
Toward Understanding Why Players Value In-Game Collections

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Abstract

The purpose of this paper is to investigate why players value in-game objects by collecting data through online survey and, in the near future, through follow-up interviews. Initial analyses of our online survey data reveal how game genre interacts with the the perceived value of the player's collections. We expect to discover new connections between play style and/or personality type and why players enjoy collecting digital objects. Implications from this work explain what drives player enjoyment, which will inform not only general game design, but specifically enhance retention and interest in serious games, gamified applications, and educational systems.

Author Keywords

Player Attitudes, Game Object Value, Collections.

ACM Classification Keywords

K.8.0 [Personal Computing]: Games

Introduction

Humans collect many things [5], including digital data [2]. In games, people may collect meta-game rewards (e.g. Xbox Achievements, Playstation Trophies), modifications to game mechanics (e.g. new equipment, Pokemon), personalization options (e.g. clothing, color maps), or other digital objects (e.g. vanity items). We investigate players' collect-

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Utility	ability to accomplish game tasks
Investment	representation of player time, effort, achievements
Communication	expression to a social group
Memory	a record of player activities in game
Enjoyment	fun to play
Relationships	representation of player relationships or groups
New Experiences	enables new in-game experiences
Creativity	allows players to create aesthetically pleasing forms
Sociability	allows player to engage with friends
Self-Expression	expression of player attitudes or beliefs

Table 1: Livingston et al.'s types of value for game characters.

ing behaviors in digital games, the perceived value of their collections, and their player / personality type. Collecting activities are deeply connected to personalization, so we are studying personalization activity in conjunction. We are working to uncover a connection between player types (e.g. BrainHex, personality type) and players' rationale for valuing their collections, which has implications for the design of games, gamified applications, and educational software systems. For this workshop, we will discuss our nascent research topic, some early results that appear as a CHI PLAY Work-in-Progress [6] and hypotheses and anticipated design implications.

Ongoing Research

The present research project is exploratory, using online survey and interviews to develop an understanding of why players collect and personalize in games. We draw together two standardized inventories for categorizing players' personalities with a framework for understanding players' rationales for valuing their avatars, which we apply to their collections. We use the BrainHex Player Typology [4] and the Ten Item Personality Measure (TIPI) [1] to classify participants in our study. These measures have been used extensively in prior research and provide a relatively simple way to classify players. We also make use of Livingston et al.'s work on types of value for game characters [3], reproduced on Table 1, and apply them to players' game collections. We reason that developing player typologies for collecting behaviors based on player personality and type of value will assist designers in developing future in-game collecting mechanics.

We are currently collecting data via an online survey¹. We have recruited participants via social media and flyers on

¹<http://bit.ly/gamecollecting>

the New Mexico State University (Las Cruces, New Mexico, USA); University of California, Irvine (Irvine, California, USA); and University of Ontario Institute of Technology (Oshawa, Ontario, Canada) campuses. Snowball sampling via social media was also employed. The survey consists of four parts: demographic information; questions about players' attitudes towards digital game objects; the BrainHex Player Typology [4]; and the TIPI [1]. Answers to the survey were anonymous, but participants could opt into a follow-up interview by providing a valid email address. The present survey has gathered over 200 responses at the time of writing, and is presently being analyzed. Our next data-collection step involves in-depth interviews about players' collecting behavior.

Results So Far

In April 2015, we analyzed the first 155 unique responses to the online survey, which forms the subject of our CHI PLAY Work-in-Progress [6]. The present findings, as described in that work, identify the ways in which collection behaviors appear in certain genres of games, based on participants' favored games for collection mechanics. Two questions were "In what games did you collect objects that you value?" followed by "Out of the games above, which contains your favorite object or collection of objects?" We mapped the responses to the second question to genres using Wikipedia. Our findings identify role-playing games as the most likely to attract collection behaviors.

We asked "Why is your favorite virtual object(s) valuable to you?", with possible responses being any number of the items from Table 1. In connecting the responses to this question with those above, we see that the rationale for collecting varies by genre. Overall, utility and enjoyment are the main reasons players value their collections, while investment, self-expression, and memory appeared to a

lesser degree. However, these rationales vary by genre. For example, utility was the primary reason for collecting in massively multiplayer online RPGs and collectible card games, while enjoyment was primary in other genres, including RPGs, action-adventure, multiplayer online battle arenas, and simulations.

Conclusion

We present initial findings from a study of players' collection and personalization habits in games. We observe that players find value in digital game objects for a variety of reasons, but utility and enjoyment are the primary drivers.

Future Work

Our long-term goal is to investigate the value of players' collections *in situ*, either through studying existing games or building new ones. Future work is driven by the following hypotheses and we expect to develop design implications as described below.

Hypotheses

One space we are exploring is the connection between BrainHex and/or personality type with collection value. Specifically, we have developed the following hypotheses:

- Certain player / personality types will be drawn to game mechanics that center around collecting.
- Certain player / personality types will be more likely to value digital collections in some ways over others.
- Gender and age will function as interacting variables for both of the above hypotheses (inspired by Yee's

recent data [7]).

Anticipated Design Implications

We expect the present work to inform the design of games, gamified applications, and educational systems. To that end, we are collecting more data and continuing to analyze our existing data. We anticipate future findings to be valuable for the following reasons:

- Player and/or personality type can be unobtrusively and quickly obtained. Designers can leverage this to either gather such data online and use it interactively, or collect it from focus groups, playtesters, and others, to inform the ongoing design of systems.
- Game, gamified application, and educational system designers can consider whether or not to include collection game mechanics as a component of their systems, and how these should be used based on player and/or personality type.

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