

## State of Play: Games and Moral Dilemmas from an Ethical Framework Analysis Approach

The arts, media, and morality share a long and fascinating history. Morality is a fundamental component of the human experience, and art – from Greek drama through to Saturday morning cartoons – is a powerful, pervasive means of disseminating and interrogating moral principles and points-of-view (Carr, 2005, 2006). Videogames are no exception to this rule and the history of “ethically notable games” (Zagal, 2010) or ENGs is almost as long as the history of gaming itself, with formative examples like *Ultima IV: Quest of the Avatar* (Origin Systems, 1985) and *Balance of Power* (Crawford, 1985) appearing in the early 1980s. Following the success of *Star Wars: Knights of the Old Republic* (BioWare, 2003), it became something of a trend for videogames to feature “morality meter” systems in which the player’s moral decisions contribute to an overall “morality score” for their character. Subject to criticism from academics (Melenson, 2010), critics (Allen, 2014), and fans (Aristov, 2012), morality meters have fallen out of favor and there is now a “growing corpus” of ENGs that treat morality with greater care and nuance (Heron & Belford, 2014).

In this paper we will examine three such ENGs, focusing in each case on unusual or innovative design features for facilitating moral engagement. Limiting ourselves to games released in the last two years, our primary goal is to provide a state-of-play for ENGs and identify elements that designers and academics can use in their own work.

## Literature Review

The literature on ENGs is active and diverse. In recent years interest in the subject has exploded and there are now multiple frameworks for classifying, analyzing, and designing ENGs. These include Flanagan et al.'s (2007) Values at Play project, which explores how developers embed moral, social, and political values in their games; Stevenson's (2010) three-tiered scheme for categorizing ENGs; Schrier's (2015) EPIC framework for using videogames in ethics education; and Ryan et al.'s (2016) "four lenses" for ENG design. In addition to these, there is a growing corpus of empirical studies on ENGs. In one such study, Weaver and Lewis (2012) examine "how players make moral choices in videogames and what effects these choices have on emotional responses to games" and find that players of ENGs make in-game moral choices that are largely in keeping with their real-world moral intuitions. This is consistent with Consalvo et al.'s (2016) qualitative study of player attitudes, which finds that "rehearsing [an] ethos" – playing a better version of their own moral selves, basically – is essential to many gamers' enjoyment of ENGs. This theme is reinforced by a similar study (Lange, 2014) in which players overwhelmingly express a preference for playing "good" characters in ethically notable role-playing games (RPGs).

In a series of thought-provoking papers and books, games scholar Miguel Sicart (2010, 2011, 2013) outlines a model of ENG design based on the "Levels of Abstraction" concept

within information ethics. The model posits that players interact with videogames at two levels of abstraction: as procedural/mechanical systems to be mastered, and as semantic objects with cultural and ethical meaning. For example: from a purely mechanical perspective, *Call of Duty: Modern Warfare II's* (Infinity Ward, 2009) infamous “No Russian” level is not terribly different from any other level in the game. The goal, as always, is to shoot people: the difference is that in this level the people are unarmed civilians at an airport. This makes us uncomfortable: there’s dissonance between the game’s procedural goals (shoot everyone) and their broader ethical and cultural implications, resulting in what Sicart calls ethical cognitive friction – a “contradiction between what to do in terms of gameplay, and the meaning and impact of those actions, both within the gameworld and in a larger cultural setting” (2010, pp. 6-7). The key to designing ENGs, Sicart argues, is to focus on this dissonance, to provoke and exploit it and thereby compel the player to consider the moral significance of the game’s procedural and semantic layers.

We highlight Sicart’s work particularly because it informs much of the analysis in this paper. We will see, for example, how the concept of ethical cognitive friction can be productively applied to analyse the strengths and shortcomings of ENGs. In addition to its theoretical robustness, Sicart’s work is broadly compatible with the insights of other scholars working in the field, and where appropriate we will draw on this work – most notably Nay and Zagal (2017) – to supplement our analysis. This constitutes the secondary

goal of our paper, which is to highlight concepts from the ENG literature that facilitate fruitful analysis and further discussion.

## Method

Sicart emphasizes that games will be ethically questionable when they do not allow players to create their own ethical game values (Sicart *a*, 9). Video games have systems and worlds, where these elements can operate coherently or at odds with one another, and with a player's ethical character forming determined through the relationship of those elements. The system (rules, code, etc.) which constrains interaction between the player and the world (virtual environment) produces emergent ethical values to be judged by players (ibid, 35). Sicart proposes that to be morally engaged as players we have to allow for subjectivization as well as *phronesis* (ibid, 89). Phronesis is a hermeneutic process whereby practical knowledge is applied to new experiences and results in *praxis*. Phenomenologically, the praxis of gameplay is where players are articulated as ethical subjects. This conception of how a player is necessarily an ethical subject is Sicart's first step in forwarding an ethical framework analysis model, with these notions being based in Aristotelian virtue ethics. The model is a tool for determining ethical game design.

"Ludic phronesis" operates at two levels: player choices afford a fulfilment of expectation for gameplay; the player is afforded an 'out' for being unethical in the game (ibid, 113).

That is to say, Sicart argues that players can be ethically triggered by choices in the game because those choices (and their results) reference their ethical character as people outside the game. Their ethical character is predetermined prior to the game experience through phronesis (or practical knowledge), and therefore ludic phronesis is subsequent. Players can be understood as always exerting moral agency while playing, and games can be thought of as moral objects. Players draw out the values embedded in the game's design through ludic phronesis – Sicart writes, “ludic phronesis is an ethical resource in the process of interpreting the game experience” (ibid, 117).

The next step in defining Sicart's ethical framework analysis model is to introduce information ethics to the applied virtue ethics that understands all players to be moral agents and all games to be moral objects. Information ethics flattens the landscape and conceives of the game, the player-subject, the player, and the community as having equality with respect to a hierarchy of interaction and power relation. All elements are informational beings and each has to be open to the creative actions of all agents in the formation so as to be ethical (ibid, 135). Limitation, constraint, and closedness result in imbalance, and imbalance leads to hierarchical structures that are by definition not ethical from an information ethics perspective. Sicart incorporates information ethics in his model to account for the community in gaming because virtue ethics would hold collectivist-based structures are subsequent to the morality formed by the individual (i.e. individual morality informs the community's morality). Sicart appreciates the essential agents of games (game, player-subject, player, community) as co-articulating morality

and addressing each other as ethical subjects within gameplay. Additionally, the concept of “distributed responsibility” works with information ethics but not virtue ethics (ibid, 137). Distributed responsibility makes sense for games when explaining that not everyone in a community is responsible for the same thing at the same time, even if everyone is responsible for something at all times during the gaming experience.

