

Projects of worth

Exploring meaningfulness in videogame experiences

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Abstract

Videogames have become a ubiquitous form of cultural entertainment. Within popular culture, they are often seen as offering fun, thrilling or pleasurable experiences, and scholarship has tended to examine their negative aspects and effects on individuals, including addiction, increased aggression and stereotyping. However, there is an emerging understanding that has begun to focus on the positive aspects of entertainment media consumption. In investigating this potential of entertainment media as having the capacity to evoke meaningful experiences, scholars have come to adopt Aristotle's philosophical notion of "eudaimonia". Indeed, videogame scholars are beginning to investigate videogames as having the potential to evoke complex and reflective emotional experiences in players. This research thus continues on this intellectual trajectory by focusing on its central research question: *How do videogames have the capacity to generate personal meaning?* The research adopts a qualitative multimethod approach. It first investigates various disciplinary perspectives (e.g. philosophical, psychological and spiritual) on the concept of meaningfulness, before examining scholarship which considers how videogames might provide meaningful experiences in players. I then apply this collection of theoretical concepts in establishing a videogame design framework through which I develop a game prototype which aims to be meaningful via story and various design features. Finally, I produce an exegesis to critically analyse the creative practice of developing my prototype. My reflections suggest that, during my creative practice, meaning emerges as I enter specific mental states that allow me to reflect and contemplate on subjective thoughts and feelings which manifest in the creation of the prototype.

Keywords

Meaningfulness, story, videogame, creative practice

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Declaration

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

1. Introduction

What do we mean when we talk about something being meaningful? The challenge of conceptually defining the human experience of meaningfulness has preoccupied philosophers, psychologists and many other thinkers. It is a question essential to our being as humans, stirring up profound existential questions such as “what is the meaning of life?” When the 19th century Danish existentialist philosopher Søren Kierkegaard focused on the question, “What does it mean to exist?”, he suggested that this question of meaning is of fundamental importance when considering one’s own existence (Carlisle, 2010). Kierkegaard’s concern was that his life lacked direction and purpose which would give it meaning (Carlisle, 2006, p.21). In his *Journals and Papers*, Kierkegaard (1978, p.34) stated:

What I really need is to get clear about what I must do, not what I must know, except insofar as knowledge must precede every act. What matters is *to find a purpose, to see what it really is that God wills that I shall do*; the crucial thing is *to find a truth which is truth for me, to find the idea for which I am willing to live and die*. [Emphasis added.]

To that extent, Kierkegaard’s “will to meaning” -- that every human being is inspired by a striving and yearning for meaning (Brenco, 2016, p.229) -- is also the focus of Viktor Frankl, famous Holocaust survivor and psychologist. One of the 20th century’s most influential thinkers on meaningfulness, Frankl similarly believed that one’s life is directed at and guided by striving to find one’s meaning or telos (Leontiev, 2013, p.2).

The question of what is meaningful also pertains to thinking about meaningful media experiences, including the playing and designing of videogames as being meaningful. For the film critic Roger Ebert, writing in 2005, videogames was a medium lacking in cultural and empathetic qualities: “To my knowledge, no one in or out of the field has ever been able to cite a game worthy of comparison with the great dramatists, poets, filmmakers, novelists and composers.” (Ebert, 2005, np). Indeed, this stance is echoed by popular preconceptions that tend to characterize videogames as only offering fun, thrilling or pleasurable experiences as the main motivator for engaging in gaming (Salen and Zimmerman, 2003; Banks and Bowman, 2014; Oliver et al., 2016).

However, a growing body of scholarship within media studies has begun to focus on understanding positive effects of media usage. In this respect, understanding is emerging on how, in addition to hedonic experiences, videogames, like other forms of human expression and creativity such as art,

