

How to play the game?



Summary of the results of the MUD Player Survey

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Abstract of the Original Master Thesis

MUDs (Multi-User Dungeons) are the predecessors of the graphical MMOGs (massively multiplayer online games) or MMORPGs (adding RP for role-playing), but still continue to draw in players despite the popularity of the latter. Bartle (1996;2003) has argued that people play virtual worlds, because players want to have fun. What parts of the game bring fun to a player differs per person and Bartle distinguished between four different player types: the achiever, the explorer, the killer and the socialiser. Although these are widely known and used, several authors criticise this categorization and therefore this research attempted to test the typology by using empirical data. A fifth additional player type (the role-player) was added, based upon the findings of Yee (2006a). Furthermore it was deemed that online behaviour should have at least some root in offline personality, so the personality traits of the Big Five (extraversion, agreeableness, conscientiousness, emotional stability and openness to experience) were inserted in the online MUD player survey, held during May 2007, as well.

A principal component analysis was performed on the player type items and the four initial player types were reproduced together with the additional role-player type. Linking the components to demographics, MUD type, player characteristics and offline personality by doing several multiple regression analyses, it was found that offline personality leads to a significant improvement of the explained variance among the player types. Furthermore the player types seemed to be much related to the characteristics of the main type of MUD that they play. The findings were used to create a new model for player types. The different types of game and their subsequent playing style at the bottom, the achiever player type above that base, trying to advance within the specific MUD type and the explorer player type on top, looking for new ways to extract fun from the game, when achievement has been gained. This model has a lot in common with the hierarchical player categorization of Hedron (1998) and links Bartle, Yee and Hedron into one model.

1. Introduction

The MUD player types survey, held during May 2007, led to a great amount of respondents. An overwhelming amount of 1824 surveys were returned. 1741 remained after removal of dubious cases. These 1741 cases have been used for the following results. Paragraph 1.1 will deal with the demographics submitted by the respondents, paragraph 1.2 will deal with playing styles and paragraph 1.3 will link the playing styles to the offline characteristics of the Big Five. A note of caution needs to be mentioned, because the data are collected in a multi-stage manner (an email sent to administrators, asking them to put it through to their player base). This could have influenced the data, because it is impossible to see if the players of different MUDs that responded are a good sample of all MUDs and their players. These multi-stage problems should be kept in mind throughout the complete chapter.

1.1 Descriptive measures of the complete sample

Almost a quarter (24.1%) of the sample is female. The average age is a little over 28 with a range from 13 to 67. Women playing MUDs are significantly older than the men that play MUDs. Nearly forty percent (39.4%) indicates to be married or cohabitating and almost twenty three percent (22.8%) indicates to have children. Given the average age of over twenty eight, this is hardly surprising. Over seventy percent (71.0%) is working on or has finished a higher education. Nearly twenty four percent (23.7%) lists a secondary education as their highest completed or current education.

People have been participating on MUDs for an average of almost 9 years with a range of 0 (probably due to playing less than a year) to 30. Also the age that people started playing varies widely with a range of 8 to 58 and an average age of a little over nineteen. Almost everyone (94.4%) indicates to be a player occasionally, but almost a third of the sample (31.9%) indicates to be more active on a MUD than being a mere player, for instance

as a builder or coder. Mere players spent a significant amount of years less on MUDs than more active players (the means differ almost one year). There is no significant gender difference between mere players and more active players, but more active players spent a barely significant amount of hours more on MUDs than do mere players.

Table 1.1: Average amount of hours spent on a MUD divided for occupational status

Occupational Status	%	Average Playing Time
I work full-time	56.5	17 hours and 31 minutes
I am a student	26.1	18 hours and 46 minutes
I work part-time	8.3	22 hours and 22 minutes
I am retired	0.9	25 hours and 11 minutes
I am a homemaker¹	4.0	27 hours and 16 minutes
I am unemployed	4.1	30 hours and 20 minutes

People, on average, spend an awful lot of hours on their MUD(s): Over nineteen hours a week. Moreover, almost fifteen percent (14.8%) report playing more than thirty hours a week with values as high as ninety and hundred hours a week. Women, on average, significantly spend more than three hours more on MUDs than men. Almost seventy two percent (71.8%) are loyal players to one single MUD, but respondents indicating playing multiple MUDs report a significant four hours more of playing. More than half of the players (56.5%) mention being employed full-time and over a quarter of the sample (26.1%) indicate to be in full-time education. When occupational status is taken into account, the time spent in the game increases when players have less time-consuming responsibilities. It seems that the more free time available at home, the more time is spent on playing MUDs. Table 1.1 gives the mean amount of hours spent on the game, split out by occupational status.

Table 1.2: Top ten of most mentioned MUDs in the sample, with their associated properties.

