Playing in Other Worlds
Modeling Player Motivations

Alec Austin
with Dr. Henry Jenkins and Dr. Joshua Green
and Ivan Askwith
Executive Summary

Aims

This review provides:

• a survey of the current state of Massively Multiplayer Online Games (hereafter referred to as MMOGs) and Virtual Worlds

• a glossary of common terms used in discussions of MMOGs

• a summary of publicly available information on the demographics of MMOGs and Virtual Worlds like Second Life

• an overview of the existing literature on why and how players engage with MMOGs

• a foundation for future research into using MMOGs and Virtual Worlds for community- and brand-building.

Context

Computer and videogames have recently become a prominent form of entertainment, and few subsets of games have drawn more attention than Massively Multiplayer Online Games, or MMOGs. Much of this attention has stemmed from the realization that “real” money can be made in virtual environments. Edward Castronova’s 2001 announcement that Everquest had the 77th highest GDP in the world drew a great deal of attention, as have more recent economic developments in Second Life, such as the real-world financial success of Aimee Weber (a virtual fashion designer) and Anshe Chung (a virtual real-estate baron). Despite the media’s interest in stories such as these, relatively little attention has been paid to the divisions between different kinds of Massively Multiplayer Online spaces (MMOs), who the players and users of MMOGs and virtual worlds are, and why they find these virtual spaces so compelling.

Models of Player Motivation

Models of player involvement or motivation and studies of player demographics already exist. Many of the models the game industry uses to understand player motivations date back to the 1970s and 1980s, when players engaged with text-based precursors to today’s MMOs and virtual worlds. Player motivations in game spaces have been explored extensively and are generally deal with issues of achievement, sociability, and immersion. Studies of player motivations in (non-game) virtual worlds, however, are thinner on the ground. Furthermore, while Second Life has attracted a great deal of academic attention of late, the culture and composition of its user base is changing with sufficient rapidity that much prior research may already be obsolete. As such, the best course for understanding player motivations in virtual worlds like Second Life may be to adapt models originally developed to understand player motivations in game-like MMOs.
Summary of Findings

Existing User Motivation Models

There are several important models for understanding why and how users engage with MMOGs and virtual worlds.

- The **Bartle Types** model divides players into four distinct groups: Killers (who act on other players), Achievers (who act on the game world), Socializers (who interact with other players), and Explorers (who interact with the game world).

- The **Path to Ascension** model tracks the level and depth of a user’s involvement with the community of a virtual world, as well as the amount of effort that person is willing to expend for their entertainment.

- The **Hedron’s Circles** model parallels the Path to Ascension model in more game-like spaces, tracking a player’s involvement with the game’s mechanics and where they are likely to look for challenges.

- The **Five Facets** model challenges Bartle’s claim that players belong to only a single motivational group at a time, proposing five non-exclusive motivations for player involvement in MMOGs: Relationship, Immersion, Grief, Achievement, and Leadership.

- The **Three Overarching Factors** model builds on the Five Facets model, breaking player motivations into 10 distinct categories, and grouping those categories under three headings: Achievement, Social, and Immersion.

- Finally, the **Psychographic Profile** model suggests that there are three major reasons why player engage with MMOGs: The desire for a particular experience, the desire to express themselves, and the desire to achieve something through competing with others.

Adapting Models to Virtual Worlds

The most robust lens for understanding user motivations in MMOGs is the Three Overaching Factors model—and as such, the sub-factors of that model seem the most useful for understanding the motivations of users in virtual worlds. Due to the differences between gaming spaces and virtual worlds, two sub-factors (mechanics and role-playing) must be removed, while a new sub-factor (creativity) must be introduced.

We believe that user motivations will fall into the following loose groupings:

- Users interested in Socializing, Relationship, and Customization will have significant overlap.

- The same will be true of users interested in Discovery and Escapism.

- There will be some overlap between users interested in Creativity and Teamwork.

- Users who are motivated by Creativity will be a subset of those interested in Customization.

- Similarly, users motivated by the desire to cause Grief will be a subset of those interested in Competition.
The MMO Audience and Diffusion of Innovation

Market analysis suggests that hardcore MMOGs such as World of Warcraft have reached 60-75% of the audience that’s interested in such content in the US. The Everett Rogers diffusion of innovation model gives us another lens through which we can study the MMO audience.

MMOG players:

- **Innovators (2.5%)**: Most likely to try out and play new or unconventional games. Driven by the need to do something first or best. Typically younger and male, with more time to play than others.

- **Early Adopters (13.5%)**: Often transplants from older games who believe a new game will provide a better experience. Typically begin playing during Beta or at launch. Driven by Socialization and Immersion as well as Achievement.

- **Early Majority (34%)**: Made up of players who are drawn in by good reviews, word of mouth from friends. Lack of time makes them appreciate casual-friendly mechanics. Driven more by Socialization and Immersion than Achievement.

- **Late Majority (34%)**: Even more time-crammed than the Early Majority. Likely to subscribe only after its user base reaches critical mass and they have a chance to test it out via a free trial. Motivated by Immersion, then Socialization. Most likely to lie outside of the “core gamer” demographic.

- **Laggards (16%)**: Either unconvinced by the games on the market or lacking in the resources needed to play them.

Second Life users:

- **Innovators**: Highly invested in Second Life, both financially and emotionally, innovators are landowners and creators. Likely to be cosmopolitan, college-educated, and technologically literate, with an interest in being “cutting edge”.

- **Early Adopters**: More likely to be users and consumers than creators themselves. Likely to come from the same class as innovators, or from marginalized groups that can more easily “be themselves” in a virtual world.

- **Early Majority**: Second Life has not retained the members of the early majority that have tried it. Its UI issues and lack of a “killer app” are partly to blame.

Future Trends in MMOs

- **Real Money Transactions will continue to be important**, and sensible publishers will bring such transactions in-house (as Sony and Linden Labs have).

- **MMOGs will improve incrementally**, with the most successful appealing to both casual and hardcore players.

- **MMOs and Web 2.0 will continue to converge**, leading to improvements in the social “mechanics” of virtual worlds and MMOGs.

- **Advertising in MMOGs and Virtual Worlds will continue to be disruptive**, unless it provides players with tangible benefits or is carefully handled.
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Introduction

Key Points

• MMOGs and Virtual Worlds are increasing in cultural relevance.

• This report covers the state of virtual worlds, who plays them, and why.

MMOs and virtual worlds have received a great deal of attention of late. Sales of online currency and goods have exploded, both in MMOGs (which typically frown on such behavior), and in virtual worlds (many of which encourage it). The phenomenal international success of Vivendi Universal’s World of Warcraft (with 7.5 million subscribers as of November 9, 2006) and the success of Second Life entrepreneurs such as Anshe Chung (whose virtual real estate empire is worth more than $1M) has helped draw attention to these virtual spaces, which has, in turn, raised the average number of concurrent logins to Second Life from less than 5,000 in January 2006 to more than 20,000 as of this writing.

Clearly, these virtual spaces are increasing in cultural relevance as they increase in popularity. It is becoming vital, therefore, to gain a better understanding of the nature of virtual spaces and the individuals who use them. Attempting such, this report focuses on three primary questions:

1. What is the current state of the MMO field, in terms of active MMOs, subscriber numbers, and the like?

2. Who are the players of MMOGs and the users of virtual worlds?

3. What motivates individuals to engage with these virtual spaces as deeply as they do?

The bulk of the report will focus on players of MMOGs rather than the users of virtual worlds such as Second Life or Virtual Laguna Beach, due to the preponderance of studies focused on MUD or MMOG players. The models developed in this prior research for understanding MMOG players, however, can be utilized to understand the users of virtual worlds as well.

Definitions

MOO: An object-oriented MUD. Sometimes used to connote social orientation.

MUD: A game-like or socially oriented text-based virtual environment. “MUD” originally stood for “Multi-user Dungeon”, which indicates the term’s fantasy/D&D origins.
**MUSH:** A socially-oriented MUD (“Multi-user Shared Habitat”) or a game-like environment built on an originally socially-oriented code base.

**MMO:** “MMO” will be used as a generic term for massively multiplayer online environments which encompasses both game-like MMOGs and virtual worlds.

**MMOG:** “MMOG” will be used to refer to online games which can be played by thousands of players simultaneously on a single server or cluster of servers. The inclusion of a virtual environment to navigate is a common property of these games.

**Virtual World:** “Virtual world” will be used to refer to online virtual environments that are more socially focused or open-ended in purpose than traditional MMOGs.

### Gaming Jargon

**Casual:** In the gaming community, “casual games” are typically non-immersive and involve relatively simple mechanics, along the lines of traditional card or board games, pinball, Tetris, Bejeweled, and the like. Casual MMOGs often contain such games or resemble them in some way (typically a lack of detailed graphics or immersive qualities). A common (but not universal) quality of casual games is that they tend to require less time than “hardcore” games, over both short- and long-term play.

**Griefing:** Any player behavior designed to cause frustration or misery for another player. In the context of **PvP**, griefing typically refers to killing the characters of players who are not actively seeking PvP combat and/or are too weak to pose a challenge.

