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Faster Than Friendship

1.1 Some background on World of Warcraft and the Dungeon Finder:

World of Warcraft is a Massively Multiplayer Online Role Playing Game (MMORPG) developed by Blizzard Entertainment. In MMORPGs like *World of Warcraft* players play in an online persistent world, shared by potentially thousands of other players. Players are represented in this world by their characters, which develop through play of the game and gains skills and equipment that help the player defeat more difficult challenges in the game. In *World of Warcraft*, players play in the world of Azeroth, a magical land that is divided into Horde and Alliance Territory, two opposing alliances. The two alliances consist of unique sets of mythical races. When a player makes a character, they choose their alliance race and class. Each class can wield different abilities, magic powers, and medieval weapons to defeat their enemies. Players can either engage in fights that are “PvE”, player versus environment, in which players can individually or cooperatively fight non-player enemies, or “PvP”, players versus player, in which players fight other players. Dungeons are one of the game’s biggest cooperative PvE features. Although there are over ten million players on *World of Warcraft*, they do not all play together in the same virtual world, but rather the game is split into dozens of realms each with a population of a few thousand players at most (“Sign up”). Players are almost purely limited to interacting with only the other players on their realm.

Dungeons are specific challenges designed to be conquered by groups of usually five players. The dungeons have lots of extra powerful enemies and usually several boss fights. They are designed to be impossible for players to conquer alone, so they force players to work together if they want to play

dungeons. Defeating dungeons usually grants players items that can be useful to a player's character that are dropped by vanquished enemies, and lots of experience points, which are necessary for increasing the level of a player's character and giving the player better skills.

Since these dungeons are ideal for five players to play, Blizzard has implemented a tool called the Dungeon Finder in *World of Warcraft*. The Dungeon Finder, allows players, either alone or with a group, to enter a queue for either a specific dungeon or a random dungeon that is the appropriate level for the level of their character. It then finds other players who are queued to match the player with in order to make a complete five person group. Although usually players are only able to interact with player within their own realm, the dungeon finder matches players with players across all of the realms. The ideal group for “running”, completing, a dungeon consists of players filling the following roles: one healer, who has abilities that heal other party members, one tank, who can take massive amounts of damage and who often tries to draw enemy attacks to spare the other party members, and three DPS characters. DPS characters specialize in dealing large amounts of damage per second, or DPS for short. The dungeon finder ensures that a group has these roles filled when it makes groups. Once matched, the Dungeon Finder deposits the five players' characters into the dungeon.

The game has not always had the Dungeon Finder. When the game was first released, it did have dungeons, but instead of having a tool for matching a player with an appropriate group for the dungeon, players had to find a group on their own and then had to find a way to travel with their group to the dungeon's location. This required asking many other similarly leveled players if they wanted to do a dungeon, until a properly sized group was assembled. The Dungeon Finder was officially added with the *World of Warcraft* patch 3.3.0 on 8 December 2009 (“Dungeon Finder”).

1.2 Controversy Over the Dungeon Finder

Not all players have liked the addition of the Dungeon Finder to *World of Warcraft*. There have been many posts on the *World of Warcraft* forums regarding the pros and cons of the Dungeon Finder.

Most of these posts have made arguments against the Dungeon Finder and then had their claims either disputed or supported up by many other players.

The major trend in these arguments is that some players believe the Dungeon Finder has damaged *World of Warcraft's* social appeal. One argument is that since players no longer need to ask others to join their group players no longer need to make friends in *World of Warcraft*. Darkuris made a post titled “no more dungeon finder”. In it Darkuris explained “I miss the days when you had to LFG [look for group] for 5 men normal [sic] this was how you made friends and learn to work with other players dungeon finder does not offer you any off this”(Darkuris). There were numerous other posts with similar arguments. Dedria argued in a post that the Dungeon Finder “has single handily ruined all sense of community within the game... Why do we need to talk? what CAN’T you do by yourself anymore?” (Dedria). These players raise the point that by getting rid of the need for players who want to run dungeons to communicate to form a group Dungeon Finder has eliminate a source of socialization and reduced the need for and benefit of communication and cooperation.

