

Computer Game Design: A Code of Ethics

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Abstract

This paper examines ethical issues involved in the production of computer games. A review of the current literature available is conducted to understand the work that has been completed on this subject and to identify any areas that require more analysis. The learnings from this review are used to inform a code of ethics for computer game design, based on a number of key principles. This is then tested with a case study of a computer game in production to demonstrate its use.

Keywords: Computer games; Media content property rights; Cultural appropriation.

1. Introduction

26% of the world's population play games regularly and the computer game industry is now larger than the movie and music industries combined [1]. A study in 2021 found that 42% of gamers in the USA were over the age of 35, so it is not just young people who are playing games [2]. It would therefore be foolish to ignore the game industry when considering our cultural heritage and an ethical review of the industry should be regularly undertaken.

There has been much discussion in the media that computer games have a negative impact on consumers. A common argument is that violent and unethical behaviour simulated in games may cause younger players to commit these unethical acts in real life. A counter argument however, is that computer games can also have a positive impact on cultures and societies [3]. This examination aims to understand how this can be achieved.

1.1. Objective

The objective of this paper is to design a code of ethics for computer game production and evaluate it by completing a case study on a real-world example. A literature review is conducted to analyse work that has already been completed on this subject. The key principles from this analysis are used as a basis for a code of ethics for computer game design. The code is tested on a particular design to understand if and how it can be put into practice.

2. Literature review

This review focuses on three topics relating to ethics in computer game production – content, monetisation and property rights.

2.1. Computer Game Content

Media reporting on ethics in computer games generally focuses on the idea that unethical (often violent) content in a computer game can have negative influences on the the player in real life [3], [4].

Virtue ethics and information ethics have been used as models to assess ethical issues of computer game content [3]. It has been argued that games are ethical objects and players of games are also ethical beings [3]. The designer of the game is responsible for the rules of the game, and therefore its values, and the player is responsible for how they

experience the game and interpret those values. It has also been argued that if the player is morally mature enough, the values from the game will not be transferred to their life outside the game [3]. This does not however consider how repeated exposure to shocking content affects the morally mature player and this needs to be investigated further.

Others have considered the influence of the game on players and it has also been argued that there are after-effects from playing a game, such as emotional reactions, and these are not optional or agreed on before play [4]. However, games can have positive results, by enabling players to develop empathy.

We must also consider cultural appropriation. Computer games can fortify a view of indigenous culture that is stereotypical and stagnant [5]. However, they have the ability to offer a public space for an alternative and more realistic indigenous viewpoint [6]. The game *The Mark of Kri* [7] is an example given of a character that is clearly based on Polynesian culture, but the game lacks cultural sensitivity and therefore ethics. When using indigenous symbols and other content in a game, indigenous people with knowledge of the culture must be involved to correctly inform the process and ideas.

2.2 Monetisation

Computer games are usually commercial products and there are many different models for monetising their use. This review will look at the literature on a few of these models.

In Objectivism, ethics are seen to help humans survive and prosper and self-sacrifice is therefore unethical [8]. Greed, however, does not achieve prosperity. One monetisation model for computer games is the free-to-play model, where the game is provided for free, but players are encouraged to make purchases while playing. They are often besieged with advertisements or payment options. It has been argued that this is not an ethical model, as the developer has not produced the best game they could make [9]. Others have argued that if it is well subscribed, it is a product that provides mutual value [10]. The players have accepted the interruptions as a part of the game system. However, if players are lured or exploited, this becomes unethical.

Pay periodically is another model for monetising computer games. Players must pay money to access certain aspects of the game. Often players have already expended effort to reach this point and they must now pay money to access the reward for this work [11].

Shareware and lure-to-play are similar models, in that selected parts of the game are free and others require payment. With shareware, the amount that is free is stated before playing commences, whereas with lure-to-play, players are surprised at various points with an encouragement for payment. This is an unethical model if it is done in an exploitative way, but in cases where the player is happy to reward the company for a good game design, it can be ethical [10]. It is not always clear if poorly designed games, using the lure-to-play model, are intentionally bad or if it is due to a lack of design skills. The company *Zynga* is used as an example. When they used exploitative monetisation models, people stopped playing their games and their reputation was damaged. When they chose to make their payment models more ethical, their revenue increased. This example proves the objectivist theory that being unethical acts against your own interests. The article focused on Objectivism and did not explore other, and potentially more important, reasons for ethical monetisation practices.

