In fifth grade I was introduced to the card game *Magic* and was intrigued by a game that could be played fairly with such a vast array of cards. After gaining knowledge about the structure, I was informed that certain cards could be worth hundreds of dollars more than the purchase price. While this may have seemed absurd on a certain level, it was perfectly reasonable because the frequency of the “high value” could be controlled by the company printing the cards and these transactions were allowed by the creators. Furthermore anyone who had a lot of money would always win because they could buy more and would end up with the “better” cards based on the law of averages. This was an issue, but the game was still able to thrive.

When massively multiplayer online games (MMO’s) became popular some of these issues were revived in digital games. However, this time some of the problems increased because the game producers are unable to control the frequency of “high value” items and the buying and selling of them. Almost all games prohibit these types of transactions, yet they have continued to thrive on 3rd party websites. Some players accept this, yet others scorn it. In order to get a grasp on this subject, I first will attempt to measure the prevalence of digital item transactions. Along the same lines I am interested in speculating how they will factor into future games. This research will render some information about how the industry is reacting to the issue, but I am also interested in how players feel about digital item transactions. There are many feeling on this issue, but some of the most pressing issues relate “cheating” and effects on in-game economies. By researching these issues, I will be able to get a realistic grasp on the presence of MMO digital item transactions and how players feel about them.

When looking for material on this subject I first analyzed official documentation from Blizzard Entertainment and Sony Online Entertainment (SOE). The End User License Agreement (EULA) for SOE games, *Everquest*, *Everquest II* and *Star Wars Galaxies*, states, “You may not buy, sell or auction (or host or facilitate the ability to allow others to buy, sell or auction) any Game characters, items, coin or copyrighted material.”¹ Many other large MMOs like *World of Warcraft* have comparable statements in their EULAs. The F.A.Q. page of WoW includes the question, “How does Blizzard plan on dealing with the selling of items on eBay?” Blizzard’s response says that users “do so at their own risk’ and that they will neither “facilitate nor mediate” the transactions.² For this reason, many people have gone to 3rd party sites like eBay, IGE.com, mysupersales.com, markeedragon.com, and others to provide this service. These sites facilitate transactions of currency, items, and accounts not only in each game, but between games. I was interested in seeing how these sites explain their actions since it is explicitly prohibited by SOE. For example, IGE claims in their FAQ that “The stock we have available has been purchased legitimately from game players the

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¹ (EULA)
² (Support F.A.Q.)
world over who chose to sell their excess,\textsuperscript{3} however there is no way this is possible for all the games. Steve Bauman suggests that the legal loophole for this action could be that they are "actually selling is the time it took to acquire said property."\textsuperscript{4}

While I was conducting my research, SOE substantially changed how they treated these transactions. For their 	extit{Everquest II} game SOE is testing a system similar to those on these 3\textsuperscript{rd} party sites on some servers. This service is called "Station Exchange" and they are offering it because "it’s obvious that a large percentage of...players either don't mind this activity or actively participate in it" and these players only current choice are illegal 3\textsuperscript{rd} party sites. This illegal market for items allowed many people to scam others and accounted for 40\% of the work for the customer service department at SOE.\textsuperscript{5} This addition to some servers of 	extit{Everquest II} is a small change, but opens possibilities to huge changes in the MMO community. Some of the writers at TerraNova were supportive such as Edward Castronova who thinks that "this is a brilliant business move and a good one for games and gamers." However, others like Richard Bartle feel that "we're all doomed."\textsuperscript{6} This negative response is generated from the feeling that impact on MMOs should be limited to actions allowed by the game developers.

Ever since the inception of MMO games in-game economies have been in place. These were created partially by the frequency of the items produced by the game developers and partially by the trading and selling of items by players. However, an even more important economy is the transfer of these items in external markets. In Ted Castranova’s 2001 paper on the economy of 	extit{Everquest}, "Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier," he found that a unit of Norrath’s currency is traded in exchange markets for USD 0.0107. He also used his findings on these real world transactions to equate Norrath\textsuperscript{7} to actual countries. When doing so, Norrath ranked as the 77\textsuperscript{th} richest country with the value generated within the game resulting in $2,260 per capita and a GDP of $4.74 billion.\textsuperscript{8} These numbers are presently four years old and have been attempted to be undated, and generalized, by Julian Dibbell in an article on TerraNova. In this analysis he determined three different estimates based on different player types and figures. His findings resulted in a range from a little over $7 billion, using a conservative estimate, to a little under $12 billion, using numbers supplied by IGE, the transaction facilitating website.\textsuperscript{9}

