A Typology of Videogame Rewards

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INTRODUCTION
Although component-driven structural approaches to videogames have been present at least since the 1980s (e.g., Ziegfeld 1989), the industries of game design and production evolve rapidly, thus tending to make many such contributions either relevant to a specific time or needing frequent updates (for typological and taxonomic models in the early 2000s, see Aarseth et al. 2003; Björk & Holopainen 2005; Wood et al. 2004; Elverdam & Aarseth 2007; Zagal et al. 2007; King et al. 2010). A parallel critical challenge in all such approaches is that they generally pursue a means to analyse or classify gaming holistically, i.e. mapping structures across *multiple* levels. Because videogames involve a potentially infinite number of highly complex structural levels from audiovisual and narrative domains to challenge and spatiotemporal levels, any holistic approach that aims to chart them comprehensively will quickly need to compromise and generalise, which again leads to pragmatic questions (Karhulahti 2020). Due to these issues, an increasing trend over the past decade has been to focus on selected structural levels instead. The present study does exactly this by providing a structural *typology of rewards*, which occur specifically in videogames.

Rewards have been conceptually addressed in games research already for decades (e.g., Malone 1980; Salen & Zimmerman 2004; Järvinen 2008). To our knowledge, the first attempt to build a systematic, multidimensional classifcation of different gaming reward structures was crafted by Wang and Sun (2011) who proposed eight primary reward categories (scoring, experience, items, resources, achievement, feedback, aesthetic, unlocks), which were further characterized by four different attributes (social value, gameplay effect, collectibility, temporality) and utility types (advancement, review, sociality, cooperation/competition). Although the authors acknowledge that this classification system is but preliminary—largely based on popular titles at the time, such as World of Warcraft—their initial efforts to organize reward structures in no less than three dimensions should be commended for ambition and depth.

Building on the above, Phillips and colleagues (2013) aimed at constructing a taxonomy that would have high utility in practice. The taxonomy was soon revised with a dual follow-up design where an exploratory expert focus group was applied to produce a new reward list, which was confirmed statistically by coding selected contemporary videogames. The process resulted in the following taxa: access, facility, sustenance, glory, praise, and sensory feedback (Phillips et al. 2015). In particular, we give high value to the methodological rigor pursued by such dual design, and in general, the above six unique forms of rewards are likely to be useful especially in quantitative

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efforts of game analysis where depth must be compromised for pragmatic reasons. On the other hand, the lack of mutlidimenstionality may produce utility challenges in qualitative game analysis, which can significantly benefit from assisting taxonomic frameworks with more dimensions.

Finally, and most recently, Rapp (2017) applied ethnographic methods to develop a reward taxonomy specifically for World of Warcraft. Interestingly, albeit only three categories were identified—enabling, exchanging, and flexible rewards—the work also yields structural insights that were given little attention in earlier research. For instance, the category of "exchanging rewards" illuminates how some design structures are essentially based on instrumental exchangeability when it comes to rewarding players in diverse ways. Nonetheless, by definition, Rapp's classification concerns only a single popular title and cannot be utilised for gaming in general without significant modifications.

Following the preceding literature and the current state of art, the goal of the present study was to produce a refined multidimensional typology of rewards in videogames. Specifically, instead of a list with equal key categories—which would mean optimising for the ease of quantitative applicability—we aimed to create a maximally comprehensive system of rewards that would involve multiple operational levels and be helpful for in-depth qualitative assessment of videogames. To clarify the focus, we chose to limit this work to videogames (excluding, e.g., traditional card and sports games) yet including all currently popular digital types of gaming.

Our typology has four dimensions, which rest on seven basic **reward types**: *abilities*, *characters*, *drama*, *objects*, *points* (four subtypes), *space/time*, and *stimulates* (Table 1). In practice, any reward manifesting in a videogame belongs to one of the basic reward types, and while any single rewarding event may provide multiple combined rewards at once, each reward type is ontologically independent and may exist without any other reward type. The second typological dimension is **form**, which characterises how a specific identified reward exists. The highest complexity in the typology is distributed across these formal boundaries, which operate under five main clusters and their further subclusters: any existing basic reward type can be specified by describing it as *ephemeral* (or permanent), *exchangeable* (or fixed), *functional* (or cosmetic), *limited* (or unlimited), and *social* (or personal). Each of these five formal categories involve subfeatures; a reward may involve one or more subfeatures.

