

# EXAMINING THE MOTIVATIONS OF SPENDING REAL WORLD MONEY IN WOW

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## **Abstract**

*World of Warcraft (WoW) has generated large amounts of money in the form of micro payments from players spending RWM on virtual things, items and game services. This research aims to gain insight into the possible motivations that drive those purchases, as well as how they compare to the leading motives for in-game purchases with VM. An online survey was administered (n=52) as well as a series of interviews (n=20). The data was coded by number of purchases as well as being sorted into the major motivational categories. The results demonstrated a need to think of the “things” you could buy as two different categories, namely items and in-game services. Game services were found to have a myriad of motivational factors, whereas items were almost exclusively limited to being driven by customization. The study ends with a discussion, which gives possible reason for the results, implications, research limitations and potential questions for further study.*

Key words: WoW, real world money (RWM), virtual money (VM), Effort Expectancy, Performance Expectancy, Perceived Value, Enjoyment, Advancement, Customization, Social Influence, Status.

## **Introduction**

Massively multiplayer online role-playing games (MMORPGs) are one of the most popular game genres that commonly use a micropayment model. The micropayment model gives

players the option to purchase additional content in the game, usually in the form of equipment, aesthetic items, and pets. MMORPGs require you to buy the additional content with real world money (RWM) or virtual money (VM), currency gained through playing the game.

This study will focus on one of the more well known MMORPGs, World of Warcraft. Since 2004 World of Warcraft has used the method of monthly subscription payments and a micropayment model for in-game store purchases.

The in-game store can be split into two categories: game services and virtual items. In 2013, the in-game store generated 213 million dollars of sales, not including the revenue WoW makes from monthly subscribers[1]. Although there have been several studies on the purchasing habits of players in World of Warcraft, such as the study by Guo and Barnes[2], there are two major gaps. The first gap is that the related studies do not focus on items that are bought with RWM through a micropayment model. The other gap is the fact that World of Warcraft just introduced WoW Tokens, so no academic study on the purchasing behaviors in WoW include this item.

WoW Tokens allow players to spend VM to purchase game time. The Token is purchased with RWM in the in-game shop and can only be sold on the Auction House, an in-game marketplace. A player can buy this token in the Auction House for 23,083 gold, the current price of the Token as of the date

of this article[3]. Once the purchase is complete, the seller will receive the VM for the purchase and the buyer will receive 30 days of game time. This means that the Token can only be bought and sold once, which stabilizes the Token's price and restricts the motivations of the Token purchase to value, the game time given by the token, or effort expectancy, the VM the seller gets for putting the Token on the Auction House. The purpose of our current study is to find the motivations behind spending RVM on virtual items and in-game services, and how those trends relate to the motives behind spending VM on virtual items and services.

### **Methods and Design**

Through a set of both interview questions and survey questions, which can be found in the Appendix B. The survey was completed by a small sample of players with the sample size (n=54), while the interview yielded a fairly small amount of data (n=20). The survey provided this study with non-numerical findings illustrating how many virtual world (VW) items per category each participant bought for himself or herself with real-world money (RWM), as well as how many VW items per category each participant bought and gifted to other players. The survey questions were bundled into a large group survey, which was put out into the WoW community. The survey questions were compiled by 15 students in a first-year writing and research course at a private university in the Western United States to address a descriptive research questions about the attitudes

and practices of World of Warcraft players. The anonymous survey was administered through the Qualtrics application, and a link was posted on select internet forums and Twitter. The survey was kept active for 1 week and had 53 usable responses (excluded responses included those who reported under 18 years of age and respondents who did not complete the majority of the questionnaire). The interviews were conducted in Terokkar, a PvE realm in World of Warcraft, and the interview questions were also posted as a thread on the social networking website reddit.

The interview questions focused on participants' motivations behind buying specific in-game items with RWM. In order to code the data retrieved from the interviews, explicit definitions had to be determined for each type of motivation.

#### **Performance Expectancy and Effort Expectancy**

In Guo and Barnes' study, "Why People Buy Virtual Items in Virtual Worlds with Real Money," they define performance expectancy and effort expectancy:

Performance expectancy is defined as the degree to which a player believes that using virtual community transaction mechanisms will help in improving character competence in virtual game communities, while effort expectancy refers to the degree of ease associated with the use of virtual community transaction

mechanism. [4]

In this study, Performance Expectancy is seen as a cause and effect mechanism that suggests a player buys an item or in-game service with the hope of the increasing in-game efficiency. Effort Expectancy is defined as how much effort it would take a player to acquire the item bought with RWM in the game.

