The Daedalus Project

by Nicholas Yee

**Gaming with Romantic Partners and Family Members**

On average, about 60% of female players (N = 312) and 16% of male players (N = 1592) play the game with a real-life romantic partner. The gender difference is expected and is a function of the ratio of men and women playing the game (about 5:1), although a small proportion may be attributed to same-sex romantic partners. Even so, knowing that up to 2/3's of female players are not playing the game alone is important, because this probably influences their game-play patterns, and this has to be kept in mind when trying to explain gender differences in in-game data. The following graph plots the percentage of players who play with a RL romantic partner across gender and age groups.

Play Game with a RL Romantic Partner (by Age Group)
N male = 1580, N female = 310
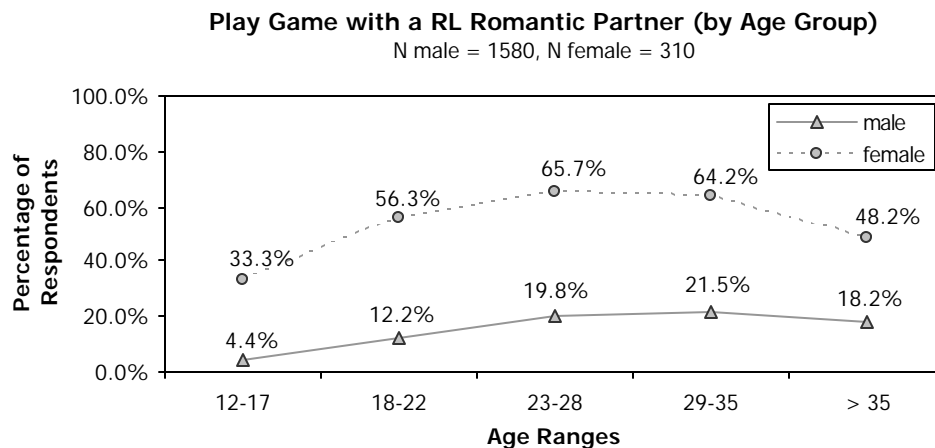
And the following graph shows how frequently the respondents grouped with their romantic partner.

## Do You Play with a RL Romantic Partner?
N male = 1580, N female = 310
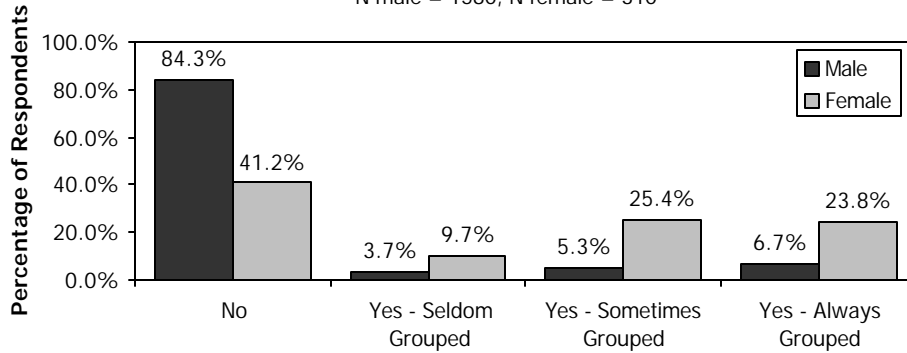
Respondents who played with a romantic partner were not more likely to spend more time playing the game, but they were more likely to indicate a greater willingness to stay with the game when compared with players who do not play the game with a romantic partner. When asked how long they projected themselves to continue playing the game, about 50% of players who play with romantic partners (N = 447) indicated they would continue playing the game indefinitely, while only 32% of players who do not play with a romantic partner (N = 1464) chose that option.

The same questions were asked with regards to playing the game with a family member. In this case, an average of about 40% of female players and 35% of male players indicated that they play the game with a family member. The following graph plots the percentage against the gender and age groups.