Name of the MUD	%	Role-Playing	Player-Killing
Gemstone IV	24.2	encouraged	Yes
DragonRealms	16.5	encouraged	Yes
BatMUD	8.5	accepted	Restricted
Discworld	6.4	accepted	Restricted
Dark and Shattered Lands	3.3	enforced	Yes
Armageddon	2.6	enforced	Yes
Arctic	1.8	accepted	Yes
TorilMUD, the Sojourner's Home	1.7	encouraged	No
Solace	1.1	encouraged	Yes
Ironclaw Online	1.0	enforced	Restricted

¹ The question in the survey about occupational status did not use "I am a homemaker", but "*I am taking care of my family and/or home.*"

The respondents listed an overwhelming amount of 244 different MUDs, although seventy six percent of the respondents come from only twenty MUDs. The rest was mentioned by less than ten respondents per MUD. This is probably an effect of the multi-level problem. Some administrators were enthusiastic and managed to motivate their player base to participate, others MUDs hardly participated or have a very small player base to start with. The ten most mentioned MUDs are listed in table 1.2 with the percentage of the total and along with their associated properties on role-playing and player-killing.

To be able to classify the mentioned MUDs, these MUDs were matched with their listed properties on the MUD connector (www.mudconnect.com). Of these 244 MUDs only seven classify themselves as educational, and ten could be classified as a social MUD by their theme. This is probably due to non-response. Several administrators replied the request email with the notion that their MUD would not apply to the player types or Bartle, or found the items not enough related to their own MUD. This was mostly the case for socially oriented MUDs. So unfortunately, these only account for 1.5% of the respondents and it will therefore be hard to control for those during the player types results (paragraph 1.2). 161 of the 244 MUDs (66.0%) are listed as an encouraged or enforced role-playing MUD and cover 73.6% of the respondents. 89 out of 244 MUDs (36.5%) classify themselves as unrestricted or pure player-killing MUD, accounting for 62.3% of the respondents.

Table 1.3: Division of respondents per country and MUDs per country

Rank	Country	# of resp.	%	# of MUDs	%	(Rank)
1	United States	1233	70.8	178	73.0	(1)
2	Finland	103	5.9	3	1.2	(6)
3	Canada	85	4.9	14	5.7	(2)
4	United Kingdom	85	4.9	14	5.7	(2)
5	Australia	46	2.6	1	0.0	(10)
6	The Netherlands	25	1.4	7	2.9	(4)
7	The Russian Federation	19	1.1	3	1.2	(6)
8	Sweden	17	1.0	3	1.2	(6)
9	Germany	14	0.8	5	2.0	(3)
--	Other	114	6.5	16	6.5	(-)

Of the 244 MUDs mentioned, there are 178 MUDs (73.0%) that have their geographical location in the United States. Therefore it is not really surprising that the majority of the respondents comes from the United States (71.2%). Second in number of respondents is Finland (geographical home of BatMUD) with 5.9 percent. The respondents come from 49 countries in total and those are closely related to the number of MUDs that have their geographical location there. Table 1.3 shows the top nine of the mentioned countries in the survey together with their associated number and percentage of

respondents. Also in the table are the number and percentage of MUDs that have their geographical location in that country. These two numbers show a rather similar picture. There are only three countries that seem to diffuse the ranks and those are Finland (due to the large amount of Finnish players of BatMUD, which has its geographical location there), Australia, which has only one MUD listed but seems to have a very ‘scattered’ player community and Germany, which has five MUDs listed, but just some players, which might be a language issue, although this remains to be seen. In correspondence to this, there are several Russian MUDs listed on the MUD connector (www.mudconnect.com) that indicate Russian as the main language. The relation between geographical home of the MUD and the nationality of the players is an interesting topic, moreover because the internet should cross geographical borders and therefore this might be a nice indication for further research. For this research it was rather irrelevant.

When running the frequencies of the Big Five items (see table 1.4) some interesting findings appeared. Because all the respondents are MUD users, it might be interesting to see which these are and try to explain why MUD users consider themselves scoring either high or low on these. On first glance the items related to ‘agreeableness’ and ‘intellect, openness, or imagination²’ seem to score highly skewed towards the positive side. Agreeableness might be a useful trait to be a structural participant of MUDs, since you will always encounter other people online and you will need to know how to get along with them. The factor openness is hardly surprising to be found in MUD players, who need to form a picture of what they are doing inside their head from a purely text-based input. A critical note must be made about this, though, because other variables (for instance, the high amount of highly educated respondents) could be related to this skewedness.

Table 1.4: The Big Five Factors and their associated items.