The players who argue in favor of the Dungeon Finder make two major points. First, they question the value of the experience of looking for groups. The player Cerx responded to Dedria's claim by saying “Yeah spamming trade chat for hours was sure fun” (Dedria). Cerx's point is that needing to look for group mates for potentially hours was more a nuisance than a social pleasure. Other players share this opinion. In response to a similar post, Lidie commented sarcastically “Because chilling in the city spamming trade for LFM for 2 hours was so much better?”(Goru). These players hold the opinion that it is better to be able to quickly find a group with the Dungeon Finder than it is to spend lots of time (hours) trying to get players to join a group.

These arguments on the forums raise some interesting questions. The arguments against the Dungeon Finder are focused on the assumption that it has hurt social experience in *World of Warcraft*. This is disputed, though, by other players. Players who are for the Dungeon Finder focus on its ease of

use and how it speeds the time it takes to get into dungeons. The players, though, draw conclusions from their own experiences on how *World of Warcraft* has been changed by the Dungeon Finder. My research paper will investigate how the game has been changed by the Dungeon Finder and highlight the pros and cons of the Dungeon Finder. It will do this by pursuing the research question: “How has the Dungeon Finder changed game play in *World of Warcraft*?”

1.3 Motivations for Playing MMOs and WoW

Being a game, it is important that *World of Warcraft* is appealing to players. Presumably the changes made to *World of Warcraft* since its release, including the Dungeon Finder, have been designed to make the game more appealing. In order to understand how the Dungeon Finder has changed *World of Warcraft's* appeal, we need to understand first the characteristics that determine or contribute to the game's appeal. To understand those characteristics we must look what motivates players to play *World of Warcraft*, which are the factors that determine the game's appeal.

Nick Yee did research investigating players' motivations to play Massively Multiplayer Online (MMO) games. He determined there are 3 primary categories of motivations: “Achievement”, “Social”, and “Immersion”. Achievement is broken into three subcategories. The first is “Advancement”, meaning growing in level and power and collecting better in-game resources. The second is defined as “Mechanics”. This involves being able to take advantage of the mechanics of the game to one's advantage and optimizing one's character by choosing the statistically best options. The third is “Competition”. Competition is a player's ability to outperform players in general and defeat other players in PvP combat (Yee).

Social motivations are broken into three subcategories as well. “Socializing” represents basic social interactions such as chatting. “Relationship” represents players' desires to have meaningful long lasting in-game friendships with other players. “Teamwork” is the act of collaboration to complete in game tasks (Yee).

Based on players' comments on the forum posts, the Dungeon Finder seems to have potentially serious effects on *World of Warcraft's* appeal to players motivated by social and achievement motivations. However nobody mentioned nor does it intuitively have many implications for the game's immersion appeal. Yee's defined categories offer a good framework when looking at how the addition of a dungeon finder has affected players.

Although most players are influenced by all these motivations to some extent, some categories are more important than others. A 2006 paper discussed what makes *World of Warcraft* so appealing. It primarily identified the leveling system as what set it apart from other popular MMO games. It concluded, "[t]he attractiveness of the game could have a lot to do with its fine-tuned incentives and rewards structure" (Ducheneaut et al. 315). This suggests that "Achievement" is the most important motivation, as it is what separates *World of Warcraft* from other MMO games. In a survey of *World of Warcraft* players administered by a writing and research class on *World of Warcraft* at the University of Denver, the participants ($N = 464$) when asked to measure their motivations for playing *World of Warcraft* rated achievement ($M = 3.95$, $SD = .99$) as being a slightly more important motivation to play *World of Warcraft* than social motivations ($M = 3.78$, $SD = 1.04$). This suggests that indeed achievement is the most important factor, but that social motivation is still very important.

1.4 Social Mechanisms in MMO Games

Social interaction is a major component of MMO games, and is one of the factors that separate them from their offline counterparts. Game developers recognize this and have added game mechanisms that force players to interact and work together. In *World of Warcraft*, dungeons can be seen as an example of this, as it requires a player to interact and cooperate with others. This does not mean that dungeons inherently improve socializing in *World of Warcraft*. A study on *Star Wars Galaxies* investigating social interactions had an in depth look at these mechanisms.

