CINDR: A Proposed Framework for Ethical Systems in Video Games

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Abstract— **In this paper, we will propose CINDR, a video game ethics framework, and use it as a semantic context for examining and classifying several example video games that represent various video game genres. Consequently, we will discuss ways in which the gaming industry could, in the future, create games while seriously considering the ethical issues virtual worlds can cause for players and their communities.**

Keywords— ethics, video games, entertainment, morality, interactive media, gaming

I. INTRODUCTION

Video games are an important source of entertainment for many individuals, growing the video game industry to support several platforms including multiple home consoles, several handheld consoles, Personal Computer (PC) gaming, and recently, also smartphones and tablets. In 2013, Gartner analysis estimated that the video game industry had made 93 billion in revenue, up from 79 billion in 2012 [2]. As large and profitable as the video game industry may be, there is still a great deal to consider in reference to what kinds of games we are playing, and what ethical issues developers face when creating them, as well as what consumers face when playing them. Specifically what kind of ethical systems can be found within the various gaming genres such as the Platformer, the Role-Playing Game (RPG), the First or Third Person Shooter (FPS or TPS), the First or Third-Person Adventure (FPA or TPA), and even the "casual" smartphone games. In this paper we hope to shed further light on the possible issues and incongruences present within the ethical systems of video games.

The video game industry is no stranger to controversy. Starting in the 1980's with the scare that video game arcades were the gathering place of corrupted youth [7] to more recent media developments concerning mass murdering of innocent civilians in the game Grand Theft Auto and player's role in supporting (or subverting) a dictatorship as a toll booth operator in Papers Please [13] revealing various ethical systems present within video games, whether or not they are considered by developers or players. Ethics researcher Miguel Sicart succinctly defines "the ethics of the game as a system of rules that creates a game world, which is experienced by a moral agent with creative and participatory capacities, and who develops through time the capacity to apply a set of player

virtues" through the lens of informational and Aristolean virtue ethics [14], and through extensive analysis of video game ethics and case studies Sicart also suggests that players "exert their creative stewardship, as well as develop the moral reasoning that leads them to make ethical choices … for[also] further developing their own individual culture as players" [14] This means that players must actively engage, reflect, and respond to ethical choices in the game world (in game) just as they would in the user world (out of game).

According to Sicart the player is defined as an "informational being", intrinsically tied into the video game system and its corresponding ethical system by virtual ethical systems influencing the player and game communities themselves [14]. By reaching into Sicart's ontological work, we see that there is a theoretical basis for virtual ethical systems influencing real ethical systems just as other more quantitative studies seem to suggest that video games do have an effect on the player both physically and emotionally [1][3][4][6]; albeit without an accurate account of the exact degree at this point. Noting this, as video game technology progresses towards greater immersion we should start asking ourselves at which point do the closely interwoven ethical systems between the game and user worlds become inseparable.

If video games can have some effect on the user world, then it can be assumed that their ethical systems should be responsibly considered, by game designers and others (policy makers, parents, etc.), for their influence on the players. This topic on the consideration of values when creating video games is covered in depth by Mary Flanagan within her books Values at Play [18] and Critical Play [17]. As the studies cited above also suggest a link between game or player (perspective from within the game) and user (perspective from the person playing the game) phenomenon we should also discuss how all video games, regardless of whether ethical systems were deliberately observed and programmed during development, do have some system present defined by its rule-based gameplay and moral consequence. Though not specifically about video games, this is where we accept Bernard Suits definition of games in The Grasshopper as an "attempt to achieve a specific state of affairs, using only means permitted by rules, where the rules prohibit use of more efficient in favour of less efficient means, and where the rules are accepted just because they make possible such activity." [19] It is precisely the "rules" that we

are interested in – how the game guides the player's actions in addition to defining how these actions are viewed within the game's context (i.e. are they deemed negative or positive actions).

We propose a classification framework for game ethics called CINDR (*Complex ethical systems*, *Indifferent ethical systems*, *Dualist ethical systems, Necessity ethical systems*, and *Responsive feedback ethical systems*). We believe it is important to provide a semantic foundation onto which we can further explore ethical concepts within the many gaming worlds. There is a great deal more work that can be done with ethical systems within the video game industry that relate to their ability to tell a story without ludonarrative dissonance, and we hope that by bringing attention to the types of ethical systems and their relation to gameplay that we can help pave the way for video games that consciously consider their ethical systems as part of the gaming experience as opposed to a by-product of gameplay or story.

In the next section we briefly review the existing research on game ethics, our theoretical framework, a few varied case studies, and some conclusions that summarize the intentions of this work.