literature or film, are a significant form of cultural expression which can actively engage, evoke introspection of being human, and provide meaningful experiences for players. For instance, in his cultural and historical analysis of the value of videogames, Andrew Ervin (2017, p.183) notes that a growing number of videogames are providing new ways to consider the question of the human condition: “*Journey* [2012] and *Monument Valley* [2014] do not allow us to merely escape from the problems of the workaday world, but also offer a new means of thinking about more timeless, existential problems.” (Ibid, p.193). In her work exploring how videogames have the potential to move us, Katherine Isbister (2016, Loc.525) also notes that through their participatory nature, videogames have the capacity to evoke reflection and deeper understanding. As an example, she cites the game *Waco Resurrection* (2004), where players inhabit the persona of the cult figurehead David Koresh, the leader of the religious sect Branch Davidians, as they defend their complex from perceived enemies, mirroring the real-life event also known as the Waco siege. The game’s design incorporates agency to blur the identity of the player with that of the cult leader. As players question their actions in their control of their avatar, Isbister argues that a richly complex emotional and thus meaningful experience can emerge for the player in re-understanding the historical event. The game designer Michael Highland’s TEDx talk, entitled “The Enlightened Gamer” (2010), also considers games being meaningful as transcendent experiences or spiritual states. He argues that videogames have inherent spiritual values which embody the long existing wisdom of spiritual traditions, helping us understand elements of the human condition. Highland gives the example of *Super Mario Bros* (1985), where the player ventures into the game world, progresses, but inevitably perishes. However, thanks to the player’s last life, they learn something about how the world operates and how they should live within it before dying again, thus becoming an experiential metaphor for a cycle of life, death and rebirth that also reflects the spiritual concept of reincarnation.

Besides meaningful games, increasing attention is also being paid to the designing of video games for meaningful gameplay. Salen and Zimmerman (2003, p. 34) assert that “creating meaningful play is the goal of successful game design”. They offer two senses of “meaningful play” -- *descriptive* (applicable to all games, where the game system responds to a player’s action); and *evaluative*, which they argue occurs “...when the relationships between actions and outcomes in a game are both *discernable* and *integrated* into the larger context of the game.” (Ibid; emphasis in original). In other words, a well-designed system of play needs to take into account this sense of emotional and psychological experience of understanding actions and outcomes in the game’s context. Similarly, in her approach to designing “deep” games, Doris Rusch suggests that “[g]ames can communicate deep messages; they can make us think and feel deeply; and they can move us in a way no other medium can because games enable embodied experiences...” (2017, p.19). She argues that for game designers

to understand complex abstract concepts which pertain to the human condition, such as love, death, or self-growth, they must understand these concepts as systemic, structured wholes (Ibid, p.49). However, even as the human conceptual system structures and organises our abstract experiences into patterns or experiential gestalts, abstract concepts such as those on the human condition cannot be directly observed. Hence, Rusch suggests the use of metaphors to understand these concepts (Ibid, p.54). In turn, game designers may use such metaphors to translate human experience into meaningful gameplay (Ibid, p.58).

Moreover, the participatory nature of storytelling in videogames also enables players to contemplate and reflect on aspects of the human experience such as love, loss, death and hope. To illustrate this point, the game critic Andy Robertson (2012) cites the playing of the Playstation 3 videogame *Flower* (2009) at Exeter Cathedral in 2012 which was included as part of a service specially created by Anna Norman-Walker, the Canon Missioner. The embedded themes in the service, such as spirituality, freedom and enlightenment, were reflected in aspects of the videogame, where players control the force of the wind to guide a single petal through fields of flowers, with the objective being to find and touch other flowers, causing them to bloom. This process brings back life, light and colour to the desolate game environment, conveying spiritual themes of life, destruction, and rebirth that players are left to interpret and reflect on the game's narrative. Norman-Walker described (2012) the flow of the service as being illustrated within the dynamic nature of the gameplay, and as the spiritual practice of communion was celebrated, parts of the service were also illustrated within the game. In particular, as the minister discussed the blood of Christ, red flowers were triggered by a player in the congruent, which provided a deeply moving spiritual moment for the congregation.

