Creating Meaningful Games through Values-Driven Design Principles

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ABSTRACT
The interactivity present in games makes them useful vehicles for the exploration of various concepts outside of "finding the fun". Empathy games – games that are developed to educate and encourage empathetic responses from players about a scenario – are one such example. However, the notion of empathy game design overlaps with other tangential design theories like emotional game design, radical game design, and critical game design. These theories often overlap but are difficult to discover because of their different naming conventions.

To assist designers, this paper discusses design principles from these and other similar game design frameworks. Using these, it presents a consolidated set of design principles and considerations that can be applied to game projects. These principles are presented to inspire future design work to explore lesser-known experiences, in the hopes of being more inclusive of, and more meaningful to, a diverse player base.

Keywords
Serious games, design principles, inclusion, values-driven, prosocial, empathy

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INTRODUCTION

Games do not merely exist for the purposes of entertainment. While fundamental to what makes the medium so popular – so much so that "finding the fun" is a common design principle (Friedhoff 2016; Koster 2013) – games can also exist for simulation and training (Michael and Chen 2005), interactive art (Flanagan 2009), or act as catalysts for player reflection (Schrier and Gibson 2011).

Games also exist in a larger sphere of cultural influence: games are made by people and people are influenced by culture, whether consciously or not (Flanagan et al. 2005). New critiques and perspectives showcase the outdated or exploitative portrayals of characters and scenarios in older games that may not have seemed so to developers at the time (Sarkeesian and Adams 2013).

To illustrate the influence games can have, Flanagan et al. (2005) created the Values at Play framework, which encourages designers to create games that are sensitive to the cultural climate into which they are released. In this framework "human" values are paramount and create experiences that can be meaningful to their players (Schrier 2017).

More theories and frameworks supporting values-driven design have emerged. These frameworks often encourage similar or tangential design approaches but have a variety of different names. These frameworks include critical game design (Flanagan 2009; Grace 2010), empathy game design (Belman and Flanagan 2010; Sampat 2017), ethical game design (Schrier and Gibson 2011; Sicart 2011), anti-oppressive game design (Gunraj et al. 2011), emotional game design (Isbister 2016) and radical game design (Harrer 2019).

This paper seeks to consolidate the principles put forth by each of these frameworks by examining the commonalities and differences between them. It then synthesises and discusses its own set of design principles for inclusive gaming experiences. These inclusive experiences hope to encourage prosocial reflective practice in players which may lead to positive psychological change.

USES FOR VALUES-DRIVEN GAMES

Flanagan et al.'s (2005) Values at Play framework helped inform the notions of critical games and critical play, which aim to challenge the status quo of the games medium (Flanagan 2009). This approach allows games to provide unique experiences because of the values embedded during the design process. These experiences include educating players about the experiences of marginalised groups (Belman and Flanagan 2010); providing designers with a way to share their unique experiences (Lawhead et al. 2019); attempting to normalize previously taboo topics (Kirman et al. 2015); and providing context and content upon which a player or designer can reflect (Rusch 2018a).

The nature of these experiences often results in parallels being drawn between values-driven games and serious games. Because serious games are not primarily intended for entertainment purposes (Abt 1987), it may be assumed that values-driven games are not entertaining either.

However, this is not the case. The beauty of values-driven games can be seen in the way their values integrate into a game's systems. A major mechanic in *Death Stranding* (Kojima and Sakamoto 2019) centres around the game's Chiral network. When cities in-game are connected to the network, the game's multiplayer functionality activates. This allows players to see and use the roads, pathways and other constructions built by other players. Access to these constructions can assist players in traversing the world's dangerous terrain (Gerblick 2019). The value embedded into this design choice is one

that stresses the importance of human connection, one of the game's central themes (Kojima 2019).

This example shows that values-driven design can be a useful philosophy, even in commercial game development. *Death Stranding*'s success as an engaging game designed to emphasise the importance of human connection shows that *fun* and *values-driven design* need not be considered mutually exclusive.

GAMEPLAY

As seen with *Death Stranding*, values-driven games can be particularly effective at conveying important personal, philosophical or societal messages. This allows gameplay to be educational, challenging and often personally transformative for its players.