**Grinding:** Many Massively Multiplayer Online Role Playing Games (MMORPGs) require players to repeatedly kill monsters in order to accumulate the experience needed to reach a new level. This repetitive kind of advancement-seeking behavior is known as grinding.

**Guild:** A group of MMOG players that have chosen to formally ally with one another, either for social reasons or for mutual support. Many high-end guilds are highly organized and structured, as they are used to form **raid groups**. Studies have shown that women are more likely to be guild leaders than men and that guild leaders tend to be older than the average MMOG player⁴.

**PvE:** An acronym for “Player versus Environment”. PvE play involves MMOG players fighting against environmental challenges, such as computer-controlled enemies.

**PvP:** An acronym for “Player versus Player”. PvP play involves MMOG players using their avatars to fight against one another and is typically described as both more challenging and more frustrating for new players than PvE play. Games that implement PvP play typically place restrictions on it in order to limit griefing.

**Raid Group:** An extra-large group of players (typically 40 strong) which is formed to take on late-game content which cannot be defeated without massive player redundancy and elaborate tactical coordination.

**Raid Instance:** A late-game area that cannot be cleared except by a raid group.

**XP:** A common shorthand for “experience points”, a resource which must be accumulated for MMORPG characters to level up (gain in power).
The MMO field as it exists today can be broken down into roughly 3 market segments: Hardcore MMOGs, Casual MMOGs, and Virtual Worlds. Each of these market segments will be discussed (with examples) below.

**Hardcore MMOGs**

- **Key Points**
  - Hardcore MMOGs cater to core gamers, and typically require subscription fees.
  - The most successful Hardcore MMOGs are MMORPGs set in fantasy worlds.
  - The market leader in the Hardcore MMOG space is *World of Warcraft*.

Hardcore MMOGs are the most closely tied to MUDs of the three market segments, as they cater to “core gamers” – i.e. players who purchase and/or play multiple games each year. The majority of hardcore MMOGs are Massively Multiplayer Online Role-Playing Games, or MMORPGs, and the majority of MMORPGs are set in fantastic, quasi-medieval worlds similar to those of paper and pencil games like *Dungeons and Dragons*. Hardcore MMOGs are professionally developed and require monthly subscription fees or other monetary payments from their players.

**World of Warcraft**

Easily the largest hardcore MMOG in terms of paying customers, *World of Warcraft* (or *WoW*, as it is often abbreviated) is widely understood as the most financially successful MMO in existence. Within the US and Europe, players pay a monthly subscription fee ($15/month in the US), while in China, players buy pre-paid cards (similar to long-distance cards) that provide them with a fixed amount of play time.
WoW’s long-term success is the result of being easier to pick up and more fun to play for new and casual players than its competitors, while still providing the kinds of challenges and mechanical depth that more experienced players require. The game’s extended beta test (in which player experiences were used to refine the game’s play experience) undoubtedly played a part in ensuring its broad appeal.

WoW’s appeal to new and more casual gamers stems from a variety of design choices made during its production. First, players can choose between PvP and PvE servers, allowing new players to completely avoid griefing by choosing a PvE server. Second, players who take time off from playing the game accumulate “rest,” which doubles the speed at which their character advances in level. This makes it easier for them to keep pace with players who play more regularly, and less frustrating to “grind” the experience needed to reach a new level. Third, WoW’s emphasis on semi-narrative quests which can be completed alone allows players to advance in level and enjoy themselves independently, rather than forcing them to assemble a group of companions before doing anything interesting. While a complete list of the game’s casual-friendly features (such as exploration XP and lack of a death penalty) would be interminable, these design choices have broadened the game’s audience significantly.

WoW’s appeal to hardcore gamers was much more traditional. The game’s mechanics are quite involved and allow for a great deal of customization and strategy, while the late-game content was designed with the help
of prominent raid leaders from previous MMORPGs (such as Everquest). In addition, the introduction of Battlegrounds (special areas which allow PvP matches similar to the online multiplayer versions of games like Halo and Counter-Strike) give WoW more options for high-level play than most of its competitors (which only had raid instances). In essence, WoW succeeded on a massive scale because it was accessible and friendly to a new audience (more casual gamers), while improving on the kinds of content that hardcore gamers already knew and loved.

Other Significant Hardcore MMOGs

Lineage 2 is a Korean PvP-focused MMORPG that, like other games in the field, lost a significant number of its players to World of Warcraft. While NCSoft claims it has reached 14 million customers, as of March 2006 it had 1.3 million subscribers worldwide, with about 90,000 in the US and Europe. Lineage 2 appears to have the second-largest subscriber base among MMOGs, although Guild Wars (another NCSoft MMORPG which does not charge subscription fees) and its standalone expansions have sold 3 million copies, potentially raising its player base above that of Lineage.

Everquest 2 has never achieved the same popularity as its predecessor (once the market leader among MMOGs) and has been completely overshadowed by both WoW and Final Fantasy XI, which was designed as an “answer” to the first Everquest. As of May 2006, Everquest 2 had 175,000 subscribers, while, as of June 2006, Final Fantasy XI has at least 500,000 players (mostly Japanese).

The history of non-fantasy games is significant for what it indicates about the openness of the market. Star Wars Galaxies, EVE Online, Auto Assault, and PlanetSide all have science fiction settings, while City of Heroes and sister game City of Villains are set in a superhero universe. City of Heroes/Villains appear to currently be the most successful out of these games, with ~160,000 subscribers worldwide, with EVE Online taking second place with ~125,000. PlanetSide (which is an MMO first-person shooter) dropped off from an initial peak to about 20,000 subscribers, while Auto Assault had an even more anemic 10-11,000 as of June 2006. Star Wars Galaxies had a subscription base of roughly 200,000 players prior to the decision by Sony Online Entertainment (SOE) to radically restructure the game in an attempt to garner more subscribers. Not only did this decision alienate existing subscribers, it also notably failed to attract the larger audience SOE was looking for, as current subscription numbers hover around 110,000.

### MMO # of Subscribers As of Genre

<table>
<thead>
<tr>
<th>MMO</th>
<th># of Subscribers</th>
<th>As of</th>
<th>Genre</th>
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<tbody>
<tr>
<td>World of Warcraft</td>
<td>7,500,000</td>
<td>November 2006</td>
<td>Fantasy RPG</td>
</tr>
<tr>
<td>Lineage 2</td>
<td>1,300,000</td>
<td>March 2006</td>
<td>Fantasy RPG</td>
</tr>
<tr>
<td>Final Fantasy XI</td>
<td>500,000</td>
<td>May 2006</td>
<td>Fantasy RPG</td>
</tr>
<tr>
<td>Everquest 2</td>
<td>175,000</td>
<td>May 2006</td>
<td>Fantasy RPG</td>
</tr>
<tr>
<td>City of Heroes/Villains</td>
<td>160,000</td>
<td>June 2006</td>
<td>Superhero RPG</td>
</tr>
<tr>
<td>EVE Online</td>
<td>125,000</td>
<td>June 2006</td>
<td>Science Fiction</td>
</tr>
<tr>
<td>Star Wars Galaxies</td>
<td>110,000</td>
<td>May 2006</td>
<td>Science Fiction</td>
</tr>
<tr>
<td>D&amp;D Online</td>
<td>90,000</td>
<td>May 2006</td>
<td>Fantasy RPG</td>
</tr>
<tr>
<td>PlanetSide</td>
<td>20,000</td>
<td>May 2006</td>
<td>Science Fiction</td>
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<tr>
<td>Auto Assault</td>
<td>11,000</td>
<td>June 2006</td>
<td>Science Fiction</td>
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These numbers suggest that the audience for hardcore MMOGs prefer MMORPGs over other forms of games, with *EVE Online* (the most successful of the non-MMORPGs) having less than 2% of *World of Warcraft*’s subscriber base, and less than 10% of *Lineage* 2’s. Fantasy settings appear to be linked to large-scale success as well, with both *City of Heroes/Villains* and *Star Wars Galaxies* underperforming compared to fantasy MMORPGs, despite the latter’s high-profile license. Additionally, PvP-focused games such as *Lineage* appear to be more successful in Korea and China rather than the US, though making PvP optional appears to have contributed to *WoW*’s international success.

One alternative revenue model that has met with some success is the sale of virtual collectable playing cards to players who want to play online versions of collectable card games such as *Magic: the Gathering (M:tG)*. While the player base of *Magic: the Gathering Online* is relatively small compared to that of *WoW*, the virtual “product” required to play in tournaments or draft queues costs $22 or $14 through the game’s online store. *M:tG Online* charges no subscription fees, but it hardly needs to, given that a player buying the product needed for a draft or tournament provides revenue equivalent to a month’s subscription to *WoW*. The question of whether this model can be transferred from games like *M:tG Online* to other MMOGs is an open one, though it is likely the willingness of *M:tG Online* players to pay a premium for playing is due to the game having been transmediated into the online space.