#### Social Influence

Guo and Barnes defined social influence as referring “to the degree to which an individual perceives that important others believe he or she should use community transaction mechanisms to gain high-level virtual items for enhancing character competence.” [4]

In this study, Social Influence is based on the pressures put on players to buy a certain item or service.

#### Perceived Enjoyment

In their study Guo and Barnes state that, “perceived enjoyment is defined as the extent to which fun can be derived from participating in virtual game communities instead of using virtual item transaction mechanisms (systems).” [4]

In this study, perceived enjoyment is defined as the extent to which fun can be derived from purchasing an in-game item or service with RWM

#### Advancement

Guo and Barnes describe advancement as the general achievement that a player pursues

when purchasing VW item. [2]

Advancement, in this study, is defined as a player buying an in-game service or item with RWM that guides said player to a higher level of achievement.

#### Perceived Value

Guo and Barnes argue that, “With respect to real world consumer behavior, a product’s perceived value is usually measured according to the difference between the perceived benefits that a product delivers and its perceived monetary costs.” [2]

The definition used in this study is very similar, but defines perceived value as the VW worth of an in-game service or item purchased with RWM.

#### Customization

Guo and Barnes suggest argue that players pursue customization in order to achieve rarity and self-expression amongst their fellow players. [2]

This study defines customization as using RWM to purchase in-game services or items that allow a player to express his or herself within the game.

#### Status

“A construct, perceived social status, was specially designed in this research for capturing the influence of players’ current position within the virtual world on forming a strong desire toward acquiring advanced, valuable virtual items.” [2] This quote demonstrates how Guo and Barnes define status as a construct within their study.

When coding the data for this study, status was defined as

purchasing an in-game item or service with RWM in order to maintain a certain perceived identity within the WoW community.

Once the data was retrieved it was coded based on users' responses by using these categories: Effort Expectancy, Performance Expectancy, Perceived Value, Perceived Enjoyment, Advancement, Customization, Social Influence, and Status.

### Results

The data showed a higher percentage (69.5%) of in-game services were bought as opposed to items (30.5%); however, there was a greater number of players (n=11), who bought items for another player (21%). Compared to those who bought an in-game service for another player (n=2, 3.8%)(see figure 1).

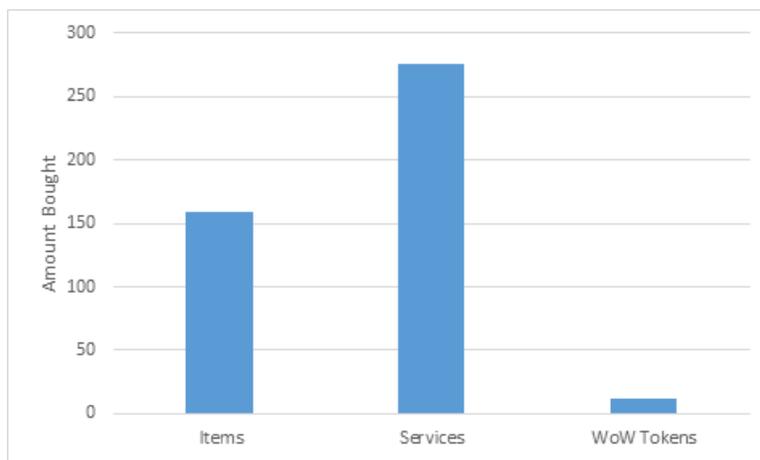


Figure 1: Comparison of total number of in-game items, services, and WoW Tokens bought.

The motives given by the interviews were also split. Items were reportedly purchased for either a desire to customize or as a response to social influences. In-game services showed a greater range of motivational factors

displaying motives in all categories. The driving motive behind buying WoW Tokens was found to be perceived value and effort expectancy, although a greater recurrence of perceived value was observed (see figure 2).

