

Mood Metadata for Video Games and Interactive Media

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ABSTRACT

Video games are becoming an important part of digital library collections due to increasing popularity and the acknowledgement of their significance as cultural artifacts. In order to support robust search and browse functions, it is imperative to develop a metadata schema to effectively represent this medium. The potential of mood metadata in the domain of video game classification is little explored, despite the value given to it by gamers in user studies. Here, we present a Controlled Vocabulary (CV) for moods related to video games with 17 defined mood terms, equivalent terms, and game examples. This CV will enable catalogers to organize video games by mood, allowing mood to be used for search and collocation. In order to evaluate the applicability of this CV and discover which terms are most relevant for video games, we annotated the mood of a sample collection of 617 video game titles. In this poster, we discuss the issues and challenges we encountered in the creation and evaluation of the current CV and our future research goals.

Categories and Subject Descriptors

H.3.1 [Information Storage and Retrieval]: Content Analysis and Indexing – *Thesauruses*. H.3.2.d [Information Storage and Retrieval]: Metadata.

General Terms

Standardization

Keywords

Video game, Mood, Thesaurus, Taxonomy, Controlled vocabulary

1. INTRODUCTION

Video game mood research is in its infancy, and as a result there remain many unanswered questions regarding the function of mood within this medium. What mood terms are relevant to video games? Would gamers search for games based on mood if given the option? Related research in the domains of psychology and music information retrieval on various mood models provides a useful foundation for investigating these questions. In our work, we utilized these models to develop and refine an extensive list of mood terms for the purposes of video game classification.

2. DESIGN METHOD

Mood was one of the elements from the Video Game Metadata Schema developed by the Game Metadata Research (GAMER) Group at the University of Washington Information School, in collaboration with the Seattle Interactive Media Museum. In the schema, mood is defined as “the pervading atmosphere or tone of the video game, which evokes or recalls a certain emotion or state of mind” [3]. In order to create a controlled vocabulary that can

be used for this element, we conducted a review of current scholarly literature related to mood. This review revealed that prior research on mood taxonomy related to multimedia objects primarily exist in the fields of music classification and psychology. Significant works by Russell [5] and Thayer [1] provide useful insight into how dimensional mood maps can be applied to mood taxonomy. Additionally, Watson and Tellegen’s research [6] determined that mood can be characterized by two dominant dimensions, positive and negative affect, in order to effectively represent emotional experience. They developed a model, the two-factor structure of affect (see Figure 1), to illustrate the organization of mood/affect. The Tellegen-Watson model serves as the structural basis for our mind map of preferred and lead-in terms, which was developed in order to explore the video game mood landscape (see Figure 2). Meyers [4], Hu & Downie [1], and Laurier et al. [2] also provided insights on how to apply the mood models for multimedia objects like music.

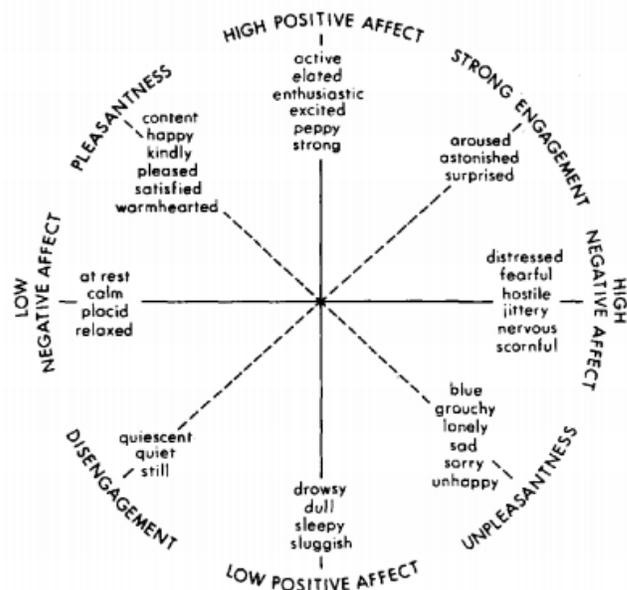


Figure 1. Watson & Tellegen’s [6] two-dimensional map (p.298)

We harvested AllMusic.com and the Movie Genome Project’s mood taxonomies as a basis for our controlled vocabulary. We also consulted gamerDNA.com, which allows players to provide user-generated tone terms, and customer reviews on Amazon.com containing various mood terms. During the harvest process redundant terms and genre-related terms were removed. Next, through an iterative review process, the remaining preferred terms were defined, given equivalent terms, and game examples. Current mood terms and definitions are provided in Table 1.