*Worldwide Worlds.* Some hardcore MMOGs, such as *Lineage II* (pictured), have most of their players in Asia.
State of the Field

Casual MMOGs

Key Points

- Casual MMOGs cater to a wider range of players than Hardcore MMOGs, and can usually be played for free.
- The current niche of the casual MMOG is to serve audiences that Hardcore MMOGs do not.

Casual MMOGs (also known as “Boutique” or “Budget” MMOGs) are differentiated from hardcore MMOGs in a variety of ways, the first and most obvious being their production values. Hardcore MMOGs are typically professionally developed, with expensive, high-quality 3D graphics, while Casual MMOGs such as Runescape, Maple Story, and Puzzle Pirates tend to use 2D sprites or low resolution 3D graphics. (Many casual MMOGs can be played via a web browser.) Casual MMOGs tend to be produced by much smaller teams than hardcore MMOGs and thus can be supported by a much smaller revenue stream. While some casual MMOGs are subscription or micro-payment supported, others (such as Utopia) are supported by advertising income.

Runescape

By far the most popular casual MMO, Runescape’s player base of 9 million would seem to dwarf that of World of Warcraft. Over 8 million of those accounts are free, however, and Runescape’s 800,000-plus subscribers pay a $5/month subscription fee in exchange for freedom from ads and access to a much larger world. Runescape is fairly atypical in the casual MMOG world in that it resembles a “low-budget” hardcore MMORPG.

Yohoho! Puzzle Pirates

Yohoho! Puzzle Pirates resembles Runescape in that not all of the game’s content is available to non-subscribers, but its setting (a quasi-Caribbean archipelago) and gameplay (a variety of different mini-games which stand in for piratical activities such as sailing, sword-fighting, and pumping out the bilges) both deviate from MMORPG norms. While many of the standard trappings of a MMOG/virtual world are in place (customizable characters, houses, ships, etc.), the gameplay is much more “casual”, and includes games such as hearts and poker in addition to variations on popular puzzle games like Bejeweled. As a result, Puzzle Pirates is popular among atypical demographic groups, including older women. Puzzle Pirates’ subscription base is also significantly lower than Runescape’s, at ~34,000.

More Notes on Casual MMOGs

The Casual MMOG space is sufficiently open-ended and ill-defined that it contains almost every kind of game imaginable. There are Casual MMOGs that
are produced and supported by one or two people (such as Kingdom of Loathing); MMO versions of traditional card games like Hearts, Spades, and Poker; ad-supported asynchronous strategy MMOGs such as Travian, Google Earth Wars, and Utopia; Real-Time Strategy games like Bang! Howdy; and collectable miniatures games like Poxnora. It is impossible to overstate the sheer diversity of the casual MMOG space, just as it cannot be over-emphasized that most casual MMOGs will never attract a paying subscriber base as large as that of Puzzle Pirates, to say nothing of Runescape or World of Warcraft. The current role of the casual MMOG appears to be serving audiences other than the MMORPG players who make up the subscriber base of commercial MMOGs, and providing gameplay experiences those players will not support financially.

Big Fun. The gameplay of one subgroup of casual MMOGs (like Yohoho! Puzzle Pirates) focuses on mini-games.
State of the Field

Virtual Worlds

Key Points

- Virtual worlds range from glorified chat rooms to spaces in which users can shape the world’s contents.
- Revenue sources include selling currency, the ability to modify one’s avatar, and selling or leasing virtual real estate.

Virtual worlds are social or creative environments where specific modes of socialization or creation are enabled the use of virtual space. Descended from the social MOOs and MUSHes of the 1970s and 80s, many of the most successful virtual worlds are essentially glorified, customizable chat rooms. Others grant players significant abilities to shape their contents in exchange for monetary payments.

Second Life

As noted earlier, Second Life has gained notoriety for its In-World success stories and reaching 2 million accounts. The world’s content is almost entirely user-generated, with Linden Labs (the company that runs the world) providing users with an initial avatar, a tutorial area, and fairly deep content creation tools. This has enabled users to create a wide variety of content, from virtual movie theatres and dance clubs to vehicles, unique environments, and pig-shaped munitions. Players who purchase the right to own land can create elaborate structures and control what kinds of privileges they allow their visitors. This essentially divides long-term users of Second Life into three classes—creators (who create the content that others use), customers (who buy it), and visitors (who don’t directly engage in the economy, though they make the world more attractive to corporate creators), though there is a significant amount of overlap between creators and customers.

Despite the press releases trumpeting Second Life’s 2 million users, as of December 2006, the world typically maxes out at around 16k concurrent users, and the number of players who actually pay Linden Labs monthly land-ownership fees is 36,000. The number of non-landowners who have ever bought Linden dollars is somewhere between 55,000 and 100,000 (depending on the degree of overlap between landowners and buyers of Linden dollars). Even if one is generous enough to use the highest estimate, that would put the base of users that directly contribute to Second Life’s economy at 136,000, significantly less than the subscriber base claimed by first tier MMORPGs (and an estimate of 90,000 users who contribute financially to the economy is probably more accurate).
Virtual Laguna Beach

Virtual Laguna Beach is atypical among virtual worlds in that it is a spin-off of a pre-existing media property (MTV’s Laguna Beach: The Real Orange County program). Its graphics are deliberately low-fi, designed to keep development and hardware costs down and focus users’ attention on social interactions and character animations rather than the world itself. Much of the client’s UI is designed to facilitate the organization of or attendance at In-World events, such as player- or administrator-run parties where socialization is the primary activity.

Project Entropia

Project Entropia lies on the boundary between being a virtual world and a game, albeit a game that involves real money. The developers of Project Entropia have taken Second Life’s encouragement of real-money transactions to the next level by establishing a fixed exchange rate between Entropia dollars and US dollars and then selling off control of In-World properties for sums that far exceed those cited in connection with Second Life. (An infamous in-game island sold in 2004 for $26,500, while the property for Club Xanadu cost $100,000.) While the amount of control players gain over their In-World properties appears to actually allow them to make back their initial investment by creating environments that are more attractive in terms of resource collection than the world at large (Entropia has a craft skill system that requires raw materials, just like games like Everquest and World of Warcraft), the fixed exchange rate and the large amounts of money involved in Entropia at every level have led some commentators to imply that the world may be part of an elaborate money-laundering scheme (though no public statements to this effect have been made—Entropia’s management is quite litigious).

Habbo Hotel

By far the least like a traditional MMOG of the virtual worlds described so far, the 2-D, web-served Habbo Hotel may be the most successful, at least in terms of the size of its user base: It has 66 million users worldwide. Users of Habbo Hotel create their own virtual avatar and furnish their own virtual hotel room, with premium “furni” provided through special events or through spending real money. Socialization and customization are essentially the only activities available.
More Notes on Virtual Worlds

Virtual Worlds, like MMOGs, seem to divide into casual and hardcore environments, with the “hardcore” virtual worlds (e.g. Second Life, Project Entropia) more closely resembling games both in their graphics and in terms of empowering players to create In-World or allowing them to “grind” for money. The more casual environments (e.g. Virtual Laguna Beach, Habbo Hotel, Cyworld), tend to be much more focused on socialization and the chat-room functions of virtual spaces, and can develop international user bases which dwarf those of the most successful MMOGs (though the income derived directly from each user may be much lower). While “hardcore” virtual worlds have been receiving the most media attention of late, some commentators (such as Raph Koster, designer of Ultima Online and Star Wars Galaxies) suggest that the blend of MMO and Web 2.0 seen in spaces such as Habbo Hotel and Korea’s Cyworld is more representative of the path virtual worlds will eventually follow than Second Life or Project Entropia.

Hardcore MMOG Player Demographics

These demographics are aggregated from several surveys.24

Gender: ~80% Male, ~20% Female. Female players tend to skew older than male players (mean age 32 vs. 26), which may be attributable to the fact that 27% of female players were introduced to MMOGs via their romantic partner, vs. 1% of male players.

Age: Age ranges cited for typical players are 13–3425 and 18–3426, with median and mean ages clustering around 26 or 27. Only 25% of MMORPG players are actually teenagers.27

Work and Marital Status: 50% of respondents in Yee’s survey had full time-jobs while another 22% were full-time students. 36% were married, and 22% had children28, while 25% of players play with romantic partners and 19% play with family members (excluding romantic partners).29

Time Spent In-Game: The median hours spent playing MMOGs each week varies from study to study, but clusters around 1830 to 20–2231 hours. More casual players who played only 10–12 hours/week composed 50% of respondents32, while 8–9% of respondents play MMOGs for 40 or more hours/week33.

Given the methodology used in the IGN & Yee surveys (self-reporting on message boards), these results for “hours spent in game” may skew high.

Number of Active Subscriptions: Yee’s surveys indicate that ~76% of MMOG players have only one active subscription at a time, ~18% have two, 5% three, and >2% four or more. Furthermore, 31% of respondents with multiple subscriptions use only one of them, while another 58% spend most of their time on one, suggesting players with more than one subscription may be transitioning between games.34
Second Life Demographics

Most of these statistics come from Linden Labs, and date from March 7, 2006\textsuperscript{35}, or from the recent Second Life Census\textsuperscript{36}. Statistics marked with an * have likely been altered by the huge influx of users in the last year.