For Sicart, - “bad design is an unethical practice” - and that which constrains communication between objects/agents in a game experience is an unethical design element of the game (ibid, 139). The game world has to react to players’ ethical stance and choices have to be meaningful through the system reacting in moral ways. Sicart’s ethical framework analysis model conceives of games as networked ethical systems. Within the model, there are open designs and closed designs for an ethical game system. For the most part, open designs are encountered in multiplayer games, especially MMORPGs. There are two modalities in ethical design for closed systems: subtracted and mirrored. Subtracted closed design denotes that player moral values are not a driving force in game progression for the system, whereas mirrored closed design denotes that players are affected morally in a similar way as to how characters in the game are.

In Sicart’s further articulations and refinements of the ethical framework analysis model, he distinguishes two domains in games - the semiotic and the procedural - which together define the ethics of a game when experienced by players (Sicart *b*, 47). The semiotic and procedural domains must be open to the player, as well as open to each

other in order to afford ethical game design. A successful design technique for rendering the domains open is “slow technologies”. The slow technologies approach to design foregoes efficiency and speed in experience for a more contemplative mode of engagement and interaction (ibid, 73). This approach is ideal for ethical gameplay as it raises moral awareness through allowing time for contemplation, and it then promotes moral reflection through the construction of an “emotional and ethical arch” (ibid, 73). Citing Bill Gaver, Sicart asserts that ethical game design draws the player toward focus on questions, and not answers (ibid, 76). Within the slow technologies design paradigm, moments of limited agency will require players to alter expectations and readjust, which leads to greater moral awareness and moral reflection. This notion of readjusting during moments of limited agency is a final critical element of Sicart’s model and he develops the concept of “ethical cognitive friction” to explain the importance of a player’s moral readjustment to successful ethical game design.

Ethical cognitive friction can be generated through design elements such as providing the player no moral compass in the game world, or through providing the player with no information on the outcome of choices (ibid, 96-98). These aspects of ethical game design challenge players to reconsider their own moral standpoint through the ill-defined nature of the problem. Ethical thinking is required to forge an array of potentially workable solutions. Another ethical design element is the “aggregation of choices”, whereby consequence is not easily traced to a particular player choice (ibid, 105). Finally, through

citing Richard Pearsey, Sicart forwards a highly effective ethical design element – providing only “bad” and “worse” options to the player.

Sicart’s ethical framework analysis provides some essential elements for ethical game design. The model is based in virtue ethics for its capacity to understand gamers as ethical subjects and games as moral objects. Information ethics provides the nuances that are necessary for the specificity of the medium of games, and which allow notions such as distributed responsibility to be valid, especially with respect to multiplayer gaming and game community experiences. Furthermore, ludic phronesis is the process by which players are constituted as ethical subjects within the gaming experience. This becomes the phenomenological backbone of Sicart’s model. With respect to the dynamic and emergent qualities of gameplay, Sicart’s model affirms two domains in the game experience: semiotic and procedural. Those domains must remain open to the player and to each other in order to achieve ethical game design. Additionally, ethical game design can be part of open or closed systems, provided that the closed systems still opens communication between the game and player with respect to ethical matters emerging from within gameplay. Slow technologies is an overarching design paradigm which affords ethical cognitive friction for players during moments of limited agency. Within that paradigm there are several design techniques which can generate ethical cognitive friction, such as aggregation of choices or bad-worse choices. The three games which we chose to analyse provide fertile ground for the application of Sicart’s model, and the



design features and unique mechanics of those games suggest important developments for successful ethical game design.

### **Micromorality and Virtue in Firewatch**

*Firewatch* (Campo Santo, 2016) is a first-person adventure game developed by Campo Santo, published by Panic, and released in February 2016 for PC, Linux, and Mac OS, with PS4 and Xbox One versions following in September. Likened to so-called “walking simulators” like *Gone Home* and *The Stanley Parable* (Galactic Cafe, 2013) the game was reviewed positively by critics and players, receiving particular praise for its well-structured, engaging narrative. Starting with a short interactive text adventure, *Firewatch* guides players through the shared history of protagonist Henry and his wife, Julia. Beyond choosing between superficial alternatives, such as what to name the couple’s dog, the player’s agency during this section is limited, and the same basic story – boy meets girl, boy marries girl, girl is stricken with early onset dementia, boy has existential crisis – is told no matter what the player chooses. The prologue serves another purpose, however, in that it immediately confronts players with the almost aggressive ordinariness of its protagonist. Henry is a chubby, balding, everyman facing a painful, uncertain future. Like everyone, he is flawed – a fact that informs much of *Firewatch*’s subsequent narrative and moral content.

*Firewatch* features a branching narrative driven by choices the player makes during dialogue. In keeping with its everyman protagonist and slice-of-life fiction, the moral scenarios depicted in the game are parochial, even mundane, compared to the world-ending dilemmas featured in other games. To its credit, *Firewatch* does not deal with big “life and death” or “save the world” choices, focusing instead on “micromoral” issues (Rest, Bebeau, & Thoma, 1999) similar to ones many of us face in our own lives. This approach has multiple benefits, two of which are especially relevant here. First, micromoral scenarios are by definition more relatable and familiar than big picture, macromoral scenarios, making it easier for the player to identify with the protagonist. Second, micromoral scenarios facilitate what Sicart (2013) calls the *aggregation of choice*: an approach to ENG design in which one-off moral scenarios with immediate, profound consequences are replaced with many smaller scenarios that accumulate significance as the game progresses. For Sicart,

“[t]he aggregation of choices is a better fit for designing ethical gameplay because it places the players in a narrative or world context in which many choices are offered all the time, and the consequence of each is not readily traceable to a particular choice” (p. 105).

One of the chief virtues of the aggregate approach is that it shifts the player’s focus from outcomes to choices, representing morality as more than problems waiting for optimal solutions, but as an expression of one’s identity – as something that one *does*, day-to-day, in a multitude of tiny but important ways. In this sense, *Firewatch* embodies an Aristotelian, virtue-oriented approach to ENG design. Contra consequentialism, virtue

ethics “evaluates actors based on the habits of their actions, and the temperament motivating them rather than the outcomes of those actions” (Nay & Zagal, 2017, p. 2). For virtue ethicists, choices matter chiefly because of what they say about our character, and that is also true of *Firewatch*.