Games as Educational

Games that discuss serious themes can be useful educational tools for players who engage with their content. Most game definitions cite a game's goal, objective or problem as central to the play experience (Stenros 2017). Therefore, presenting a player with a core problem that is difficult to solve in a linear fashion can produce interesting results. An example of such a core problem is that of protein folding, famously tackled by players in games like *FoldIt* and *Folding @ Home* (Khatib et al. 2011).

Games like *The Walking Dead* (Telltale Games 2012) tackle more abstract questions regarding morals and humanity. While these more abstract questions may not have concrete solutions, such games provide players valuable opportunities to examine their own positions on such issues (Staaby 2015).

The ability for games to present engaging case studies allows them to be used as teaching aids in various educational contexts. The iThrive Games Foundation is a non-profit organisation (NPO) that works with teenagers and uses games to address problems like empathy, mental health, and emotional skills (iThrive Games 2019a). Games for Change, another NPO, engages communities through events like the annual Games For Change Festival and Games For Change Student Challenge, which highlight games that explore complex problems (Games for Change 2019). Some institutions also offer courses that deal with ethics and moral philosophy in gaming contexts (Schrier 2017; Staaby 2015).

Games as Personal Challenge

Values-driven games can also directly challenge players to confront their own preconceptions to allow the player to "get better at being better" (Lawhead et al. 2019). Games can do this by presenting unique contexts and scenarios.

One such game is *Cunt Touch This* (The Copenhagen Game Collective 2015), a mobile game where players colour in drawings of vulvas using touch mechanics. The use of touch mechanics suggests that players are mimicking a sexual act through the game's stroke-based colouring mechanic. This double entendre is extended through design: after a certain number of strokes, a sexual sound is played and the vulva fades out, being replaced by a new vulva to interact with. This carries the suggestion of sexual climax, which shocked, surprised, or was a source of joy for many players. *Cunt Touch This* aimed to normalise often taboo conversations and depictions of sex. Such games showcase the status-quo challenging nature of critical play (Flanagan 2009).

Games like *SuperBetter* (McGonigal 2016) and *Blanket Space* (Klaus 2018) challenge players to focus on their own personal betterment.

SuperBetter (McGonigal 2016) gamifies health and wellness techniques like mindfulness, meditation and good eating habits by tasking players to do activities like activate the "chug a glass of water" power-up as a foil to the "liquid calories" boss, or defeat the "lazy exercise robbers" by doing simple physical tasks like taking the stairs (McGonigal 2016). In this way, *SuperBetter* subtly encourages players to better themselves by making small positive decisions that can positively affect their overall wellbeing.

Blanket Space (Klaus 2018) is a pervasive game, played in a physical space, that creates a space for communal catharsis and processing. In *Blanket Space*, players sit in a circle and a blanket is draped on top of them, physically demarcating the boundaries of the game. Under the blanket, players can see each other and take turns turning over cards that probe other players to discuss various topics, starting with easy topics (food, music) and progressing to harder or more personal ones (relationships, family, death) as the game continues (Klaus et al. 2017). Through this mechanic, the game encourages the players to get to know one another, support them and empathise with their contexts.

Games for Empathy

Values-driven games that seek to encourage player empathy have become more popular in recent years, bolstered by advances in augmented and virtual reality (VR) technologies that allow for more immersive first-person experiences.

Once such experience is *A Breathtaking Journey* (Kors et al. 2016), a mixed-reality VR experience in which players assume the role of a refugee who is fleeing their country by seeking passage in the back of an truck that is transporting mandarins. The mixed-reality component of the VR experience, deployed at technology-related public events in Western Europe in 2015, places players on a motorised contraption that simulates the truck's movement, and equips them with a mask that contains a breath sensor (used during gameplay) and scent diffuser (to diffuse the scent of mandarins in order to enhance immersion). Such immersive experiences have the potential to put players "in the shoes" of characters they are roleplaying.

Commercial games can also engender empathy. Gilbert (2019) found that students engaged with the *Assassin's Creed* franchise (Ubisoft 2007) due to its unique narrative setup (the explanation of historical events through the lens of the fictional Assassin-Templar conflict). The game's interactivity allowed them to be immersed in history through a "lived experience" during game roleplay, which presented a more engaging experience. The series provides its players with "a sense of human connection" (Gilbert 2019). It "reminds [players] that history is human experience", and allows players to visualise the human cost and impact of these historical events (Gilbert 2019).