II. RELATED WORK

Ethics in video games are notions that have been considered since video games have been created but it is only relatively recently that there has been a focus on not only the ethical systems present within the games themselves, but also how these ethical systems influence real-world decisions of its players. We will focus on the ethical systems within the games themselves, rather than their user consequences, in this paper; but it is worth noting that many researchers, such as David Waddington argue that "If the virtual worlds of today's ultra-violent video games can feel like real worlds for gamers, then there is reason to believe that a devaluation of wrongness may be occurring" [11] as it points to real-world consequences of these games. This makes exploration into video games' ethical systems both an attractive and significant topic.

Within some examples of ethical frameworks discussed we have Bernard Perron and Mark Wolf that examine video games from many angles in the Video Game Theory Reader 2, which also includes touching upon the ethical systems present within games. In their paper they mention both "dualism" systems and "complex" systems [9]. Dualist systems, commonly seen in RPGs, have a character scale that ranges from good to evil. Decisions made in game move players' characters towards these ends. Some examples of this are Knights of the Old Republic (Bioware 2003-) and the Fable series (Lionhead Studios 2004-). Interestingly, Perron and Wolf mention that these systems are "closely related to Deterministic and Racist philosophies." [9] This seems to be a common theme in video games where one side is clearly "good" and the other side clearly "evil". Perron and Wolf also talk about how modern games lack design complexity when considering ethics, and often rely upon these simplistic dualist concepts. One game they do note as more complex though, is King Arthur Pendragon (Chaosium, 1985) as a uniquely "ethically complex" game that considers thirteen personality trait axes

that allow for much greater ethically complex character development such as "A character may indeed be cruel and deceitful but at the same time, be forgiving and generous [9]."

José Zagal also looks at "ethically notable" games as only those that have "evaluation of in-game actions with the narrative framework that contextualizes them, a videogame can both represent as well as enact an ethical framework." [12] Zagal uses the examples of Ultima IV: The Quest of Avatar (Garriot, 1985) and Fable to categorize ethical games. He goes on to state "The player, by learning and understanding which (and when) actions are considered good or evil, can begin to understand the ethical framework that is procedurally encoded in the game." [12] Is it fair to only consider "ethical games" as those that make their ethical systems opaque though? It is often obvious that a video game has Goals, Rules, a Feedback System, and Voluntary Participation as defined by Jane McGonigal in *Reality is Broken* [8]; and by having rules and a system for processing game progress we must also consider how in-game actions may be understood by the player. Mary Flanagan covers this within her book Values at Play, provoking questions such as "what if the game [Angry Birds] was modified to support the value of creativity instead of destruction?" [18] Additionally, according to Sicart, players become uniquely tied to a virtual experience in a way that affects themselves and community around them [15]. As games become much more realistic and less distinguishable from a user reality, such as games that may make use of Virtual Reality to increase immersion, how player actions are understood, and the consequences or lack of consequences they espouse must be considered. Greater care may have to be taken that we are not projecting unethical systems onto the user world, by first identifying them, as "In the case of violent video games, there is abundant scientific evidence which points in the direction of an increase in risk [8]".

III. THEORETICAL FRAMEWORK

In this section, we will propose a basic classification for ethical systems found within video games on the assumption that all video games have ethical systems, transparent or otherwise, as Sicart and others have suggested that "These rules [programmed objectives and conditions of game], being the objective nature of the game, might be considered as a relevant part in the ethical construction of the experience, as the constraints and affordances that impose on the player might actually have embedded values" [14]. The only exceptions, we should note, involve games with no choice in the treatment of sentient beings (characters possessing some programmed intelligence) disallowing moral choice and consequence. Examples of these exceptions could include games such as Pong or puzzle games like Tetris. In these relatively simplistic games it is difficult to see how ethical behaviours can be considered when the only options are to win or lose (by moving a paddle up or down for example). It is only by moving out of the contained system and into how players project their own values onto the system, can we see any semblance of choice (such as cheating and pulling out their opponent's controller in a multiplayer battle, or manipulating the game's code to allow actions regularly inaccessible by the system); but this is beyond the scope of this paper where we wish to remain

firmly and unbiasedly in the game system itself, unaware of the user's perspective.

Table 1 shows the categories of ethical systems in our proposed framework.