For my data collection I attempted to get a mix of qualitative and quantitative data. In order to do this I created an online form\textsuperscript{10} which contained open-ended questions as well as some multiple choice questions. This method allowed me to understand some of the varying opinions on this topic and also obtain some quantitative information to spot possible trends. In the first few questions of the survey I gathered some basic information about the participant (age, sex, MMO experience, etc.) to be used for quantitative purposes. I also questioned whether they were an MMO player or if they were involved with the creation of the games (developer, artist, moderator, etc.). The survey also contained questions relating to their experience with digital item transactions and possible experience in the future. This data was collected to understand the presence of digital item transactions

\textsuperscript{3} (IGE Frequently Asked Questions: Safety)
\textsuperscript{4} (Play to Pay)
\textsuperscript{5} (Station Exchange, 2005)
\textsuperscript{6} (Various, 2005)
\textsuperscript{7} The world which Everquest takes place in.
\textsuperscript{8} (Castronova, 2001)
\textsuperscript{9} (Dibbell, 2005)
\textsuperscript{10} See Appendix
today and in the future. Subsequent questions were used understand how participants felt toward these type of transactions as they pertain to cheating and legality. This is an exploratory qualitative study, so I was not concerned with a large response rate or random sampling methods. As a result, my findings should be viewed as suggestive but not definitive.

In order to gather further qualitative data, I also used instant messaging and e-mail communication to ask questions specific to the participant. I used two different methods to find participants. I wanted to gather information from people related to the creation of MMO as well as players. To gather players I posted requests for participants in several forum sites associated with World of Warcraft (WoW). To reach developers of MMO games I used the MUD-DEV mailing list to post a request for participants. This method allowed me to get twenty-seven (27) web survey results and three (3) individual interviews. While the individual interviews were helpful, they did not provide any new findings on top of the general survey. This method of gathering participants is obviously not random, the sample size rather small, and the participants were mostly WoW players. For this reason, the results obtained cannot be generalized for the whole MMO community. I will attempt to analyze them and see if any findings can be made and possibly used to develop a more formal and in depth research study.

My online survey resulted in twenty-seven (27) valid responses. In calculating my results, several trends started to emerge when looking at the set of data from the participant type questions. As Chart 1 shows, 44% of the participants were between the ages of 23 and 30 and 81% were under 40. This is consistent with Nick Yee’s finding that the average Everquest player was 25.7. My study found an extreme inequality in male/female ratio as 93% of respondents claimed to be male. The next piece of data to look at is the distribution of players to game developers. 26% of the participants asserted that they were developers or MMO administrators, yet almost all of these also claimed to be players. The data shown in Chart 2 shows how long players have been playing MMO games. 70% of respondents claimed to have played for over 2 years. With this data, it will be possible to see if there are any trends that relate between these player categories and digital item transactions.

When looking at the questions relating to MMO digital item transactions, 100% were knowledgeable about the activity and 10 of the 27 participants had participated in such transactions. Then out of these 10, seven sold items, four bought, and one did both. The result that 4 out of 27(15%) bought items echoes Yee’s discovery that 9.7% of Everquest players have bought an item off eBay. While small, I feel that this distribution represents a discrepancy between the amounts of people who sell items between those who buy them.

The most common location for transactions was eBay and the items being transferred were mostly from older games like Everquest and Diablo 2. Results skewing towards games other then WoW may be related to the “newness” of WoW and the lack of known exploits. The most common item transferred was in-game currency, but accounts, weapons, items were also transferred. Since there appears to be a growing market for this, my results showing that three out of the four participants who bought items were satisfied supports the speculation that these transactions are not going away.

Three of four buyers of digital items were game developers. I found this data rather surprising because I originally thought that these people would oppose more than regular

\[11\] (Yee, 2001)
\[12\] (Yee, 2001)
players. This could relate to developers trusting eBay and other websites more than average player since they are knowledgeable about the technology. In the survey, the question about cheating was rather open-ended, yet I was able to minimize each response to a "yes" or "no" for quantitative purposes. When doing so, I found an interesting distribution of 50% who considering it cheating and 50% who do not. This finding lends support to my suspicion that this is a very polarized topic. The final topic to be analyzed quantitatively is the participants’ feelings toward their involvement in digital item transactions in the future. This data showed that up to 33% would buy a digital item if it was fully supported by the developer and 37% felt it was fundamentally unfair for those with less money and would never buy or sell a digital item.