Games can also influence empathy after play has ended: they can prime players to be more empathetic. Greitemeyer et al. (2010) had participants play either *Lemmings* (a "prosocial" video game) or *Tetris* (a "neutral" video game) to discern the effects of prosocial games on behaviour.

Results showed that players who played *Lemmings* experienced more empathy towards hypothetical situations of people undergoing hardships (Greitemeyer et al. 2010). When the experimented was repeated to include an additional "antisocial" game, results additionally showed that playing the "antisocial" game had no significant negative effect on empathy (Greitemeyer et al. 2010). This suggests, in line with more research into violent video games, that antisocial video games do not create less empathetic players (APA Task Force on Violent Media 2015).

Games for Therapy

Gameplay also has therapeutic benefits for players. Harrer (2013, 2017, 2018) has done significant research regarding games' capabilities to express and allow players to deal with loss.

They developed a model of "grief-based game design" and, in tandem with a grief support group, developed the video game *Jocoi*. In the game, players play as a mother sheep looking after their baby lamb. A while into the game, a natural disaster results in the lamb's death. The remainder of the game has players continue playing as the mother sheep, and the central focus becomes the act of uncovering flowers (now covered by grass the mother needs to eat to reveal the flower) as an allegory for processing the loss experience while still cherishing the past connection with the lamb. Interpretation of *Jocoi* differed wildly between players, but there was consensus that the game accurately represented the players' experiences of loss (Harrer 2017).

Elude (Rusch 2018a) explores depression through the visual metaphor of hills and valleys. While Rusch developed *Elude* to express their own struggles with depression, they assert that playing such games can encourage reflective practice within players and "help [them] deal with their demons" (Rusch 2018b). This search for meaning within the experience, Rusch argues, is a core value that games provide through a combination of interactivity, myth and ritual.

Finally, studies have also been done on commercial video games that suggest that some games have specific therapeutic potential. Notable examples include how playing *Tetris* can reduce flashbacks of traumatic memories, *Bejewelled* reduces depressive symptoms and stress, and *Pac-Man* can help autistic children build social skills (Colder Carras et al. 2018; Lawhead et al. 2019).

DESIGN

Design as Therapeutic

The act of game design can also be a therapeutic experience for designers. In a presentation at the 2019 Game Developer's Conference (GDC), a group of independent game designers echoed the importance of turning personal experiences into games (Lawhead et al. 2019). Specifically, game creation for these designers represents a "safe space" for them to explore a given experience and ultimately help them cope, process and find meaning in it, despite how uncomfortable it may be.

However, creation of these experiences need not be purely for processing difficult emotions. During this presentation, Nina Freeman, creator of games like *Cibele* (2015), specifically notes the usefulness of exploring positive emotions through design. This emotion is rarely explored when designers consider creating emotionally-driven games, as this kind of game creation tends to be used to explore negative life experiences (Lawhead et al. 2019).

Rusch (2018b) theorises about this creative process when discussing "existential" game design, noting that meaning arises from design through the creation of a product. The acts of self-reflection and internal processing throughout the creative journey fundamentally change the designer – the final product is merely a representation of that journey. In this context, meaningful design is not audience-facing, as traditional design wisdom would have one believe (see Schell 2014), but rather results from a designer attempting to process and communicate an authentic experience.

This process is described as "autopathographical game design" by Danilovic (2019). They note that designing games based on lived experience is a reflective, therapeutic and healing process for designers.

As an example of this, Harrer (2011) experienced catharsis when developing *Cutting Edges*, a game made to spark discussion about gender identity. The act of creation "enriched [Harrer's] understanding of [what is] possible in game design" (Harrer 2011). This led to them encouraging self-discovery and expression during one of their "radical" game jams. In this jam, designers who were not necessarily skilled in game creation were challenged to make autopathographical games about their lived experience using *Bitsy*, a web-based game creation tool (Harrer 2019).

Design as Educational

Design can also be used as an educational tool. Sampat (2017) presents design exercises to create systems that engender empathy. The first of these examples has designers "create a city simulation that makes redlining its focus" (Sampat 2017). This encourages designers to understand and confront the practice of redlining in the United States of America during the 1960s. Redlining was a practice where certain neighbourhoods, often those lived in by minorities, were deemed unstable, making it practically impossible for their residents to apply for home loans (Sampat 2017). Through the process of this exercise, designers will need to research and understand the redlining process to meaningfully abstract it into a game system, resulting in learning.