The study investigated social interactions in two key locations in *Star Wars Galaxies* that had

been designed by the game's developers to be locations of social interactions. The game gave players many incentives to communicate with other players in these areas, mostly in the form of requiring players to receive services from each other in these locations. The study did find that in these locations there was a lot of interaction between players in the form of chat and gestures, suggesting that this was a successful system. But when looked at closely, they found that almost none of the interaction was social. They stated that their “data reveals a relatively low level of interactivity between the players, characterized by short interactions centered on instrumental purposes (e.g. getting healed; purchasing services)” (Ducheneaut and Moore 369). Their findings illustrate a difference between communication and socializing. Just forcing players to communicate or work together, does not necessarily generate a social experience. This is much like in real life buying something from a store, in which one usually must talk with a store clerk, but often the conversation only goes as far as stating a price or asking and answering a question: cash or credit, paper or plastic. Words have been exchanged, but not socially. This must be kept in mind when investigating the changes made by the Dungeon Finder to communication habits.

2. Method

My method for investigating the changes brought about by the addition of the Dungeon Finder involved a three-pronged investigation. The first two methods were targeted at gauging players’ opinions and experiences with the Dungeon Finder. First, I made a forum post on the *World of Warcraft* forums asking players for their opinion on the dungeon finder. Second, I interviewed players in *World of Warcraft* asking them about their experiences with the Dungeon Finder. After this, I investigated these claims by using the Dungeon Finder to play several dungeons while I made observations.

2.1 Forum Post

I posted a forum post first because I believed it would reach a broad audience and offer a good

gauge of the *World of Warcraft* community's view on the effects of the Dungeon Finder. I did not want to pull data from other forum posts for use as data, since most of those posts were very opinionated, usually against the Dungeon Finder, and therefore could skew the responses. I tried to offer an unbiased summary of the major claims for and against the Dungeon Finder, so that readers understood why the post was important. I hoped this would make more people likely to respond. I mentioned the primary argument against and for the dungeon finder I had found in other forum posts, that being that it reduced the need for communication and therefore reduced the social elements of *World of Warcraft*, and that it also made assembling groups for dungeons much easier, respectively. I then posed the question: "How has the dungeon finder changed how you play WoW?" I then looked at the different responses to the post looking both for repeating trends; Since I had few responses, I counted a trend if it was found in two or more replies. I used this post for two purposes. It gave me good data about players' opinions, but also gave me an idea of what kinds of questions to ask other players. I posted the post on 27 May 2012, and got responses through May 28 2012.

2.2 Interviews

I interviewed players from two populations in *World of Warcraft*. The first group was Alliance players in Stormwind on the realm Suramar. The second group was Horde players in Orgrimmar on the realm Fizzcrank. These are two major cities in Alliance and Horde territory respectively. I chose these locations because there is almost always an abundance of players waiting around in the cities. I decided to interview players from the different locations and realms so that I could get a broader representation of the community. *World of Warcraft* has a chat function called whispering, that sends a chat message to a specific player that can only be read by that player. I whispered players at random in these locations asking them if they would participate in a quick interview. Most players agreed to the interview. In total I interviewed five Horde players and Six Alliance characters. I asked the participants the following questions as well as some follow up questions that were warranted in particular interviews:

1. Do you use the Dungeon finder?
2. How Often?
3. Why do/don't you use the Dungeon Finder?
4. Do you communicate with people you are matched with by the dungeon finder?
5. What about? Is it mostly tactical/game-play, or is it chat about other things?
6. Did you play WoW before there was a Dungeon Finder?
7. If so how has the Dungeon Finder changed the way you play WoW?

The first two questions are designed to determine how frequently used the Dungeon Finder is. Presumably, if it was not used much, it would be an unpopular or marginal addition to the game. The third question was design to get a qualitative reasoning on why players dislike or like the dungeon finder, as well as learn what players use it for. I found that most players interpreted it as simply why they like or dislike the dungeon finder, so I usually followed it up with a question on what they use it for. Many players' view in response to my forum post and other forum posts seemed to involve a change in the level of communication I added question four to track that issue. I added question five on what players' communicated about based on the findings of "The Social Side of Gaming: A Study of Interaction Patterns in a Massively Multiplayer Online Game". Since that study pointed out that a lot of communication did not mean socializing, I wanted to see if players actually socialized when communicating. I added questions six and seven to get a general idea of how players felt the Dungeon Finder affected their game-play.

To interpret these interviews, I looked for trends in responses. Since I have so few interviews, I considered a trend any views expressed in two or more interviews, but I gave more weight to trends that were consistent through more interviews.