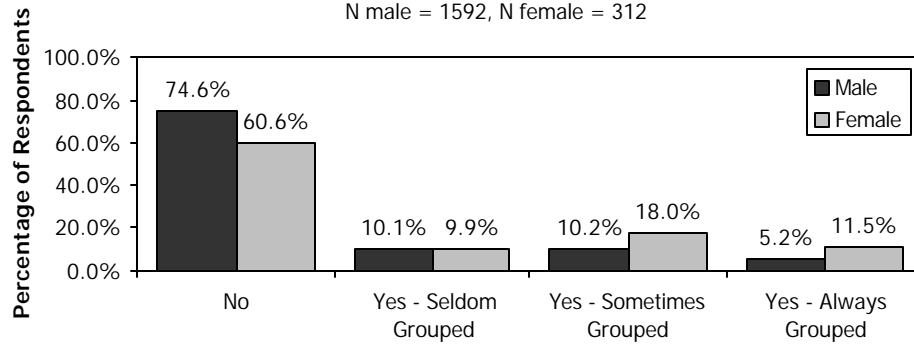## Play Game With a Family Member
N male = 1583, N female = 311
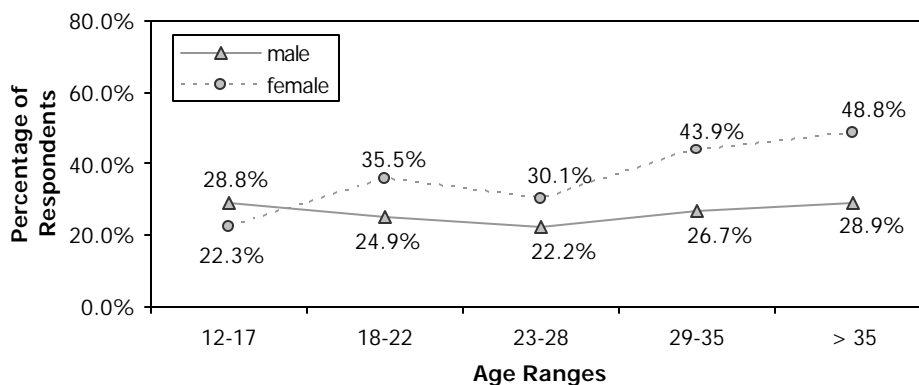
And the following graph shows how frequently the respondents grouped with their family members.

## Do You Play With a Family Member?
N male = 1592, N female = 312

Respondents who play the game with a family member were not more likely to spend more time playing the game, and they were also not more likely to indicate a greater willingness to stay with the game when compared with respondents who do not play the game with a family member.

Identity Projection

Players think of and relate to their avatars in very different ways. Some choose to identify and personify their avatar with their own personality, while others objectify their avatar and see it as a pawn in an abstracted playing field. As the following graph shows, female players are more likely to see their characters as idealized version of themselves, and age has a greater effect on male than on female players.

I Think of my Avatars as Idealized Versions of Myself
N male = 1584, N female = 310
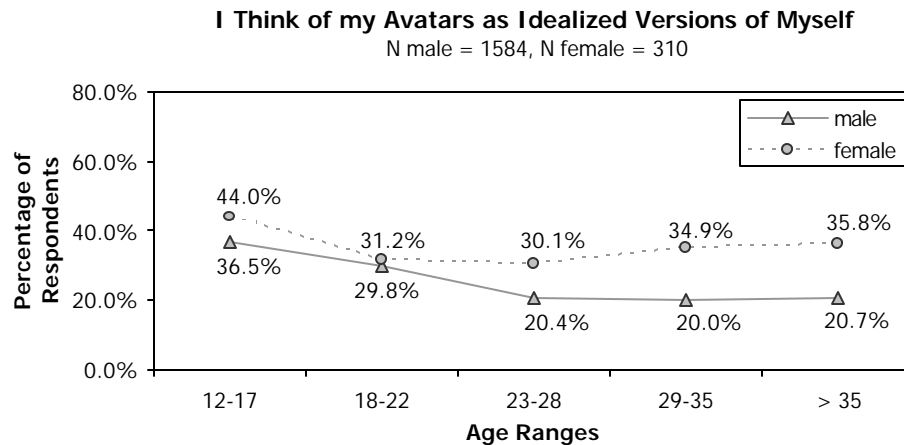
Players who see their characters as idealized versions of themselves do not spend more time playing the game, but they do indicate a greater willingness to stay with the game indefinitely than players who disagreed with that statement, probably due to personal and emotional investment in their characters.

| Idealized Version and % Projected Indefinite Stay N = 1898		
	%	N
Strongly Disagree	31.9%	338
Disagree	31.7%	602
In-between	39.3%	451
Agree	41.3%	395
Strongly Agree	45.0%	109

Players were also asked to indicate how much they agreed with the statement, "I think of my avatars as a part of an extension of me." While there were no significant gender differences or age differences, there was a very clean positive correlation with hours played per week.