This design-inspired learning process is used in some educational institutions, where specific courses and projects have students deal with complex social topics to learn about both game design and human complexity (see Schrier 2017; Staaby 2015; The Independent Institute of Education 2019)

VALUES-DRIVEN GAME DESIGN THEORIES AND FRAMEWORKS

Now that the uses of values-driven games have been discussed, frameworks can be presented that suggest how best to approach the design process. However, as noted earlier, the naming conventions of these frameworks can make them difficult to find and effectively collate. As such, this section presents brief summaries of the following design frameworks: critical game design (Flanagan 2009; Grace 2010); empathy game design (Belman and Flanagan 2010; Sampat 2017); ethical game design (Schrier and Gibson 2011; Sicart 2011); strengths-based game design (iThrive Games 2019a); emotional game design (Isbister 2016); radical game design (Harrer 2019) and anti-oppressive game design (Gunraj et al. 2011).

It is important to note that each framework is examined as a progression of the previously-discussed frameworks. Because of this, the discussion of each framework focuses on discussing the unique or differentiating elements of that framework when compared to the others. This is not done to conflate all the frameworks as near-identical to each other. Instead, it aims to highlight the uniqueness of each framework that contributes to the later synthesis of this paper's own design principles.

Critical Game Design

Critical game design arose from Flanagan et al.'s (2005) Values at Play framework. As indicated by that framework's name, understanding the values that are or should be present in the user experience is essential in creating an effective experience.

Much of critical game design focuses on these identified values. It is important not to overload the experience with values as overlapping, sometimes conflicting, values may confuse the overall message of the user experience (Flanagan et al. 2005).

Grace (2010) extends this values-driven idea by asking designers to identify the "invisible" values and mechanics present in their existing game systems. Design decisions, intentionally or not, have "invisible" consequences that subtly shape the player experience.

This is because most design decisions endorse a specific approach to an in-game challenge. This tacitly endorses worldviews consistent with the chosen decision's values. This allows designers to steer players towards certain types of play. As an example, games that focus on community-oriented decisions where the collective welfare of people is integral to the game's success state may, intentionally or otherwise, tacitly endorse a collectivist worldview.

Designers should also consider how design decisions integrate with the cultural systems into which the game is released. Designers often expect players to accept and integrate with the ethical norms of the game, which may conflict with their personal ethics. This may cause cognitive dissonance or create a complex ethical state for the player (Grace 2010). As such, designers should consider both their audience's and their own values and belief systems when defining a game's values.

Similarly, omissions also signal value to their players about certain aspects of a game's culture. The under-representation or omission of women or people of colour in a game, for example, may signify that these groups are unimportant in the game world (Grace 2010). Values-driven games often act as a direct counter to this culture of omission by specifically creating experiences that highlight the importance of cultural aspects otherwise left unexplored.

Flanagan (2009) also addresses critical design as a set of principles that encourage "critical play". This is a way of playing that subverts expectations of a "typical" play experience to critique the culture in which play takes place.

This can be done through "unplaying" – the enacting of culturally taboo actions during play as a subversion of the spirit of the game; "redressing" – the altering of game elements to change the traditional play experience; and "rewriting" – where redressing and unplaying merge to create a new context for the game itself.

Designers can support these types of play by allowing players to engage in forms of "free play" (Salen and Zimmerman 2003) where they can alter parts of the game system to create their own personal experiences.

The immersive simulation genre (Sabbagh 2017) commonly provides a depth of systemic complexity that encourages free play as a viable gameplay strategy. Pervasive games (Montola et al. 2009), with their direct player-driven action, also provide the possibility, through their ambiguous ruleset, for these actions to occur.

Empathy Game Design

Flanagan goes on to describe empathy game design principles with Belman (2010). They note that it is best if players are encouraged to empathise during gameplay, whether implicitly or explicitly, to prime them towards an empathetic posture. This increases the possibility of them having the intended user experience. Without this priming, players do not tend to deeply consider ethical or empathetic choices within a game context. To assist with this, it is also important to telegraph the results of player actions to them. This allows players to reflect on and consider the overall results of their in-game decisions as they make them (Belman and Flanagan 2010).

From a design standpoint, short periods of empathetic engagement (sudden moments in which players feel empathy) are preferred, as the surprise of these moments allow for direct reflection after-the-fact. This may not incite long-term changes in player behaviour, however. In this case, designing immersive experiences where players must cognitively and emotionally engage with the experience is preferred (Belman and Flanagan 2010).

