Entertaining the similarities and distinctions between serious games and virtual heritage projects ☆

Erik Champion

School of Media Culture and Creative Arts, Curtin University, Australia

ABSTRACT

This article summarizes past definitions of entertainment, serious games and virtual heritage in order to discuss whether virtual heritage has particular problems not directly addressed by conventional serious games. For virtual heritage, typical game-style entertainment poses particular ethical problems, especially around the simulation of historic violence and the possible trivialization of culturally sensitive and significant material. While virtual heritage can be considered to share some features of serious games, there are significantly different emphases on objectives. Despite these distinctions, virtual heritage projects could still meet serious games-style objectives while entertaining participants.

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1. Introduction

The overall aim of this article is to determine whether entertainment helps or constrains the primary purposes of virtual heritage projects. My contribution here is to provide reasons for my suggestion that the aims of virtual heritage aims are not primarily the same as those of serious games, and that the aims of the former are even less related to commercial games. The first step of this venture is to re-examine the definition and scope of serious games, then compare the aims of serious games with the main aim of virtual heritage. I conclude with a discussion of whether this aim is at odds to or congruent with the aims of gaming per se.

2. What is entertainment?

If we consider entertainment to be diverting or entertaining [44] then we have some interesting issues to explore when designing virtual heritage applications. What is entertainment? If we consider popular forms of entertainment throughout history, such as storytelling and performance, entertainment holds and captivates the attention of an audience. Another aspect of entertainment is that it satisfies, it gratifies, and often creates its own world either as a simulation of or an escape from the trials and tribulations of the real world.

This may lead rise to some game scholars suggesting that entertainment means fun and play, but historically there have been many forms and genres of entertainment that either not funny or playful then or not funny or playful now: public executions, hunting of dangerous animals, gladiatorial combat, or even fictional and literary work such as the performance of horror, tragedy and sorrowful drama. The English language even has the term 'light entertainment', suggesting that there can be a non-light entertainment.

While creating entertainment that captivates and entertains an audience despite featuring horrific or otherwise harrowing content may require an extra level of artistic skill, this does not mean that entertainment cannot educate either during or after the performance event. Aristotle talked of art as catharsis to control and expunge the irrational feelings of an audience [1] and history is replete with examples of entertainment that has resulted in contemplation, revolution, and revolution [15,52,79]. Entertainment can offer new perspectives, control anti-social habits or create new habits [18] so entertainment does appear to have some ability to instruct or to create new ways of thinking, it can be persuasive and instructive.

Entertainment-derived insight is of direct relevance to the importance of serious games to virtual heritage. Entertainment takes people into a new world, they forget their own concern and see the world with new eyes, perhaps another's eyes. When leaving that entertainment experience they could suddenly be struck and moved by the different perspectives between their own life-world and the life-world artistically created by the entertainment medium. A serious game, by *culturally constraining* us,

could allow us to experience a different cultural perspective to our own. The mechanics of games, the limitations of games, could be metaphorically used for the simulated mechanics of cultures different to our own. Unfortunately, so far there is little literature on what the mechanics of virtual heritage serious games should and could be!

3. How serious games differ from games

Given that entertainment does not have to be light, irreverent, or playful, do digital serious games (as entertainment) differ in nature or in degree from the normal entertainment media of digital games? I will argue that serious games do not separate (in essence) from digital games for this very reason. I will concentrate on digital games, not games in general, but the general principle will stand: serious games are a subset of games and therefore a subset of entertainment, because entertainment itself can be serious in tone, and it can be designed for serious purposes even if the participant is not explicitly aware of those serious purposes while playing the game.

This premise leads me to the issue discussed in this very journal (*Entertainment Computing*), whether serious games are even really games or deserve special treatment. In order to focus this discussion I will mostly closely recount and then critique a paper by Tim Marsh, "Serious games continuum: Between games for purpose and experiential environments for purpose", a recent *Entertainment Computing* article [42]. The paper offers a survey of definitions of serious games, a review of some of the more famous examples, provided its own definition, and description of a "serious games continuum" that Marsh suggests would be both useful and all-encompassing (although he does not use this term).

