilitarian payment motivated purchases (i.e., paying-to-play) are objective, because players know that to keep the game alive, they must pay into it. Managers can leverage this rational motive by carefully reminding players that the survival and development of the game is reliant on purchases. This is similar to the strategy of Wikipedia. For social payment motivated purchases (i.e., conspicuous payment) that are enacted by players wishing to gain socially by showing their generosity to the game, managers may want to consider ways to explicitly present a user’s contribution

to others. For instance, designers may employ conspicuous alerts used similarly to those used in social platforms, such as JustGiving (which shows others on social media if a person has donated to charity), to alert others that a player has purchased an item and thus is supporting the game (see Smith, Windmeijer, and Wright, 2015). This suggestion follows advice by Cox et al. (2018) who finds public visibility of donations is key in increasing size of donations.

In relation to hedonic payment motivated purchases (i.e., *Joy of giving*), which arise from the pleasure of a ‘warm glow’ (Luccasen and Grossman, 2013) associated with maintaining reciprocity with the developer, we propose that managers consider means with which to show their appreciation, in order to increase the enjoyment in giving (see Preece, 2004). Furthermore, as previously mentioned, a donation option should be considered, supported by the existence of the three-payment motivation categorization uncovered in the present research. In doing so, managers might derive further insight from the work of White and Peloza (2009) in order to design the appeal statement.

In summary, we believe this study has several strengths. Our interviewees were in large hardcore and ultra-hardcore players, a segment known to have the greatest impact on gaming markets (Bin and Qiang, 2015). Furthermore, data categorization benefited from the process of investigator triangulation (Denzin, 1973), allowing our findings to have two key theoretical contributions, the ten motivations for why players of free-to-play games purchase non-functional items, and a framework that includes the novel distinction between payment versus item dominant motivations. However, the study also has limitations. Although a rationale was provided for the sample of hardcore/ultra-hardcore gamers, motivations uncovered may not be apply to other gamer segments. Future research should aim to examine non-functional item purchase by more casual gamers. In addition, participants in this study were predominately from a Western European country. Therefore, we are cautious in interpreting results beyond this context. We urge further studies to compare motivations for non-functional item purchase with gamers from other cultures. We were also cautious in making assertions about the role of gender in shaping motivations to purchase, given our sample was predominately male. Since gender can be an important variable to consider in consumption practices (e.g., Dube and Morgan, 1996), future research should consider a purchaser’s gender as an avenue for investigating differences in motivations. The present research provides the required initial step in understanding motivations of non-functional item purchase, with the novel finding that this occurred for payment-related reasons. However, we were unable to provide an understanding on the relative importance of the different motivations. Future research could employ quantitative studies on a larger scale to extend our findings. Furthermore, this study was set in the context of LoL, a free-to-play game, which is strictly monetized through non-functional items. We therefore believe that our findings are relevant to free-to-play games that also adopt this kind of business model. Moreover, important insights may be drawn for free-to-play games that use a mixed-item business model (i.e., both functional and non-functional). Although we see little reason for why our findings should not hold beyond the context of this study, specifically for similar games, we cautiously urge further studies to explore motivations for non-functional item purchases in wider free-to-play environments.

*In conclusion, the present research provides two core theoretical contributions, first, we provide delineate ten motivations for players of free-to-play games purchase non-functional items. Second, we offer a framework that includes the novel contribution of the distinction between payment vs. item dominant motivations. Together these contributions deliver value for ecommerce researchers, practitioners and academics. Moreover, it provides a further step in the aim to understand consumer motivations and the effectiveness of business models of free internet technologies.*

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## Appendix A

Participant List					
Identifier	Age Group	Gender	Occupation	Nationality	Dedication
M1	22-25	Male	Working	German	HC
M2	18-21	Male	Student	British	UHC
M3	18-21	Male	Student	British	HC
M4	18-21	Male	Working	Bulgarian	UHC
F1	22-25	Female	Working	German	UHC
M5	18-21	Male	Student	US	UHC
M6	18-21	Male	Student	Austrian	HC
F2	18-21	Female	Student	German	UHC
M7	38-41	Male	Student	Polish	UHC
M8	22-25	Male	Working	German	UHC
M9	30-33	Male	Working	Swedish	UHC
M10	18-21	Male	Working	Dutch	UHC
M11	22-25	Male	Working	German	HC
F3	22-25	Female	Student	British	UHC
M12	22-25	Male	Student	Irish	HC

M13	30-33	Male	Working	German	UHC
M14	26-29	Male	Working	German	HC
M15	26-29	Male	Working	British	HC
M16	18-21	Male	Working	Irish	UHC
M17	22-25	Male	Student	British	HC
M18	22-25	Male	Working	Turkish	UHC
M19	26-29	Male	Working	German	UHC
M20	18-21	Male	Student	German	--
M21	26-29	Male	Working	German	--
M22	26-29	Male	Working	US	--
M23	26-29	Male	Working	Brazilian	--
M24	30-33	Male	Working	Brazilian	--
F4	22-25	Female	Working	German	UHC
M25	26-29	Male	Working	German	--
M26	26-29	Male	Working	German	--
M27	26-29	Male	Student	German	--
F5	26-29	Female	Working	Swedish	HC