Part / Extension and Hours Per Week N = 1898		
	Hours	N
Strongly Disagree	19.5	262
Disagree	20.8	376
In-between	21.4	433
Agree	22.5	672
Strongly Agree	23.8	150

There was also a very clear positive correlation with indicated willingness to stay with the game indefinitely.

Part / Extension and % Projected Indefinite Stay N = 1898		
	%	N
Strongly Disagree	28.2%	262
Disagree	34.6%	376
In-between	35.8%	433
Agree	38.4%	672
Strongly Agree	47.3%	150

Finally, respondents were asked to indicate their agreement with the statement, "I think of my avatars as just pawns in a game."

I Think of my Avatars as just Pawns in a Game
N male = 1580, N female = 311
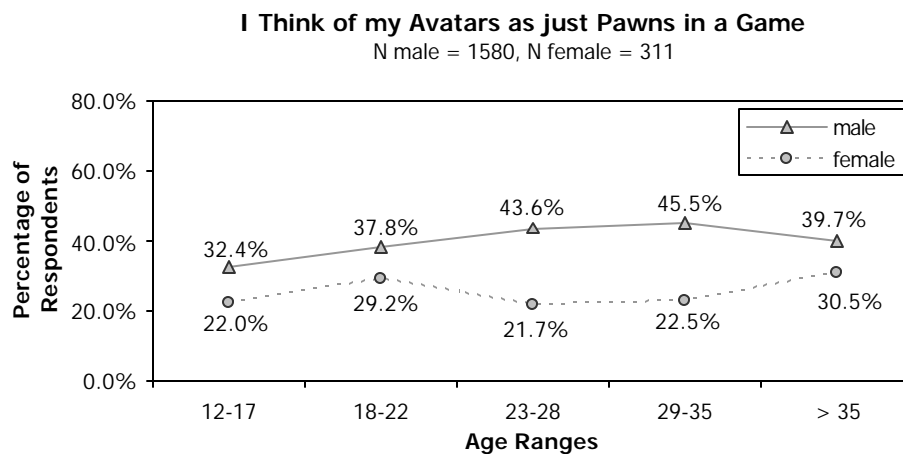
In full complement with the two data sets presented above, there was a negative correlation with both hours played per week and projected willingness to stay with the game indefinitely.

Pawn and Hours Per Week N = 1898		
	Hours	N
Strongly Disagree	23.4	224
Disagree	22.6	474
In-between	20.1	480
Agree	21.6	513
Strongly Agree	21.2	205

Pawn and % Projected Indefinite Stay N = 1898		
	%	N
Strongly Disagree	40.6%	224
Disagree	43.3%	474
In-between	37.9%	480
Agree	32.8%	513
Strongly Agree	21.1%	205

Together, these three data sets show how identification with the avatar affects game play per week and projected willingness to stay with the game, probably as a function of personal and emotional investment. Perhaps agreement with identity projection statements could be thought of a measure for emotional and personal investment into the game.

Engineering Relationships

The effects of game mechanics can be explored on many different levels. On the lower tiers, we can look at how the rewards system enhances or diminishes the appeal of the game. On the higher tiers, we can look at how game mechanics influence community-wide behaviors or phenomena. For example, it is probably fairly obvious that the game mechanics of an MMORPG affect the economy that develops within the game. If there are limited ways for the currency to leave the player market (through NPC vendors, death penalty, etc.), then inflation will eventually overtake the economy and be difficult to control. But it may be less obvious how the game mechanics of an MMORPG affect how relationships form and develop within the game. By comparing the game mechanics of EverQuest (EQ) and Dark Age of Camelot (DAOC), this essay explores how these game mechanics can shape the relationships that form in MMORPGs. While more theoretical than empirical, the ideas presented are all testable hypotheses. An understanding of the effect of game mechanics on social phenomena has an impact on the design

of future virtual environments, as well as helping us understand how social context affects us in the real world.