**Gender:** As of the 2007 Second Life census, ~59% of users are male, and ~41% are female.

**Age:** The mean age of users is 32, the median age 36.

**Nationality:** As of the 2007 Second Life census, 31.2% of Second Life users are from the US. The bulk of the remaining users are from Europe (France has 12.7%, Germany 10.5%, the UK 8%) and the developed world.

**Time Spent In-World***: 35% of adults say they spend more time online than working, while 70% of SL’s population uses 25% of their time In-World to create objects. Users spent 90k hours per day in Second Life in the 30 days prior to March 7, 2006.

**Daily Logins***: 25,000 users logging in per day.

**Financial Transactions***: $6.5 million USD in transactions took place, 240,000 distinct objects were sold, and $800k USD was exchanged to and from Linden dollars in the 30 days prior to March 7. Transactions averaged $1 USD each.
Modern graphical MMOs (particularly MMOGs, but also virtual worlds such as Second Life) are descended from the text-based MUDs of the 1970s, 80s, and 90s. While text-based and limited in the number of users they could accommodate simultaneously, MUDs exhibited many of the same characteristics as MMOs. Much of the language used to describe MMOs and player behavior in them emerged in the MUD era, while most theories of player motivation were developed in response to work from this period.

The Game-like/Social Divide

One of the fundamental developments of the MUD era was the emergence of two distinct models of what MUDs should be “about”. This split’s underlying nature was obscured by its links to the acronyms of the MUD era (MUSH, MOO, MU*, etc.), but those who subscribed to the first model viewed MUDs as primarily gaming spaces, with their social functions subordinated to game design considerations, while the second model viewed the social functions of MUDs as being of primary importance. This split has persisted to the present day, with MMOGs serving as instantiations of the “game-like” model, and virtual worlds like Second Life serving as instantiations of the “social” model.

Bartle Types

In “Players Who Suit MUDs”, Richard Bartle describes the type of play users engage in within virtual spaces, dividing the interactions according to two criteria (“action versus interaction, and world-oriented versus player-oriented”) and laying them out on a grid, as shown below left.

The grid delineates four categories of player:

- **Killers**, players who act on other players in order to cause them anxiety and pain
- **Achievers**, players who act on the game world and are driven by in-game goals
- **Socializers**, players interact with others through conversation and role-playing
- **Explorers**, players who interact with both the game world and its mechanics
Bartle suggests that these four categories are opposed to one another, and that an ideal MMOG needs to cater to all four player types, resulting in a balanced game space. By attracting a more diverse population, these balanced MMOGs should also be more commercially successful. He provides a number of examples of how to privilege different criteria elements over one another to alter the balance of a game space. These activities, by extension, are shown to alter the population balance of the four player types. While balancing all four player types is quite difficult, Bartle suggests that MMOGs can more easily succeed in creating either “gamelike” balance, a balance between killers and achievers, or social balance, a balance between socializers and explorers.

The Path to Ascension

While Bartle’s “types” emerged from game-like spaces, Randy Farmer developed another model of player involvement based on behavior in a socially oriented environment known as Habitat. Five distinct groups of players were observed among players, each with their own patterns of usage and social commitment: Passives, Actives, Motivators, Caretakers, and Geek Gods (system administrators and programmers). As administrators rarely participated in the games they administered, only the first four are relevant to our study.

- **Passives** want effortless entertainment and are not deeply involved in the world. They enjoy observing the interactions and creativity of others but are not willing to put in the effort to create entertainment for themselves. On Habitat, though 75% of all players fit into this category, they accounted for 20% of the login time.

- **Actives** are the next largest group after passives, and are highly involved in the world, making it their top source of online entertainment. They are more willing to invest in relationships with others and engage in organized activities.

- **Motivators** are the driving force behind an active virtual community. They throw parties, establish institutions, organize their fellow players, and the like.

- **Caretakers** are the equivalent of message-board moderators—players who have taken on responsibility for the long-term well being of their virtual community. This may be officially sanctioned, or the caretakers may be unsolicited volunteers, but they play a stabilizing role within the player base, helping establish and maintain social norms.

As the name of the model suggests, Farmer argued that as a player’s involvement with the world increased, they would advance from one group to another. The model also implies that players who have advanced “higher” are more valuable/admirable.
Game and MMO-based Models of Involvement and Motivation

**Key Points**

- Modern models of player motivations build on previous models.
- Hedron’s “Circles” model parallels The Path to Ascension, tracking player mastery of MMOGs.
- Nick Yee’s “5 Facets” and “3 Overarching Factors” models allow for a more complex understanding of motivation than Bartle’s types by making motivations non-exclusive. The “3 Overarching Factors” model groups factors into 3 statistically correlated categories (Social, Achievement, and Immersion).
- The Psychographic Profiles developed by Wizards of the Coast identify three powerful motivations for playing games: Experience, Expression, and Achievement.

**Hedron’s “Circles”**

In the early days of *Ultima Online* (popularly understood as the first “true” MMORPG), a player using the screen name of Hedron advanced a linear model of player involvement that parallels Farmer’s “Path to Ascension” only for a game-like space. Hedron postulated six “circles” of player development, with players advancing through them as they became more experienced.39

- **First-circle** players are primarily concerned with **survival**—that is, acquiring and retaining enough resources that they can actually play the game, instead of being defeated by environmental hazards or other players.
- **Second-circle** players have gathered enough resources that they are no longer continually being killed. They are actually enjoying the experience of playing the game, and seeking to **develop a higher level of competence**.
- **Third-circle** players have achieved competence, and they want more. Their goal becomes to **excel** by acquiring the best of everything—skills, equipment, etc.—and “**beat the game**.” In some players, the desire to beat the game manifests through cheating.
- **Fourth-circle** players seek to **prove their mastery** by interacting with other players. This can manifest in a friendly manner (e.g. a player helping newbies) or in an antagonistic one (i.e. killing the characters of less-experienced players).
- **Fifth-circle** players **seek new challenges**. Some of these challenges rely on pre-programmed content (i.e. trying out different types of characters), but more rely on the social elements of the game. Player-versus-player combat, role-playing, use of the game as a chat-room, posting/flaming on message boards, and getting involved with guilds are all directions that a player at this level can go in—as is leaving the old MMOG behind for a new one.
- **Sixth-circle** players are fifth-circle players who appreciate all of the various forms of challenge that a game can offer, and participate in all of them.

Like the Path to Ascension, this model implies that players who’ve reached a higher circle are “better” than those at a lower level.
Yee’s “5 Facets” Model

Nick Yee developed this model of player motivations in response to Richard Bartle’s “types,” criticizing Bartle’s model both for being distorted by the preconceptions of the MUD admins whose observations led Bartle to develop it and for creating false oppositions between player types. (For example, Yee suggested that Achievers might also be Explorers, since leveling efficiently requires a good understanding of a game’s system.) In order to replace Bartle’s types, he used survey methods to develop a motivational model involving 5 distinct but non-exclusive factors or facets:

- **Relationship**: Players who score high in the relationship factor tend to make friends online, and have meaningful conversations with their online friends, usually about real-life personal issues.

- **Immersion**: Players who score high in the immersion factor enjoy the feeling that they are part of a fantasy world. They enjoy exploring, role-playing their characters, and trying out new personalities and roles.

- **Grief**: Players who score high in the grief factor seek to objectify and use other players for their own purposes. This may manifest through taunting and annoying other players, killing their avatars, deceiving other players through clever scams, or begging for money and items.

- **Achievement**: Players who score high on the achievement factor seek to become powerful or do well within the structure of the game. This can manifest itself as a desire for raw power, a drive for efficiency gathering resources as quickly as possible, or a need for collecting trophies and markers of status. The underlying motivation, however, is the desire to be powerful or singled out as special.

- **Leadership**: Players who score high on the leadership factor tend to be gregarious and assertive and prefer activities that require a group. They tend to become group leaders and the driving force behind organizations such as guilds and raid groups.

Yee’s “3 Overarching Factors” Model

Yee was not satisfied with the results of his initial analysis, however, and further refined his model in later surveys, breaking player motivations into ten subcomponent factors, measuring how important each factor was to a player through surveys, and then seeing which factors correlated to one another. The result was a refined model of player motivations which further unpacked Bartle’s assumptions about which motivations were linked or opposed. The three overarching factors were:

- **Achievement**: The 3 sub-components of this factor were:
  
  - **Advancement** - a desire for progress, status, and the accumulation of resources and/or power;
  
  - **Mechanics** - an interest in statistics, whether for their own sake, for what they reveal about the game’s inner workings, or for helping optimize character advancement;
  
  - **Competition** - a desire to compete with other players, whether for the increased challenge or to cause them grief.
• **Social**: The three subcomponents of this factor were:
  
  0. **Socializing** - an interest in chatting, making friends, and assisting others;
  
  0. **Relationship** - a desire for personal connection, self-disclosure, and either giving or receiving support, emotional or otherwise;
  
  0. **Teamwork** - a desire for collaboration, grouping with others, and achieving goals through organization.