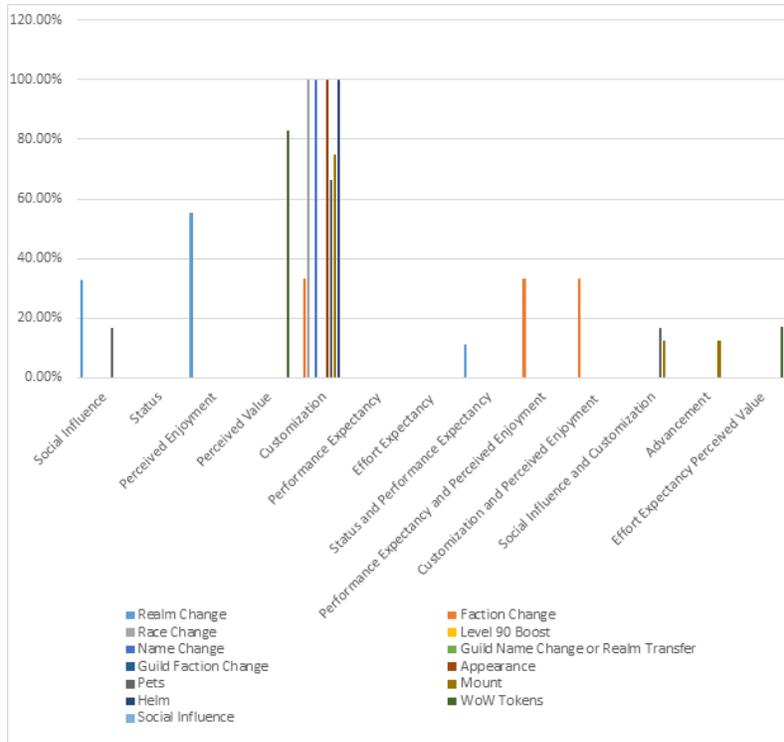


Figure 2. Motives for Buying In-Game Services and In-Game Items

### Game Services

Realm changes were the most bought in-game service with 56% of those surveyed reporting buying a least one (M=5, SD=4.7). Faction changes were also bought by many of those surveyed (40.0%), although they were purchased in smaller magnitudes (M=2.2, SD=1.3). Race changes and level 90 boosts were

also common. Name changes were purchased by 21% of those surveyed. Some reported buying more than one name change (M=2.5, SD=2.3). Guild name changes, realm transfers, and faction changes were purchased by very few (<5.7%). An even lesser amount reported buying an in-game service for another player (<3.8%).

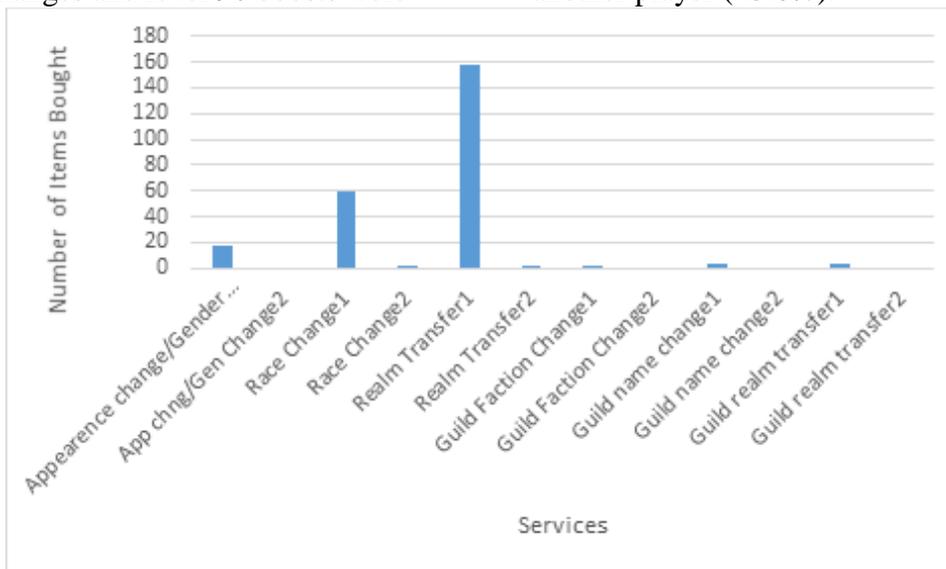


Figure 3: Number of in-game services bought for individual use or as gifts for other players.

Each game service was found to have a particular cluster of motives behind it. Realm transfers showed the broadest array of motives; however, the largest motivation factor reported was perceived enjoyment (55%), although social influences were also prevalent (33.3%). Very few of those interviewed had bought a faction change (n=3); however, the majority of responses reported

customization and perceived enjoyment as contributing factors. The interviews generated a small amount of data on appearance changes (n=2) and an even smaller amount on race and name changes (1 each). All the responses to appearance, race, and name changes were purely for customization. No data was collected from the interviews on the motives for purchasing game services for others.

