The Trojan Player Typology: A cross-genre, cross-cultural, behaviorally validated scale of video game play motivations

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ABSTRACT

While many video game researchers have built scales to tackle the motivations that people have for playing video games, these scales are often limited by their focus on specific game genres or player cultures as well as their lack of behavioral validation. The present research offers a new scale for player motivations and then examines its validity across two distinct gaming genres and cultures, drawing from server-side data combined with survey data of 18,627 players of the Multiplayer Online Battle Arena *League of Legends* and 18,819 players of the Chinese Massively Multiplayer Online Game *Chevalier's Romance Online 3*. Six types of player motivations were found: socializer, completionist, competitor, escapist, story-driven, and smarty-pants. Consistent with previous research on player motivations, this typology offers new insights into why people play video games and how player motivations can be used to infer players' in-game behaviors.

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1. Introduction

Video and computer games are more popular and profitable than ever. According to the latest statistics from the Entertainment Software Association (2014), in the United States, 59% of Americans play video games, the average household has at least one system dedicated exclusively to gaming, and the computer and video game industry has made at least fifteen billion dollars a year, every year since 2009 (up from its previous record of twelve billion dollars in 2008). In 2012, *League of Legends* became the most played video game worldwide, with over one billion hours of the game played per month, surpassing *World of Warcraft* in the United States and *StarCraft* in Korea (Riot Games, 2012).

With all of the time individuals spend playing video games, it is important to understand why people play video games and how individuals may differ in their video game play. The uses and gratifications tradition in the study of media has a long history in the field of communication (Rubin, 2009), and it has more recently been an important point of inquiry from video game scholars (Sherry, Lucas, Greenberg, & Lachlan, 2006). There have been many attempts to design scales to measure individual differences as to how and why people play video games, but all have some weaknesses. For instance, some are too genre specific (e.g., Yee, Ducheneaut, & Nelson, 2012), while others only validate using other self-report measures (e.g., Sherry et al., 2006). Cross-cultural validation is minimal (a notable exception being Yee et al., 2012), and few try a validation across games (a notable exception being Sherry et al., 2006). The present article will contribute to this important area and address these gaps in the existing research by offering and testing a new measurement of player motivations that aims to apply across gaming genres and cultures.

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1.1. Existing taxonomies of game play motivations

Motivations to play video games, especially Massively Multiplayer Online Games (MMOs), are one of the most extensively studied research line in video game research (Yee, 2006a). Understanding video players' motivational differences is important because it sets the foundation for investigating social interactions in these environments beyond demographic segments alone (Williams, Yee, & Caplan, 2008). Starting from Bartle's (1996) player taxonomy of MUD players, researchers have developed multiple motivation taxonomies, and further explored how the motivational difference corresponds to different demographics (e.g., gender and age), and different in-game behaviors (e.g., Cassell & Jenkins, 1998).

Bartle (1996) inductively developed a taxonomy of Multi-User Dungeon players by summarizing four aspects that people most enjoyed about MUDs. Bartle classified MUD players into four categories based on two dimensions: action vs. interaction, and world-oriented vs. player-oriented. Achievers are motivated by in-game goals (e.g., rewards, points or levels); Explorers are motivated to find out more about the virtual world; Socializers care most about the game's communication functions and interactions with fellow players; and Killers mostly utilize the virtual facilitates to impose themselves over others and get satisfaction. Similarly, Sherry et al. (2006) analyzed focus group interview data and identified six dominant dimensions of video game use across game genres, including arousal, challenge, competition, diversion, fantasy, and social interaction. Bartle and Sherry et al.'s models intuitively reflect how people who are driven by different motivations interact in the virtual worlds, and provide a good starting point for other researchers to draw upon to test with empirical data.