TABLE I.   CINDR ETHICAL SYSTEMS IN VIDEO GAMES

Ethical System	Primary Features	Primary Genre(s)
Complex	Allows for emergent and player ethical systems based on NPC (Non-Player Character) feedback to player actions. This system is not always clear.	Art/Serious RPG
Indifferent	Lack of consideration of the players ethical decisions on the virtual world.	Platformer
Necessity	Involves little consideration of ethical behavior of virtual characters, and often relies on the necessity of some action (i.e. murder) to justify player actions.	FPS TPS Action
Dualist	Often involves one or few axes where player and story decisions move a trait along the axis.	RPG Narrative
Responsive Feedback	This system often has very clear feedback to guide player actions.	Sandbox Simulation

A. Complex Ethical Systems

In complex ethical systems we often see a very concerted effort by designers to create an ethical system, or allow for an ethical system to naturally form, that not only encourages thought about character's behavior but also more closely follows user familiar systems. Game like King Arthur Pendragon that have several axes of personality traits defined by character behavior, and more modern games like Papers Please [13] or The Stanley Parable [16] create systems that the player can obey or disobey with very flexible consequences that forward the use of ethics in games in a more complex, thoughtful, and realistic manner. Often ethical decisions lead to larger story and gameplay consequences.

B. Indifferent Ethical Systems

Indifferent ethical systems refer to games that do not generally seem to consider ethics as part of the gameplay system. This would be best represented by genres that traditionally do not have stories, but do still have representation of "live" elements such as humans or creatures within the world as either protagonists or enemies. Good examples of this type of games are platformers that have very little story elements and the live enemies are merely seen as obstacles rather than entities of depth. An example of such a game would be Super Mario Bros. An indifferent ethical system assumes that ethics need not be part of the system and there are no gameplay considerations concerning morals.

C. Necessity Ethical Systems

In the third category of ethical systems, the game does not necessarily make its ethical system obvious but there is often a context for its nature told within a story. In this system actions are often quite violent, but most importantly, are easily excused. Often these excuses are that the killing is mandatory because it is a war game or others are out to get you, and the genre most associated with this type of gameplay are FPS's or TPS's. Often these games ask that you kill your way through levels, but the story explains away why you are killing so many and so often as a necessary part of the objective.

D. Dualist Ethical Systems

Dualist ethical systems refer to the most recognizable ethical system found in video games (such as Fable or Knights of the Old Republic). This ethical system is tightly intertwined with gameplay elements such as player choices that define their character as "this" or "that", or often as "good" or "evil." These systems work effectively as they are quite simple and allow for great flexibility in designing a game that gives the player some choice, even if illusionary; but they lack any real depth due to the binary nature of two main extremisms such as "evil" or "good".

E. Responsive Feedback Ethical Systems

Responsive feedback systems are those that guide the player through negative and positive feedback. The ethical guidelines may not be clear but nonetheless play a role in forming the world the game designers have created. Usually games like these are very open-ended in nature, games like EA's "The Sims" or Nintendo's "Animal Crossing" where villager's treatment of the player reflect how the player treated them. Another example might be The Elder Scrolls series that sees bounties put on your head for killing or stealing, and the police, or even the military, hunting the player down in Grand Theft Auto for committing too many crimes. It should be noted that the feedback system is not always in play as some missions may require murder, for example, which reduces consistency, but allows for more flexible gameplay design.

IV. CASE STUDIES

In the following paragraphs we will look at several notable games that encourage discussion about video game ethics and briefly discuss the ethics, and sometimes controversies, involved in each to help validate our theoretical framework.

A. Bioshock Infinite (Irrational Games, 2013)

There have been many papers and postings by game journalists detailing the ethical systems and dilemmas present within the video game industry. The most recent example of which are the reviews of the heavily story-based game called Bioshock Infinite that attempts to create a story-heavy and detailed journey that touches upon religion and the concept of utopian ideals ultimately leading to dystopian realities. Bioshock Inifnite involves a great deal of intense violence, often in the form of the amount of blood, heads exploding, and an extraordinary number of people having to be killed to advance. This makes Bioshock Infinite a good example of a *Necessity ethical system*, which, interestingly, popularized the concept of "ludonarrative dissonance" within the gaming press

as Bioshock Infinite's complex story seems at odds with the "kill this to move ahead" gameplay.

This is, in relation, to the first Bioshock that many critics lauded as ethically interesting concerning the story-choices that were present in more nuanced ways (such as choosing to kill or save "little sisters"). Game journalists everywhere almost completely agreed on how spectacular the story and atmosphere are in Bioshock Infinite, but many were also surprised by the violence. Brainy Gamer blogger writes "Brilliant as the game is - and as earnestly as it tries to explore social-political issues - Infinite is tethered to its mechanical nature as a shooter in ways that undermine its aspirations [5]." When talking about Bioshock and its violence former Epic Games Designer Director Cliff Bleszinski wrote "I know, it's weird. Maybe it's the fact that they did such a fantastic job of making this nuanced world that hitting you over the head with those moments felt out of place for me [5]."