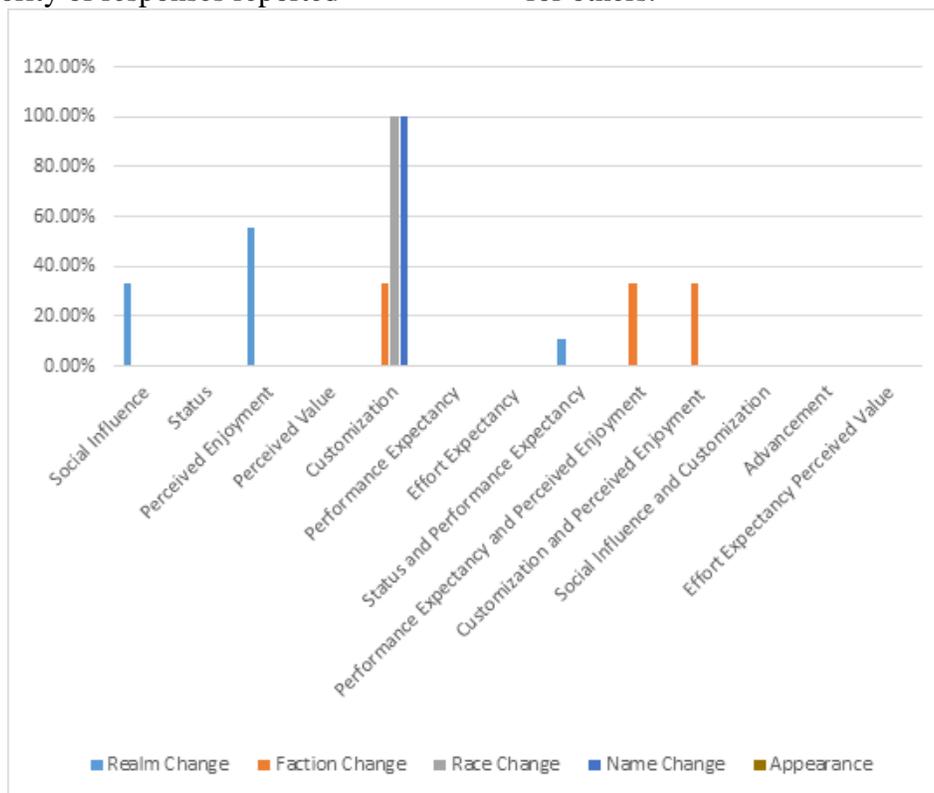


Figure 4: Motivations behind buying in-game services

### Items

The most commonly purchased items were pets (n=63) with 38.5% of those surveyed having bought one with some reporting multiple purchases (M=2.7, SD=1.9); however, more players bought mounts (46.7%), although in lesser

quantities (n=58, M=2.4, SD=1.8). Very few players reported buying a helm (2). A larger number (n=9, 17.3%) of players were found to have bought a pet for another player, while 7 players (13.4%) were found to have bought a mount for another player

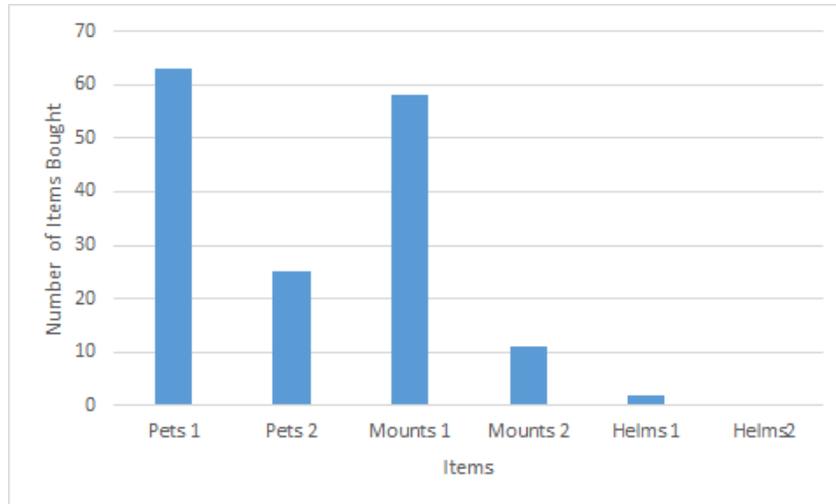


Figure 5: Number of items bought in-game for personal use or for gifts to other players