Big Five Factor	Positive Items	Negative Items
Extraversion	Talkative, Extraverted, Bold, Energetic	Quiet, Bashful, Withdrawn
Agreeableness	Sympathetic, Warm, Kind, Cooperative	Cold, Unsympathetic Rude, Harsh
Conscientiousness	Organized, Efficient, Systematic, Practical	Disorganized, Sloppy, Inefficient, Careless
Emotional Stability	Unenvious, Relaxed	Moody, Jealous, Temperamental, Envious, Touchy, Fretful
Openness to Experience	Creative, Imaginative, Philosophical, Intellectual, Complex, Deep	Uncreative, Unintellectual

² For matters of ease ‘openness’ will be used from here onwards for the ‘intellect, openness, or imagination’ factor.

1.2 Playing Styles

Part B of the survey was intended to measure playing style and the items were based upon Bartle's (1996) typology in combination with the immersion motivation that Yee (2006a) found in his research (for specific theory and items, see the full thesis). The same items that were previously intended to cluster together, related very well to each other and created reliable scales for the subjectively named achiever type (7 items), role-player type (7 items), griefer³ type (6 items), socialiser type (6 items) and explorer type (also 6 items). An overview of these player types and their associated traits can be found in table 1.4. One of the most important findings is that the explorer type *does* come up, although Yee (2006a) could not reproduce it in his earlier research on MMORPGs. This might be linked to the expectation about the more available opportunities for advancement within MUDs and the ease of creating something with text. It could be easier to advance in MUDs than in MMORPGs.

Table 1.5: The five resulting components and associated traits.

Player Type	Associated Traits
Achiever	Power, collect items, rise in levels, rating lists, competition
Role-Player	Role-play, importance of story-(lines), immersion, in-character play
Griefer	Causing distress, killing, domination, imposition, competition
Socialiser	Meaningful talk, know players, group up, communicate, help players
Explorer	Find bugs/secrets, know game mechanics, show knowledge

1.3 Colouring the Picture: Who are the people behind the player types

It is nice to know that the items can be structured in the way as displayed above, but it would be even better to know which persons fall into these playing styles. Statistical analyses were performed to relate the player types to demographics, player and MUD characteristics and offline personality. For the full analyses see the full master thesis. This summary will suffice with a description per player type.

1.3.1 The Achiever

Men seem to be more of the achieving type than women and this is also the main predictor for the achiever. This seems compliant with the somewhat stereotypical view of men as

³ The name of griefer instead of killer seems to suit better to the items loading on the component. This is analogous to the term that Foo & Koivisto (2004) use and even Bartle (2003) agrees with the unfortunate name of killer since it does not always involve the actual killing of other players.

achievers and women as caretakers. Age also affects the achiever significantly, with younger people scoring higher on achievement. Having children does have a small positive effect on achievement, but this is not significant. Marital status and having a higher education are very much insignificant. Looking at player characteristics, achievers significantly spend more hours playing. The effect might be the other way around as well though: if you want to achieve something, you will need to invest time into it. Being more than a mere player is also significant with mere players more likely to be an achiever. This is not surprising, because advancing is mainly a matter of the players and not of builders or administrators. The experience on MUDs or playing multiple MUDs have small effects, but are not significant.

For MUD characteristics it can be seen that playing role-playing and social MUDs have a rather large negative effect on being an achiever. It seems that these MUDs do not promote achievement very much. The social MUD variable is not significant though. This is probably due to the small amount of social MUDs in the sample. Playing player-killing MUDs is significantly and positively linked with achievement. This is hardly surprising since player-killing creates competition. Also the insignificance of playing educational MUDs is hardly surprising since those are targeted at learning and not advancement. Overall gender and age predict the most of the variance in the achiever type, with the type of MUD (RP and PK the most) as runner ups. This model explains about eleven percent of the variance.

Achievement seems to be linked to almost all personality traits, except openness. Gender stays the main predictor, but conscientiousness and emotional stability are second and third in place. Conscientiousness is obvious, since it is all about reaching goals as is being an achiever. Emotional stability is harder to explain, although a possible explanation could be that achieving ensures some sort of base or drive to provide a schedule and a goal, keeping the negative thoughts out. Another might well be that the negative people unconsciously search out failures and therefore try to achieve with no success. The real explanation can not be provided given the nature and scope of this thesis, but this might be an interesting question for further research. Extraversion and agreeableness are also significantly linked, although agreeableness just barely. A typical achiever will be less agreeable, which is not really surprising. Furthermore an extravert will look into new and exciting experiences and achievement can provide that, given that it is linked to competition. The insignificance of openness is logical, since figuring out how things work or imagine the story behind it, does not score points. The explained variance for the earlier model improves with the offline personality traits added in, now being almost 15%, which is not bad for the social sciences.