Encouraging meaningful relationships is much more than just enhancing the communication interface. While clearly a necessary part of building relationships, having a communication channel doesn't do any good if players aren't encouraged to interact with each other. It also doesn't do any good if players only interact for superficial reasons. To foster strong relationships, a game needs to provide players a large potential to interact and increase the likelihood that each interaction creates a relationship between the players involved.

Forcing players to group to fight a tough mob is a typical way to get players to interact, and most MMORPGs make it very difficult to solo as the player's level increases. But perhaps the amount of downtime between fights is also a crucial element in player interaction. DAOC streamlines combat and minimizes downtime during grouped combat. Mythic does this by making most buffs consume no mana, and by having fast HP and mana regen among other design elements. Typical grouped combats in EQ, on the other hand, are separated by pronounced intervals of downtime. Among other design elements, HP and mana regen are slow, and buffing a group consumes most of a cleric's or druid's mana, after which the group has to wait until the cleric or druid has regained that mana. Also, typical battles with a mob are shorter in DAOC when compared with EQ, and the rate of mob encounters is higher in DAOC than in EQ. In effect, what typically happens in EQ is that a group fights for 5-10 minutes and then has to rest for 3-5 minutes, while in DAOC, a group can fight continuously for long periods with relatively short rest periods. Even though players are together in a group and might be inclined to talk to each other, they can't really develop meaningful relationships easily if there's not enough time to talk. By streamlining the group combat experience, Mythic may be shortchanging themselves in terms of potential relationship formation in DAOC.

Apart from situations where players are already grouped, game design elements can encourage players to interact with each other on a one-on-one basis to differing degrees. EQ, when compared with DAOC, has a system where players are more dependent on each other. For example, a lot of crucial or useful abilities in EverQuest are utility spells that only certain classes can cast on others. Among these are Bind (safespot creation), Resurrection, Clarity (mana regen), Spirit of Wolf (movement enhancement), Teleports, or Invisibility. In DAOC however, Bind is an ability all classes can perform by themselves, cheap public horses take the place of Teleports, Resurrection is a low-level spell that several classes have, and most utility spells can only be cast on the character or on group members.

There are several reasons why player dependency encourages relationship formation. On a superficial level, it increases the possible interactions two players could have. But it's much more interesting than that. First of all, it increases the number of ways that players can help each other. Very frequently in EQ, you meet someone new by asking for a Bind or a Clarity. The asker is humbled, the giver is empowered, but both players usually come away from the encounter with a sense of mutual benevolence. Asking help from a stranger or being asked a favor from a stranger are far rarer occurrences in DAOC because of the relative independence the game mechanics give each player. These encounters, which are frequent in EQ and rare in DAOC, help create debts of goodwill on an individual level that foster future encounters between these two players. The following account highlights these kinds of relationships:

"My primary character is a Cleric, so on one occasion my guild was on a raid in a dungeon area and I came across one players corpse. This was unusual because of where we were and how deep we were in the dungeon. I sent this person a "tell" to see if she needed a res. She replied and was very excited that I was there to res her. After she gathered her equipment she tried to give me some Platinum pieces, which I refused since I didn't go out of my way to help her … I was just there. A month later, my guild was performing another raid and we were wiped out by some unexpected baddies .. The person I ressed happened to be in a group near the beginning of the dungeon where we were wiped out, and before I knew it, most of her guild was there to help clear the dungeon and get our corpses back. I mean about 30 other players went out of their way to come and help my friends out just because I helped one of their friends a month before. I don't know many people who would do that in real life … All I can say is … Thank you Ostara" [m, 32]

A variation of this theme is the random acts of kindness that many players experience. By increasing the number of ways that players can help each other, it increases the chances that altruistic individuals help lower-level players. Individual altruistic events promote trust at the community level which is crucial for trust at the individual level when two strangers encounter each other and could potentially form a relationship.