Most of those interviewed reported customization as the largest factor in buying a pet (66.6%). Social motives were also reported as having an influence (33.3%). Customization was the largest factor in buying a mount with 75% of those interviewed reporting

it as the sole motivation, although social influences and advancement also played a role for some (25%). Customization was the only motive reported for buying a helm. The interviews generated no data on the motives for buying items for other players.

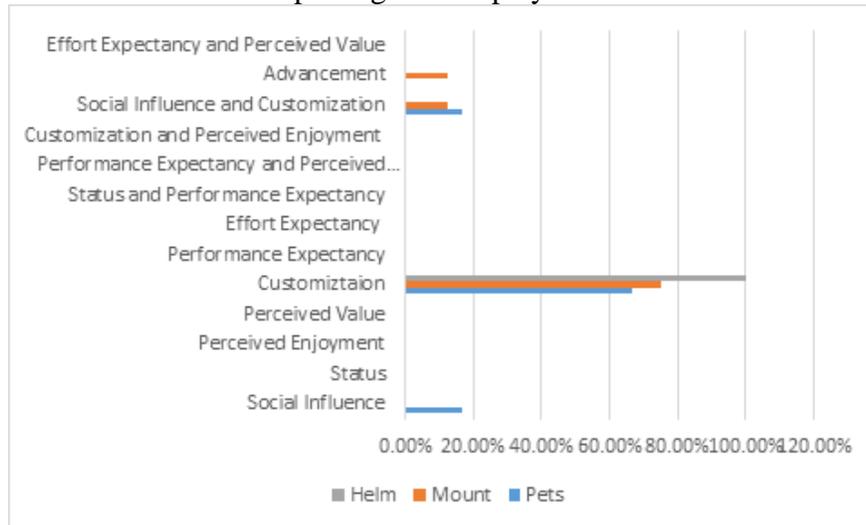


Figure 6: Motivations behind item purchases.

### WoW Tokens

WoW Tokens were new enough that many of those surveyed had had little contact with them; however, 15.3% of

those surveyed reported buying a least one Token ( $M=1.7$ ,  $SD=0.8$ ). There were no reports of buying a WoW Token for another player.

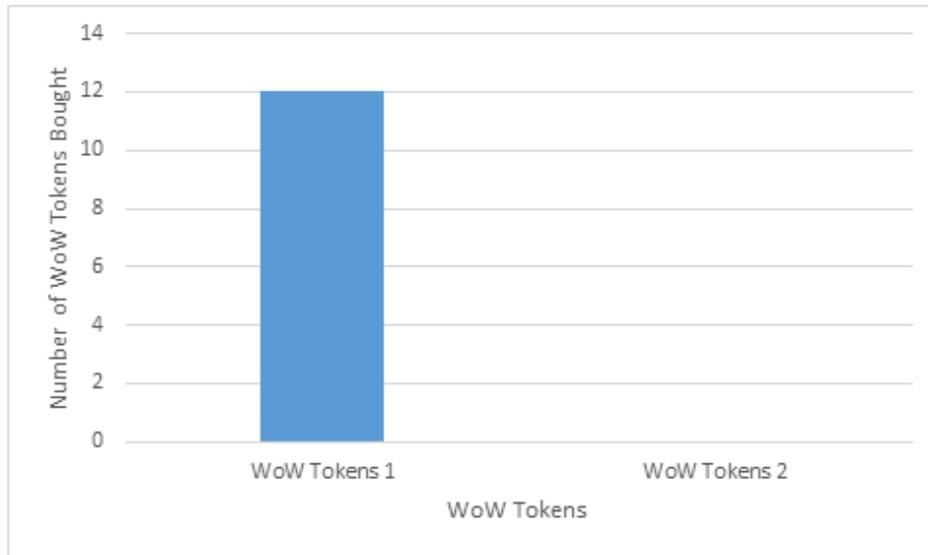


Figure 7: Number of WoW Tokens Bought

A few of those interviewed had bought a Token (n=5). The motivational factors reported were perceived value and effort expectancy with a far greater emphasis

placed on perceived value. None of the interviewees reported buying a WoW Token for another player.