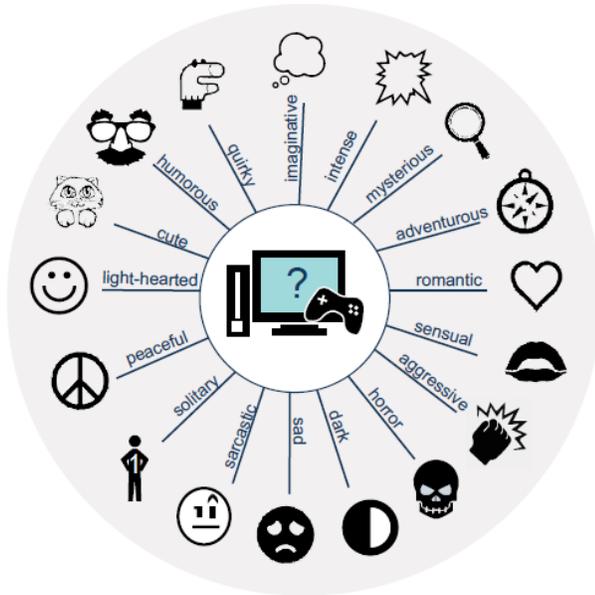


Figure 2. Mind map using Mood Facet Version 2.0

Table 1. Mood Terms and Definitions from the CV

Adventurous	Games that engage the player through exploration, risk-taking, and overcoming obstacles
Aggressive	Games in which the focus is on forceful, combative (sometimes competitive) actions
Cute	Games with a charming, childish, and/or delightful quality
Dark	Games with a grim atmosphere that focus on dismal, gloomy, and/or depressing circumstances
Horror	Games that frighten players by playing on primal fears, inducing feelings of horror and terror
Humorous	Games that possess a funny, amusing quality
Imaginative	Games where the primary focus is creative expression of the player, through world-building, character-building, and/or creative problem-solving
Intense	Games with an extreme, high-energy tone, meant to inspire strong emotions in the player (stress, determination, a sense of urgency, etc.)
Light-hearted	Games that possess a cheerful, carefree quality
Mysterious	Games that invoke curiosity and/or suspense through the investigation of the unknown (a crime, a secret, a strange occurrence, etc.)
Peaceful	Games that invoke a sense of calm
Quirky	Games with an unusual or peculiar quality
Romantic	Games where a substantial focus is on romantic relationships and the pursuit of love
Sad	Games that have a melancholy tone
Sarcastic	Games that have a sharp, satirical, caustic tone
Sensual	Games that invoke physical or sexual pleasure
Solitary	Games in which the player feels isolated or alone

3. EVALUATION AND CHALLENGES

In order to evaluate the applicability of the mood CV, we annotated the mood terms of a sample collection of 617 games, selected to include a variety of genres and release years (sourced from allgame.com). Through this process, we wanted to discover what mood terms are most relevant for describing video games, and also further develop the semantic mood space within the video game domain. The top mood terms assigned were adventurous (#1), aggressive (#2), and intense (#3). The terms used least often were sarcastic (#1), sad (#2), and sensual (#3). We noted the possible correlations between certain video game

genres and mood terms as well as a chronological movement toward certain mood terms (e.g., term aggressive appearing more frequently after 1992). In the poster, we will present the visual representations of the correlation data between mood and genre, as well as mood and release year to highlight the patterns.

The subjectivity of mood made it challenging to annotate the mood of video games. Video games can have several different moods depending on the user, their state of mind, and what they determine to be the prevalent atmosphere or tone while playing. A game that one user might describe as employing an atmosphere of ‘horror,’ might be considered by another user merely ‘dark.’ This distinction is often determined by the level of the user’s fear response during gameplay. For example, while the first *Bioshock* could be considered horrifying if you are fearful of the deranged residents of Rapture, dedicated gamers might reject this designation, maintaining that only games such as *Silent Hill* exhibit a pervasive atmosphere of horror. This issue may be addressed by allowing annotation of multiple moods for each game, and possibly crowdsourcing the mood annotation so that mood terms can be ranked based on users’ input.

4. CONCLUSION AND FUTURE WORK

This project aims to develop a richer understanding of how mood functions within video games, rectifying the scarcity of past research. Video game mood research is a relatively unexplored area and thus, how mood functions within video games remains unknown, and the usability for games by mood is yet to be determined. In order to further test and improve our CV, we plan to conduct a user study where we ask users to annotate the mood of familiar video games using our CV and seek direct input on how they may use mood in their information seeking behavior related to video games. We envision that the development of a refined mood CV for video games would provide otherwise unavailable search/browse options for prospective players, augmenting their overall gaming experience.

5. ACKNOWLEDGMENTS

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