1.3.2 The Role-Player

Again gender is a significant and important explaining variable, with more women being a role-player than men. Age is the second most important of the demographic variables, but has just a small effect and is not statistically significant. Marital status, having children and being higher educated are also not significant. These real life demographics might not have much influence on someone focused on immersion in a MUD. Also the player characteristics predict insignificant parts of the variation. Only being more than a mere player is positively related to the role-player. This could be related to the creation of role-playing content (i.e. builders and administrators), since making up storylines is one of the items.

The main explanation for the role-player type is the players of role-playing MUDs, which is of course not surprising. If you play an encouraged or enforced role-playing game, your score on the role-player component goes up by more than six, which is on average almost a full point on the seven items that are related to role-playing. Educational MUD is also significant, but negatively related to the role-player. This is obvious, because educational MUDs are about learning things for real life from a virtual environment instead of immersion in that MUD⁴. The biggest predictors for the role-player are playing a role-playing MUD and gender. The small amount of significant variables nevertheless explains almost 32 percent of the variance in the role-player type.

Adding the big five factors to this model, only conscientiousness and openness are significant, with the openness factor being among the most important predictors. This could be due to role-playing involving the imagination and openness to experience to be able to *be* the character. The conscientiousness factor is also important and this could be linked to self-restraining. The goal is to stay in character and being efficient and doing this systematic will probably work better than if you would play in a careless manner. The fact that extraversion is not significant, hints that the link that Bartle placed between socialising and role-playing is none-existent, or at least weak. Emotional stability and agreeableness are not significant either, although agreeing with other players or at least with their idea of the story or character could have been. Emotional stability is another issue, for fleeing into an online character or story could save some real life stress. But the insignificance of it clearly supports Yee's (2006a) finding of two separate motivations for immersion (role-playing) and escapism (fleeing real life). An interesting variable is years playing, since it is significant with the personality added in, while it was not before. The more years you have been playing, the less likely you are to be a role-player. This model also explains more variance than the one without the personality factors and it goes up from the already impressive 31.9% to 36.2%.

⁴ The fact that playing an educational MUD relates to role-players *significantly*, clearly states the importance of this variable, given the small amount of educational MUDs that were in the sample.

1.3.3 The Griefer

Yet again, gender plays a significant role in grieving with men scoring higher on the griefer factor than women. Although this seems plain and could be linked to the stereotypical view about men using violence and women using more covert ways of persuasion and manipulation, the griefer type as a concept should cover both behaviours. Age is the most important explaining variable, with younger players scoring higher on grieving than older ones. Stereotypes about the aggressive younger gamer should fit the griefer type. An interesting predictor is the having of children. Of course this could be moderated by other variables, but on the whole, people with children score higher on the grieving factor, controlled for all other variables. For player characteristics, hours spent playing and years playing are both significant, but have a rather small effect compared to age and gender. The effect of MUD experience, as measured by years playing, together with age links to the first stage of the “career path” mentioned by Bartle (see the full thesis). Being more than a mere player is also significant. So having advanced in the game could lead to more grieving. This could be linked to having a powerful position with the means to execute grieving in another way. Of course it would be wrong for administrators and other immortals to abuse their position.

The type of MUD, either role-playing or player-killing is an interesting one, with player-killing MUDs scoring high on grieving and role-playing MUDs scoring low on grieving. Player-killing is very much linked to grief behaviour and the competition on those MUDs leads to competition and negative feelings to other players. Role-playing MUDs are more about the story instead of about annoying and imposition upon other players. The fact that so many demographic and player characteristics are significant is compliant with the player axis of Bartle’s model. Players are more important in this respect and with age and gender as the main predictors, this model explains almost 15 percent of the variance in grieving.

The most notable change when adding the Big Five is the explained variance of course, which nearly doubles by adding them. This is not really surprising, since the killer’s business is annoying people, and although they do it in the game, it is based upon real people. The more statistical explanation is that there are four Big Five factors with a significant influence. Negative agreeableness seems to be the main predictor in this. Of course this is obvious, because annoying players and being rude and unsympathetic is the way of the killer. Next to gender and age, extraversion is also an important predictor and again this is no surprise, since you need to dare to talk to players and people and be just plain bold on the whole to be able to create havoc and grief. Openness is related to this as well. Bullying people in the same way every time will be boring and being inventive about it might relate to fun. Emotional stability is negatively linked to the griefer player type. So being less emotionally stable will result in more griefer behaviour. This could be about a reaction on

negative experiences in real life. People might be compensating the negativity of real life by bullying others when they are online. Another interesting finding is that the player characteristics are less explaining, when the five personality traits are added to the model. Hours spent playing and being more than a mere player are not significant any longer. The exact reason for this can only be guessed.