• **Immersion**: The four subcomponents of this factor were:
  
  0. **Discovery** - a desire to explore the world, uncover secrets, and learn obscure details;
  
  0. **Role-Playing** - an interest in background story, history and persona of one’s characters (or creating this), and engagement with a fictional world;
  
  0. **Customization** - a desire to be able to customize your character’s appearance or abilities to fit a desired image/play style;
  
  0. **Escapism** - the desire to relax, to forget about real life, and avoid real life problems.

If one accepts the results of Yee’s study, there would be a significant degree of overlap between Bartle’s Achievers and Killers, as they are both motivated by sub-factors of the Achievement category. The motivations long-attributed to Socializers are split between the Social and Immersion categories, while Explorers have their cluster of motivations divided similarly, between the Achievement and Immersion categories.

**Challenges to Yee’s Methodology**

Just as Yee challenged Bartle’s model of player motivations, his work has been challenged because the methodology used to obtain his survey results. By soliciting voluntary survey responses on message boards, Yee’s critics assert, the demographics of his sample are likely to be skewed, resulting in flawed data and faulty conclusions.

Yee’s response to this charge is that the Daedalus project is more concerned with secondary distinctions than with primary characteristics (such as age, gender). The example he cites is of a study in which 85 men and 15 women had their height measured. Even if the sample would suggest an inaccurate gender ratio of men to women in the general population, it’s statistically probable that the study would still (accurately) show that men are taller than women. As such, a sample that exhibits demographic skew does not imply that secondary findings derived from that sample are inaccurate.  

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Ahoy there. *Interacting with other players is a significant motivation for many MMOG users.*
Psychographic Profiles: Timmy, Johnny, Spike

Another useful model of player motivations comes from Wizards of the Coast’s R&D department, which has studied what motivates players to play collectable card games like *Magic: the Gathering Online*. Their research has identified three major psychographic profiles (Timmy, Johnny, and Spike) which parallel Yee’s 3 overarching factors in interesting ways.

- Timmy plays games **to experience something** – he values the feeling he gets from playing the game. While the other psychographic profiles play games with an end in mind, Timmy plays for the journey itself. As a result, Timmy could be seen to be driven by a desire for Immersion (discovery) and/or Social factors (socializing with other players).

- Johnny plays games **to express something** – to show the world how clever, offbeat, or creative he is. To Johnny, the act of customization becomes a game unto itself. Like Timmy, Johnny could be seen to be driven by Immersion (customization), and Social factors.

- Spike plays games **to prove something** – typically his superiority to other players. Spike is the easiest psychographic profile to connect to other models, as he is clearly motivated by a desire to achieve and compete.

The Innovators’ Circle. Hedron’s “Circles” model proposes that more experienced players will gravitate to PvP play because it poses a level of challenge that PvE play lacks.
Virtual Worlds and Second Life

Key Points

• Virtual Worlds have not produced a wide variety of motivational models for their users.

• Linden Labs believes that the core appeal of virtual worlds is their openness to user creativity and customization.

• The importance of Second Life has been challenged by Clay Shirky, due to the size of its core audience.

• Henry Jenkins argues that the creative ferment which Second Life encourages may result in it having more impact and influence than the size of its user base might suggest.

Unlike the MMO/game-like space, virtual worlds such as Second Life have not produced many models of user motivation. There is a significant amount of ethnographic research currently being undertaken in Second Life which may be of use in the near future. Due to Second Life’s heightened profile, the recent influx of new players, and the increase in the number of “stealth” users (such as those who use Second Life for software training) whose usage patterns bear no resemblance to that originally anticipated by Linden Labs, it is uncertain how valuable demographic or ethnographic research done in Second Life prior to the emergence of these trends will be.

The User Creativity Model

One widely publicized model for user motivations within Second Life does exist, though it is more prescriptive than descriptive: Cory Ondrejka’s “User Creativity” Model, described in various papers produced on behalf of Linden Labs. Ondrejka argues that the core appeal of virtual worlds in general (and Second Life in particular) is the ability of users to customize their avatar and environment, either by exercising their own creativity, reusing another’s creations, or simply engaging with those creations as a spectator. This model of user motivations strongly informed Linden Labs’ choices in the creation and development of Second Life. At one point in Second Life’s development, Linden provided financial incentives for users whose In-World creations drew the most visitors. Second Life consistently encourages entrepreneurship through its near-complete openness to user creativity.

The Changing Face of Second Life

For researchers more interested in the social dimensions of virtual worlds, however, Second Life’s recent explosive growth poses both a challenge and an opportunity. In her article “The Meaning of a Million,” Tateru Nino (the unofficial head of Second Life’s Mentor program) cites the fact that the number of user accounts has grown tenfold over the past year and suggests that even if a large percentage of new users quit after a week or two, those who remain will reshape the landscape of Second Life, overshadowing, erasing, or altering elements of the present culture. Nino also presents some ways in which this could occur. One is the use of Second Life by disaffected MMORG gamers to create their own game spaces, while another is special interest groups or business harnessing the virtual space to interact with each other or their customer base. Both of
these scenarios use the technical capabilities of Second Life without addressing or engaging with its existing community. Thus, Nino sees Second Life developing multiple cultures rather than a new dominant culture: a series of different groups occupying the same virtual space, but not necessarily interacting with each other. Nino also argues that elements of Second Life’s present culture can be retained, but users must ready themselves for the changes that lie ahead.

**The Growth of Micro-Audiences**

One example of the cultural fracture predicted by Nino has already emerged. Locations in Second Life are ranked by traffic, a measure of popularity that factors in the number spaces in Second Life have gotten even 1% of the of the lowest traffic score in the top 20. One notable exception is Thomson, a company that offers technical education in products created by companies such as Microsoft and Cisco. Its traffic rating was 51% of the lowest score in the top 20, and interviews with the users who were using Thomson’s services revealed that they used Second Life as a client for Thomson’s educational services and did not interact with the Second Life community at large.47

**The Relevance of Second Life**

In light of Second Life’s relatively small user base, one might legitimately ask why any of this is relevant. In the wake of Clay Shirky’s article that began the deflation of the hype around Second Life, a number of points of view have been advanced as to why Second Life is worthy of attention, even if it doesn’t actually have 2 million users. Joel Greenberg of GSDM has advanced the idea that the traffic graph for Secondlife.com suggests that downloads of the SL client are entering a growth phase,48 while Henry Jenkins, who has engaged in a dialogue with Shirky and fellow media scholar Beth Coleman about this particular issue, has advanced the idea that “Second Life isn’t interesting... because of how many people go there; it’s interesting because of what they do when they get there.”49

Essentially, Jenkins is advancing two claims as to why Second Life might be more important than the user numbers suggest:

1. Second Life represents an important testbed for ideas about participatory culture. We have a company here which has adopted a collaborative attitude towards its consumers, empowering them to actively participate in the design of their own world.

2. Second Life is attracting a growing number of powerful institutions (corporate, governmental, educational, nonprofit) who are using it as a site to experiment with how they might adopt a more collaborative and participatory relationship with their consumers/constituents/students/what-have-you.50

As Jenkins notes in the first of his posts on the issue, “A small community of people can generate an enormously rich culture and can have a transforming impact on society as a whole.”51 From this perspective, the level of innovation and experimentation (both technological and social) that is possible within Second Life remains significant, even if its user base continues to be dwarfed by that of World of Warcraft.
Adapting MMOG Models to Virtual Worlds

Key Points

- Players of MMOGs and users of virtual worlds have many motivations in common.
- If we adapt the sub-factors of Yee’s “3 Overarching Factors” model to account for the properties of virtual worlds, a detailed model of user motivations is available.

Despite the current paucity of published literature on user motivations in virtual worlds and the shifting composition of the user-base of Second Life, we do have tools at our disposal to understand user motivations within virtual worlds. While there are clear distinctions between MMOGs and virtual worlds, there are also clear similarities in user/player motivation between the two. Farmer’s “Path to Ascension” parallels Hedron’s “Circles” model in producing a hierarchy of involvement, while two out of Yee’s three “overarching factors” (Social and Immersion, particularly the customization sub-factor) are well-known motivations for users to engage with virtual worlds (c.f. Ondrejka).

Furthermore, social factors play a significant role in player engagement and retention in both virtual worlds and MMOGs. Nick Yee’s research has indicated that, in addition to the 25% of players who play with romantic partners and 19% that play with relatives, 70% of MMOG players play with friends they know offline. In aggregate, ~80% of respondents were playing with someone they deal with regularly in “real life.” And real-life connections between players are only part of the picture. In “Where Everyone Knows Your Screen Name” Steinkuehler & Williams found that participation in MMOs generated copious bridging social capital, as well as bonding social capital within more formal groups, such as guilds or clans. In addition, they assert:

Regardless of whether the core game mechanics driving interaction were competitive (Lineage), collaborative (Asheron’s Call) or, most commonly, competitive collaboration (both), conversation was clearly a desired form of game content for MMO players. In virtual worlds, game play is constituted not only by joint in-game activities but also and overwhelmingly by constant conversation about the game and topics well beyond it... so much so that MUD developer J. C. Lawrence states, “The basic medium of multiplayer games is communication.”