In this shift toward understanding entertainment media as having the potential to evoke meaningful experiences, scholars have come to adopt Aristotle's philosophical distinction between *hedonic* (e.g. pleasurable) and *eudaimonic* (e.g., meaningful) experiences (Oliver and Raney, 2019, p.112). Specifically, Oliver and Raney (2011) use the term "eudaimonia" to refer to the motivations, gratifications (such as being emotionally moved or touched) and resulting experiences associated with meaningful entertainment. These, then, are similar eudaimonic gratifications associated with the understanding and insight one may gain on considering existential questions such as "what is the meaning of life" and issues regarding the human condition. Videogame scholars are also beginning to use terminology that point more to eudaimonia in their descriptions of games, such as "serious" (Bogost, 2010; Bartsch, Kalch and Oliver, 2014) and "meaningful" (Oliver et al., 2016). Tom Cole and Marco Gillies (2019, p.2) also suggest the term "avant-garde" to describe videogames that have the potential to evoke complex and reflective emotional experiences in players.

Finally, alongside this discourse that considers videogames as meaningful is also a growing body of videogames, over the last 15 years, which seems deliberately designed to provide eudaimonic experiences in players. For example, the experimental game *Passage*, released in (2007), is a 2D side scroller which its creator, Jason Rohrer, described as an abstract metaphor for the human condition (Dahlen, 2010). Other games in this category include *Firewatch* (2016), a 3D adventure game developed by Campo Santo which explores themes of love, loss and loneliness in the Wyoming wilderness, and *That Dragon, Cancer* (2016), which captures a family's grief of a child facing and then dying of terminal illness.

In short, there is a discernible shift in perspective over the last decade from critics, scholars and developers in beginning to both utilise and understand videogames as a medium capable of being more than entertainment, and instead one which explores meaningful themes and evokes eudaimonic experiences. This thesis thus seeks to extend this trajectory of inquiry by investigating videogames as artefacts that evoke meaningfulness, asking as its central research question: *How do videogames have the capacity to generate personal meaning?*

In answering this question, my investigation proceeds along two strands. The first is in terms of videogames' capacity to evoke meaningfulness as located within their constituent parts, such as embedded themes within their stories and notions of play which entail agency, freedom and introspection. The second strand is in terms of various considerations which emerge out of designing a videogame to be meaningful and which thereby generate connections of meaningfulness. These considerations include subjective thoughts and feelings that orientate and guide the practice; introspection; and the manifestation of interconnected relationships between design and play.

1.1 Methodology

My research adopts a qualitative approach. According to Denzin and Lincoln (2005, p.3), qualitative research is defined as "...multimethod in focus, involving an interpretive, naturalistic approach to its subject matter." For this thesis, my multimethod approach spans philosophical theory; media theory; creative practice in the development of a videogame prototype aimed at evoking meaningfulness; and an exegesis of my practice. Adopting such a multimethod approach enables me to analyse the phenomena of meaning, already so diffused as a concept and difficult to pinpoint, in a holistic manner by investigating diverse sources of data and via different approaches. In this way, I thus aim to answer

my research question through soliciting greater understanding of the concepts in question and arriving at richer interpretations of the data. I describe each component of my methods more fully below.

1.1.1 Research of theory

I began my research by examining various disciplinary perspectives (e.g. philosophical, psychological and spiritual) on the concept of meaning. It quickly became clear that there is a considerable amount of research material relating to meaning and which span various disciplines. My objective is thus not for comprehensive research, but to establish at least a salient collection of the theoretical origins that underpin meaningfulness through an iterative and reflective literature gathering process. I collected data from a variety of sources, including peer reviewed journals, books, and videos obtained from the University library's search functionality and Google Scholar via keyword searches on the topic of meaning as well as literature recommendations from my supervisor. I collected relevant literature, I created a local research repository with the use of Mendeley to organise and track my bibliography. Additionally, to track video, film and videogame sources, I created a filmography and video game library.

I then adopted an inductive approach, whereby "...the primary purpose...is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data..." (Thomas, 2006, p.238). During the research process, I wrote notes and identified broad themes and categories as they emerged from the research. As my research progressed, I re-read and synthesised the literature several times. This process of refinement continues until major themes and concepts of meaning are identified and categorised. Hence, this inductive approach allows me to, firstly, condense and summarize the data; secondly, derive themes and concepts that pertain to the emergence of meaning by establishing clear links in the data; and finally, further organise and categorise these themes into specific concepts of human meaningfulness which I may use for subsequent parts of my research.