When *Firewatch* begins, Henry has taken a new job as a fire warden in a national park while Julia, stricken with dementia, is relocated to a care facility in Australia. Soon after starting his first day, Henry finds a walkie-talkie and is immediately contacted by Delilah, his supervisor, who asks him to find the source of the fireworks going off (illegally) above a nearby lake. Following a trail of clues, the player eventually discovers that two skinny-dipping young women are responsible for the disturbance. Drunk and belligerent, these women, who can be seen only as distant silhouettes, berate Henry for disturbing them and call him a pervert, among other things. How Henry responds is left up to the player. Should he be a professional – turn off the nearby stereo, pick up the beer cans, let the insults roll off his back? Or is Henry the kind of guy who takes it personal, the kind of guy who might abuse his authority a little and toss someone’s stereo into the lake, just to teach them a lesson? Both choices are recognized by the game as legitimate, but – significantly – neither impacts the way the rest of the narrative plays out. Consequences aren’t the point; the choice is what matters.

Another illuminating example of *Firewatch*’s micromoral scenarios occurs about half-way through the game when Henry decides, without the player’s input, to take off his wedding

ring and leave it on his desk. The significance of this action is only apparent in the context of the evolving relationship between Henry and Delilah. From talking to Delilah over the radio, it's clear she's a friendly, expansive, and funny woman, and it's therefore natural that Henry (and the player) may begin to develop feelings for her. At times Delilah, whose Biblically symbolic name is surely not accidental, seems to flirt with Henry, hinting strongly at the possibility that something more could develop between them. So when Henry takes off his wedding band, a physical manifestation of his moral obligation to his dying wife, the significance is obvious. However, what's particularly compelling about this situation is that the player may, without prompting, have Henry pick up the ring and put it back on his finger. Once again, this choice does not affect the broader narrative; its significance is a product of the player's own motivations. Prolife YouTube gamer and reviewer, Markiplier (twenty million subscribers) commented on the ring during his playthrough video of *Firewatch*, "I don't know is that something important? Bernie (an inanimate cardboard cut-out in his tower cabin), tell me what to do!" Markiplier seemed genuinely vexed by the ring's mysterious circumstance of having been removed and it could be suggested that this design choice successfully limited his agency creating a moment of ethical cognitive friction. Furthermore, writing for *Gamechurch.com*, blogger Joey Thurmond describes the scene as follows:

I'm finally given control to pace around and interact with Henry's room while I chat with [Delilah]. His wedding ring is sitting on the desk in plain sight. I can pick it up, choosing to either leave it where it was or place it back on his finger. It's a self-motivated interaction that can be ignored with no consequence, but I couldn't

ignore it. I had a wife to return to that needs me, so I put the golden band back on to remind me where I belonged. I must come home. (Thurmond, 2016)

In addition to establishing a subtle and tricky micromoral dilemma, Henry's decision to remove his wedding band is emblematic of *Firewatch's* approach to moral agency.

The characters in this world are not inert automatons waiting to respond diligently to the player's moral proclamations: they have their own agendas and feelings. Delilah is especially noteworthy in this respect, exercising independent agency at multiple important junctures in the narrative. When it emerges that the young women from the lake have vanished, Delilah asks Henry if she ought to tell the police about the fireworks incident. Irrespective of how the player chooses to respond, Delilah decides to keep the information to herself, telling Henry that she wants to "save [them] the trouble" of dealing with the cops. As players, we accept this because

Delilah is a woman who has worked the job for nearly a decade and been seemingly unchanged by her experience. She's not growing, and the fact that Henry and the player are still not enough to change her mind in many situations is refreshing in a medium where you can often achieve impossible persuasion simply by having high enough stats. (White, 2016)

Compare to a game like *Mass Effect* (Bioware, 2007), where feats of "impossible persuasion" are commonplace and achieved by investing points into the appropriate stats – in this case, Charm and Intimidate. As Commander Shepard, the trilogy's protagonist, the player becomes a kind of galactic moral arbiter whose proclamations are as good as

law for the NPCs they encounter. This is taken to an absurd extreme when Shepard overhears a brother and sister passionately arguing about a possible abortion and interjects, offering glib, unsolicited advice that is nevertheless taken at face value and presumably acted upon by the volitionless duo. The net effect of this interaction is that the NPCs don't feel like "Cs" at all, but empty vessels waiting in stasis for the player to show up and tell them what to do. Delilah may aggravate with her "stubbornness" but she is all the more believable for it.

When applying Sicart's model to Firewatch, the single-player nature of the game as well as the system's tendency to not progress the narrative through player choices suggest a closed subtracted design system. Firewatch successfully employs the slow technologies approach through a few clever design techniques: the multiple ellipses where the game provides the player with little information about what occurred during the time in between, the small cast of characters, and no urgent resolutions needed. The player is free to use Henry as we might imagine he would exist naturally in the scenario: contemplating on his family life in a quiet place bereft of human bustle. The narrative's mystery provides a surfeit of questions for the player without easy answers and the player's micromoral choices along the way do not serve to enlighten the player or Henry on the nature of that mystery. In fact, the mystery of the narrative builds up to a climax quickly right near the end, in effect leaving most of the gameplay hours for player contemplation and reflection.

Consistent with Sicart's model, the player faces many moments of limited agency, and for the most part Henry must follow Delilah's instructions to progress the narrative. As the player and Henry begin to suspect Delilah is implicated in the mystery of phantom surveillance and missing persons, ethical cognitive friction emerges for the player as they readjust their expectations of Delilah being a reliable "life-line" in the game. This effect is similar to one noted by Sicart from Bioshock (2K, 2007), whereby the murder of Andrew Ryan in Rapture involves the player's avatar's complicity. Similarly, Henry remains complicit with Delilah even once her behavior becomes a little shady and it might seem clear to the player that she is partaking in nefarious machinations (Sicart *a*, 155). There is no moral compass in Firewatch and the game does not respond with judgments on the player's choices (except in one instance of a numerical rating for Henry's gullibility on a report found near the end of the story). The outcome of choices is virtually non-existent to the point of it producing a cheap plot contrivance when the skinny-dippers turn up safe and sound. Firewatch's ethical design is based in aggregation of choices; however, many of the choices vanish in importance to the developing story - there isn't really aggregation per se as the end result of choices appears to have little connection to the denouement of the narrative. YouTuber, JackSepticEye, has ten billion video views and the most views on the platform for any Firewatch gameplay video. In his playthrough of the game, he states, "you see, it's very easy to say that when you aren't in that scenario". This gamer is referring to how micromoral choices with limited options are disingenuous if the ethical system seeks to invoke ludic phronesis. JackSepticEye appears frustrated that his out-of-game moral character doesn't have corresponding choices for in-game

options. This dilemma could be understood as a rich source of ethical cognitive friction, but it might still risk player disengagement in many cases when choices seem disingenuous and therefore irrelevant to the player. Perhaps, the lack of options is apt given Henry's situation – one some people know to be so difficult that it often feels like an overwhelming echoless void is staring back seeking to consume them entirely.