2.3 Observations Using the Dungeon Finder

I wanted to be able to verify at least some trends I found in my forum posts and interviews, with

actual in-game observations. I did this by queuing for and running three dungeons, each with my horde character, a level 22 Tauren Paladin, or my Alliance character, a level 35 Human Priest, using the Dungeon Finder. My Paladin took the role as the tank in the party, and my Monk took the role of healer. I first played three dungeons with my Paladin and then three with my Monk. These all took place in the evening.

I focused my observations on the social interaction and team work in dungeons. I did not want my actions to effect the communications in the dungeons, so when I joined a dungeon I would say “Hello everyone.” and then check if everybody was ready before continuing. After this I would only speak if I was spoken to. This way I hoped to limit my effect on the rest of my party’s communication and would be able to observe the types of communication.

3. Results

3.1 Trends in the Forum Responses

My forum post received 19 replies, but a 9 were off topic or didn't answer my question. The trends I found are easily sorted into arguments for and against the Dungeon Finder. I found three common arguments for the Dungeon Finder. Two players mentioned that the Dungeon Finder allowed for faster leveling up of their characters, particularly at low levels. One of these replies stated that “I have never experienced such quick leveling”. Two players also mentioned that without the Dungeon Finder, it was very difficult to experience dungeons with low level characters due to the difficulty of finding a group. One reply began out with, “Well for starters I can actually find groups for the lower level instances now”. By far the most prevalent argument though, was that the Dungeon Finder has made finding groups for dungeons much faster and that it was a negative experience prior to Dungeon Finder because it took so long to find groups in the past. A total of five players made this point, which is a total of half the players who responded to the question. One player summed up the opinion in two sentences “I can run 5 mans [sic] pretty quickly without having to spend time spamming trade. That

part is awesome”.

There were also three trends that argued against the Dungeon Finder. Three players pointed out that they were prone to getting bad group mates and that there are no repercussions for being a bad group member. Since before dungeon finder players needed to convince others to join their group, if a player got a reputation as a bad group mate then players would avoid them, but there is no such system in the Dungeon Finder. As one player put it, in the old system “there was a lot of accountability for yourself (if you were a d-bag, no one would play with you and word would get around!)” Another added that now “There is a near total lack of accountability that offers you the chance to be a complete !@#\$\$%^ with no repercussions”. Two players commented on the lack of communication between players with the Dungeon Finder. One player said that it was easy to get dungeons now, “but there's not much communication going on in them”. The last trend involves making lasting friendships. Two players mentioned that without the Dungeon Finder they made more friends in *World of Warcraft*, since they needed them to do dungeons with. One of them explained “I remember when I first started playing I met a bunch of interesting players, we were forced together out of necessity...which I thought was the whole point of a MMORPG”.

3.2 Trends in the Interviews

Of the 11 players interviewed 10 stated that they used the Dungeon Finder. Of these, six played one to two times a day, while the others varied in frequency from once a month to “as many times as I can” a day. This shows that despite the arguments against it, the Dungeon Finder is definitely widely used, and by most players it is used often. When asked why they use the Dungeon Finder, two trends emerged. Four players stated that they used it because it was convenient and fast to use. As one said, it is “Quick and Easy”. Five players stated that they used Dungeon Finder to improve their character either through gaining good loot (items dropped by vanquished foes) or leveling up their characters. The questions about communication revealed several trends. One is that everyone still communicates to

some extent when using the Dungeon Finder. All ten players who used the Dungeon Finder said they communicated with other players they were matched with. The most common topic of discussion, though, was about tactics and game-play in the dungeon. Five players mentioned this. Three players had social conversations, and two usually argued with other players. Eight of the players stated that they had played *World of Warcraft* before there was the Dungeon Finder. Of these players, four mentioned that they played more dungeons now, and three mentioned that they had an easier and quicker time finding groups for dungeons when asked how the dungeon finder changed how they played *World of Warcraft*.

3.3 Observations while Using the Dungeon Finder

My observation while I was using the Dungeon Finder backed up several of the trends noticed in interviews and responses to my forum post. Both the players I interviewed and those responding to my forum post mentioned how convenient the Dungeon Finder is. This is the first trend that my observations backed up. I never spent more than five minutes queuing for a dungeon using the Dungeon Finder. The rest of the trends I was able to observe while using the Dungeon Finder were about communications.