With the underlying concepts of meaning established, I proceeded to collect a variety of data (again from sources such as journals, books and videos) on scholarship which examines videogames as having the potential to provide meaningful entertainment experiences in players. Again, an inductive approach, similar to that discussed above, was adopted and performed on the data. Initially, I used a small selection of search terms, including "eudaimonia", "meaningfulness" and "videogames", and again broaden these terms as the research progressed. As I read and collected relevant literature, I expanded and created new categories within my local library to include the new research material. From there, I followed the same process and wrote notes to identify broad themes and categories which pertain to meaningfulness within videogames.

1.1.2 Constructing the videogame prototype design framework

My next step was to construct a design framework in which to situate my videogame prototype as one designed to evoke meaningfulness, or, to be a meaningful game. From the broad range of themes on meaningfulness as discussed per 1.1.1, I typed out on a Word document a series of headings based on those themes. Under these headings, I identified the core aspects of each philosophical concept of meaningfulness which might be applicable to my prototype. I also noted the characteristics of videogames and/or gameplay that give rise to meaningful experiences, such as the provision of introspection, so as to further connect up concepts or aspects of meaningfulness in my prototype.

On my sketch pad, I visualised these connections as mind maps, constantly refining my thinking on the relationships between philosophical ideas of meaningfulness and the characteristics of meaningful videogames and generating ideas for my prototype. Out of these mind maps, I finally sketched out a conceptual diagram of the design framework for use to develop a videogame prototype that aims to evoke meaningfulness (see 1.1.3), as part of my methodology of creative practice. My choice to use creative practice as part of my methodology is so as to understand how game design and its development process may feed into the evocation of meaningfulness. To that end, those questions of game creatorship is thus also part of answering the research question on the capacity of videogames to generate personal meaning (in terms of the project's second intellectual strand).

1.1.3 Game design

With guidance from an industry expert, I then implemented the prototype as the creative practice phase of the research project, with due consideration of time constraints and available resources, while maximising the potential of the prototype to evoke meaningfulness within the established constraints. The prototype may be downloaded via the University's open access repository (full URL: https://eprints.whiterose.ac.uk/177803/1/Los_12.06.20.rar)

In developing the prototype, my creative practice is similarly multimethod in nature: I began by producing a game design document (GDD) (Appendix 1), which defines and prescribes the scope of the prototype's design. I wrote the story and worked with a voice actor to record the script. I created mood boards as a visual tool that communicates the colour, feel and space of the prototype's environment. I worked inside the Unity game engine with both native code and visual scripting software to program gameplay mechanics and systems. I spent time within 3D modelling and 2D graphics programs to create the aesthetic elements necessary to generate assets required for the prototypes environment. I used a digital audio editor to prepare and mix audio to use within the game.

Throughout this phase, I also collected, recorded and collated data of my design process (e.g. inspirations and sketches) as details of my intentions, ideas and methods for the last part of my thesis, the exegesis (see 1.1.4). Again, this process takes place through a variety of ways. For example, I wrote by hand notes of my ideas in a notebook, as well as thought processes and design ideas in a digital journal. I sketched various ideas for the game, such as gameplay logic and level designs, both in a 2D graphics program and on a traditional sketch pad. I collected reference material for the game's art style through digital photography and through performing keyword searches and filtering by image. All these materials are then collected and stored in a local repository.

I further acknowledge that the design and creation of objects or artefacts outside the study of videogames have also been favourable in obtaining insights into the meaning-making process. One example of obtaining meaning through making can be found in the work of Wallace et al. (2020) and the design and use of "ReFind", a handheld artefact aimed at allowing bereaved people to re-explore a relationship with a deceased person. The researchers sought to design, create and use this artefact, which includes digital capabilities, to explore new ways for individuals to create meaningful content. Interestingly, design concepts and propositions for the artefact emerged in discussions inspired by the researchers' own lived experiences (Ibid, p.3). Through the process of design and use of the device, complex team conversations aroused existential concerns such as mortality and grief (Ibid, p.9). The autobiographical approach to the design of the artefact thus offered insight, such as the use of incorporating lived experiences into the design process. In my approach to the design of my prototype, one of the ways in which I employed this insight was to embrace my own lived experience as inspiration for the creation of the prototype's story, which is discussed further in section 4.