1.3.4 The Socialiser

Gender is again important, being the second important predictor. Women are more likely to be a socialiser than men. This seems to fit the stereotype, of course. Age is also significant, but barely. Younger players are a little more sociable than older players. This could be due to younger people being less afraid to make contact with other players through the new media. The other demographic variables are nowhere near significant, although marital status and children could have been good predictors in theory. The hours spent playing is just barely significant, with socialisers spending just a little more time on the MUD. Being more than just a player predicts a larger amount and is highly significant. This is hardly surprising when looked at the responsibilities of administrators and immortals towards the player base. They should be social towards their player base and mostly do not have to bother with playing themselves. Experience in years or playing multiple MUDs are insignificant for the socialiser.

The main predictor for the socialiser is the not playing of player-killing MUDs. Of course, this is not surprising since player-killing is quite the opposite of socialising. The negative and significant effect of playing educational MUDs is very interesting, because an educational MUD would be about socialising and helping other players to learn something. It might be caused by the item about grouping up, since that might not be available on educational MUDs. The almost significant score for playing social MUDs (again probably not significant because of the small amount of associated cases) is not surprising at all. Social MUDs will cherish socialising. All in all, this component is the least explaining regression model of the five with an explaining variance of only 6.7%. The main predictors are *not* playing a PK MUD, gender and being more than a mere player.

The socialiser also relates a lot to the personality traits and leads to an increase of over thirteen percent, making it a very good predictive model for the social sciences. Even all the Big Five factors are significant. Extraversion and agreeableness seem logical traits to have when being a socialiser and this is confirmed with them being the main predictors in the model. An open mind also comes in handy when dealing with players that you do not know well yet. Conscientiousness and emotional stability are both negatively related to the socialiser, which is not really surprising. Emotionally unstable persons want reassurance and socialising could be the way. Also the goal-oriented view of conscientious people could leave less room for mere socialising, leaving the players that score lower on the trait to be more

socially oriented. Playing an educational MUD and age have lost their significance in this newer model. This could be congruent with players of educational MUDs playing for their own personal incentives rather than not wanting to socialise. The fact that age lost its significance might be due that socialising is of all ages, controlling for personal traits.

1.3.5 The Explorer

Women seem less likely to become an explorer, as are older people. This could maybe be linked to the stereotypes about women not being technical, since the explorer type has items about bugs and game mechanics. Also the show off of knowledge is part of the explorer and therefore more related to the stereotype of the man. Other demographic variables do not seem to predict very much, given the fact that the effects are rather small and insignificant. The player characteristics explain more of the variance it seems. Although experience is only barely significant, the hours spent playing and being more than a mere player are highly significant. The first relates to the time that is needed to explore the game in all its facets and the latter relates to the fact that the depth of the MUD and the dealing with bugs and game mechanics might be more interesting to advanced players like builders, immortals, administrators and coders. They are concerned with the MUD as a whole, and bugs lead to trouble.

Only playing role-playing games is significantly related to the explorer. A player of such a role-playing MUD will less likely be an explorer. This might be due to the fact that role-playing is about the story and not about the world itself. It does not matter how many secrets you find or to know the game mechanics. The experience of immersion will be much more important. Overall, the demographics and being more than a mere player predict the most of the variance in this model, while this model explains just barely over ten percent of the variation.

Adding the Big Five to the model, the main explaining factors seem to be gender (men are more likely to be explorer) and the additional factor of openness (higher scores are more likely to be explorers). This last is not surprising. The name associated with high scores on openness was explorer and an open mind is the way to explore. Exploring is about the discovery of new areas and new content. You have to be open to new experiences. Almost all big five factors are significant (except for extraversion). Next to the above mentioned openness, conscientiousness is positively related. A systematic way of exploring might be the most successful. Emotional stability and agreeableness are negatively related. The first might be related to the 'attraction' of negative experiences that a lower emotional stability might cause. Exploring might be highly trial and error and negative experiences just happen that way. A lower score on agreeableness leading to a higher score on exploring is hardly

surprising though, because doing things differently than others, just to see what it will bring, needs people that do not rely on the standards that are supplied by the masses.

1.4 Overall Discussion

The only demographic variable that is significant for all player types is gender. Men are more likely to be achievers, griefers or explorers, while women are more likely to be role-players or socialisers. Age is significant in almost all player types, except the role-player. It has the biggest effect on the griefer. An interesting finding is that all age effects are negative. This indicates that younger players are more likely to adopt either one of the playing styles. A possible explanation could be in hours spent playing, which shows the same significance per player type. A single linear regression of hours spent on age reveals that this is not the case because the explained variance is just 1% and the coefficient is not significant. The effects of marital status and having a higher education are never significant or even come very close. Having children is only significant in the griefer player type. A possible explanation is the fact that parents become more competitive again when they have children.