Given the importance of customization/immersion and social behavior in both virtual worlds and MMOGs, the only significant structural distinction between the two environments is the existence (or lack thereof) of game mechanics—e.g. explicit structures for competition or achievement. (This has been true ever since the MUD era.) This does not mean that competitiveness and the desire to earn status or dominate others are absent from social MUDs or virtual worlds, but only that in the absence of game mechanics that can provide an objective
measures of “success” they are channeled into different forms—financial competition, for example, or
trolling and flaming on chat channels.

Yee’s 10 Sub-Factors, Revisited

Of course, it is one thing to say that MMOG-derived motivational models can be adapted to virtual worlds
and another to actually do so. By dissecting the most robust of the MMOG models (Yee’s “3 overarching
factors” model) and examining which of the motivational sub-factors are likely to motivate users of virtual
worlds, we can use prior work in the MMO space as a jumping-off point for our study of virtual worlds
instead of needlessly starting from scratch.

The first overarching factor in Yee’s model is achievement. Obviously, without the “objective” framework
for measuring achievement which a game’s rule set provides, the 3 sub-factors it contains will have to be re-
examined.

• **Advancement** seems likely to motivate some users of virtual worlds but will manifest in different forms
  than it does in MMOGs. In the absence of character levels and mechanical power, this motivation
  seems limited to the accumulation of resources and social status—a partial motivation at best.

• An interest in **Mechanics** loses much of its power to motivate within the context of a virtual world
  that lacks an underlying “rule set” to structure player experience. Curiosity about the workings of the
  virtual world seems like a fairly weak motivation, and can probably be rolled into **Discovery**.

• The **Competition** factor in Yee’s model combines a desire to prove oneself through competition with
  a desire to cause annoyance or grief to others. Outside of the context of an MMOG, where these two
  motives are often elided through the mechanism of PvP combat, it seems useful to decouple them.

As the desire to prove oneself seems aligned with the desire for status, the remnants of the advancement sub-
factor & the socially acceptable forms of competition can profitably be combined into a new **Competition**
factor, while the antisocial desire to annoy and use others can be broken out to an independent **Grief** factor.

The sub-factors that make up Yee’s second and third overarching factors (social and immersion) seem to
transfer between MMOGs and virtual worlds more easily.

• **Socializing** is the fundamental activity enabled by the chat channels common to MMOGs and virtual
  worlds. As a result, it remains more or less unchanged, though one might reasonably expect the
denizens of a virtual world to be more interested in socializing than their counterparts in a MMOG.

• Like the desire to socialize, a desire to form **Relationships** with the acquaintances one makes is likely
to be more common in a virtual world than in a MMOG, but is unchanged by the absence of rules sets
or game structures.

• Of the 3 social sub-factors, only **Teamwork** is changed by the shift from MMOGs to virtual worlds.
In the absence of in-game challenges which require the cooperation of multiple players, teamwork
and coordination are only of primary importance in the context of collaborative coding or modeling
projects. As such, it is less likely to correlate with a desire to socialize (as it is in MMOGs) and more
likely to correlate with a desire to create or compete.
• **Discovery** retains the potential to be a powerful motivational force in virtual worlds, particularly those that allow users to engage in content creation. For more casual users of such virtual worlds, curiosity about what others have created may be their primary motivation for engaging with the world.

• In the absence of a fictional world or storyline to engage with **Role-Playing** would seem to become one manifestation of **Escapism** among many. Unless the two motivations are poorly correlated, it might be best to fold role-playing into the other motivation.

• While **Customization** is often seen as a secondary, or frivolous activity in MMOGs, it is seen as one of the primary drivers for user engagement with virtual worlds such as **Second Life**. As such, it seems worthwhile to separate the desire for customization (which is not necessarily creative) from the desire to create new content.

• **Escapism** might take different forms in virtual worlds and MMOGs, but it seems to be an equally valid motivation in either of them.

Breaking out a desire for **Creativity** from customization results in two new categories of motivation (Grief & Creativity), while dispensing with three that are less relevant to virtual worlds than MMOGs (Advancement, Mechanics, and Role-Playing). A revised model would then have nine sub-factors, as discussed below.

### A Hypothetical Model

While determining which sub-factors correlate with each other would require field research, I hypothesize that the sub-factors will be grouped in the following manner:

• The **Socializing** and **Relationship** factors will remain correlated, and **Discovery** and **Escapism** are likely to remain correlated as well. These hypotheses seem safe, given their correlation in Yee’s study.

• An interest in **Customization** may correlate with **Socializing** and **Relationship**.

• **Creativity** and **Teamwork** are likely to be linked, though the correlation between them may be weak.

• **Creativity** will have a strong correlation to **Customization**, though the reverse may not be true. Similarly, **Grief** seems likely to correlate to **Competition**, though the reverse may not be true.

While Yee’s model of MMOG player motivations had three overarching categories, the lack of an overarching rule set and game ‘goal’ to structure the user experience seems likely to result in user motivations being more fractured in virtual worlds. As a result, it seems likely that four or more overarching categories would be needed to understand the connections between the motivational factors outlined above. Also, certain factors may only exist as subsets or facets of another motivational factor: **Grief** is an example of this, as while both it and **Competition** are adversarial forms of social engagement, competition typically manifests in more socially acceptable manners, while grief is almost invariably antisocial.
MMOs and the Diffusion of Innovation Model

Key Points

- Hardcore MMOGs have already reached the bulk of those who might be interested in their current form.
- Atypical MMOGs tend to be played by innovators and early adopters, while mainstream games like World of Warcraft have a more diverse player base.
- Content creators and landowners in Second Life are likely to be innovators, while early adopters tend to consume and customize content rather than create it.
- Second Life has not retained those members of the early majority who have tried it out.

For all the triumphant rhetoric that emerges from MMO providers such as Blizzard (WoW) and Linden Labs (Second Life), it is worth considering the success of MMOs in a larger context. All of the most successful MMOGs are primarily or entirely PC-based\(^5\), but the PC-gaming market is a relatively small portion of the electronic gaming market as a whole. Comparing WoW's worldwide subscriber base (7.5 million, with ~2 million players in the US) and Runescape's player base (9 million) to the install base of the Playstation 2 (35 million in the US\(^6\), and over 90 million worldwide\(^7\)) makes it clear even the most successful MMOGs which are set in a virtual world reach only a fraction of the game-playing public. Of course, such a comparison (while illustrative) may not be entirely fair, as, in the last generation of consoles, only the Xbox was inherently equipped for online play.

Since user bases of MMORPGs dwarf those of most virtual worlds (the exceptions being MMO/social networking hybrids such as Habbo Hotel and Korea's Cyworld), it would probably be best to examine their rate of adoption within the narrowest possible consumer demographic, before expanding outward to see them within the context of larger audiences. Everett Rogers' diffusion of innovations theory provides a way to characterize the makeup of each demographic subset, though of course such classifications will vary depending on context—in the context of the general population, for instance, anyone who engages with an MMO would appear to be an innovator.

Nick Yee's research discussed above establishes most MMO players only maintain subscriptions to a single game. Given that WoW has a US subscriber base of 2 million, and that most of the other moderately successful MMORPGs tend to have US subscriber bases on the order of 100,000, we can estimate the US MMORPG player base at ~3 million. How large is the market of players who are interested enough in computer RPGs to pay for them? The Elder Scrolls III: Morrowind was one of the best-selling electronic RPGs of all time, with over 4 million units sold across PC and Xbox\(^8\) (which translates into sales in the US and Europe, since Japan has no appreciable market for PC or Xbox games). As a result, it's probably safe to estimate that there are between 4-5 million potential subscribers for MMORPGs in the US.

Diffusion of innovations theory divides individuals who adopt a new innovation into 5 segments: Innovators (2.5%), early adopters (13.5%), early majority
(34%), late majority (34%), and laggards (16%). Estimates would indicate that the combined subscriber base of WoW and all the other major MMORPGs (effectively the only hardcore MMOG genre to have achieved a wide audience), having reached 60-75% of the probable audience for such content in the US, has collected innovators, early adopters, the early majority, and a significant portion of the late majority. This correlates well with the game industry’s own understanding of World of Warcraft’s role in expanding the market to players who would have found earlier offerings such as Everquest or Ultima Online unattractive. Further developments in MMORPGs may draw in stragglers, but the bulk of the traditional US audience for such games is not only aware of them but can reasonably be expected to have tried them out.