1.1.4 Exegesis

My exegesis provided a reflective discourse on my creative praxis, illuminating the active engagement of subjective thoughts, feelings and spirituality in creating a videogame as manifestations of meaningfulness. In turn, this analysis works towards answering my research question by demonstrating inherent meaningfulness in the processes undertaken during the creative practice. Acting as a companion text to the prototype, the exegesis articulates the prototype's creation story, the inspirations that drove its inception and how its creation unfolded. Most importantly, it illuminates further notions of meaningfulness in the game design process as part of thinking through the capacity of videogames to generate personal meaning.

To work on my exegesis, on completion of the prototype, I reflected on my recorded data collected through my creative practice and discussed them with my supervisor. Through further reading, noting, reflection and referencing of my data, I began to identify connections between the meaningfulness of subjectivity at play in my creative practice. I wrote down these connections and sketch further mind maps to visualise them. I then reiterated this process of reading, thinking, writing, and mind mapping, reflecting and refining my thoughts and ideas and referencing my recorded data until I can more concretely connect how meaningfulness emerges in relation to my practice, at which point I reflected accordingly in my written exegesis. Finally, I also reflected on the threading of spirituality or religious beliefs in my creative practice, in particular connecting my making of the prototype with experiential metaphors for spiritual experience and in that way constitute its capacity for meaningful experience.

1.2 Section outline

The remainder of this thesis will consist of four sections, structured as follows:

Section 2 will conduct a theoretical review of salient meanings of meaningfulness. Section 2.1 will first examine extant research regarding philosophical, psychological and spiritual perspectives of meaningfulness to humans and theories focusing on meaning in life. It must be noted (again) that this section is not an exhaustive reflection of the scholarship, whose vastness became clear during the initial literature review. Rather, this section illuminates prevailing theories and trajectories. Section 2.2 will review the scholarship on videogames as meaningful experiences, and section 2.3 will conclude with a summary on the section's findings.

Via a conceptual diagram, section 3 will distill the theoretical considerations of meaningfulness from the findings in section 2 into a framework for the designing of my prototype. It will also elaborate on aspects of meaningfulness via the prototype.

Section 4 will present my exegesis on my creative practice and detail my critical reflections on meaningfulness in the designing of a videogame prototype aimed at evoking meaningfulness. Section 5 will conclude.

2. What is the meaning of meaningfulness?

There is no universally accepted construct of meaning (Leontiev 2012; Heintzelman and King, 2013; McDonald, Wong, and Gingras, 2012). In the context of studying meaning as a psychological concept, Dmitry A. Leontiev notes (2013, p.459) its complexities:

meaning is neither a state, nor a trait; neither a cognition, nor an emotion; neither subjective, nor objective or, one may say, both trait-like and state-like, cognitive and emotional, subjective and objective at the same time.

Indeed, as Leontiev suggests (2013, p.459) there is a range of different challenges involved in thinking about meaning. For example, there is the linguistic challenge, where the English word itself contains a plethora of semantic concepts and is fundamentally ambiguous. Or the structural challenge, where meaning is often confused with its component parts; or the methodological challenge of evaluating meaning without merging it into associated concepts such as happiness. Having said that, some researchers (Heintzelman and King, 2013, p.4) also suggest that the ambiguity of meaningfulness speaks to the nature of meaning itself, and that certain components of the meaningful human experience are unconscious intuitive processes, and thus cannot be linguistically articulated.

Rather, a more productive approach might be to define meaningfulness as grounded across various philosophical, psychological and spiritual perspectives. With a focus on locating meaning *in* life, philosophical theories, such as those by Susan Wolf (1997), Richard Taylor (1984) and John Cottingham (2003), explore the subjective, objective and supernatural dimensions of this question. Other scholars, such as those in the field of positive psychology (Leontiev 2013, Reker and Wong, 1988, Seligman and Csikszentmihalyi, 2000), focus on allowing individuals to uncover the positive aspects of human experience which make life meaningful. To distil the concepts of meaningfulness, the following subsections will present theories from salient philosophical, psychological and spiritual perspectives (section 2.1). Section 2.2 will then consider the capacity of videogames to evoke eudaimonic experiences, and also investigate intrinsic characteristics within videogames that give rise to feelings of meaningfulness within players.

