

Well-Being to “Well Done!”: The Development Cycle in Role-Playing Games

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Abstract. Interest in designing games to convey persuasive messages concerning human well-being is growing, but presents a number of challenges. A significant problem comes in connecting the *gameplay* with the persuasive intent. We show how the gameplay structure of “avatar development” in popular-role playing games can be applied to the design of persuasive well-being games.

1 Introduction

Interest in computer games as a persuasive technology is on the rise, often with the assumption they allow players to practice skills or attitudes that can then be applied in the real world [1]. Of particular importance is the design of games relating to human well-being, “a healthy, contented, or prosperous condition” [2], from sexual health awareness to broader environmental concerns. A significant challenge in creating such games is understanding how to connect the *gameplay* to the persuasive message of well-being.

Persuasion concerns “an attempt to change attitudes or behaviours or both” [3]. This foregrounding of *behaviour* clearly implicates the *gameplay* as central to any persuasive attempt: the combination of player actions and game reactions through the user-interface. The design of persuasive games must combine the persuasive message and the gameplay.

2 Background

Sales of digital games in the United States have surpassed seven billion dollars for the past two years [4], some online games have thriving economies rivaling those of the real world [5], and certain games have triggered significant moral and legal debate [6]. Digital games are one of the most popular, successful, and *culturally influential* forms of software.

Given this influence, many groups wish to use digital games as a persuasive technology. The recent Serious Games Summit represents a drive toward

designing games for more than “just” entertainment [7]. Games designed to promote human well-being, however, often resort to simple operant conditioning approaches such as repetitively associating positive thoughts with mouse clicks [8]. These designs focus heavily on representational content rather than the complex relationship of gameplay and persuasive message.

Games which attempt to combine gameplay and message do exist, but they remain relatively unsophisticated. The *Hubba Hubba Challenge* uses the simple gameplay of making choices in a reactive world to educate teenagers on the importance of using condoms [9]. More complex gameplay structures, such as those of popular games, are an important next step.

3 Well-Being in Role Playing Games

The Role-Playing Game (RPG) genre of computer games is very popular, representing roughly ten percent of units sold in the United States in 2004 [4]. These games involve players taking control of one or more avatars in a virtual world, completing quests, and engaging in combat. The player’s relationship with the avatar is central and involves a well-defined development cycle:

1. Taking *action* through the avatar in the world and gaining *resources*
2. Using the resources to directly *upgrade* the avatar
3. Taking *further*, more effective, action through the upgraded avatar

This cycle is the basis of well-being in the game. Upgrading the avatar represents an improvement in well-being which is then *demonstrated* through action. Increases in health and prosperity are measured by detailed statistics. Most importantly, this gameplay structure links the avatar’s well-being with *improved action*. A well-developed avatar is better in combat, more likely to survive, and thus to gain further resources for more improvement.

This “development cycle” has value for persuasive games aimed at human well-being. We performed a case study of the RPG *Fable* [10] using multiple methods of data collection, including *analysis-driven play*, *observation* of two typical players, *semi-structured interviews* with those players, and the collection of *official and unofficial documentation*. Based on this study, we suggest some implications for the design of persuasive games in the next section.

4 Implications for Persuasive Well-Being Game Design

In this section we use the example of a hypothetical game, *Quit It!*, designed to encourage players to quit smoking. *Quit It!* includes an avatar representing the player, and uses the avatar development cycle. The avatar can be developed in a number of ways, including appearance as well as statistics relating to fitness, strength, mental toughness, and longevity. The gameplay involves competition in triathlons while quitting smoking. We present five themes drawn from our study of *Fable* along with implications for the design of a game such as *Quit It!*.

4.1 Feeling an Impact

In *Fable* the key to the gameplay is the ability to improve the avatar and then to see this improvement in *action*. When the avatar's strength is increased they are able to wield heavier weapons, making enemies easier to overcome. In order for a development process to be of significance, it must be reflected in the *action* of the gameplay.

In *Quit It!*, the player guides the avatar to stop smoking and to pursue positive actions such as exercise. Through this gameplay the avatar becomes more fit (development) and will be able to perform better in the triathlon (action). Seeing the behaviour related to stopping smoking have an *impact* is the most important message of this structure of gameplay.

4.2 Overcoming Opposition

The success of actions in *Fable* are measured against *opposition*. It is through combat and the completion of quests that players judge their progress or prosperity: Enemies are easier to defeat and quests more straightforward. In addition, threats to well-being are what give meaning to the avatar's health statistic.

In *Quit It!*, the other competitors in the triathlon present a challenge and opportunity to demonstrate prosperity, but they do not threaten the well-being established by quitting. To achieve this we include the threat of cravings for cigarettes or food. These can be combated via gameplay such as clicking on positive thoughts or items that help stave off the cravings to give a sense of immediacy. With progress comes greater ability both in the triathlons and in resisting cravings.

4.3 Quantify and Qualify

Players of *Fable* are able to see their progress by looking at the avatar's statistics. This not only gives their current status, but also indicates the *potential* for development. Qualifiers such as the physical appearance of the avatar and the reactions of others are also important in feeling successful.

In *Quit It!* we can quantify elements of improvement such as fitness, strength, and even longevity. Such quantifications can be based on official statistics relating to smoking and exercise. Players can therefore gain an overview of their progress or status as they continue taking successful action in the game. Other interesting possibilities are improvements such as losing a cough or having a better complexion.

4.4 Escalation

In RPGs such as *Fable*, escalation is an inevitable part of gameplay. As long as the avatar *can* be improved, players will do so. There needs to be increasing challenge or opposition to keep the game balanced. Quests become progressively more difficult, as do the opponents faced in combat.

As the avatar in *Quit It!* grows in health, it can enter more difficult triathlons. The role of *cravings* as opponents can gradually disappear, at which point, the “game” of quitting may be considered as won. We can allow the player to continue, however, winning further triathlons and reinforcing their achievements.

4.5 Exploits and Experiments

Escalating abilities and challenges can get out of hand. Players often do whatever it takes to get to the highest levels and awareness of this is a part of game design. Players are prepared to *experiment* with the game’s capabilities, attempting, for example, to win *Fable* without participating in the system of development at all or doing so only with a limited set of abilities.

In *Quit It!*, we must be aware the players will attempt to “break” the system of gameplay in order to win most efficiently. Additionally, some will try to win every triathlon *without* giving up smoking. One approach is to make such subversion impossible, but perhaps the more interesting possibility is to allow the *difficulty* and health-risk involved in winning triathlons as a heavy smoker to speak for itself.

5 Summary and Future Work

In this paper we have suggested that the traditional “avatar development” structure in RPGs such as *Fable* is a useful model for well-being games. Based on themes from our case study, we have offered a series of design considerations based on the development cycle, using the example of a “quit smoking” game to illustrate their potential application.

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