For the player characteristics the main predictors are being more than a mere player and the hours spent playing. Being more than a mere player influences the player style, but only achievers are more likely to be mere players. The effect of being more than a mere player is strongest in the explorer. All player types spent more hours in the game, but this is strongest for the explorer as well. Years playing is only significant for the explorer and the griefer. For the explorer this is not surprising, because a newbie will hardly start to explore the width and breadth of the MUD. A newbie will be more concerned with learning the basics. The significance of experience for griefers might stem from an air of 'I am powerful, because I have been here forever and therefore I can bully all other players'. This seems quite the opposite from the huge negative age effect for griefers. The young, but experienced players seem to be very likely to impose themselves on their fellow players. Playing more than one MUD seems not to affect any player type.

The type of MUD seems to predict several of the player types. Role-playing MUDs and player-killing MUDs are the most predictive, but this is hardly surprising given the small amount of educational and social MUDs in the sample. Nevertheless playing an educational MUD is negatively related to both the role-player and the socialiser and playing a social MUD comes close to significance on the achiever (negatively) and the socialiser. Educational MUDs do not attract role-players it seems, which is not surprising given the fact that educational is rooted in real life and role-playing is about immersion in another world. The fact that playing a social MUD predicts the socialiser, but playing an educational MUD does

not, is probably due to the fact that social MUDs are about socialising to begin with, while playing educational MUDs are about personal education and less related to socialising. Playing a role-playing MUD predicts being a role-player, which is hardly surprising, all other player types relate negatively with the role-player. Role-playing MUDs might harbour different player types, but those do not correspond much to those of Bartle. Playing a player-killing MUD predicts the griefer and achiever positively and the socialiser negatively. This is hardly surprising. Playing a PK-MUD is about competition between players, which relates to achievement. The negative link with socialising is because of the opposite nature of grief play and making friends.

Extraversion is linked to the socialiser and griefer, which are not surprising given their player component. Next to this it was also related to the achiever. This might be related to Hedron's (1998) "prove mastery" circle in which players want to show their mastering of the game by either helping (socialiser) or killing (griefer). Agreeableness was skewed a little to the right to begin with. Nevertheless it was significant in four of the five player types, with it having a negative effect on the achiever, griefer and explorer and having a positive effect on the socialiser. These are not surprising. A socialiser needs agreeableness in order to keep the peace between his/her friends. Griefing is exactly the opposite and with achievers striving to reach their goals, they will have to follow their own path most of the time. Explorers are interested in the game mechanics and such and think they know how it works. This attitude may not be appreciated by all.

Conscientiousness, being related to goals and keeping an eye on the overall pattern should relate to the achiever and explorer. In that it does hold, since both have a significant effect according to the regression analysis. The fact that the socialiser is negatively related to conscientiousness is probably because socialising is less goal-oriented. The only surprise might be the role-player that is negatively related to conscientiousness. This could be due to the fact that when you cannot hold the overall view you immerse yourself more in the game and your character. Emotional Stability is negatively linked to all player types, only with the role-player it is not significant. Negative experiences seem to happen to anyone and not just to a single player type. Only maybe the victims of killers, but those could be of any player type. Why it has no significant effect on role-players, remains the question. Maybe this is due to their view that they play in a story and can relate the negative feelings towards the story instead of themselves. If this is the case should be seen in further research.

The last big five factor was deemed the most important one for MUD players. The overall distribution was skewed to the right to begin with, supporting that you need a highly creative and open mind to immerse yourself in the text-based game world. The analyses for the player types reveal that it plays an effect in almost all player types. Only achievers are not predicted significantly by openness to experience. This might well be a side-effect of the

achievement motivation. When you are trying to gain status you will use the known and sure ways and you will not try out the new and uncertain ones, unless the rewards could be extraordinary.

Overall, the player types can be explained to a certain extent by the demographic variables and MUD and player characteristics., with the most success on the role-player with an explained variance of 31.9%. This is quite exceptional in social research. The other values, 14.5% for the griefer, 11.1% for the achiever, 10.5% for the explorer and only 6.7% for the socialiser, are more realistic scores, although the explained variance for the socialiser is rather low. Adding the Big Five personality factors lead to an increased predictive quality, though, with even higher explained variance. This enables the conclusion that the player types are in a certain way related to the offline characteristics of the person. As can be seen in table 1.6, listing the increases in explained variance (which were all significant), especially the player oriented player types of Bartle's interest graph (griefer and socialiser) were much better explained by adding the personality traits.

Table 1.6: Increases of the explained variances (R^2) for the initial models and the additional models.