A contextual focus on similarity is also important. Players are more likely to empathise with a scenario if they can relate to it in some way. This focus should be delicate, however, as overt comparisons may seem disingenuous and drive players away from empathising (Belman and Flanagan 2010).

These principles also highlight the importance of trigger warnings, the care with which "us" and "them" mentalities should be treated, and the importance of clarity of outcome when facing consequential ethical decisions.

When discussing the link between emotion, empathy and games, Lankoski (2007) discusses a subversive route to empathy generation. This method is one that prioritises reactive empathy, where the emotions of the player differs from the party being empathised with (Stephan and Finlay 1999). Lankoski (2007) demonstrates this idea using *Silent Hill 3,* in which the player realises at the end of the game that the monsters they were shooting were actually humans, and only appeared as monsters due to the player-character's mental state. This may make the player feel disgusted, having been unknowingly complicit in genocide. A similar approach is taken in *Spec Ops: The Line* (Yager Development 2012) in which players are forced to use white phosphorus weaponry that inadvertently kills civilians. It is important to note, however, that manufacturing these emotional responses in players can cause distress or trauma, which should be avoided when attempting to engender empathy (iThrive Games 2019b; McDonald 2018).

While the above design principles regard narrative context as particularly important in empathy generation, Sampat (2017) approaches empathetic design through a systemic lens, which is a novel approach. To Sampat, game systems and mechanics can often convey narrative context more effectively than written story because of the interactions players have with the system.

To focus on this systemic empathy, the use of minimalist or abstract aesthetics to represent personal experiences can help in making that experience more universal. Emulation of real-world systems for the purposes of betterment or critique is also useful in this regard, as players can relate to the system through their existing mental models. These games also do not necessarily need a typical victory or loss condition: a game's message may better be served by a no-win or no-loss scenario (Sampat 2017).

Finally, Sampat (2017) concerns themselves with designing for both cognitive (understanding) and emotional (feeling) empathy. Games should not rely too heavily on either type alone. Designing for cognitive empathy is a useful tool for increasing awareness of a situation, while emotional empathy may drive players more strongly towards action after-the-fact, as the emotional connection may change a player's perception of a scenario.

Ethical Game Design

Schrier and Gibson (2011) present a variety of design considerations for designing games to address ethical questions. Many of these considerations overlap with those

discussed by other frameworks, and thus provide a useful basis for the consolidated list this paper presents.

Narrative context is particularly important to ethical game design. Players need to be invested in the narrative context to suitably identify and empathise with the context. This is done by having them engage with characters from various socioeconomic backgrounds or even having them switch perspectives to these characters to have a different user experience (Schrier and Gibson 2011).

Games should be "realistic and constrained" to provide analogous authentic experiences. Players' choices should rarely be direct or obvious and should have a discernible effect on the game world. Players should then be able to reflect on these effects, both individually and within a larger community, as this encourages engagement and understanding of the game after the play experience (Schrier and Gibson 2011).

Overall, these experiences should be open to a variety of interpretations, given every player's unique context, and allow for an ambiguity that sparks personal or communal reflection (Schrier and Gibson 2011). The reflection process is a key component of the game's lasting cultural impact.

Strengths-Based Game Design

iThrive Games (2018a, 2018b, 2019b) lists design elements for consideration when implementing games based on empathy, kindness, mental health, cooperation and others. These skills aim to "build strengths for thriving" (iThrive Games 2019a) and are thus discussed under the umbrella term "strengths-based game design".

Like empathy game design, user experience and narrative context are at the forefront of these design principles, with an emphasis on perspective-taking, connecting with game characters, and presenting a relatable and compelling scenario (iThrive Games 2018a).

Notable additions to already-discussed design principles include the inclusion of quiet moments in a game to encourage player reflection, the incorporation of loss as a context for empathy generation due to its universality, and avoidance of conflict or competition between players (iThrive Games 2018a, 2018b, 2019b). A particularly interesting suggestion is to use awe-inspiring aesthetics, as this helps players feel connected to the game and its world. This connectedness reportedly inspires prosocial choices (iThrive Games 2018b).

Emotional Game Design

Because empathy is an emotional response, it is useful to look at Isbister's (2016) emotional design principles, as these have a strong link to important empathetic components like the importance of connection and consequence.