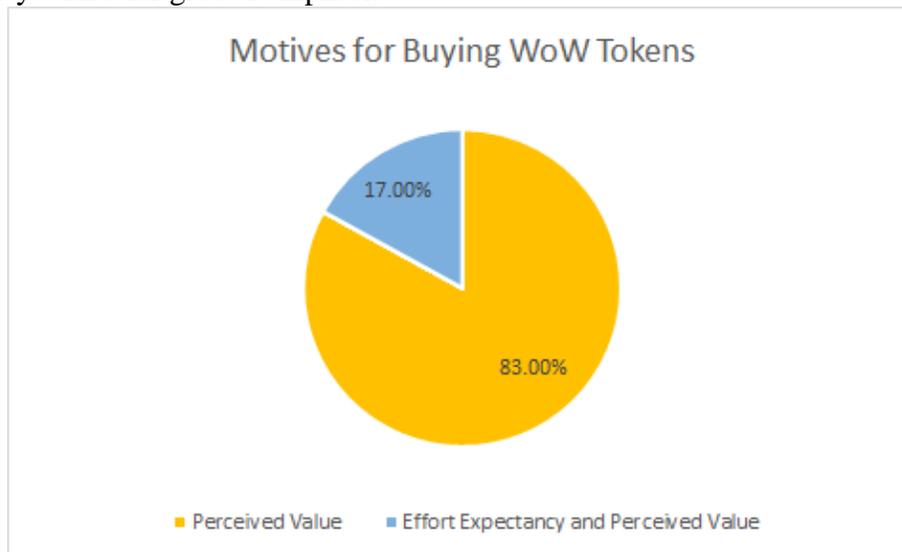


Figure 8: Motives behind buying WoW Tokens

## Discussion

Guo and Barnes proposed eight main motives for buying items in WoW with VM: effort expectancy, performance expectancy, perceived value, perceived enjoyment, advancement, customization, status, and social influences. All but social

influences were found to be contributing factors to in-game purchases within their study, although customization, perceived value and advancement were found to be the most common motivations [3]. Guo and Barnes have also proposed a model for the motivations for buying virtual items with

RWM; however, the model has yet to be tested [5].

As a whole, the motives governing out-of-game purchases of virtual things (items and services) for RWM appears to align well with those that describe in-game purchases. With the exception of social influences, which were found to be statistically irrelevant in Guo and Barnes' study. In our study social influences were found to be a common motivation for both the purchase of pets and realm transfers. A reason for this is that realm transfers don't have an in-game counterpart. There is no special character that will move you to a different realm if you pay them. So the appearance of a social motive within our study should not be taken as an anomaly. WoW is a social game, thus it stands to reason, and was observed, that many players want to play with their friends. As such, it was common for interviewees to express some form of wanting to play with friends or change social groups, though there was some overlap with status. Social motivations were also observed within the interview data for pets and mounts; however, given a data set comparable to that of Guo and Barnes' study (n=253), social motivations within those categories might be found to statistically irrelevant; however, further investigation is needed.

Within our study, the things in the WoW store were split into three categories, game services, items, and WoW Tokens. This categorization revealed a split in motivation. Where in-game services displayed a full range of motives, items are almost uniformly driven by a desire to customize. The occasional inclusion of status and advancement as a motive was also found. A reason for this is that WoW

requires a \$15 a month subscription and the purchase of expansion packs. With that subscription and expansion pack comes an understanding that as a player, you'll have full access to the whole game. For this reason, WoW will never create or sell an item that is integral to the game [6]. It would be like paying for a gym membership and then being told you couldn't use the 20lbs weights without paying more. It just wouldn't happen. WoW also offers boosts; however, the boosts are not needed to gain a certain level. It's like paying for a personal trainer at the gym; they're not needed but for those that want to go from 0 to 90 over night they're a must. WoW also offers a series of transfers, for a fee. Just like when you want to switch to a different gym to be with your friends or have more people to compete over weights with, there's a fee, a new activation fee. Just like there's a new activation fee on a realm transfer and just like the gym, it's the same wherever you go, realms are realms, same trees, same characters, and same trolls, trolling away.