	Initial R^2	R^2 with Big Five	Increase
Achiever	11.1 %	14.6 %	4.5 %
Role-Player	31.9 %	36.2 %	4.3 %
Griefer	14.5 %	28.5 %	14.0 %
Socialiser	6.7 %	19.9 %	13.2 %
Explorer	10.5 %	14.5 %	4.0 %

Overall, the player types could be found and they could be explained by using demographic variables, MUD and player characteristics and the Big Five personality traits. The links between the type of MUD and the player types seem very much apparent and therefore type of MUD might have more influence in which player types inhabit a specific MUD than that different player types can be found on any MUD, like Bartle (1996) proposes. In the concluding paragraph a new model will be proposed based upon the above findings.

1.5 Towards a New Model

This research was heavily guided by Bartle's typology of the four playing styles and subsequent research that criticised it. It set out to reveal which types of behaviour could be

clustered together to form specific player types. The analysis revealed that five clusters of items could account for more than fifty percent of the variance among the items, and surprisingly fit the five anticipated playing styles.

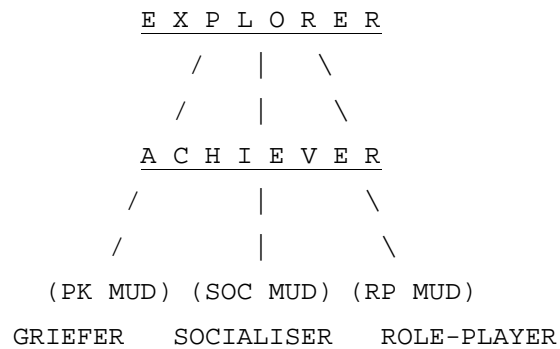
The achiever matched with five of the intended items and also with two additional items: one that was supposed to match the explorer (finding new ways to level) and one supposedly linked to the griefer type (competition). The griefer also linked all items nicely to it. For the anticipated socialiser player types, all six intended items fell into the socialiser category, but helping others was also somewhat negatively linked to the griefer player type. The additional role-player playing style items were neatly clustered after removal of the low-correlation items “I like to try out new roles” and “I think that realism in the game is important”. This seems to indicate that Yee was right in assuming that there should be a role-playing motivation, or at least player type. The explorer was found as well, reproducing six of the initial nine items, after removing two very low correlating items. Surprisingly those were “*I like to explore all the areas in the game*” and “*I like maps, charts and tables with information about the game*”, which seem very basic items for the explorer. It seems that the explorer is a more complex character, which is also closely linked to the achiever motivation. Bartle indicated that the explorer would start exploring the breadth of the MUD (the map and areas) before moving on to its depth (the game mechanics and bugs in the game play). It seems that the breadth of the MUD does not concern the explorer types and that depth is much more important.

Since these five player types came up, it might be good to revisit the model of Bartle that was explained in chapter 2 of the full thesis. Although the model provides a clearer picture of the playing styles displayed upon two axes, it seems to have very little specific value. As proposed in paragraph 2.5 of the full thesis, based upon the immersion motivation and lack of evidence for the explorer, the picture could maybe be enhanced by replacing the explorer with the role-player as interacting with the world (or story). Now that this thesis finds evidence for both the role-player *and* explorer, it becomes a lot more difficult. The explorer player type as found in this research has virtually no correlation with the role-player. In fact the role-player has the highest correlation with the socialiser type, which links back to Bartle placing the role-playing component under socialiser. Nevertheless, the lack of significance in extraversion for the role-playing could indicate the other opposite. So should we put the role-player in between the socialiser and explorer on the interaction axis? This seems not to make sense, even more if we look at the other correlations between the components as well. As mentioned above the explorer and socialiser are both correlated to the achiever. So should we move the socialiser up in the model, higher on the acting axis? Or should we take it away from the player end of the axis? Or does the achiever have less to do with the

specific game, should we center that one? This last line of thought makes even the most sense, since achieving is different per game type.

When we look at the explaining variables for the player types we gain even more ground for this approach, since the type of the game that players tend to play seems to work out in the playing styles displayed. Whether the game influences the player or vice versa remains to be seen, but the fact is that role-playing is greatly explained by playing a role-playing MUD, that grieving is explained by using a player-killing MUD, and although the number of social MUDs has been small in the sample, there was some evidence that playing a social MUD predicted socialiser. So we have three game types and player types that seem highly linked. Then we have an achiever that wants to achieve whatever the game goal is and then we have the explorer, which wants to have an in-depth knowledge of the world. This also matches with the findings that being more than a mere player is positively linked to all player types, except the achiever. If we try to put this into a model, it would look like the one displayed in figure 1.7.