Along with this quantitative data, there were some interesting opinions expressed in the qualitative questions. Opinions were diverse on the topics of "legally owning property," affecting the in-game economy, and cheating. When looking at the "fairness" of the statement in most MMO EULA’s that makes all data on the servers property of the game producers there was an overwhelming consensus between participants that this was fair. Some respondents stated that if players “owned” items it would create all sorts of legal trouble for the game company or that it is fair, but in no way enforceable. Very few felt it was unfair, but those that did thought that items were “earned,” so they should be property of the player. One respondent suggested a system of joint ownership where “the player [is given] limited rights to do with their character and items whatever they want unless explicitly banned” might work.

There were many different reasons that some respondents felt this to be cheating. The main reason people felt this to be cheating is that it gives an unfair advantage to players who do not earn items. And one participant deduced that it is officially cheating since it is prohibited by the developer. There were several different reasons for why it was not cheating from the mentality that "If you can't stop it, you may as well encourage it and make a profit" to the idea that people are only cheating themselves out of the true game experience. Some players felt that it would currently be considered cheating, but if issues with item dupes and farming were resolved then it would be a legitimate activity.

The final controversial issue was the impact of these 3rd party transactions on in-game economies. Many people felt that the main issue here was inflation of the in-game currency resulting from purchasers having excess currency. The most common reasoning for the inflation related to people realizing the potentiality for profits of farming and subsequently doing that instead of other activities. Half as many participants felt that it has little to no effect on the economy. This discrepancy can probably be accounted for by the generality of the question and people referencing different games.

When looking at these results there are several elements which can be used to help answer my original research questions. The presence of digital item transactions has increased in the past few years. Castranova’s survey as well as my research supports this. It is definitely not a majority of players, but an increasing amount. As well as player transactions increasing, developers are increasing support for them. This is supported by SOE’s launch of the Station Exchange. Right now this feature is currently being added on to current games, but this makes me believe that there will be games structured around this feature in the future. The existence of products like IT GlobalSecure’s SecurePlay product will definitely aid in implementing this feature. This program is currently being considered for future MMO games and seeks to stop “cheating during game play even if game source code is fully revealed.”

13 (SecurePlay)
themselves buying digital items in the future, even with developer support, I believe there will still be many games that will continue to lack this feature. However, it is ultimately the developer’s choice and convincing many players to play with this feature will lead to even more profits. MMOs have evolved in the past to increase in-game functionality to support actions which were previously forms of transformative play. Real money transactions are an increasingly popular form of transformative play in MMOs, so I suspect that it will be the next feature to be integrated in many MMO games from the start.

Some aspects of player feelings toward real money transactions were also derived from this study. As games are now, there is in not a consensus on whether it is cheating to partake in a real money transaction. This situation is comparable to the digital music sharing. These actions are officially prohibited by laws and contacts, but many players/people disregard them for several reasons. I believe it is partially because there is slim to no punishment and because players do not see it as ethically “wrong.” Another topic which had differing opinions was how these transactions affect the in-game economies. On this front, a significant amount of players realized that in some games these cause excess currency in-game and result in inflated prices of items. Other players felt that game economies were hardly affected by these transactions. This discrepancy could be a result of players referencing different game or a difference in knowledge about the subject. I feel that this is something which could be better analyzed by looking at statistics rather than player input. I was somewhat surprised at the result of participants’ opinions towards player ownership in MMO game EULA’s. I was expecting players to feel like they should be allowed to own what they have earned. On the other hand, a majority of participants understood that this was just a game and Blizzard/SOE has every right to retain legal property over elements of the game. With this knowledge, it would seem that most people who do these transactions understand that they are paying for a temporary use rather than actual ownership of the items.

As easy as it is to try and generalize my findings for all MMO games and players, I understand that my results represent a very small portion of MMO players and games. With that said, I do feel that certain trends seem plausible. There is clearly a presence of real money transactions of MMO digital items and a universal knowledge of their existence. This presence is not slowing down and appears to be increasing on several fronts. The amount of money transferred has possibly doubled in the past four years and acceptance by game developers increasing as well. New knowledge of how to prevent exploits and facilitate secure transaction are likely to promote such transactions in the future.