Choices in games (should) come with consequences because of player actions. Emotional responses to games are reliant on this choice-and-consequence structure. As such, experimenting with the nature of interesting choices and consequences allows designers to engender a variety of emotional responses in players (Isbister 2016).

Social play and multiplayer scenarios, because of their shared context, also have the capacity to produce shared or negotiated emotional experiences that may be greater than sum of the individual experiences alone (Isbister 2016). This is particularly true in the modern gaming landscape, where multiplayer games are an important form of socialisation in an increasingly digital world (Mitchell et al. 2008). Social play can be

a catalyst for highly engaging, transformative play that can also affect players' long-term identities outside of the game world. Networked communication bridges geographical distance and can facilitate these shared experiences (Isbister 2016).

Games can also become emotionally charged through a player's literal performance when considering their physical movement. Though physical movement is more directly related to mixed reality games or pervasive games (where players can/must move their limbs in order to perform an in-game action), it can also be applied in digital games when examining control schemes. As an example, physically stressful game situations (rapid button presses, awkward hand contortions) can mirror emotionally stressful ones in-game to deepen emotional connection (Isbister 2016).

Radical Game Design

Harrer's work also concerns itself with emotional responses and processing (2017, 2019). Harrer's grief-based game design and radical design principles come in the form of creation prompts to the designer. Their grief-based design process prompts the designer to envision a planet on which someone they have lost now lives, and only the designer can visit. Through a series of questions, the planet gets fleshed out with a landscape, audioscape, aesthetic and even some of the rules and laws of the world:

- What does the planet look like?
- What sounds are present?
- Who else in on the planet?
- What animals, plants and other elements exist?
- What actions can be taken on the planet?
- Is there something that *must* be done?
- Are there actions that are forbidden?
- Are there changes in actions or events over time on the planet?

(Harrer 2017)

These provide narrative and systemic context to the game world the designer is creating and creates a useful basic shell structure for a game that explores difficult emotions like grief.

Harrer's radical design prompts, used during a workshop and game jam, pose similar questions to designers:

- "Who are you?"
- "What's a place you would like to visit?"
- "What do you wish for?"
- "What are you afraid of?"

(Harrer 2019)

These questions are like those posed by grief-based game design. However, these questions are linked directly to the designer's experience. This is to prompt them to create games that are personal to some aspect of their lived experience (Harrer 2019). However, these prompts can also be useful for designers by allowing them to empathise with their target audience and create games that connect more personally with them.

Anti-Oppressive Game Design

Finally, Gunraj et al. (2011) present anti-oppressive game design principles. Anti-oppressive designs focus on highlighting and representing marginalised groups. While

designing for such contexts requires similar considerations as empathetic, emotional or ethical design, there are also specific principles relating to communication with both the audience and stakeholders.

Designers should consider multiple (and possibly hidden) perspectives of stakeholders during the design process. Perspective-taking by both designers and players allows them to fully understand the scope and severity of stakeholder experiences, and thus create, or participate in, a more authentic experience. Involving stakeholders at this intimate level also empowers marginalised groups by allowing them to exercise control over their portrayals (Gunraj et al. 2011).

It is also important to understand how best to represent a marginalised experience to a specific player base so the experience can have the intended effect. One suggestion for representation is to challenge stereotypes. Doing so reduces "othering" of marginalised groups. Providing a wide range of options (in terms of customisation, playability etc.) for these groups empowers them and makes them seem less radically different to other groups (Gunraj et al. 2011).

CONSOLIDATED DESIGN PRINCIPLES

The above summaries bring into focus a variety of commonalities between each framework. This section consolidates and discusses several principles that are universal to these frameworks posed as questions that designers should ask themselves before or during the design process.

Design Principle 1: What's the point?

Decide what the game's core message is (Flanagan et al. 2005; Grace 2010; iThrive Games 2018a). This message defines the worldview and values the game embodies and guides the player experience. Important design decisions and pivotal in-game events should be in service to this message.

Design Principle 2: Where am I?

Develop the game's narrative context (Harrer 2017, 2019; iThrive Games 2018a; Lankoski 2007; Schrier and Gibson 2011). Context is particularly important as it frames the importance of a game's message. This narrative context includes the type of people and scenarios that are, or are not, present in the game's universe, which contributes to the game universe's worldview by way of inclusion or omission (Grace 2010).