Although items aren't sold to be integral parts (needed to complete anything like a quest) in the game, it doesn't mean they don't have value or aren't useful. Mounts and pets can be traded and sold and as such, they have a connection to VM and are collected [7]. They can also be looked at as a limited edition of sorts. Only a limited number of players are going to buy them. In fact most are limited editions and can fetch a large price in the auction house to the right collector [8]. Store bought items are therefore a great way to customize and stand out in a community of 7.1 million [9]. Some pets are strong. Although they may not be the best in the overall game they can still rank high in

their stats and a plus to any battle pets arsenal. The overall lack of integration into WoW's story helps explain the gap between the myriad of motives behind buying in-game items with VM and the leading motive of customization that was observed for out-of-game item purchases. Because even though out-of-game bought pets can be useful they're still not crucial to game play and whether or not there are other motivations for buying a pet, our study didn't interview anyone interested in pet battles. The main motivational factor for buying them is customization (in our study). Hems and mounts are a little more straight forward because they can't be used for anything else but to customize or sell because there is always a better in-game helm or mount. The only reason to buy a helm or mount is therefore to customize.

When comparing items and in-game services. There's a stark difference between the two when it comes to players buying items or services for each other. As a whole players don't buy services for each other but they did buy items. There are a few reasons to consider for this occurrence. The first is that most of the services are personally driven. Players have to want to be in a different faction before they buy it. So buying a faction change for another player is only valuable when they want to change factions, which is a personal decision. Likewise if a player's wants to buy a realm transfer for a friend because they want them on their realm, doesn't mean that that player wants to or will, transfer. In short services change something and that something has to be what the player wants it to be, when they want it to be. Items on the other hand don't change anything and have a connection to the currency, as they can

be sold and traded, in short items have a value that is commutative not personal.

WoW Tokens are similar in that they have a direct connection to the currency of WoW; however, unlike most items you can buy in the store, WoW Tokens become soul bound after being traded or sold once [4], thus rendering them useless as a form of currency past one use. Therefore the use of the Token is limited to whatever its worth in the auction house or as a payment method for game play [10]. This in turn limits the potential motives to buy a Token to being effort expectancy and perceived value. There were a few interviewees that were purchasing mass numbers of Tokens (10) to pay for their monthly prescription, which means that, at least for them, WoW is no longer a pay to play game, which has huge implications on a game whose creators are opposed to WoW being free to play [10]. This report is one of the first, if not the first to try and assign motives to the purchase of WoW Tokens.

Although this research answers some of the questions about out of-game purchases using RWM , there are still a lot that have gone unanswered. Namely, the motivations for purchasing guild services. Further investigation into the comparison between in-game purchases and out-of-game purchases as they pertain to social influence is also needed. A large limitation of this study is that there was a small response to both the survey and the interviews. Interviews were hard to get in a mass quantity, Both Reddit and especially the game forums, resulted in a low yield and an extensive amount of "hate". Our interviews were therefore limited to one on one or friend's emails, which curtailed our expected turnout. The greatest limitation

of this study was that there were two different data sets created that can be correlated, yes, but not overlaid. This limited not only the way the results could be reported but also the correlations that could be made with certainty. That is not to say the data and conclusions presented do not offer some valuable insight into the motives for out-of-game purchases as well as WoW Tokens. One of those insights is that the WoW Token is that WoW is no longer a pay to play game, for those that can afford it. This has potentially significant ramifications on the economical structure of both the ingame and out-of-game markets; however, much more studying is needed to be able to ascertain the extent to which the WoW Token has changed the economical landscape.

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### Appendix A: Survey questions

	How many purchases have you made for yourself (leaving the box blank indicates that you have never paid for the service/item) (1)	How many purchases have you made for another, as a gift (leaving the box blank indicates that you have never paid for the service/item) (2)
Pets (1)		
Mounts (2)		
Helms (3)		
Appearance (and gender) Change (5)		
Faction Change (6)		
Name Change (7)		
Race Change (8)		
Realm Transfer (9)		

Guild Faction Change (10)		
Guild Name Change (11)		
Guild Realm Transfer (12)		
90 Level Boost (13)		
WoW Token (14)		

### **Appendix B: interview questions**

Have you bought any items (mounts, pets, helms, etc.) in the store? What were your reasons for doing so?

Have you purchased any in-game services (name change, race change, server change, etc) in the store? What were your reasons for doing so?

How long have you been playing WoW (overall estimate)?

Have you bought any WoW Tokens and why did you buy them (for in-game money or playtime)?