As well as making for more believable NPCs, agency reinforces *Firewatch's* virtue-oriented moral framework. After all, if the player's choices don't have the desired impact on NPC behavior, then what value do these choices have if not as reflections and expressions of the player's (or perhaps more accurately: Henry's) own moral identity? And of course, from a production perspective, one of the major advantages of leaving the player to determine the moral significance of their choices is that it frees designers and writers from the responsibility of authoring outcomes for those choices. As an indie studio with fewer than five full-time employees, this was surely an important consideration for Campo Santo during the development of *Firewatch*. Practical considerations of this sort are an important, but oft overlooked, element of ENG design. Without a convincing “social physics” (McCoy, Treanor, Samuel, Mateas, & Wardrip-Fruin, 2011) capable of realizing believable AI agents, videogames will always be limited in the extent to which they can represent moral phenomena. It is therefore incumbent upon developers of ENGs to think of ways players can be induced to go “beyond choices” (Sicart, 2013) and imbue moral scenarios with their own, personal significance. *Firewatch* does precisely this.



## **“Social Battles” in Deus Ex: Mankind Divided**

There are currently four major titles in the *Deus Ex* franchise of first-person stealth/action RPGs, with the latest released in 2016 for PC and console. The series is set in a 21<sup>st</sup> century dystopia, where multiple factions compete to control a world where technological developments, particularly human augmentations, far surpass our own. Originally developed by Ion Storm and published by Eidos, the series has since passed into the hands of Eidos Montreal, who – with new publisher Square Enix – has released two prequels: *Deus Ex: Human Revolution* (2011) and *Deus Ex: Mankind Divided* (Eidos Montreal, 2016). For the purposes of this analysis, we will focus on *Mankind Divided* with some reflection on *Human Revolution*. These two games play very similarly and have a great number of mechanical and narrative commonalities that are notable from an ethical perspective.

In keeping with the “immersive reality simulator” design philosophy pioneered by its predecessors, *Human Revolution* and *Mankind Divided* can be played in a variety of styles, from pacifistic stealth all the way through to explosive lethality. As an “aug” or bio-mechanically augmented human, protagonist Adam Jensen is a character designed to encourage the player to take a stance on the social and moral issues built into the game’s “new bad” dystopian fiction. A walking confluence of flesh and tech, Jensen is distinguished from other augs by the fact that he does not suffer from “rejection syndrome” (the biological body rejecting mechanical augments) and is therefore not

dependent on Neuropozyne, the drug used to suppress it. Jensen is special, in other words, and this specialness is reflected in his almost absolute moral agency. Unlike *Firewatch's* Henry, Jensen is not limited to merely sharing his opinion, but has the power to effectively impose it on recalcitrant NPCs via the game's "social battle" dialogue mechanic.

Although there is plenty of combat and action in *Mankind Divided*, a significant part of the game involves narratively interacting with various NPCs. Many players refer to such elements as social 'battles' and have created multiple guides and participated in extensive discussions online about how to 'win' different conversations in the game. Essentially, talking is another strategic form of gameplay with significant rewards and penalties for how it is performed. In social interactions, the player is provided with two to three choices at each fork of a conversation's dialogue tree. The goal is to win the NPC over to Jensen's way of thinking by selecting the appropriate response at each fork. There are ideal choices, which the NPC will be most receptive to, however there are several ways to complete a conversation apart from the "optimized" route. "Losing" a social interaction does not lead to a game over or otherwise preclude further progress in the game, but "winning" is always associated with a reward of some sort – usually experience points, but sometimes money, items, and information as well.

Among the many augmentations available to Jensen, there is one specifically designed to assist in social battles: a so-called "social enhancer" named the Computer Assisted Social

Intelligence Enhancer or C.A.S.I.E. for short. It is an implant that surreptitiously analyzes the mental state of targeted individuals and includes a “dialectic enhancer” which allows Jensen to dominate conversation through chemical-pheromone manipulation. This implant is billed as providing the player an opportunity to sway the conversation towards a desired goal. In effect, Jensen releases a cocktail of pheromones into the air around his target to render them psychologically malleable and mentally cooperative.

When this implant is unlocked, it provides a HUD overlay displaying key information during social battles. Alignment analysis identifies NPCs as alpha-, beta- and omega-personality types, their major personality traits are listed, and a glib psychological profile is provided for the player to review. When the NPC speaks, there are moments where the C.A.S.I.E. system lights up the alphabetic symbols in the HUD to indicate which player conversation choice would mesh well with the NPC’s attitude in that moment. Animated graphics also pop up where C.A.S.I.E. makes special notes about NPC mood indicators, such as increased heart-rate or dilated pupils. Finally, the HUD displays a response level meter which will fluctuate during the conversation, based on choices made and in such a way that optimized choices will see the meter fill up to its maximum, visually confirming for the player the success of their strategy.

*Mankind Divided* is replete with social “battles” and given limited space, we cannot provide even an overview of the majority of them here. However, analysis of two such interactions should provide sufficient data to understand the (failed) potential of the

C.A.S.I.E. system for offering players truly engaging moral scenarios. In the fifth side-mission of *Mankind Divided*, the nanotech engineer, Vaclav Koller, requests that Jensen retrieve a device that could potentially help balance Jensen's augments and avoid a dangerous overload. For the player, this task is advantageous because it presents an opportunity to use more augmentations simultaneously. For Jensen, whose augmentations have become increasingly unstable, it is a matter of life and death. The device (the calibrator) is to be recovered from a local mob boss, Otar Botkoveli.

When Jensen arrives at Otar's underground gambling den, a social battle ensues. At each juncture in the conversation, the player is presented with three choices – “straight-talk”, “compliment”, and “dodge” – representing the tone of Jensen's responses, which can be seen in full by hovering over each option. With C.A.S.I.E. activated, these choices are also labeled with the alphabetic personality symbols, to make deducing an optimized choice a simple matter of visual perception and recognition.