Following Bartle's original model, Yee (2006b) conducted the first large scale survey to identify different motivations for MMO players. An exploratory factor analysis of self-reported measures from 30,000 MMO players revealed three broad types of motivations and each of them were further specified into subcomponents (10 subcomponents in total): achievement (the extent to which players want to feel powerful and in control in the virtual environment), social (the extent to which players desire to socialize with others in the game world), and immersion (the extent to which players enjoy becoming "someone else" or being in the virtual world). Also in the MMO context, Squire and Steinkuehler (2006) described the tension between power-levelers or role-players, the former being like Yee's (2006b) achievers and the latter like a combination of social- and immersion-driven players. Other researchers have developed player motivation taxonomies based on different game types (e.g., Jansz & Tanis, 2007; Lee, Lee, & Choi, 2012) and purposes (e.g., Hainey, Connolly, Stansfield, & Boyle, 2011). Jansz and Tanis (2007), for instance, examined players' motivations for First Person Shooter (FPS) games and found that competition and challenge scored higher than other motivational dimensions for committed players. Lee et al. (2012) explored motivations for playing causal games on social network sites and found a six-dimension motivation taxonomy: social interaction, self-presentation, fantasy/role-playing, passing/escapism, entertainment, and challenge/competition. In addition, Hainey et al. (2011) studied motivations for playing video games in a Higher Education context and found that in general, challenge is the most prominent motivators to play games and recognition, in contrast, scored the lowest. Also in an education context, Heeter (2008) examined the relationship between play style and learning style and offered a palette anchored by two anchored axes, extrinsic vs. intrinsic achievement motivation and pro- vs. anti-social motivation, to illustrate their relationship. This palette was validated in an experiment that used three versions of the same educational game with the intent of contributing to serious game design and teaching through games. Also from a design perspective, Klug and Schell (2006) described how game designers view numerous player types: competitor, explorer, collector, achiever, joker, director, storyteller, performer, and craftsman. They argue that most players fall into multiple types and that game designers' choices ultimately affect which motivations are fulfilled within the games they build.

Researchers have examined how different motivations are related to differences in player demographics. For example, Yee (2006a) showed that male players generally were significantly higher on achievement and manipulation factors than female players, who scored higher on relationship, immersion, and escapism, though some of these differences (i.e., manipulation) decrease in size as player age increases. Similarly, Heeter (2008) found that gender interacted with play style in interesting ways. For example, boys who played alone were mostly classified as achievers (fast and accurate play) while boys who played in pairs were classified mostly as explorers, and solo vs. paired play made no difference for girl players. Yee et al. (2012) provided the first cross-cultural validation of online gaming motivation scale. The authors recruited 2071 American *World of Warcraft* (*WoW*) players and 645 *WoW* players from Hong Kong and Taiwan and thereby validated the Yee scale in a non-Western culture.

To further strengthen the validity of this motivation taxonomy of video game players, some researchers have compared players' self-reported motives to their in-game behaviors. For instance, Billieux et al. (2013) monitored 690 *WoW* players' avatars over 8 months and examined how their motivations (from Yee, 2006b) affected players' in-game behaviors. Results showed that self-reported motivations for game play generally predict in-game behaviors. Specifically, teamwork- and competition-focused motivations best predict players' in-game advancement.

While previous research has provided a rich resource pool of video game play motivations taxonomies, there are a few notable weaknesses of the existing research. Most previous taxonomies are genre dependent. Many were developed and validated in the context of MMOs, which is indeed an important genre of video games, but does not represent all video games. There are emerging games and genres that provide research opportunities for further validation and potential extension of previous taxonomies. Multiplayer online battle arenas (MOBA), such as *League of Legends*, have brought with them new game mechanisms and social interaction protocols that may influence player motivations. In addition, most taxonomies lack behavioral validation. Although some scholars have begun to validate motivations with in-game behaviors, these validations are still minimal and have exclusively examined data from *WoW* using MMO motivation scales (e.g., Billieux et al., 2013; Yee et al., 2012). Finally, as mentioned earlier, researchers have begun to provide cross-cultural and cross-game validation of motivations taxonomies (Yee et al., 2012); however, more empirical research is needed to form a solid conclusion about the ways that play motivations persist or differ across specific cultures. Taken altogether, the current study proposes a new motivation taxonomy and further validates it with in-game behaviors in a cross-cultural and cross-game context.

2. Pilot study

Drawing on personal experience and items from past scales developed in various video game genres (Sherry et al., 2006; Yee, 2006b), a team of seventeen video game researchers from the University of Southern California independently generated 246 statements related to why people may play video games. The authors then came together to review these statements and eliminated those that were redundant, unclear, or failed to conform to