2.3 Property Rights

Intellectual property rights in media are governed by the law and are not up for debate. This paper will therefore examine areas unique to the computer game industry that warrant consideration.

Computer games are different from other forms of media, in that much of the content is produced by the player and is often collaborative and ongoing [12]. Some player communities have found ways of hacking and modifying game content and some publishers have tried to incorporate this into game designs by offering tools for content creation as part of the design. The player-creators have different motivations for creating their content. Some do it for enjoyment, some for payment and others to get into the game development industry. This makes negotiating the rights difficult. It has been argued that some games continue to be developed after publication and should the work should be owned at all [12]. This however ignores the fact that publishers will not invest in games if they do not own the rights to them.

Another paper uses the game *Trainz* by *Auran* as a case study [13], [14]. The game design enables and encourages players to create content for the game. They have also engaged a group of advanced player-creators to create content, in exchange for status and publicity. The work of this passionate group has sometimes out-paced that of the developers and it is argued that this shows the power relations between company and consumer are complex [13]. The company uses 'end user' licence agreements to arbitrate the rights to the content. Work that is original (as determined by *Auran*) may be distributed. Work uploaded to *Auran's* platform may be distributed by *Auran* in exchange for an acknowledgement and it may also be included in future versions of the game. Creators are free to distribute any original work on other sites, either for free or for purchase. In this model, the enforcement of intellectual property rights must be carefully balanced with the motivation of the player-creators [13].

Cultural property rights must be considered, particularly when using indigenous content. There has been ongoing appropriation of indigenous culture by computer game producers, without obtaining the consent of the people it belongs to [5]. Intellectual property laws are designed around the Western idea of property and are not likely to protect indigenous cultural values on their own [15]. The English version of *Te Tiriti o Waitangi* enforced Māori property rights in the Western sense of the words, whereas the *Te Reo Māori* version enforces *tino rangatiratanga* (often considered self-determination) over their property and *taonga* (which includes material and non-material property). *Te Tiriti o Waitangi* claim WAI 262 called for greater control of Māori cultural intellectual property rights [16]. The report produced by the Tribunal, while not legally binding, has a lot of political weight [15]. When using indigenous cultural symbols in computer games consent must be sought from the people whose culture it comes from.

3. Code of ethics

Based on the learnings from the review in section two, the following code of ethics has been designed for computer game production:

- Respect the ethical agency of consumers;
- Create content appropriate for the moral maturity level of the audience and cooperate with ratings boards;
- Acknowledge potential after-effects of playing computer games and strive to minimise harm from game design;
- When using indigenous cultural content, consult with those knowledgeable about the culture in the design process;
- Strive to have participation from indigenous communities in the games industry;
- Be transparent about monetisation models in the game design;
- Ensure the quality of the product is appropriate for the level of profit sought;
- Allow players to enjoy the results of their efforts without requiring payment to do so;
- Respect intellectual property rights;

- Where players are co-creators of content, strive to acknowledge this and negotiate rights to any original content in a fair manner;
- Seek fair rights to content we have created; and
- Ensure consent has been granted by the indigenous community for any indigenous cultural content used in a game design.

3.1. Principle 1 – Ethical Content and Ethical Consumers

The code includes the principle that the game is an ethical object that is governed by the rules of the game and players of the game are also ethical beings who react to the game in ethical ways [3]. Players have an ethical maturity level that must be respected by the content of the game. However, there can be after-effects [4], even for the most morally mature player, and the harm from these needs to be minimised in the design.

3.2 Principle 2 – Ethical Monetisation

The principle of ethical monetisation is included in the code by encouraging payment models to be transparent and appropriate for the level of quality in the product. They should not exploit the player by requiring payment to enjoy the results of their efforts.

3.3 Principle 3 – Respect for Collaborative Property Rights

The code acknowledges that property rights in computer games can be complicated, as often much of the content is created by the consumer [12]. The code expects acknowledgement of original player-created content and an agreement for negotiating rights to this content in a manner that is fair to both parties.

3.4 Principle 4 – Cultural Rights

The code includes the principle that indigenous communities have a right to be portrayed in media in a way that is honest and culturally sensitive [6]. Indigenous communities should be encouraged to participate in the industry to ensure their stories are told accurately. Te Tiriti o Waitangi principle of *Whai wāhi* (participation) is honoured by encouraging Māori to participate in the industry and ensure their stories are told with integrity.