Figure 1.7: A new model for the player types



If seen in this way, it shows similarity to the hierarchically ordered player types of Hedron (1998), with the “beating the game/excel” and “proving mastery” circles relating to the achiever player type and the “seeking new challenges” and “all is one” circles relating to the explorer. The lower circles of survival and competence could be linked to the different types of games, with the newbie’s adapting to the game or newbie’s looking for the game that they want, before they start playing for real. This lends more strength to the hierarchical approach in general as well.

It seems that the kind of game is very much providing the base of this model, instead of specific player types. This allows for a comparison between this and the interest graph of Bartle presented in chapter two. At first glance this interest graph has some similarities with the realms of experience from Pine and Gilmore (1999, p.30). Pine and Gilmore argue that

the more realms targeted the richer the experience. This is analogous to Bartle promoting the pursuing of a balance between the player types, more over if we take the above model in account. If the base provides the realms of fun for Bartle, the combination of role-playing, player-killing and socialising might provide a rich game. Also a rich game would provide more interesting options for players that have reached the “seeking new challenges” stage of Hedron and start exploring the full scope of the MUD as explorers. This would prevent them from choosing the eighth option: finding another game. More research about the type of games should be conducted to verify this claim, but it sounds plausible.

The base of the model with different MUDs lead to achievers wanting to advance in the game and every type of MUD provides different goals, but achievement is possible in every game. As Clodius (1994, in Bartle,1996) claims: *“Social MUDs do have their achievers, too: people who regard building as a competitive act, and can vie to have the ‘best’ rooms in the MUD”*. Finally, players will reach the state of the explorer, in which people are experimenting with aspects of the game that they did not know yet. The model provides a rich base full of players and just a smaller and smaller cone reaching up towards the explorers. This also fits Bartle’s notion that explorers are hard to find and if you have them, you need to keep a hold on them. Combined with Bartle’s criticism on the commercial MUDs and MMOGs that fail to invest in the ‘dedicated’ player base, this might explain why Yee did not find the explorer. In MMOGs they have a very large player base, but the opportunities to “make a career” are mostly not provided, leaving only the last option of Hedron’s challenges circle: finding another game.

1.6 Recommendations

After the presentation of this new player types model, it would be good to go back to the start of this thesis and see what can be learned. The main research question was about finding different online playing styles and to see if they could be explained by offline characteristics. The two subparts of this question have both been dealt with. The main goal of this thesis was to find a categorization for different types of playing styles. This has been successful and it even lead to a preliminary new model, although this model should be tested and validated thoroughly first in further research. The goal to match online with offline was also successful. Personality is not the only offline characteristic of players, but it is an important one. Specific further research on these links between player types and offline personality should be conducted, because in this research the personality was merely like an independent variable in explaining playing styles.

One of the pitfalls that was discovered in this research was about the social MUDs. Although it was known beforehand that there were social MUDs around and the items were designed to be as general as possible, still they seemed to be very much game-like. As mentioned in chapter three in the full thesis some administrators indicated that they did not think that their MUD fit the description and even if they started answering they found out that it was hardly related to their own MUD. A new research about this subject should be designed with more focus on social and educational MUDs to prevent the community from staying divided as it seems to be now.

As this research was exploratory in its approach, real causal explanations are hard to make. Further research will be needed to back up the claims made in this thesis. The player types model presented seems an improvement on the old model, grounded in empirical data and also linking it to the hierarchical player categorizations and to more unrelated research, like the experience economy. The real challenge, however, will lie in proving or disproving this new model. Furthermore the link with offline personality traits will need to be investigated further. Although they predict the playing styles, the exact reason and origin of the links between some traits and player types is hard to make out by the data provided in this study. Subsequent research should concern itself with validating the presented player types model and causal analysis of the links between offline traits and online behaviour. This thesis can therefore be used as a guide.

References in this Summary

Bartle, R. (1996). Hearts, Clubs, Diamonds and Spades: Players who suit MUDs. *Journal of Online Environments*, 1 (1). Retrieved January 11, 2007, from <http://www.brandeis.edu/pubs/jove/HTML/v1/bartle.html>.

Bartle, R. (2003). *Designing Virtual Worlds*, Berkeley, CA: New Riders Publishing

Hedron (player pseudonym) (1998). *The Six Circles of the Adept Game Player*. Retrieved June 9, 2007 from <http://www.falseprophecies.com/sixcircles.htm>.

Pine II, B.J. & Gilmore, J. H. (1999) *The Experience Economy: Work is theater & every business a stage*. Boston: Harvard Business School Press.

Yee, N. (2006a). The Demographics, Motivations and Derived Experiences of Users of Massively-Multiuser Online Graphical Environments. *Presence: Teleoperators and Virtual Environments*, 15 (3), p. 309-329. Retrieved January 9, 2007, from <http://www.nickyee.com/pubs/Yee%20-%20MMORPG%20Demographics%202006.pdf>.

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