Pulling back to consider the global gaming audience, the situation becomes more complicated. The adoption of MMOGs is limited by the availability of Internet-capable platforms for their play, making such games more prevalent in countries with extensive broadband penetration or net-café cultures, such as the US, China, and Korea. If we combine the international subscriber/player bases of the most popular MMOGs (WoW, Lineage, Runescape) we end up with roughly 20 million MMOG players worldwide. With over 90 million PS2s installed, in addition to other, less prevalent consoles, a variety of handheld devices, and the use of computers as gaming platforms, it seems likely that players of MMOGs are less than 10% of the global population of users of electronic games. In this context, MMOG players are early adopters—and within the context of society as a whole, they become a marginal population of innovators.

The outlook for “hardcore” virtual worlds such as Second Life is even grimmer, if their goal is truly to engage a significant portion of the population. Linden Labs’ claims of 2 million residents in Second Life are undermined by mismatches between their account creation and login numbers (Second Life reported only 810,000 actual logins in the period that their second million accounts were created), and reports that indicate that a new-user retention rate of around 1 in 50. While hard numbers on the size of Second Life’s recurrent user base (as opposed to the number of users who’ve spent money In-World) are hard to find, Linden Labs’ own estimate of 10% retention suggests that number is probably somewhere around 200,000—which would make those users innovators and early adopters, even in the small pond of the MMORPG market.

The exceptions to the relative cultural marginalization of MMOs are the hybrid virtual world/social networking sites, such as Habbo Hotel and Cyworld. Even if Habbo Hotel’s “66 million” membership number is somewhat inflated (by non-active accounts and the like), Cyworld is a genuine phenomenon. With reports placing up to 90% of South Koreans in their 20s, and 25% of South Korea’s total population as registered users of Cyworld, it’s clear that in the context of South Korea, Cyworld has reached the Early Majority (and even penetrated to stragglers in the younger demographic).

**Breakdown of MMO Audience Segments**

It may be valuable to consider what types of players the various audience segments described above correspond to. Rogers attributed the following qualities to each audience segment:

- **Innovators** were found to be venturesome, knowledgeable, tolerant of risk, and had the (financial) resources to absorb the cost of failure.

- **Early Adopters** were found to be opinion leaders, socially popular, and well-respected.

- **The Early Majority** was found to be well-socialized, unlikely to contain opinion leaders, and reluctant to make quick decisions.
• **The Late Majority** was found to be skeptical, cautious, susceptible to peer pressure, and lacking in spare (financial) resources.

• **Laggards** were found to be relatively isolated, conservative and suspicious of change, and particularly averse to expending resources.  

The following are qualitative assessments of each audience segment’s identity and role in the context of *World of Warcraft* and *Second Life*, inferred from demographic information and the user motivation literature surveyed.

### MMOG Players (*World of Warcraft*)

- **Innovators:** Among MMOG players, innovators are most likely to try out new and unconventional types of games (e.g. *PlanetSide, Auto Assault, EVE Online*) and to play more than one game at a time. In Yee’s “3 overarching factors” model, most innovators would be driven by a combination of a desire for Achievement (overarching factor), and the Discovery sub-factor—in MMOGs, the desire to innovate is often motivated by the desire to do something first or best.

  Since MMOs tend to require a fairly minimal financial investment, the resource which innovators possess more of than their peers is time (necessary to play in beta tests, power-level their characters, and the like). The correlation between age, gender, and competitiveness suggests that Innovators would tend to be young and male, and have more interest in PvP.

- **Early Adopters:** Early adopters in the MMOG space are often players who are experienced players of a previous MMOG, and believe that a new game will offer them a better experience than the old one. Such players frequently transplant entire guilds from one game into another and tend to begin playing a game in beta or at its launch. While still motivated by Achievement, early adopters are more likely to be motivated by Socialization and Immersion than innovators are.

- **Early Majority:** The early majority is likely to be made up of players who begin playing an MMOG only after it has received good reviews, both in the gaming press and through word-of-mouth. (*World of Warcraft* ’s extended beta test and the word-of-mouth that developed around it probably contributed to its explosive success.) Many will be drawn in by their friends (real-life or online) who were early adopters or an earlier part of the early majority. Players in the early majority are unlikely to have as much time to play as early adopters or innovators, so casual-friendly mechanics such as *WoW*’s “Rest” are likely to appeal to such players. While Achievement can still be a motivator, Immersion and Socialization are likely to be more significant to players in this segment.

- **Late Majority:** The late majority is likely to be even more time-crammed than the early majority and is likely to subscribe an MMOG only once its user base reaches a critical mass and they have a chance to try it out (either via a friend’s account or a limited-time trial). Late majority players will also tend to be less “hardcore” gamers, and will need much more user-friendly tutorials, hand-holding, and solo content, due to their lack of experience with the genre’s conventions. Immersion is likely to be the initial motivator for members of the late majority, though Socialization is likely to become more important as they gain experience in-game. Late majority players seem more likely to lie outside the “core gamer” demographic of young males than earlier adopters.
• **Laggards:** Laggard MMOG players are either unconvinced that they would enjoy any of the games on the market or lack the time or resources to begin playing such games. As such, they are either waiting for more of their friends to go online, for a game with features that have particular appeal to them, or for the time and/or money necessary to play the game to become available.

**Second Life**

• **Innovators:** Innovators in *Second Life* are land-holders, content creators, and volunteer Mentors—not just the earliest residents, but also those who are most deeply invested in the world, both financially and emotionally. Due to the degree of technological literacy (and resources) necessary to create interesting and innovative content for *Second Life*, innovators are likely to be cosmopolitan, college-educated, with experience as either programmers or computer artists, and an interest in being “cutting edge”. Given *Second Life*’s affordances, innovators are likely to be motivated by Creativity and Discovery, though Competition or Relationship(s) will drive some.

• **Early Adopters:** Early adopters in *Second Life* are more likely to be users and consumers of what the innovators produce than creators themselves. Customization, Socializing, and Escapism seem as if they would be the most prevalent motivations, though among those users who are less invested in the world itself, the desire to cause Grief will not be uncommon. Early adopters are likely to come from the same general classes of individuals as innovators, as well as marginalized social groups that feel that they can be more “themselves” in a virtual world (e.g. pre-operative transsexuals, furries, and trans-humanists).

• **Early Majority:** *Second Life*’s failure to retain those members of the early majority who have entered the world is likely due to a variety of factors. *Second Life*’s tutorial area is extensive and somewhat clumsy. The amount of virtual sex in *Second Life*, often the most easily discovered activity, may disturb or offend new users. Finally, new users may simply not be entertained or intrigued enough by the experience to return.

In this light, Clay Shirky’s description of *Second Life* as a “Try Me virus” seems apropos—while many people seem willing to try out *Second Life*, relatively few find that a literal “cyberspace” provides them with anything they want. The evidence to date suggests that other than those classes of individuals described above (cosmopolitan creators, cyber-hipsters, identity groups, griefers), the most common class of residents are corporate promoters, who have leveraged their clients’ presence in *Second Life* into press attention.
Future Trends in MMOs

Key Points

- Wise publishers will accept Real Money Transactions in virtual spaces and bring such transactions in-house.
- MMOGs will improve incrementally, both in terms of expanding their appeal and developing endgame content.
- MMOs and Web 2.0 will continue to converge, and developers will be forced to consider what added value 3-D provides.
- In-world advertising will continue to be disruptive unless it is well-integrated or players somehow benefit from it.

The following trends should continue to develop in MMOs over the next 5 years:

- **Real Money Transactions** will continue to be a significant factor in the MMO space. While the publishers of MMOGs may continue their attempts to quash such transactions, such attempts will do little good, and sensible publishers will take actions (along the lines of Sony’s Station Exchange\(^{69}\)) that grant players some measure of security (and themselves some profit) in the sale of virtual goods. While government efforts to tax virtual transactions will continue, the expense and difficulty of enforcing such regulations will limit their effect.

- **MMOGs will improve incrementally.** The most successful will appeal to both casual and hardcore players, providing both with reasons to remain engaged with the game over the long term. While *World of Warcraft* will remain dominant for some time to come, it too will eventually be superceded by a game that improves on its strengths—even if that game is a revised and improved version of itself.

- **MMOs and Web 2.0 will continue to converge**, with companies like Areae\(^{70}\) taking the lead, and the development of common platforms such as Multiverse\(^{71}\) allowing content and characters to be transferred from one virtual world to another. The continued expansion of 2-D sites along the lines of *Cyworld* and *Habbo Hotel* will force some developers of 3-D virtual worlds to reconsider what added value the 3-D interface provides for users.

- **Direct advertising in MMOGs and Virtual Worlds will continue to be seen as disruptive,** unless it provides players with a tangible benefit (e.g. free play in *Runescape*), is introduced to MMOs where immersion is not a factor or carefully handled so it “fits” naturally into the world.