3.5 Principle 5 – Indigenous Property Rights

The code acknowledges that Western Intellectual Property laws are not always appropriate for indigenous cultural property rights [15]. Consent must be sought from the indigenous community when using any indigenous cultural content. The principle of *rangatiratanga* (self-determination) from Te Tiriti o Waitangi is honoured by respecting Māori rights to Māori culture and *taonga*.

4. Case study discussion

A case study will now be performed on the design of a computer game that aims to teach players computer programming concepts. The game is aimed at a female audience with the intention of encouraging females to pursue a career in the technology industry.

This is a single-player game where the player takes on the character of a national security agent, who receives intelligence that a criminal is planning a devastating attack on Aotearoa’s national museum, Te Papa, where a document resides that could expose their criminal activity to the world. The player must solve various programming problems to reveal clues as to the whereabouts of the criminal and prevent them from carrying out their attack.

As the game goes on, the clues start to tell a different story and the player may start to doubt the truth of their mission. When they finally meet at the end of the game, the player

must make the choice in their final programming challenge – to destroy their adversary or to join forces with them.

4.1. Principle 1 – Ethical Content and Ethical Consumers

The premise of the game takes the player on an ethical journey that is dictated by the rules of the game, which are upheld by the computer. These rules could be rigid and not allow the player control over them, but as Sicart argues, the player could still be reflective and have creative input into the game [3]. Alternatively, the player could be allowed more freedom to choose a path, but these paths would still be dictated by the design of the game. While evaluating the ethical nature of the game, the designer needs to recognise there is a complex relationship between the ethics of the design and the ethics of the person playing it.

While it is not intended that violence will be simulated, there is underlying violence in the fiction. The designer must consider the after-effects of this violence on players [4]. This should be evaluated as part of usability testing. The moral maturity of the player must be considered during the design phase. Ratings board criteria should be consulted to ensure the content is appropriate for the intended audience, prior to the game being made.

4.2 Principle 2 – Ethical Monetisation

The game needs to be accessible to achieve its aims. Offering the game at no cost is one way this could be achieved. This, however, goes against the Objectivism theory that ethics should help humans survive and prosper [10]. If the game is offered at no cost, how will the development overheads be covered? This could lead to it being sub-standard, which could in turn make it not achieve its goal.

Bombarding players with advertisements or payment options in a way that is unacceptable to players, would also be counter to the goal of improving participation, as players would choose not to play. Offering the game for free, but requiring payment to receive certain clues, would make it accessible and profitable. However, making the player pay to receive the reward for their work may lead to them aborting play. A pay-once model at the point of sale is the most transparent form of monetisation. The up-front cost may put some prospective players off, but the people who do purchase it are less likely to be put off by monetisation aspects of the design.

4.3 Principle 3 – Respect for Collaborative Property Rights

The rights to the code and design artworks are owned by the producer. However, it needs to be acknowledged that input from the player also contributes to the game experience [12]. It is not intended that the code required to solve the challenges will be extensive enough to give it commercial value, but it should be acknowledged that this input belongs to the player-creator and they are free to use it and distribute it as part of other projects they may work on.

4.4 Principle 4 – Cultural Rights

As the game is based in Aotearoa, it is likely that the content will include Māori and Pasifika cultural content. This needs to be done with participation from these groups, to ensure the content is authentic and culturally sensitive. Engaging with Māori and Pasifika women is of particular importance, to encourage participation in the Technology Industry from these groups.

Although the code focuses more on ethnic culture, this can also be expanded to include gender culture. The game is aimed at a female audience, so female participation in the design process is required to avoid stereotyping female taste [17].

4.5 Principle 5 – Indigenous Property Rights

As discussed in 4.4, it is likely there will be Māori and Pasifika content in the game. It must be acknowledged that this content is a *taonga* and consent must be sought from these groups for its use before it is included in the design.

5. Conclusion and recommendations

This paper examined ethical issues in computer game production. Three key topics were identified for analysis – content, monetisation and property rights. A review was conducted into the literature already completed on these topics and from this a code of ethics was designed based on five principles – ethical content and ethical consumers, ethical monetisation, respect for collaborative property rights, cultural rights and indigenous property rights.

The principles of the code were then tested on a game design that teaches computer programming concepts, with the intention of encouraging more female participation in the Technology Industry. The final three principles lead to clear design decisions, while the first two could be applied in different ways and the code could aid in making these decisions. During testing, it was found that the principle of cultural rights could be expanded to include other cultural groups. In this case it was extended to include gender culture.

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