
Player Types of Gamers: Critical Evaluation

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ABSTRACT

The following extended abstract describes a research plan for and preliminary findings of a dissertation thesis on player types. The described four studies aim to answer to questions of what player types are, how it is possible to improve such categorizations, and whether player typologies based on self-reports can be validated by emotional responses during playing.

CCS CONCEPTS

· Applied computing → Computers in other domains → Personal computers and PC applications
→ **Computer games**

KEYWORDS

Player types; player taxonomy; player preferences; game dynamics; emotions; UX; GUR; gaming

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1 INTRODUCTION

Video gaming is no marginal matter: according to a 2017 survey conducted by Entertainment Software Association, consumers in the US spent 30.4 billion dollars on games and related hardware and accessories. However, as a keynote speaker in a recent gaming conference noted, the field of gaming research seems to be overrepresented by issues around “violence, education, addiction, gamification, physical health, and a handful of other topics”, also remarking that studies that would be of direct interest to game developers and players themselves are missing [10]. In other words, there is a serious lack of research on gaming as an everyday experience that is important to and practiced by millions of people across the world. My dissertation work aims to ameliorate this situation by focusing on gamers, and more specifically, the way player types (e.g. playing preference groups) are created and validated.

2 THEORY AND BACKGROUND

Player typologies have been identified in previous research [7], but the academic literature to date is still emerging, contrary to popular belief.

Some of the most often used criteria for creating player groups are therefore background factors, most notably age and gender. There is some evidence that these factors may affect gaming preferences [6, 11]. However, all-encompassing, large categories like these may be too inclusive and miss relevant information because of oversimplification. Consequently, they may fail to scope the full range of motivations of those players who do not conform to such demographic segmentations.

Another often used categorization in everyday conversations between gamers and in the industry is the division between hardcore and casual gamers. At best, they have remained fuzzy concepts. Casual gamers, for example, may refer to both players who play “casual games” as well as to those who “play casually”, and everything in-between [8]. Notions have also been made that some casual gamers (i.e. casual game players) are very hardcore about their gaming [4]. Old-fashioned concepts like these should be either clarified and backed up with data or debunked if not useful.

Besides background factors, classification of players is often based on game type and genre selections (e.g. first-person shooter players vs. role-playing game players), or the preferred platform for playing (e.g. PC gamers vs. console gamers). These categorizations tend to be quite mechanistic, but focusing on game dynamics afforded by different games and how much players prefer them could prove fruitful for both game designers and players themselves. While mechanics can not tell much about internal motivations of players, and aesthetics may be hard to tie into actual game contents, game dynamics preferences can offer insight into what players actually want from games.

Some player typologies are based on actual in-game behavior [3, 5, 1]. These categorizations utilize telemetry data, log information or researchers' observations of players' actions. Even these categorizations can be problematic, however. Behavioral observations are usually based on only one game or at least a set genre, which limits the range of behaviors that are possible. Some of the typologies are also based on researchers' interpretations of behavior, which might not necessarily be in accordance with what the players are thinking of. Players' motivations for doing things are not explored nor are they asked how they would like to play in the first place. Therefore in-game behavior might not be a sign of players wanting to do something, but instead be a side effect of the game mechanics available.

Playing preferences and player typology can also be approached through studying players' internal motivations and personality differences [2, 9, 12, 14, 15, 16]. The generalization of personality factors to gaming situations is debatable, but self-reported motivations may offer novel ideas that game developers could use in designing better content. More importantly, they may offer players a way to reflect on their playing experiences.

3 OBJECTIVES

The aims of this dissertation work are to 1. Advance knowledge about digital game player types by creating a new taxonomy based on both liked and disliked game dynamics, 2. Examine whether self-reported playing preferences have an effect on emotional responding to games that are either in line or discordant with said preferences, e.g. validate player types through experimental methods, 3. Explore and compare the profiles of the least experienced players and those who play the most in order to find out what separates these groups in terms of psychological factors, and 4. Investigate the fluidity of playing preferences when players become more experienced in gaming. Altogether, the dissertation will consist of the following four studies.

4 RESEARCH PLAN

Study 1: Creating an overarching player typology based on game dynamics [13] (published). 700 contemporary digital games across many genres were explored to identify game dynamics, e.g. player–game interaction modes. Next, 1717 respondents answered a survey on their preferences for these dynamics. Based on their answers, five game dynamics preference categories were revealed through exploratory factor analysis: 'Assault', 'Manage', 'Journey', 'Care', and 'Coordinate'. Further cluster analysis of respondents (based on the game dynamics categories) revealed seven player types: 'The Mercenary', 'The Companion', 'The Commander', 'The Adventurer', 'The Patternner', 'The Daredevil' and 'The Explorer'. These results indicate that player typologies should include both preferred and undesired game dynamics for each category and look at preferences as a whole. This study also contributes a new model that is complementary to player behavior studies (how players play) and player motivation studies (why players play). It offers insight into what meaningful content players wish games would include, something that focusing on mechanics or aesthetics alone would leave out.