The third typological dimension is **origin**. This dimension determines from which source the sense of worth in the reward has been constructed. We distinguish between three sources of origin: *culture* (e.g., rewards in the external social world), *game* (e.g., designed in-game rewards), and *players* (e.g., mods created for the game). Finally, the fourth and last dimension is **value,** which describes how the sense of worth is constructed. A reward can be valuable for the player in four ways: *numerically* (e.g., point hierarchy), *ordinally* (e.g., verbal tone), *relatively* (when value is context-specific), and by *uniqueness* (i.e. degree of rarity). Taken together, with the above four dimensions operationalised collectively, we believe that current videogame rewards, their relationships, and their varying meanings for players can be usefully analysed and described.

Table 1.

Form → **Type↓**	***Ephemeral*** form or Permanent	***Exchangeable*** form or Fixed	***Functional*** form or Cosmetic	***Limited*** form or Unlimited	***Social*** form or Personal	***Origin:*** **Culture* **Game* **Players*	***Value:*** **Numeric* **Ordinal* **Relative* **Uniqueness*
Abilities							
Characters							
Drama							
Objects							
Points							
*Currency							
*Experience							
*Likes							
*Ranking							
Space/time							
Stimulatives							

We hope this typology will be helpful in three primary ways: a) by serving as a means to more accurate analysis of reward structures in videogames, b) by encouraging researchers to construct detailed multidimensional typologies for other structures, and c) by contributing to bridging crossdisciplinary gaps in research programs that involve games.

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BIBLIOGRAPHY

Aarseth, E., Smedstad, S. M., & Sunnanå, L. (2003, November). A multidimensional typology of games. In DiGRA Conference.

Björk, S., & Holopainen, J. (2005). Games and design patterns. The game design reader: A rules of play anthology, 410-437.

Elverdam, C., & Aarseth, E. (2007). Game Classification and Game Design: Construction through Critical Analysis. Games and Culture, 2 (1). https://doi.org/10.1177/1555412006286892

Karhulahti, V. M. (2020). Computer game as a pragmatic concept: ideas, meanings, and culture. *Media, Culture & Society*, *42*(3), 471-480. https://doi.org/10.1177/0163443720907010

King, D., Delfabbro, P. & Griffiths, M. (2010). The Role of Structural Characteristics in Problematic Video Game Play: An Empirical Study. International Journal of Mental Health and Addiction, 9 (3). https://doi.org/10.1007/s11469-010-9289-y

Malone, T. (1980) What Makes Things Fun to Learn? A Study of Intrinsically Motivating Computer Games. Doctoral Dissertation (revised version). Stanford University.

Phillips, C., Johnson, D., & Wyeth, P. (2013, October). Videogame reward types. In proceedings of the first international conference on gameful design, research, and applications (pp. 103-106).

Phillips, C., Johnson, D., Wyeth, P., Hides, L., & Klarkowski, M. (2015, December). Redefining videogame reward types. In Proceedings of the Annual Meeting of the Australian Special Interest Group for Computer Human Interaction (pp. 83-91).

Rapp, A. (2017). From games to gamification: A classification of rewards in World of Warcraft for the design of gamified systems. Simulation & Gaming, 48(3), 381-401.

Salen K. & Zimmerman E. (2003). Rules of Play. Cambridge: The MIT Press.

Therrien, C. (2017). From Video Games to Virtual Reality (and Back). Introducing HACS (Historical- Analytical Comparative System) for the Documentation of Experiential Configurations in Gaming History. Proceedings of DiGRA '17. DiGRA. http://www.digra.org/wp-content/uploads/digital-library/57_DIGRA2017_FP_Therrien_HACS.pdf

Wang, H., & Sun, C. T. (2011, September). Game reward systems: Gaming experiences and social meanings. In DiGRA conference (Vol. 114).

Wood, R. T., Griffiths, M. D., Chappell, D., & Davies, M. N. (2004). The structural characteristics of video games: A psycho-structural analysis. CyberPsychology & behavior, 7(1), 1-10.

Zagal, J., Mateas, M., Fernández-Vara, C., Hochhalter, B., & Lichti, N. (2007). Towards an Ontological Language for Game Analysis. Proceedings of DiGRA '07. DiGRA. http://www.digra.org/wp-content/uploads/digital-library/06276.09313.pdf

Ziegfeld, R. (1989). Interactive fiction: A new literary genre?. New Literary History, 20(2), 341-372.