"One of my fondest memories of the game was having my first buff cast upon me by a level 19 Shaman. I didn't realize this could be done and it was at this point that the level of player interaction became apparent. A random act of kindness that one rarely sees in real life these days that has encouraged hours/days of play since." [m, 25]

"Those random acts of kindness really make online games a pleasure to play in. Whether someone has tossed me a heal, SOW or other useful spell for no reason, or given me a nice item without asking. I've tried my best to return these acts to others whenever possible." [m, 28]

Some EQ players were vocal about the annoyances of the player dependencies in EQ, and DAOC was consciously designed to make players more independent of each other than in EQ. However, these minor annoyances may actually help encourage and sustain strong social relationships in the long-run.

Beyond specific game mechanics, the world of EQ is also more dangerous than the world of DAOC. In EQ, when you die, your items stay on your corpse and you must travel to your corpse to retrieve your items. There is the chance you may not find your corpse, and also a chance that you may lose all your items if your corpse decays, apart from the frustration of having to retrieve your corpse instead of gaining XP. Both teleports and resurrection can only be cast by one or two classes, so dying is a very "expensive" event in EQ. DAOC is much safer in comparison. Your items stay with you instead of the corpse when you die; everything is a horse-ride away; you can't de-level because of experience loss; and resurrection is a low-level spell that several classes have. Trust is forged through dangerous and high-risk situations. You don't ever need to trust anyone except when the situation is dangerous, and EQ does this much better than DAOC. The game design decision to make death easy in DAOC also makes players more nonchalant about dying. Dying is a trivial event in DAOC. But because trusting friendships are forged from dangerous encounters, the mechanics of death actually have a huge influence on how relationships develop.

Of course in listing all these differences between EQ and DAOC, one has to keep in mind that game design is about compromising among multiple goals, and Mythic purposely chose to streamline certain game features while Verant streamlined others. One might get the sense from the above contrasts that Mythic made poor decisions. This is not meant to be the case at all, and it must be pointed out again that game balancing oftentimes leads to compromises such as the ones mentioned.

In single player and limited multiplayer games, system rules and game mechanics mainly have an impact on how fun and engaging the game is. In MMORPGs, game mechanics have more far-reaching effects. Differences in game mechanics influence how an economy develops as well as how social relationships form. As upcoming MMORPGs provide integrated real-estate and player-elected governments, one could imagine using these worlds as social or political

simulations in an attempt to understand large-scale human behavior without the fear of inflicting real world consequences. Or perhaps, we might come to realize that the rules of social interaction in online environments are so different from those in the real world that we need new theories to understand these phenomena.
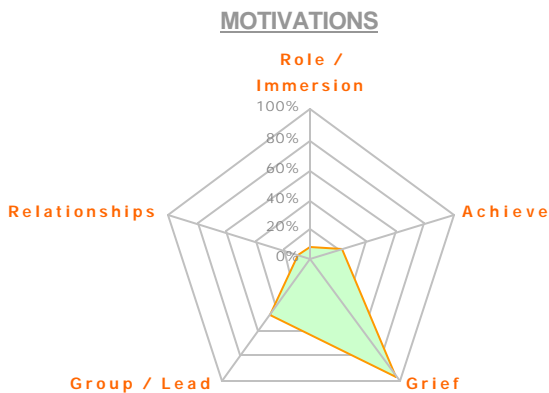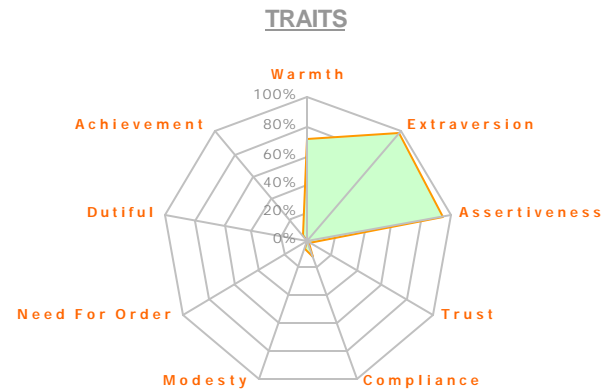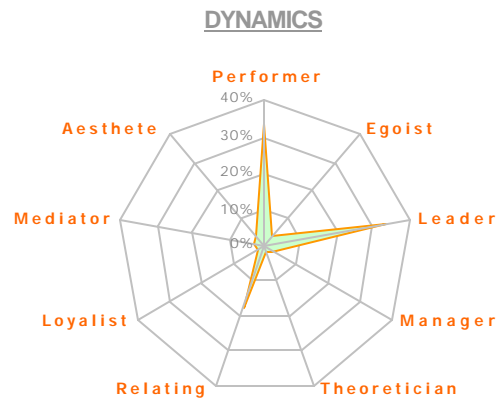