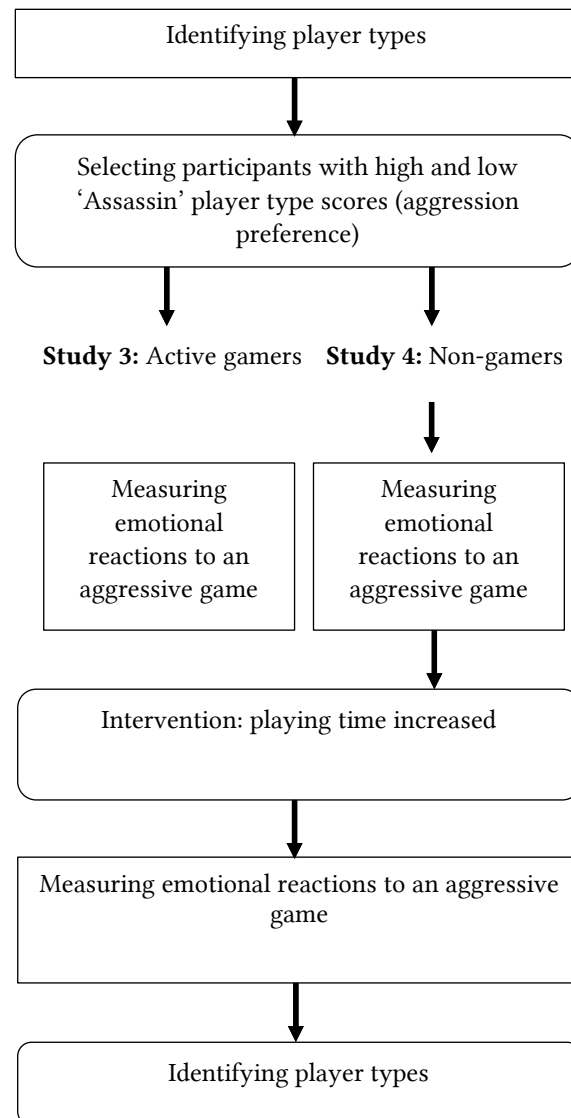


Figure 1. Flow of studies 3 and 4.

Study 2: Characterizing gamers based on playing hours (manuscript in preparation).

It can be argued that the playing experiences of novices and experts may differ, even to the extent of being a more plausible method for understanding player experience than player types. More importantly, it seems that some players seem to get greater psychological rewards from gaming than others and therefore end up playing more. Players (N=2,257) answered a survey about their psychological well-being both in life in general and when imagining they were playing. Respondents were divided into four groups based on playing hours: non-players (<1hour/week), light play

ers (<1hour/day), regular gamers (<4hours/day), and heavy gamers (>4 hours/day). Interestingly, heavy gamers showed lowered feelings of self-efficacy, vitality, and empowerment in life in general in comparison to respondents who played less. However, they reported psychological benefits from gaming by showing an increase in these measures when asked to imagine they were playing. Other player groups did not report such gaming-related benefits. The results indicate that for those who spend long hours playing, video gaming can be a positive and rewarding activity that may help regulate feelings that are relevant to psychological well-being. They also hint at a possibility that other players do not get enough feelings of self-efficacy, vitality, curiosity and empowerment when playing. What the results mean for player typologies is that there are plenty of people who feel that videogames do not cater to their personal wants and needs, e.g. that games do not make them feel invigorated, curious, self-sufficient or empowered. This indicates a need for better market research and game design based on player preferences of these players.

Study 3: Validating player types by exploring emotional reactions to a liked/disliked game (manuscript in preparation).

Figure 1 illustrates the designs of studies 3 and 4. In the third study, the aim was to validate self-reported playing preferences in a laboratory experiment. Valuable information about emotional responses of different player types were also explored. Participants (N=24) first responded to a survey containing the game dynamics identified in Study 1. Participants who were active video game players (>15 hours/week) with a particularly high preference or dislike for aggressive gaming were then invited to the laboratory to play a well-known first person shooter game (Call of Duty: Modern Warfare). Aggression preference was indicated by a high or low sum score for items belonging to the 'Assault' factor identified in Study 1. In the experiment, participants' facial muscle activation, skin conductance and heart rate were registered. These registrations were made during a control resting period, during playing as well as during watching video material of the same game. The players were also given mood and alertness questionnaires after each situation to monitor possible effects of resting/playing/watching a video via self-report as well. The main point of interest in this study is to explore how playing affects emotional arousal, alertness and mood, e.g. to scope emotional reactions to the game. Furthermore, this study strives to investigate whether the player types of the participants identified in study 1 affect these measures, e.g. whether playing preferences have an actual effect on emotional reactions, or whether certain types of games induce similar emotions in all participants.

Study 4: Investigating change in playing preferences and emotional reactions when playing experience increases (data collecting has commenced).

Participants (N=30) with either particularly high or low preferences for aggressive games (as indicated by responses to items belonging to the ‘Assault’ factor identified in Study 1) are invited to a laboratory experiment. The participant group consists of non-players or very light players, who will take part in an intervention in which they are given a gaming console and a selection of action video games to play at home. Participants are asked to play at least half an hour daily for a time period of four weeks. Participants will be tested in a laboratory setting similar to Study 3 before and after the intervention, and they will fill out the gaming preference questionnaire at both time points. The aims of this study are to 1. Explore whether emotional reactions change if playing time is increased, and 2. Investigate how fluid player preferences and player types are, e.g. whether they are prone to change when playing time increases.

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