While playing in dungeons I noticed three kinds of communication. The most common I witnessed in all six of dungeons I played. This was communication about current tactics for playing the dungeon. This usually consisted of commands for other players, such as “Tank, go for bigger pulls”, or “I need heals sooner”. This agrees with what five interviewed players said about communications being mostly about tactics and game play. I also notice a small degree of social chat in all of my dungeons, but this was limited to simple greetings at the start of the dungeon and the occasional congratulations at the end of the dungeon. Only in one dungeon did I notice a substantial amount of non-tactics-concerned chat. At first, this chat was an ongoing argument between two of the players and a third who kept on leaving his keyboard. This could be characterized as fighting and supports some of the interviewees’

claims that most communication they experienced was fighting. Two of the players that had been arguing quit the dungeon, though. After this, there was much more communication in the dungeon. There was both an increase in discussing game-play since all three of us remaining players needed to coordinate better to beat the dungeon. There was also a lot of social chat going on, both making fun of the players who had quit, and also joking about our own failures, now that we were facing a more difficult challenge. Additionally, for the only time out of the six dungeons I played, the players in this dungeon wanted to play another dungeon with the same players right afterward. It is hard to draw strong conclusions from this event since it only happened once, but it suggests that there are opportunities for deeper social interactions even with the Dungeon Finder.

3.4 Effects on *World of Warcraft's* Appeal

By organizing these trends and observations into motivational categories defined by Nick Yee, I can see the different positive and negative affects the Dungeon Finder has had on *World of Warcraft's* appeal. The Dungeon Finder directly affects four of these categories. It changes the advancement, socializing, relationship, and teamwork appeal of *World of Warcraft*.

All three of my avenues of research discovered that the Dungeon Finder easily and quickly lets players join dungeons. Players commented that it was particularly easier to find dungeons for lower level characters than it used to be. This coupled with the fact that many players pointed out that they use dungeons for fast character advancement, both leveling and getting good gear, suggests that the Dungeon Finder has made Advancement, particularly for lower level characters, easier and faster. This makes the game more appealing to players who are motivated by advancement.

The Dungeon Finder has several negative effects on *World of Warcraft's* social appeal. Players' forum responses suggest that the Dungeon Finder has led to a general decrease in communicating with other players. This communication was centered on recruiting other players for dungeon runs. This could be considered a decline in socializing, but it is arguable, that like most communication found in

Star Wars Galaxies the communication was not social since it was purely driven by player needs (Ducheneaut). Although this social effect is unclear, it is clear that the Dungeon Finder has had some negative affect on relationships. Players noted in the forum post that they used to need to make friends that they would run dungeons with, but now that is not necessary and they make less friends. This has a negative effect on *World of Warcraft's* appeal to players motivated by relationships. The Dungeon Finder also has some positive effects on social appeal as well.

Teamwork is the most positively affected by the Dungeon Finder. Within Dungeons there is a high level of teamwork, indicated by the large number of players who communicate ($n = 5$, $N=10$) about tactics while in dungeons. Since the Dungeon Finder increases the amount of dungeons people run, it also increases teamwork. This improves *World of Warcraft's* appeal to players motivated by teamwork.

There is some data suggesting that the Dungeon Finder improves other social areas as well. Two interviewees said that they socialize by chatting in dungeons, but this is a rather weak trend. It still suggests that the Dungeon Finder has at least some positive affect on the game's appeal to players motivated by socializing. As for relationships, no players mentioned that the Dungeon Finder helped them make lasting relationships.

4. Discussion

4.1 Why Implement a Dungeon Finder?

The Dungeon Finder represents a trade off in appeal; it is not strictly a positive addition to the game. Its largest effect on the game, though, is a positive effect on advancement. All of the negative effects are related to social and are at least partially offset by some social improvements particularly to teamwork. . As previous research has shown this is perhaps the most important aspect of *World of Warcraft's* appeal, and is more important to most players. Based on this positive effect, adding the Dungeon Finder is a smart move.

This conclusion seems to agree with what players had argued in forum posts on the issue. Most arguments against stated that Dungeon Finder hurt their social experience in *World of Warcraft*. Most argument for it didn't argue this fact, but rather they made the point that the ease of access to dungeon brought by the Dungeon Finder far outweighed any negative aspects.