Player Personality Profiles

Most of the data that I have presented has been big-picture quantitative differences between age or gender groups. In the most recent survey I collected a large set of personality data from respondents in an attempt to validate and restructure existing models to describe and understand player behavior and preferences. In doing so, I was able to gather fairly in-depth personality profiles of individual players. As I explored these profiles, I realized that they were just as interesting as the large-scale data. Here, I will present several profiles to highlight the different reasons why people play MMORPGs.

The individual profiles consist of 3 sets of data. The first is a Dynamics model developed by Edward Murray that assesses the motivations that drive an individual. This model bears a similarity to the Enneagram, but the major difference is that this model has been empirically validated. The second set of data is taken from the Big-5 factor model of traits widely accepted among personality psychologists. Traits are overt behaviors, as opposed to the dynamics that motivate these behaviors. And finally, the third set are the 5 motivation factors for why players play MMORPGs, taken from the Facets study. Each factor will be discussed as they appear below, but you may choose to read brief descriptions of each factor before proceeding.

With the Big-5 and the Facets scales, the percentages shown in the graph are the percentile-ranks of the individual's scores within the sample of about 2000 respondents. In other words, a 75% means 25% of the sample scored higher, and 75% scored lower than this individual on this scale. With the Dynamics factors, the percentages shown are the ratios of each factor after the percentile was calculated. In other words, the Performer percentage = (Performer percentile) / (Sum of all percentiles). This is done in accordance with Edward Murray's assessment calculations.

Let's begin with a profile of a 14 year-old male EQ player.

DYNAMICS

Performer
Aesthete
Egoist
Mediator
Leader
Loyalist
Manager
Relating
Theoretician
40%
30%
20%
10%
0%

TRAITS

Warmth
Achievement
Extraversion
Dutiful
Assertiveness
Need For Order
Trust
Modesty
Compliance
100%
80%
60%
40%
20%
0%

MOTIVATIONS

Role / Immersion
Relationships
Achieve
Group / Lead
Grief
100%
80%
60%
40%
20%
0%

This individual has the attributes of a stereotypical young teenage male MMORPG player. Looking at the Dynamics factors, the high Performer and Leader scores imply that he derives most of his satisfaction from high-energy activities and asserting control over other people. Maturity changes how people channel their motivations. So immature Leaders may be bullies or tyrants, while mature Leaders provide guiding leadership and inspiration. This player's low Trait scores in Trust, Compliance and Modesty reveal that he is competitive, perhaps confrontational, self-confident and has a general mistrust for others. His high scores in Extraversion and Assertiveness go hand in hand with his high Performer and Leader scores - again a desire to assert himself in social situations. The high Leader score along with low scores in Compliance, Modesty and Trust imply that this player's social assertion is more malevolent and destructive than constructive, and this is reflected in the high Grief score in the Motivation factors. In other words, this individual enjoys tormenting and bullying other players in MMORPGs.

Here is the profile of a 57 year-old male UO player who plays for very different reasons.