Design Principle 3: Who are the players?

Once the narrative context is decided, designers should have a good idea of the communities that will be affected by their game. This will include the game's players (the audience), as well as those affected by portrayals of characters (the stakeholders). Communication with these parties is particularly important as it defines how the game's message is developed in an ethical and inclusive manner, as well as how that message will impact the game's audience (Gunraj et al. 2011).

Design Principle 4: What is happening?

The game should explore its core message through an authentic or relatable context. Players can then explore the game and experiment in a context that will safely respond to their actions. Exploring the results of different decisions can allow players to reflect on how they would face similar decisions in real life (Schrier and Gibson 2011).

In addition, having the game "borrow" systems from the real world allows players to more easily relate and acclimate to in-game systems. Critique of these similar or borrowed systems in the game allows players to be critical of these systems in the real world (Sampat 2017). This can assist in expressing the game's core message.

Design Principle 5: What choices can the players make?

With the game context mostly established, attention can be turned to players' interaction with the world. These interactions can result in choices that further either the gameplay or the narrative.

To this end, consider how the game can extend or express its message through systems and mechanics. This gameplay extension can be useful, as it brings the message to the forefront of the experience, as opposed to being relegated to the in-game narrative (Sampat 2017).

Player choices can allow for interesting explorations of choice and consequence (Sampat 2017; Schrier and Gibson 2011). Players can make in-game decisions that are different to their personal morals because the game universe is a safe space in which to explore novel actions and their consequences. This can educate the player and allow them to creatively express themselves (Schrier and Gibson 2011).

Design Principle 6: How can I frame these choices?

Player choices can be framed in several ways to allow them to examine these choices. Encouraging perspective-taking in game can allow players to understand the perspectives of game characters as well as real life stakeholders (iThrive Games 2018b, 2019b, 2018a; Schrier and Gibson 2011). Loss (death or other in-game losses) can be a useful event to catalyse the perspective-taking process.

Social play can also allow for communal perspective-taking, as well as learning and understanding (Isbister 2016). This should be used with care, however, as games with conflict may discourage this shared perspective-taking experience (iThrive Games 2018b, 2018a; Schrier and Gibson 2011). Communal perspective-taking may also hinder a player's personal reflection and play experience due to potential or implicit peer pressure encouraging players to reach consensus.

Design Principle 7: How will the players feel?

It is particularly important to consider the audience's emotions and reaction to the final game. Here it is useful to include trigger warnings or some form of empathetic priming in the game so that players know what they are getting themselves into and are in an emotional state to be receptive to the game's message (Belman and Flanagan 2010). It is particularly important that over the course of development designers steer away from design decisions that may cause players trauma (iThrive Games 2018a; McDonald 2018).

Here it is also important to consider the game's reliance on cognitive (thoughts-based) or emotional (feelings-based) empathy. Cognitive empathy is better when raising awareness, and emotional empathy is better for encouraging post-game real world change or action (Belman and Flanagan 2010; iThrive Games 2018a; Sampat 2017).

Design Principle 8: How can the players learn?

The interplay between choice and consequence in games provides players with the opportunity to reflect on these choices after making them. To this end, it is important to provide spaces in a game that encourage and support this player reflection. This could be an explicit scenario in the game or simply a quiet moment in which players can self-reflect (iThrive Games 2018b; Schrier and Gibson 2011).

This reflection can give way to later remixing of game actions through an unplaying, reskinning and rewriting process, should players be given this freedom of expression (Flanagan 2009). This allows players to take what they have processed and change the game or their interactions with the game to reflect the players' new views of the game

universe. This process can continue cyclically, enriching players each time they complete it.

CONCLUSION

This paper has highlighted the importance of values-driven games by showcasing the myriad ways in which they could be used, as well as examining the frameworks that help guide the development process. It then presented a consolidated set of design principles framed as questions to the designer that can be asked before or during the design and development process.

These consolidated design principles and their subsequent discussions provide a useful and concise reference for game designers and developers. These principles allow designers to more critically examine their own work and allow them to imbue their projects with additional cultural meaning, which may allow their games to achieve greater cultural relevance and longevity.

Using these principles, designers and developers are encouraged to consider the full ethical impact of their games in current and future global climates, as well as strive for representation and authenticity in their work. Doing so will help create a culture of inclusivity in the games medium and may help both designers and players feel less alone in the world.

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