That being said, some players have raised a good point in general about the tradeoff between optimizing advancement and eliminating social opportunities. In various forum posts, players pointed out that, being an MMO, *World of Warcraft* is supposed to be a social game with a strong sense of community. In this case the changes have been widely accepted, and the addition of a Dungeon Finder can be considered a success. Although increasing the game's appeal to advancement oriented players while decreasing social appeal has worked so far, it is possible to go too far, because the social elements are part of what separates MMORPGs from regular offline role playing games.

4.2 Limitations

The biggest limitation on my research is the limited amount of data I collected. If I had received more responses to my forum post or conducted more interviews, I predict that although the same trends would probably still be present, I could have made stronger findings. I also might have noticed some smaller trends that were not present in my limited data. I particularly wish I had entered more dungeons using the Dungeon Finder. Since the most interesting observation happened only in one dungeon, it was hard to make many conclusions from it. Had I observed more dungeons, I might have been able see these findings repeat, which would lend them more credibility.

There were a few trends I found after my research was complete that would have changed what questions I would have asked in the interviews. Some players mentioned the Dungeon Finder's effect on guild membership, so adding a question about this might have yielded interesting results. Several players mentioned a lack of accountability if players were poor team players, but again I did not ask specific questions about this. My final findings indicated a trade-off between social and achievement

based appeal. If I had asked players what they thought about this trade-off, I would not have needed to rely purely on previous research to make claims about the importance of the trade-off.

4.3 Areas for Further Research

As other MMO games are considering the addition of utilities similar to the *World of Warcraft* Dungeon Finder, they offer an opportunity for deeper research into the effect of dungeon finders in general. They offer not only a second perspective on the changes, but also an easier way to observe them. These other games currently do not have a dungeon finder, but might in the near future. By observing players' habits as they change when the dungeon finder is implemented, a researcher could get much stronger data about the changes caused by dungeon finders in general.

There were several trend and observations I found that posed interesting new research questions that I did not investigate here. These all relate to socializing in dungeon in general since most of my research partially covered this but was not purely focused on it. There were several specific questions I came across.

In the interviews, although half the players had similar experiences with communications in dungeons, the other players had varying experiences. Some had positive social interactions, others fought with other players. Since there seems to be a variation among players, it could be that players themselves have a strong effect on what kind of social experience they have in dungeon. In this study I intentionally tried to have no effect on the socialization in the dungeon. It could be that one can get more consistent positive or negative socialization by changing one's own actions.

I had some very interesting observations in the Dungeon Finder when several players left the game. This only happened once, so it was hard to make any conclusions, but I did witness a large increase in teamwork and socialization. This could have been caused by the increased difficulty, or it might be due to bonding over the other players leaving the party. These effects would be interesting to investigate by trying to repeat the situation.

I came across something almost entirely unrelated to my research question, while conducting my interviews. There seemed to be distinct difference in how I was treated by Horde and Alliance players. I usually had to ask three or four alliance players to interview before any agreed, but only three horde players refused my request for an interview. Additionally, the horde players were much more polite and expressed interest in my research. This suggests a difference between Horde and Alliance players that could be investigated.

Works Cited

- Darkuris. "no more dungeon finder" *Battle.net*. 14 February 2011. Web. 3 June 2012.
- Dedria. "Doesnt anyone get it?" *Battle.net*. 12 May 2012. Web. 3 June 2012.
- Deliverator "What have the done to my game?" *Battle.net*. 27 may 2012. Web. 3 June 2012.
- Ducheneaut, Nicolas et. al. "Building an MMO With Mass Appeal: A Look At Gameplay in World of Warcraft" *Games and Culture* 1.4 (2006): 282 – 318. Sage journals. Web. 3 June 2012.
- Ducheneaut, Nicolas and Robert J. Moore "The Social Side of Gaming: A Study of Interaction Patterns in a Massively Multiplayer Online Game." Proceedings of the ACM Conference on Computer-Supported Cooperative Work (2004) 360-369. Web. 28 May 2012
- "Dungeon Finder" WoWWiki. 30 May 2012. Web. 3 June 2012.
- Goru. "Is Blizzard TRYING to kill this game?" *Battle.net*. 29 May 2012. Web. 3 June 2012.
- "Sign up for the Free World of Warcraft Starter Edition." *BATTLE.NET*. Web. 28 May 2012.
- Yee, Nick. "A Model of Player Motivations." the daedalus project. Web. 3 June 2012.