Despite this, a majority of people claim that they never will use this type of transaction. For this reason, I believe there will still be many MMO games around which lack, and will possibly even prosecute, this action. The debate on whether these actions are cheating is a gray area at the current time. As the MMO community evolves, games are likely to support them fully or shun them completely. If this happens, this issue will become clearer for players. The negative affects of these transactions on in-game economies would also be mostly curbed if they start to be regulated. As SOE’s implementation of the Station Exchange indicates, the issue of real money digital item transactions continues to be highly volatile.

14 For example digital mailing and auction houses are innovations initiated by players of previous MMOs.
15 “Transformative play is the concept of allowing players to get through a game in a nonlinear fashion, wherein the player's role shifts according to the current goals of the game.” (Welles, 2003)
Appendices

Chart 1

Ages

- 23-30: 44%
- 18-22: 22%
- 13-17: 15%
- 2-4 yrs: 22%
- 4-6 yrs: 15%
- 1-2 yrs: 11%
- 3-6 mos: 11%
- under 3 mos: 4%
- 50+: 4%
- 40-50: 4%
- 31-40: 11%

Chart 2

Time Playing MMO's

- 6+ yrs: 22%
- 4-6 yrs: 26%
- 2-4 yrs: 22%
- 1-2 yrs: 15%
- 3-6 mos: 11%
- under 3 mos: 4%
Online Survey

Digital Items Survey

A digital item is anything in an MMO game that can be carried, equipped, or learned by a character (poké, weapon, runaway, etc.). For this survey, it will also include whole character accounts.

Before you take this survey, please certify that you are

a) 18 years or older

b) have parental consent to enter the following information for research

by checking this box -----------

<table>
<thead>
<tr>
<th>1. Related to MMO Games</th>
<th>Player:</th>
<th>Developer:</th>
<th>Graphic Artist:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
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</table>

| 2. Age                  |        | 13-17     |               |
| 3. Sex                  |        | Male      |               |

| 4. How long have you been playing MMO games? | Under 3 months |

<table>
<thead>
<tr>
<th>5. Did you know it was possible to buy/sell characters, items, and money outside World of Warcraft and other MMO games for real money?</th>
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<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

| 6. Approximately, how much money have you spent on virtual game items outside of the game? | $0          |

| 7. Approximately, how much money have you earned from virtual game item sales outside of the game? | $0          |

<table>
<thead>
<tr>
<th>8. What locations (eBay, IG, etc.) have you done digital item transactions?</th>
<th>Location</th>
<th>Game</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bought</td>
<td>sold</td>
</tr>
<tr>
<td></td>
<td>bought</td>
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<tr>
<td></td>
<td>bought</td>
<td>sold</td>
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</tbody>
</table>
9. What types (currency, accounts, weapons, etc.) of items have you purchased/sold?

<table>
<thead>
<tr>
<th>Type</th>
<th>Game</th>
<th>bought</th>
<th>sold</th>
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10. On the whole, have you felt your purchases have been worth the money you spent?

- Yes
- No
- N/A

Explain here if your answer is not entirely "yes" or "no."

11. Do you see yourself ever purchasing a digital item in the future?

- Yes
- Yes, only if it is supported officially by the game developer
- No

12. Do you think it is cheating to sell digital items?

- Yes
- No

13. What sort of effects does buying and selling of digital items, outside of the game, have on the game economy?
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Did you know all data contained on the World of Warcraft servers is property of Blizzard Entertainment and cannot be bought or sold without the express written permission of Blizzard Entertainment?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>15. Do you think the policy described in the previous question is fair, or should the player own the property of his/her character? Why?</td>
<td></td>
</tr>
<tr>
<td>16. Would you buy/sell items/money in-game if it was fully supported by the developer(s) (i.e., Blizzard for WoW)?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>No, it gives an unfair advantage to players who can afford to buy stuff</td>
</tr>
<tr>
<td>17. Email (if you want to be contacted when project is completed)**</td>
<td></td>
</tr>
<tr>
<td>18. This survey has a World of Warcraft bias, so if you want to elaborate on your experiences in another game that differs from WoW’s treatment of digital items, have any comments about the survey or any other questions enter them here.</td>
<td></td>
</tr>
</tbody>
</table>
References