DYNAMICS

TRAITS

MOTIVATIONS
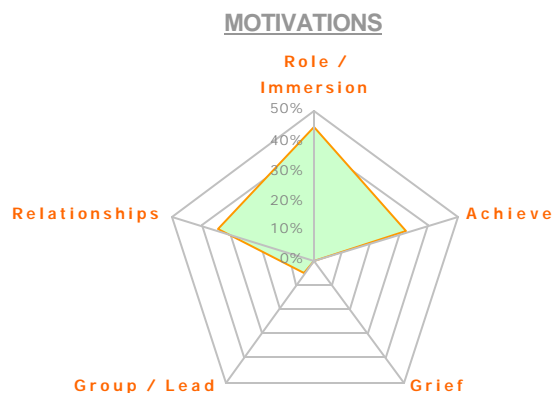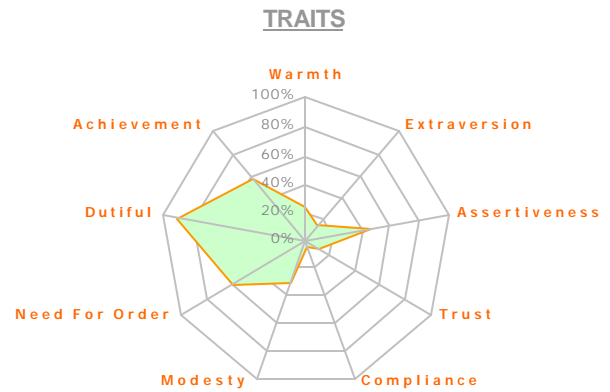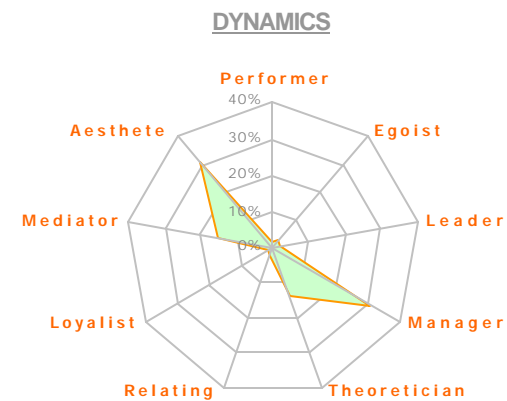
In the Dynamics graph, the high Aesthete score implies a desire to connect with larger cultural or existential issues. Aesthetes may be artists or musicians, or they could be part of a not-for-profit or religious organization. Individuals who have high Manager scores derive satisfaction from order, rules and control. Immature managers oftentimes appear obsessive and stubborn, even fanatical. Mature managers are able to use their organizational and planning abilities constructively. The high Trait score in Duty matches the high Manager score, and we get a sense that this individual has a strong sense of moral obligation and this is the focus of the Manager dynamic - duty arising from a need for order and control is very central to this man's personality. Within the game, it seems to be the Aesthete dynamic that drives the dominant motivation to be immersed in the fantasy world - to be part of a collaborative story, a mutual suspension of disbelief that arises from role-playing heavy crowds.

Here is the profile of a 25 year-old male EQ player whose Dynamic data looks very similar to the first profile shown, but we'll see how important differences in the Traits differentiate these two individuals.
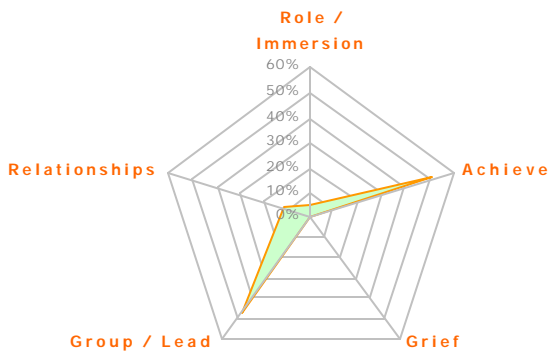
DYNAMICS
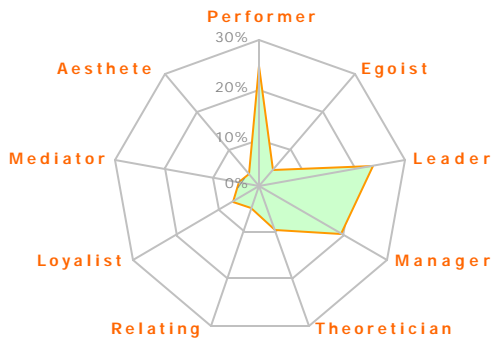
TRAITS
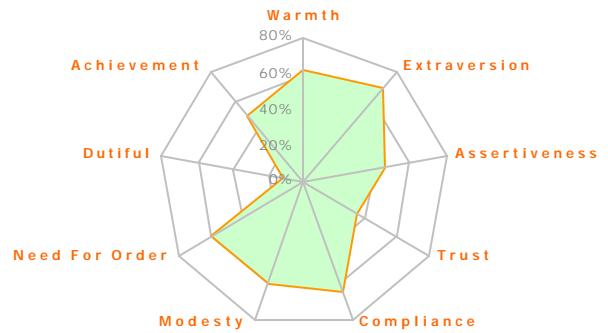
MOTIVATIONS