Using these and other visual cues, C.A.S.I.E effectively “suggests” that the player play nice with Otar if they want him to hand over the calibrator without a fuss, which is clearly the optimal outcome in this scenario. The player is of course free to ignore these suggestions and make choices based on other criteria, such as their own ethical values or the kind of values Jensen might have. But is this likely? By turning conversations into something that can be “won” the C.A.S.I.E. mod inevitably draws the player's attention to the mechanics underlying the social battle system. In Sicart's (2010) terms, the game draws attention to

the “procedural layer” of social battles, encouraging the player to see dialogue responses instrumentally, as means to ends, rather than expressions of Jensen’s (or the player’s) deeply held convictions. That outcome is clearly evident in the player community, as numerous guides exist for players to achieve the ‘optimal’ outcome for every conversation in the game. In a Reddit discussion dedicated to social battles, user Klepto666 comments

When you DO get the Social Aug, you end up just picking what will work and not what *you* think is right or what *should work*. You go with what the game has deemed right. (ref)

On this basis, one could make the case that C.A.S.I.E. dissuades players from exploring their moral ethos (Consalvo et al., 2016) because roleplaying as anything other than “optimal” Jensen is either punished or unacknowledged.

Without C.A.S.I.E. activated, the player must rely on intuition and a “cold-reading” of NPC body language and physical tells to mediate reasonable solutions. In another situation, the Talos Rucker social battle, Rucker presents himself as both a helpless victim of ghettoization and a determined militant freedom-fighter. The social battle which ensues seeks to untangle these contradictions and the player must carefully consider the implications of each choice and how the intention to recognize Rucker as a victim may in fact encourage his efforts to militarize the ARC (Augment Rights Coalition) faction. Without C.A.S.I.E. activated, the player must read subtle cues (such as how Rucker holds his glass) and evaluate dialogue options on that basis, or simply proceed on how they

might wish to role play the scene. There are potentially dozens of ways to get through the Rucker conversation, with many possibilities for effecting a peaceful solution.

With C.A.S.I.E. activated, the HUD can feel almost impossible to ignore. Rucker's speech is passionate, the room is bristling with visual intensity, and Jensen's pregnant pause creates thick tension – but the player is focused on C.A.S.I.E. readouts. Simple textual display and graphics – the see-sawing of a meter bar filling up and falling down, keywords to reductively characterize Rucker, some flashing lights over basic symbols – demand the attention of the player. The three-dimensional vividness of a face-to-face conversation is reduced to an almost Pavlovian process of identifying and responding to prompts on the screen.

*Mankind Divided* is designed to afford ludic phronesis in that the player has full freedom to play the game unethically at the representational and semiotic level. The narrative conceit that Jensen is an evolutionary step forward for man stands as an expectation that players can fulfill Jensen's destiny throughout gameplay, in fact C.A.S.I.E. heightens this effect. However, the player does not experience moments of limited agency and C.A.S.I.E. is not a tool for remedying unexpected limitations. As a result, players do not have to readjust their expectations during the game and this leads to a lack of ethical cognitive friction. Each player choice is instrumental toward the goal of rendering Jensen completely dominant against his enemies. Therefore, aggregation of choices through

micro-moral decision-making is non-existent in the game, nor does the game provide bad-worse choices (C.A.S.I.E. affords quite the opposite).

C.A.S.I.E. deprives the player of moral reasoning by producing a rule that the implant affords the optimal path toward completing missions – and all accomplished through simply following visual cues and then executing the corresponding choices. This mechanic does not foster the development of the player's virtues and thus *Mankind Divided* when played with C.A.S.I.E. activated can be considered an unethical game. Sicart points to DEFCON (Introversion, 2006) as a game designed ethically by virtue of a victory being based in losing – losing is a guarantee, however the winner of a match is the player who lost the least (Sicart *a*, 171). In losing something (true for *Firewatch* and *Darkest Dungeon*), the player can reflect on their choices that may have contributed to a greater loss than was necessary. In *Mankind Divided*, C.A.S.I.E. affords the player the opportunity for an immaculate playthrough thus leaving the player with nothing to reflect on ethically. The player need not interpret consequences and readjust in moments of limited agency because C.A.S.I.E. provides the ideal solution. This mechanic works in opposition to the slow technologies approach through the implant provide expeditious perfect results and being a design feature that reinforces the system's authority (Sicart *b*, 75).

Even though C.A.S.I.E. is presented as optional, its mere presence signals to players that there is a 'right' way to play this game, and the mod offers a significant advantage in doing so. In game terms, it's the equivalent of offering a +20 Damage add-on for a gun –

what player could possibly refuse such a tool? How might a system like C.A.S.I.E. be modified to augment, rather than diminish, the player's moral engagement? If we proceed from the assumption that Jensen's ability to identify "optimal" dialogue responses disincentivises moral engagement, it follows that moral engagement might be improved by "nerfing" or curtailing said ability's utility. Imagine a C.A.S.I.E. system, but instead of providing an objectively correct psychological assessment of the NPC, it instead provides a "best guess" analysis that the player must evaluate in light of prior knowledge and how the NPC is behaving. Such a system would, we believe, incentivise the player to pay closer attention to the emotional and social cues the current system renders redundant, thereby reinforcing the humanity of the NPCs Jensen interacts with.

This is not a complete fix, of course, and there would certainly be downsides to implementing such a system, one of the more prominent being that it would probably frustrate "reactive" players (ref) seeking to maximise ludic outcomes. This points to deeper tension between game design as a general discipline and ENG design as a specialised sub-discipline. It may be the case that ENG designers must sometimes eschew traditional design wisdom – like always providing unambiguous feedback – in the service of moral design goals. Although beyond the scope of the present paper, this is a topic that we believe warrants further investigation and analysis.

### **Systemic Cruelty in Darkest Dungeon**



*Darkest Dungeon* (Red Hook, 2016) is a cross between a dungeon crawler and RPG created by British-Columbia based Red Hook Studios, released for the PC and Mac on January 19, 2016. Prior to its release the game appeared on Steam Early Access, first for Kickstarter backers and then for a general audience. The game has also been released for Sony's PlayStation 4 and Vita platforms, as well as for Linux and iOS tablets. The game has received largely positive critical attention, and has sold more than one million copies (Sigman, 2016).

*Darkest Dungeon* builds on a familiar premise – the player must assemble parties of four heroes to descend into dungeons, in order to slay monsters and gain loot. Dungeons are procedurally generated, and players can level up their heroes over time to take and deal more damage. The four dungeon areas feature gradually more difficult quests and bosses to defeat, culminating in a final boss battle. Complicating an already difficult game with tough enemies and little margin for error is permadeath. If a hero (or several heroes) dies on an adventure, they are gone for good. It's possible – and actually entirely likely – to experience full party wipes of veteran-level heroes, which (ironically) the game will award you an achievement for. To manage the flow of new and old heroes required for the game's larger campaign, the player controls a town where she can recruit novice heroes of various classes. There are multiple types of heroes, but most offer some combination of direct combat, ranged attacks, area-of-effect spells, and healing abilities. The town also features facilities where players can upgrade heroes' weapons, armor and abilities, as well as a Tavern, an Abbey, and a Sanitarium for heroes to recover in after tough adventures.