I will not discuss the serious games reviewed by Tim Marsh, as many other papers have discussed them and they are not the focus of this paper: virtual heritage. In contrast to the circularity of some definitions [69] or the replacement of "serious games" as a label with other terms meaning almost the same thing [27], On the other hand, Marsh's definition of serious games and the proffered serious games continuum theory is directly relevant to the intersecting aims of virtual heritage, virtual learning environments, and entertainment.

In his paper, Marsh [42] defines serious games as follows:

"Serious games are digital games, simulations, virtual environments, mixed reality/media and interactions that provide opportunities to engage in activities through responsive narrative/story, gameplay or encounters to inform, influence, for well-being, and/ or experience to convey meaning. The quality or success of serious games is characterized by the degree to which purpose has been fulfilled. Serious games are identified along a continuum from games for purpose at one end, through to experiential environments with minimal or no gaming characteristics for experience at the other end."

On first analysis the serious games continuum sounds like an interesting and applicable classification that could describe and situate virtual heritage games. Games differ both in feature and in their focus on purposive or non-purposive activity. And the definition of serious games sounds reasonable. After all, serious games do inform, influence and help provide meaning. I would add that serious games also train, and help develop habits, even though training appears to be missing from Marsh's diagram of the serious games continuum.

My first objection is historical, while the term serious games may be traced back only to computer games, [29] we have had serious non–digital games [2]. However, this is pedantic, as a term serious games do seem to apply in the main only to computer games.

My second point is that the label of the serious continuum is overcrowded, it contains two differing characteristics, traditional means the games underneath that label are at one of end of the spectrum: they are typical games and feature gameplay. At the other end of the spectrum are experimental and experiential games, they apparently allow for the making of ethical decisions or for cultural encounters, their main purpose is to provide experience and emotion to convey meaning". But the spectrum is also identified by games with purpose at one end, (with challenge, play and fun as characteristics), with the other end of the spectrum featuring environments (here he does not say games or game environments) "with minimal traditional gaming characteristics".

Unless traditional games are equivalent to games replete with challenge, play and fun, and unless the experiential or emotion-conveying games (or environments, whatever that means) are directly and only related to *not* having those characteristics, we have a problem. This continuum features attributes that are not mutually exclusive. There can be experiential games that are fun, playful and challenging. One can learn even from frivolous play that does not have an explicit or well-formed purpose. Traditional games can use emotion to convey meaning but on the other hand they don't need to heavily rely on challenge, play or fun.

Even if we could unfurl this continuum we really appear to have three spectrums that cannot be compared directly. Games can be traditional or experimental and emotional in order convey meaning, yes we could plot that. And we could plot over an axis or perhaps even a spectrum between games dominated by challenge, play and fun to games that are not challenging, playful or fun. The third continuum could be an axis or spectrum bordered by purpose-directed games on one side and non-purposive games on the other. But these three axes are not the same. For we can create experiential or emotionally significant games that do have purpose. Please also not that in his diagram (unlike the text), the other side of the spectrum is labeled "experimental and experiential games" so that side is now experimental, experiential, and emotion-conveying meaningful games. And experiments are purposive.

Over the last thirty or so years there has been a large scholarly field debating the definition of serious games, beginning with Abt and ranging through to the discussion of virtual heritage specifically and cultural heritage in general [2,6,7,11,54,78]. Many of these definitions suggest serious games are games that emphasize the priority of learning as the primary aim of computer games, or serious games are games produced for non-game ends.

There is still debate and movement between these definitions of serious games [76] but I would like here to suggest the mainstream definition is not that useful. It relies on defining itself by what it is not; serious games are games that are not primarily designed for entertaining. As we have seen however, entertainment is not necessarily just a distraction, it can also be edifying, and games do not have to be able to educate simultaneously with being used as entertainment. The meaningful learning component can also happen *after* the experience. Hence, serious games do not have to be defined in contrast to games that are focused primarily on entertainment. Serious games can be entertaining, for entertainment itself can be serious. While entertainment may provide a fictional world of escape, this illusion of escape can also trigger movements in thinking and action in the real world.

As games are process-based learning environments, serious games can develop habits, add to knowledge, or redirect the awareness of the player. They do not necessarily have to be considered serious games by the players to have this effect. The above points and related papers [46] have led me to this simple definition: Serious games are computer games that inform, train (instruct), or influence.