Directions for Future Research

Unless a new MMO-hybrid emerges that significantly changes both the demographic that is interested in MMOs and the incentives for user engagement, the models of user motivation, involvement, and behavior described above should continue to be useful in understanding the players of MMOGs and users of virtual worlds for the foreseeable future. It may also be valuable to confirm the existence of the motivating factors hypothesized as being common among the users of virtual worlds, and to correlate them with each other through quantitative surveys.
In addition, certain recurring or important elements of MMOs were highlighted over the course of this survey. The importance of an MMO’s user interface and the design of the tutorial sequence which introduces the user to the world or game (along with the initial content which a user encounters) cannot be overstated in light of *Second Life*’s poor retention rate and *World of Warcraft*’s success among more casual players. Similarly, the affordances and incentives for community-building which a world’s structure provides can have a significant effect on the social behavior of users—witness the spontaneous aggregation of groups in MMOGs and the development of raid guilds to tackle late-game content. The issues of presentation and design affordances which these examples point to are critical to the creation of any virtual space or MMO, and are worthy of further attention.
Recap and Recommendations

• The importance of the social dimension of MMOs cannot be overstated. Most of the long-term appeal of these spaces derives from the social connections that users make with one another. As such, any effort to engage with the MMO space must leverage or enable these connections in order to maximize its effect.

• Despite their similarities on the social level, virtual worlds and MMOGs function in radically different ways, due to the lack of explicit purpose in virtual worlds, and their tendency to empower their user base. When working in these spaces, the degree of direction provided to the player (i.e. to kill monsters and level up or to explore and create new objects) must be kept in mind.

• In addition to the social dimension, companies that seek to work in the MMO space should leverage existing player motivations to their advantage. One lens likely to be useful is Wizard’s of the Coast’s tripartate model of player motivations — Experience, Achievement, and Expression — which are elaborated on below.

Experience

• The most natural way to appeal to experience-oriented users is to provide them with a memorable and positive branded experience, such as allowing users to “test drive” virtual versions of real cars (as Toyota has with the Scion xB in Second Life), or providing a virtual world or MMOG experience for them.

• Another way to appeal to experience-oriented users is to keep their experience from being disrupted. An object scripted to allow a user to “mute” or ignore communications from griefers in Second Life could easily be Advil-branded, for example, providing positive brand association.

Achievement

• Achievement-oriented users are typically concerned with competition, and doing something first or best. Companies could leverage this competitive drive by creating branded competitions that trade on existing brand and cultural concepts for promotional value — sponsoring a “Cola War” in Second Life or a branded MMOG, for example.

• Another way to appeal to achievement-oriented users would be to create competitive forms that encourage socialization within a branded group or area. One way to do this would be to build on the Facebook model, encouraging users to collect a large group of people under a brand’s banner by offering In-World rewards once certain thresholds are reached.
Expression

- Expression-oriented users offer the most fertile ground for branded promotion in virtual worlds. The expressive value of brands in virtual worlds and social networks increases as the number of users and the desire to be distinctive grows — and while virtual Levis and the like are currently sold in Second Life, it may be more valuable to allow real purchases (such as actual Levis) to “unlock” virtual versions of those same products, encouraging users to express their real-life brand loyalties in the virtual sphere.

- In addition to “unlocking” virtual objects when you buy physical ones, it might be valuable to have inexpensive physical objects (along the lines of a “happy meal” toy) unlock exclusive online content, such as minigames and the like. World of Warcraft has already experimented with this, as the WoW collectable card game contains cards that unlock special pets and equipment In-World.

- Creatively-oriented virtual worlds like Second Life also offer an amazing venue for users to exercise their creativity on behalf of a brand. Sponsored In-World building contests or experiments like the Chevy Apprentice campaign would expose a brand to less risk - as virtual worlds are less accessible than the web, and enable a much wider range of creativity. Such campaigns would build on many already existing In-World behaviors.

- Another approach to the “unlocking” concept that leverages the social dimension of MMOs would be to have a physical purchase contain an invitation to an online space or community. (Microsoft has pursued a narrow form of this idea, with early copies of Crackdown allowing players access to the Halo 3 beta.) If such invitations allowed a user to invite several friends on a trial basis, and the space unlocked was attractive enough, such an approach might prove to be a valuable brand- or community-building tool.
Endnotes

1 http://www.newscientist.com/article.ns?id=dn1847

2 http://www.anshechung.com/include/press/press_release251106.html

3 Based on the concurrency graphs found at http://tateru.meratalk.com/statistical%20graphs.html, the mean concurrency for the 14 days prior to 3/2/2007 was on the order of 24,000 users.

4 http://www.nickyee.com/daedalus/archives/000552.php. Note that due to the gender skew among the MMOG player base, female guild leaders are still less common than male ones—the statistic indicates that a randomly selected female player is significantly more likely to be a guild leader than a similarly selected male player.

5 There are exceptions, such as NCSoft’s *City of Heroes/Villains* franchise, described below.

6 Blizzard Entertainment claims to have 7.5 million paying customers worldwide (http://www.gamespot.com/news/6161371.html), with slightly less than 2 million of those within the US (http://www.nytimes.com/2006/09/05/technology/05wow.html).


8 http://www.mmogchart.com/Analysis.html


10 http://www.mmogchart.com/Analysis.html

11 Ibid.

12 Ibid.


14 http://www.mmogchart.com/Analysis.html

15 So far, no licensed MMOGs (such as *Star Wars Galaxies, Dungeons & Dragons Online*, the ill-fated *Matrix Online*) have performed up to expectations, despite the extra attention and early adoption their license provided.

16 The prizes provided to the winners of *M:tG Online* tournaments and drafts allow victorious players to play without putting more cash into the system (at least for a while), but the expected value of playing
in a draft or tournament is a fraction of the cost to enter, meaning that – since virtual product has no cost of goods associated with it – Wizards of the Coast makes a profit on each such tournament played.

17 Surprisingly enough, not all (or even most) “casual” MMOGs feature “casual” gameplay, though they tend to be less time-intensive to play than hardcore MMOGs.

18 http://biz.gamedaily.com/industry/adwatch/?id=13256&page=1

19 http://www.mmogchart.com/Analysis.html

20 http://blogs.chimpswithkeyboards.com/vanhemlock/archive/2006/12/13/1574.aspx While the user numbers are derived from Linden Labs data and appear accurate, the “hours in-world” statistics cited are inconsistent with data provided by Linden Labs, and appear to based on the mistaken use of a 60-day number for hours spent online as if it represented the sum total of user hours spent in Second Life.

21 http://news.bbc.co.uk/1/hi/technology/4104731.stm

22 http://www.escapistmagazine.com/issue/75/13

23 Ibid. This is the actual business model of Club Xanadu.

24 Sources include http://www.igda.org/online/quarterly/1_2/mmogdemographics.php and http://www.nickyee.com/daedalus/, which contains a vast supply of MMOG-related survey data.


26 http://www.igda.org/online/quarterly/1_2/mmogdemographics.php

27 http://www.nickyee.com/daedalus/gateway_demographics.html


30 Gamasutra, op. cit.


32 Gamasutra, op. cit.


36 http://static.secondlife.com/_files/xls/SL_Virtual_Economy_Metrics_02-02-07.xls

37 http://www.mud.co.uk/richard/hcdfs.htm

38 http://www.crockford.com/ec/citizenry.html

39 http://www.kaaos.com/Gaming/index.php?id=0

Robert Putnam describes bonding and bridging social capital in *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000). While bonding social capital is exclusive and creates strong ties among small groups of people with similar backgrounds, bridging social capital is inclusive and creates loose ties among relatively disparate groups of people.

When studying virtual worlds that do have actual mechanics (such as Project Entropia), Mechanics should remain distinct from Discovery.

Only *Everquest Online Adventures* and *Final Fantasy XI* run on consoles such as the PS2, and *EQOA* is widely considered a financial failure, while *FFXI* is mostly PC-based.

Using our estimate of 3 million US MMORPG players, such players are 1% of the US population.
http://nwn.blogs.com/nwn/2006/11/new_world_numbe.html  Linden Labs paints a brighter picture, claiming that 10% of new users still login weekly 3 months after they create their account.

Ibid.


http://gigaom.com/2006/04/16/will-cyworld-stop-myspace-juggernaut/


For example, CNET’s recent interview with Anshe Chung was interrupted by animated flying penises. http://news.com.com/Virtual+magnate+shares+secrets+of+success/2008-1043_3-6144967.html


http://www.wired.com/news/games/0,2101,67280,00.html

Ultima Online and Star Wars Galaxies designer Raph Koster’s new company. http://www.areae.net/

http://www.multiverse.net/

http://blog.wired.com/cars/2007/02/toyota_gives_sc.html
Alec Austin is a Master of Science candidate at the Comparative Media Studies program at MIT, where he works with both the Convergence Culture Consortium and the Education Arcade. His personal research focuses on how the production structures of serial media shape their content. He holds a BA in Mathematics from Reed College and has written three novels. Email him at acaustin@mit.edu.

The Convergence Culture Consortium at MIT (C3) is a partnership between thinkers and researchers from/affiliated with the Comparative Media Studies program at MIT and companies with a keen interest in deciphering convergence culture and the implications it can have for their business. Members of the consortium gain new insights and ideas about a very intractable and urgent set of questions that they are already grappling with in the current business environment. We aim to expand the role of industrial leaders by informing them of dynamic humanistic scholarship while providing them with early access to the cutting-edge ideas that emerge through the consortium. For more information, please visit www.convergenceculture.org.