Many similar fantasy-themed role-playing games offer players various ethical or moral dilemmas, usually built into the game through mechanics such as morality meters or various types of karma systems.<sup>1</sup> In contrast, *Darkest Dungeon* does away with alignment and karma systems, instead opting to focus on the mental health of the heroes in the players' care. As the game's creators explain "what really matters is how the heroes feel, not how the player feels" (Sigman & Bourassa, 2015). Perhaps because of that shift in focus, there are no obviously sign-posted moral or ethical decisions for the player to make in the game's storyline. One is not asked to save one character instead of another (*Mass Effect*) or whether or not to activate a nuclear device and wipe a small city off the map like in *Fallout 3* (Bethesda Game Studios, 2007).<sup>2</sup> The story remains the same no matter how players approach the tasks set to them. The system is again reminiscent of Nay and Zagal's discussion of virtue ethics in games, where "even when choices are inconsequential, they can be morally meaningful to their players when they are used to gain insight (or develop insight) into the moral fiber of those characters players control"

---

<sup>1</sup> For example, the *Mass Effect* series has the well-known Paragon-Renegade metered system, which allows players to create either a Commander Shepherd who is more altruistic or ruthless, depending on their preferences (but who will still save the galaxy from annihilation either way). Similarly the *Elder Scrolls* series – such as the latest title *Skyrim* (Bethesda Game Studios, 2011) – has an integrated karma system, such that players aren't punished or rewarded for making 'good' or 'evil' choices, but instead see their resulting game options change – they may be welcomed in some cities and chased out of others, or have certain companions join their cause instead of others. A slightly different version of such systems is found in the *Dragon Age* series of games, where players can make a variety of in-game choices – both major and minor – that their companions then react to through approval or disapproval, depending on the alignment of the companion in question. Players cannot satisfy all companions with their choices – some are law abiding while others favor chaos and selfishness – and so they must deal with the fallout in how those companions react to them, as well how their choices impact the wider world of the game.

<sup>2</sup> There is only one instance of such a choice in the game (that we know of). In the final boss battle, the final form of the boss is Heart of Darkness and it has a particular attack called Come Unto Your Maker, which deals an instant killing blow to one of your party's heroes. However, the player must make the choice of which hero will be sacrificed.

(Nay & Zagal, 2017). Similarly to *Firewatch*, choices and their consequences play out through the small decisions that accrete over time concerning how players want to treat all, some or none of their heroes.

Managing and monitoring mental health is one of the core mechanics built into *Darkest Dungeon*. In addition to each hero's hit points and various gear and weapon related stats, the game displays a stress meter that slowly – or rapidly – climbs as heroes make their way through a dungeon. Stress can be accumulated from participating in combat, and especially from the attacks of certain classes of enemies who specialize in dealing stress rather than physical damage. One such creature is the Madman, whose two main abilities are “Doomsday” and “Accusation,” which cause only 0 and 1 hit point of damage respectively, but instead add varying levels of stress to their targeted victim, who is usually the hero with the highest stress level in the party.

However, a hero's stress also accumulates when torches lighting the way in a dungeon burn lower, from lack of food, from seeing other heroes taking damage or being killed, as well as through backtracking during exploration and in response to certain quirks a hero may have. A hero's stress meter slowly fills from such events, and eventually triggers the game's Affliction System. At the moment of triggering, the game will inform the player that the hero's “resolve” is being tested, and things can go one of two ways – most commonly the hero develops an affliction such as Fearful, Selfish or Paranoid. Occasionally the hero will instead gain a Virtue such as Stalwart, Courageous or Powerful.

Either way, Afflictions cause heroes to act out during battles in ways that players cannot control, such as cowering and refusing to fight, or doing extra damage in their attacks or self-healing. And stress keeps rising for Afflicted heroes until it hits 200 points, at which time the hero suffers a heart attack, and can be permanently killed with a single blow. The stress and Affliction system and how players choose to engage with it forms the core of what makes Darkest Dungeon so interesting from an ethical standpoint. Players can choose to engage with the system in ways that keep all their heroes healthy, or drive them to the brink of madness and then dispose of them, or even nurture a particular set of heroes throughout the game, while using other heroes as means toward that end. The game doesn't reward or punish any of those approaches – it instead is up to the player to decide what kind of overseer they wish to be.

Indeed, as the town's overseer, the player is never asked or directed by the game to be particularly altruistic or ruthless in their handling of heroes, and heroes themselves are never portrayed as inherently good or bad. Instead, similarly to Firewatch, players make multiple seemingly mundane choices about how to treat their heroes– as potentially valuable assets to be nurtured, or as cannon fodder to be disposed of when most convenient.

Case in point: when provisioning a group for a dungeon crawl, the player can purchase as much or as little food and torches as they deem necessary to complete the event. Provisioning many or few torches (which are fairly cheap) may seem ethically neutral, but

it can have a powerful impact on the mental health of one's heroes – both positively and negatively. At full light levels heroes have better chances of scouting ahead for traps or enemies, but as light levels decrease, it's more probable that the party will be taken by surprise by enemies, that heroes will suffer more stress damage, and that enemies make stronger attacks. For some players then, keeping the lights on becomes a priority, no matter the potential cost involved. However, in lower light levels heroes can also gain greater loot and increase their chances of striking critical hits, possibly pushing players in the other direction, of keeping their heroes in the (literal) dark. And individual heroes may also have afflictions that greatly increase their stress levels in low light, or even react poorly to full light conditions, exacerbating those original decisions. Players must take all such conditions into account when deciding how many torches to purchase, and how strong a light level to keep going during a mission depending on how they see their heroes and how expendable they believe them to be.

Another series of micro-choices that the player must confront are how to deal with afflictions that heroes accumulate during adventures. While stress can be reduced or eliminated by trips to the Abbey or Tavern (with treatments that cost varying amounts), certain afflictions can only be removed through a visit to the Sanitarium's Medical and Treatment Wards. Some afflictions aren't cheap to remove. For example, a hero in one of our games (Bose, a level 5 Leper) currently suffers from Necromania (fascination with corpses), Cove Phobe (+20% stress in the Cove dungeon), Resolution (won't drink while in town), Enlightened (will only meditate while in town) and Fear of Eldritch (+15% stress

versus Eldritch type enemies; -10 Accuracy versus Eldritch). It would cost 30,100 gold to remove all those afflictions. Similarly, Watteau, a level 5 Man-at-Arms suffers from several similar afflictions, but also has three Diseases: Bulimic (-20% healing in Camp), The Red Plague (-75% Bleed resist) and The Runs (-20 Dodge and -10% maximum HP). His diseases are a relative bargain – only 1,138 gold to remove each one. As a point of reference, missions pay out various amounts for successful completion – ranging from around 3,000 to more than 12,000 gold coins, and heroes will often find more gold and valuables while exploring. However, it costs several thousand gold to provision a party for a mission, and if they fail there is no reward given – only an increase in their stress levels.