Again, we see high scores in Leader and Performer. The high Performer score implies an active lifestyle, and the high Extraversion score implies this is a very socially active individual. Compared with the first profile, this individual is less assertive and is more cooperative and easier to work with. While having a low sense of duty and obligation, this individual has a high need for organization and planning and is moderately driven to achieve. The high Leader score implies a desire to influence other people and this translates into a desire to lead groups within MMORPGs. Notice that while the teenage male chose to exert his control over other people destructively, this individual is exerting his control constructively. The high Manager score and the high Need for Order score hint at a joy of understanding the rules and mechanics of the game and deriving satisfaction from achievements within the bounds of those rules, and this is probably why this individual is achievement-driven within the game. This is a good profile for a guild leader or officer.

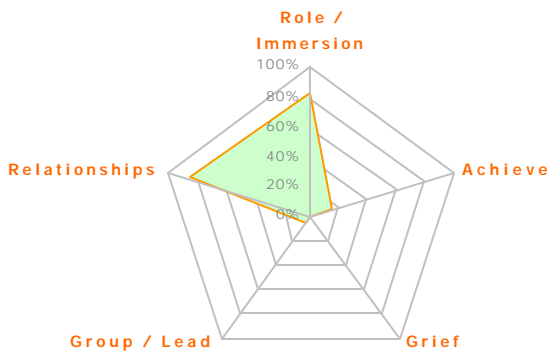And finally we end with a profile of a 21 year-old female DAOC player.

DYNAMICS
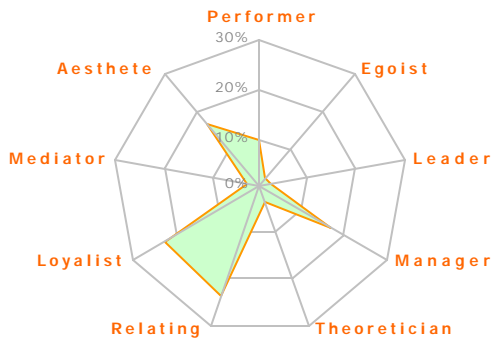
TRAITS
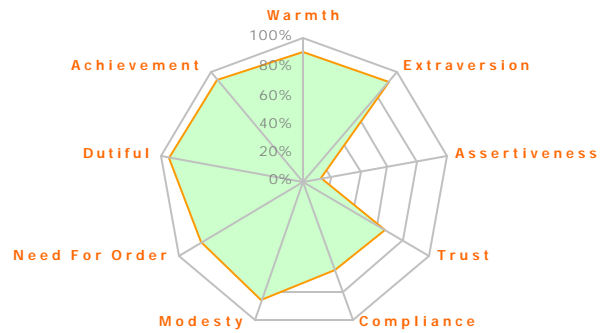
MOTIVATIONS

Individuals who score high in Relating derive satisfaction from intimate relationships. Immature Relating individuals may be manipulative and self-serving (instilling guilt in others) to get more affection from others. Mature Relating individuals are truly unselfish and empathetic, and have a more giving kind of affection. Loyalists seek security from group allegiance or relationship loyalty. Immature Loyalists are self-effacing, and cling to powerful figures for security, while mature Loyalists are loyal to others and are trustworthy and dependable. This individual scores high on both Loyalist and Relating and enjoys using the MMORPG world as a way to form intimate and supportive relationships. The high Modesty and Compliance scores, together with the high Loyalist score, hints at a more immature Loyalist whose sense of security is so weak that they are self-effacing and that she gives in easily to more powerful figures. This is supported by the very low Assertiveness score. She seeks out authority figures to control her fears and insecurities (also supported by the high Duty score) - a self-deprecating form of loyalty. The high Role/Immersion score is probably a function of the moderate Aesthete score.