B. Fable (Lionhead Sudios, 2003)

In Fable you start as a young child that grows up to be a powerful protagonist that aims for vengeance for his or her family's death and ridding the land of an evil protagonist. Though ethical systems were present is many games before Fable, Fable represented one of the few that became "mainstream" making player choice important in defining whether your character is good, evil, or something in between. This become, and still is, one of the defining examples of player choice of the modern videogame world and the *Dualist ethical system* of your character being either good or evil.

Though not a controversial game it showed that having an opaque ethical system as a main gameplay component could ultimately prove interesting and attractive for many video game enthusiasts.

C. Papers, Please (Lucas Pope, 2013)

Papers, Please is a game that puts the player in the role of a toll booth operator at the border of a totalitarian state. The player must make sure travellers passing through the border have the correct documents. This is the players job so they can make enough of a meager wage to feed and shelter their family. The interesting ethical conflicts that start to form are when travellers within the game are seeking asylum from a dire situation and the player, as a the toll booth operator, can choose to allow them access even without the correct papers, or face the consequences of the state by trying to pass travellers through without the correct documents. Additionally when the player allows someone through with incorrect documents their wage is reduced, adversely effecting the players ability to adequately feed and shelter their family – possibly and ultimately leading to a game over scenario where the player loses their job and is jailed, or worse.

Papers, Please is a great example of a *Complex ethical system* that allows several types of choices, asking the player to make ethically ambiguous decisions, that can greatly change the story and ending of the game.

D. Animal Crossing (Nintendo, 2001)

Animal Crossing is what Nintendo refers to as a "communication" game and what most people might refer to "like the sims." It is a game in which you play as a human trying living a self-guided life within an animal village. Though the player can create personal objectives such as make lots of bells (currency) by working or selling items, the gameplay is open-ended and time-based so that even when the game is off the world changes.

Animal Crossing is interesting as it does have a *Responsive feedback ethical system* built into it though it is not marketed as a primary component of the gameplay. It is based on positive and negative feedback mechanisms. For example, if you write and speak, and help with errands, for the villagers often they will be more likely to send you presents and not move away to another village. If you rather ignore villagers or actively try to upset them by hitting them with a fishnet, pushing them into holes, or reading their time capsules before they do they will get upset and be more likely to move away, and less likely to send presents or speak about you in kind ways. It is very subtle but an interesting way to handle ethical behavior leading to more open-ended, though not necessarily significant, gameplay behaviours.

E. Super Mario Bros. (Nintendo, 1985)

Super Mario Bros. and its dozens of sequels and spin-offs since have never been heavily story-based. They were a means to an end in introducing interesting gameplay concepts and scenarios that have ultimately laid the foundation for all "platformers" since. Generally platformers are all about "gameplay" meaning they are generally easy-to-control but difficult to master as levels involve simple actions like jumping and running to defeat enemies and levels that can sometimes be organized in ways that make them more akin to puzzles that the player must find a way through. Traditionally they are not considered when speaking about ethics but we think it is worth mentioning that platformers tend to take a very indifferent approach to ethics, making this a good example of an *Indifferent ethical system*. In fact many enemies within platformers are quite passive unless touched in the wrong way (e.g. the slow moving "Goomba" in Mario Bros.) and yet platformers often encourage their destruction, and all others, for higher scores.

This is very interesting as, not unlike mentioned in Perron's descriptions of dualist systems in ethics there is a sense of racist prejudice, but with no real feedback other than a higher score during the "enemies" death that describes their existence. Super Mario Bros. seemingly skirts around this issue by having no story and all-ages graphics but one wonders how much more interesting and meaningful the experience could be without just a gameplay element, but also rather greater insight into its ethical systems, likely unconsidered by developers, that allows for a more equal footing of "enemies" not described as merely different than your character. Perhaps there could be new gameplay concepts

such as lack of killing giving a high score as well, or the possibility of playing as one of the "enemies."

V. Conclusion

It is possible to consider all video games, with a few exceptions, as containing ethical systems due to their rule-based gameplay with player choice and moral consequence. We propose four main ethical systems to help semantically define the ethical systems present within each video game. We hope this may help in bringing greater attention to how increasingly important it is to consider the effect on the player as games become more immersive, leading to more accurate ratings systems and ideally more ethically complex games that allow for greater player creativity, freedom, and thought.

"Anyone who does something for a mass market has a responsibility. You tread carefully on the lessons that you teach. That line that 'if a game is fun, it is okay'-that sounds trivial. If it is obvious this is an artificial world and you can't do these things in real life, then that is more acceptable. But if it parades itself as a real world, you have to be careful about that - Peter Molyneux, Game Developer and Creator of the Fable series." [10]

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