With respect to Sicart's model, Darkest Dungeon effectively reacts in moral ways to player choices – friendly NPCs are always at risk and constantly being worn-down by the experience of dungeon crawling. DD is an example of a closed mirrored design because the friendly NPCs are hunters who desire venturing into dungeons for battle, yet there is no good way to accomplish the goals and hunters can be expected to be sacrificed or mentally devastated through the experience (the RNG system virtually guarantees strife). The player is invoked into this bad-worse choice system. The controversial element of gameplay is the “grind”. DD mundanity through grinding dungeons is consistent with the slow technologies approach in that player complicity is triggered and becomes a source of moral reflection. The grind creates ethical cognitive friction through the moral meaning of leading loyal NPCs to their mental debilitation and eventual slaughter. Game critic, Joseph Anderson's review of DD at YouTube provides an alternate understanding of the

impact of the grind: he believes that the mundanity and tedium of grinding leads to cautiousness in play which then renders a player's focus to the instrumental value of character statistics. The NPC's mental condition becomes less important than the potential threat of having to lose hours of gameplay when they perish in a dungeon – the tasks of preservation are too onerous and the quest for protection is too arduous for many players. YouTuber TheRealSpartan provides a playthrough of the final boss battle and at one point in-game action is paused. A text prompt appears on the screen informing viewers that the player had to spend time with a calculator to figure out how to manage his attack and reduce damage to his strongest character. Arguably, these kinds of plans and preparations undermine the process of moral reflection and they reduce the need to readjust play based on ethical cognitive friction. Sicart notes about the development of his failed game project, *Banality*, that mundanity in excess can discourage players from engaging creatively with problems the game presents (Sicart *b*, 147). An important question to ask then is: at what point does play become a chore in the development of aggregation of choices systems or micro-moral decision-making designs?

In their game design discussions, the developers have repeatedly made the point that they wanted to “toy with player agency” and also to “capture the human response to stress” (Sigman & Bourassa, 2015). Players cannot avoid the stress and affliction system in the game, and can choose to either approach it mechanistically (trying to optimize their gameplay) but they can also try to see the heroes as more than disposable minions. At the least, the game has modeled a system where the potential effects of dungeon crawling on

actual people are more than loot or death – there is trauma and harm that cannot be ignored. Players may make a series of choices to differentially invest their efforts in various heroes, keeping some sane and healthy and others as resource providers. But no matter how the player chooses their approach, the game does not punish or reward the player for their intents – leaving the interpretation of their decisions to the players.

### **Concluding Remarks**

As the above examples demonstrate, game designers are moving beyond morality meters and karma systems to include more diverse options for players to engage with, and feel that their choices have an impact on the game. What is key to note is that the examples here show how going smaller rather than larger with choices can make for more interesting and compelling gameplay, as well as eliminating penalties or rewards for ethical choices, and instead allowing players to make those judgments on their own. Indeed, as the case of *Deus Ex: Mankind Divided* demonstrates, continuing to attach rewards to such dilemmas creates a system where players feel compelled to use it, even if they had wished for another system. It's also key to note that two of the three games analyzed were from small independent studios, who are likely less pressured by large publishers to limit their design experimentation and offer players more innovative designs. From the standpoint of creating games with moral dimensions, indie games would seem to offer players some of the best examples of exciting new mechanics and



story conventions to explore many more shades of nuance than previously thought possible.

Sicart's ethical framework analysis model provides a method for determining whether game design is ethical or not, and it can guide game researchers and game designers toward design features and mechanics that produce ethical cognitive friction and thus create more meaningful moral game experiences for players. One of the major impediments to ethical game design lies in closed relationships between the semiotic and procedural domain of games. When players are afforded opportunities to fulfill expectations with games through achievement in the instrumental aspects of gameplay, this often precludes the moral awareness, moral engagement, and moral reflection critical to a player fostering their ethical character. Instrumental goals in games typically suggest efficient and speedy success or victory.

Firewatch is accomplished in implementing a slow technologies approach, yet through viewing numerous playthrough videos at YouTube, players still seem eager to fulfill traditional ludic goals in games. Many players had Henry put all collectible items in his pack, often completely ignoring the ethical concerns or implications. Henry would be made to take anything that could be taken including bottles of liquor that didn't belong to him. In real life situations of being at a national park and discovering someone else's campsite, it can be assumed that most people wouldn't start loading up their pack with other people's property prior to establishing a proper reason for the theft or confiscation.

Additionally, all the players at YouTube picked up the skinny-dippers's bras and panties for examination. This too is a behavior that might be deemed unethical in the real, and it seems players chose to examine the undergarments because they may have presented some kind of instrumental value for progressing through the game. Curiosity aside, this behavior is one that in the real would be reflected on morally in a concerted way, but which in *Firewatch* is dismissed as inconsequential. *Firewatch* goes far in demonstrating how aggregation of choices and the slow technologies approach engage the player's ethical character, but more can be done to break the old habits gamers have of chasing traditional achievements and pursuing victory expeditiously.

Sicart contemplates the importance of players facing the consequences of their actions when discussing the Sorrow sequence in *Metal Gear Solid 3: Snake Eater* (Konami, 2004). In this sequence, the player must negotiate a river which is swarmed with the restless spirits of fallen foes. If the player has been liberal in clearing a path through bloodshed during the game, the river will be dense with ghosts that hold back the avatar and implement an important instance of slow technologies to gameplay. Sicart writes, "this gameplay sequence is one of the most accomplished translations of the ethical possibilities of games into actual game design." (Sicart *a*, 107). Progression is altered, allowing more time for moral reflection. Joseph Anderson, in his review of *Darkest Dungeon* comments after beating the game that he had hoped to face all the lost hero hunters at the end in order to reflect on how he was responsible for their deaths. As much as *DD* implements effective design features and mechanics consistent with Sicart's model

for determining ethical game design, the game could produce more ethical cognitive friction through having the player face the consequences of their unethical choices. This may prove to be more effective than relying so heavily on the grind for player complicity and RNG for limited agency.

*Mankind Divided*, unlike the other two games we analyzed, comes up short with respect to ethical game design and this game includes virtually none of the features of Sicart's ethical framework analysis model. The most obvious culprit for this lack is the C.A.S.I.E. mechanic, yet it also holds the potential solution. A limited C.A.S.I.E. that is fallible or unaware in some significant measure may produce an element of slow technologies to gameplay when players must then slow down their analysis of social battle choices and thus leave some time for moral awareness and moral reflection. Additionally, a limited C.A.S.I.E. would produce a mirrored closed system resulting in moments of limited agency for the Jensen character and the player. This negation of expeditious instrumental value-based gameplay along with moments of limited agency would result in significant ethical cognitive friction and dissonance for the player. Suddenly, the promise of an ethically-complex game world would be fulfilled and the game itself would demonstrate itself as being of sound ethical design.

## ***References***

Allen, N. (2014). Bad Karma: A Critique of Morality Systems in Games.

Aristov, M. (2012, May 29). An alternative to the Karma Meter.

Bethesda Game Studios. (2007). *Fallout 3*.

Bethesda Game Studios. (2011). *Legend of the Elder Scrolls V: Skyrim*.

Bioware. (2003). *Star Wars: Knights of the Old Republic*.

Bioware. (2007). *Mass Effect*.

Campo Santo. (2016). *Firewatch*.

Carr, D. (2005). On the contribution of literature and the arts to the educational cultivation of moral virtue, feeling and emotion. *Journal of Moral Education*, 34, 137–151. <https://doi.org/10.1080/03057240500127053>

Carr, D. (2006). Moral education at the movies: on the cinematic treatment of morally significant story and narrative. *Journal of Moral Education*, 35, 319–333. <https://doi.org/10.1080/03057240600874448>

Consalvo, M., Busch, T., & Jong, C. (2016). Playing a Better Me: How Players Rehearse Their Ethos via Moral Choices. *Games and Culture*, 1555412016677449.

Crawford, C. (1985). *Balance of Power*.

Eidos Montreal. (2011). *Deus Ex: Human Revolution*.

Eidos Montreal. (2016). *Deus Ex: Mankind Divided*.

Flanagan, M., Nissenbaum, H., Belman, J., & Diamond, J. (2007). A method for discovering values in digital games. Presented at the Situated Play, Proceedings of DiGRA 2007 Conference.

Galactic Cafe. (2013). *The Stanley Parable*.

- Heron, M., & Belford, P. (2014). 'It's only a game' — ethics, empathy and identification in game morality systems. *The Computer Games Journal*, 3(1), 34-53. <https://doi.org/10.1007/BF03392356>
- Infinity Ward. (2009). *Call of Duty: Modern Warfare II*.
- Lange, A. (2014). "You're just gonna be nice": How players engage with moral choice systems. *Journal of Games Criticism*, 1.
- McCoy, J., Treanor, M., Samuel, B., Mateas, M., & Wardrip-Fruin, N. (2011). Prom Week: social physics as gameplay. In *Proceedings of the 6th International Conference on Foundations of Digital Games* (pp. 319-321). ACM.
- Melenson, J. (2010). The Axis of Good and Evil. In K. Schrier (Ed.), *Designing Games for Ethics: Models, Techniques, and Frameworks* (pp. 57-71). Hershey, PA: IGI Global.
- Nay, J. L., & Zagal, J. P. (2017). Meaning Without Consequence: Virtue Ethics and Inconsequential Choices in Games. In *Proceedings of the 12th International Conference on the Foundations of Digital Games* (p. 14:1-14:8). New York, NY, USA: ACM. <https://doi.org/10.1145/3102071.3102073>
- Origin Systems. (1985). *Ultima IV: Quest of the Avatar [Apple II game]*.
- Red Hook. (2016). *Darkest Dungeon*.
- Rest, J. R., Bebeau, M. J., & Thoma, S. J. (1999). *Postconventional moral thinking: A neo-Kohlbergian approach*. Psychology Press.
- Ryan, M., Staines, D., & Formosa, P. (2016). *Four Lenses for Designing Morally Engaging Games*.

- Schrier, K. (2015). EPIC: a framework for using video games in ethics education. *Journal of Moral Education*, 44, 33.
- Sicart, M. (2010). Values between systems: Designing ethical gameplay. In K. Schrier (Ed.), *Ethics and Game Design: Teaching Values through Play* (pp. 1–15). Hershey, PA: IGI Global.
- Sicart, M. (2011). *The ethics of computer games*. MIT Press.
- Sicart, M. (2013). *Beyond Choices: The Design of Ethical Gameplay*. Cambridge, MA: The MIT Press.
- Sigman, T. (2016, November 3). 1 Million Copies and the Road Ahead. Retrieved October 30, 2017, from [https://www.gamasutra.com/blogs/TylerSigman/20161103/284863/1\\_Million\\_Copies\\_and\\_the\\_Road\\_Ahead.php](https://www.gamasutra.com/blogs/TylerSigman/20161103/284863/1_Million_Copies_and_the_Road_Ahead.php)
- Sigman, T., & Bourassa, C. (2015, May 28). Game Design Deep Dive: Darkest Dungeon's Affliction System. Retrieved October 27, 2017, from [/view/news/244480/Game\\_Design\\_Deep\\_Dive\\_Darkest\\_Dungeons\\_Affliction\\_System.php](/view/news/244480/Game_Design_Deep_Dive_Darkest_Dungeons_Affliction_System.php)
- Stevenson, J. (2010). A framework for classification and criticism of ethical games. In K. Schrier & D. Gibson (Eds.), *Designing Games for Ethics: Models, Techniques and Frameworks* (Vol. 1, p. 36). Hershey, NJ: Information Science Reference.
- Thurmond, J. (2016). Firewatch and the Virtue of Commitment. Retrieved November 1, 2017, from <http://gamechurch.com/firewatch-and-the-virtue-of-commitment/>

Weaver, A. J., & Lewis, N. (2012). Mirrored morality: An exploration of moral choice in video games. *Cyberpsychology, Behavior, and Social Networking*, 15, 610–614.

White, O. (2016). Firewatch took away our ability to be good people, and that's where it shines. Retrieved January 11, 2017, from <https://www.polygon.com/2016/2/12/10966494/firewatch-agency-campo-santo>

Zagal, J. (2010). Ethical reasoning and reflection as supported by single-player videogames. In K. Schrier (Ed.), *Designing Games for Ethics: Models, Techniques, and Frameworks*. Hershey, PA: IGI Global.