2.1 Meaningfulness in philosophy

2.1.1 The highest good, fulfillment, value

Philosophers consider the notions of happiness and fulfillment as central components of something being meaningful. In his *Nicomachean Ethics*, Aristotle argues the monoistic notion that the function of a human being is to attain the *highest good*, or eudaimonia, which is often taken to mean “happiness” (Cambridge Dictionary 2021), but also, when translated from its Ancient Greek, “flourishing”, “well-being” or “fulfillment” (Kraut, 2019). Aristotle believes that achieving the highest good requires the fulfillment of a broad range of conditions gained through life experience and habituation, such as attaining both *intellectual virtues*, such as contemplating and learning, and *virtues of character*, such as courage and generosity. Having said that, Aristotle also states that achieving some of the elements of the highest good are outside of a person’s control, such as due to factors of political opportunities or adequate wealth (Farwell, 1995, p.247).

However, the moral philosopher Susan Wolf (1997) argues that one does not always act in pursuit of the highest good or morality (see also section 2.1.2) as avenues for a meaningful life. Instead, she argues that meaningfulness emerges through acting out of love for individuals. Hence, for Wolf, meaningfulness is composed of two views. The first is the *fulfillment view*, where “...sometimes we act for the sake of an object, an ideal, an activity or a person we love” (2017, 18:17). In this view, acting for reasons of love (e.g. visiting a brother or helping a friend move) with things that we are actively engaged in (i.e. being gripped or excited by something) leads to feelings of fulfillment. The second is the *larger than oneself view*, where she argues (Wolf, 2010, p.10) that “...participating in or contributing to something whose value is independent of oneself...” is meaningful, but does not define a specific example.

However, Wolf argues that the fulfillment view only satisfies a subjective condition (engaged or fulfilled by things we love) but lacks an objective component, whilst the larger than oneself view suffers from the opposite problem. Wolf states that there can be “...no sense to the idea of meaningfulness without a distinction between more and less worthwhile ways to spend one’s time, where the test of worth is at least partly independent of a subject’s ungrounded preferences or enjoyment.” (1997, p.209). She thus presents the *fitting-fulfilment view* which combines both subjective and objective components, whereby “...meaning in life arises when *subjective attraction meets objective attractiveness*, and one is able to do something about it or with it.” (2010, p.26; emphasis added). In other words, something is meaningful by fulfilling two conditions: first, that the

project or activities with which we are involved are subjectively fulfilling so that we are subjectively attracted to them; and second, to “...get involved...with something other than oneself—that is, with something the value of which is independent of and has its source outside of oneself.” (Ibid, p.18), or objective attractiveness (see also 2.1.3 and 2.1.4 on, respectively, objective and subjective elements of meaningfulness). However, Wolf admits that defining a unanimously accepted definition of objective value is still a philosophical problem: “[o]n my view, then, finding an adequate account of the objectivity of values...is an unsolved problem in philosophy—or perhaps better, an unsolved cluster of problems.” (2016, p.265).

2.1.2 God, spirituality, morality, supernaturalism

Throughout human history, the significance of God has been important in the discourse on the meaning of life. For example, in his *Summa Theologiae*, Thomas Aquinas contemplates that happiness in this life is imperfect: “Man is not perfectly happy, so long as something remains for him to desire and seek.” (Aquinas, 2017, I–II, q., 3, a. 8). To Aquinas, only perfect happiness can be attained in the next life in beatitude or union with God (O’Callaghan, 2014).

Variations of spiritual experiences in relation (or not) to God are also important components of the philosophy of meaningfulness. For instance, the philosophical theory of supernaturalism holds that the belief in a spiritual realm is central to meaning in life (Metz, 2002, p.783). In his discussion of various supernaturalist views, Metz suggests that supernaturalism centers around the existence of God, a soul (i.e. an immortal spiritual substance), and afterlife within a spiritual realm (Heaven). Some views are God-centered, requiring that one fulfills “...a purpose that God has assigned to us” (Ibid, p.784) even without the existence of a soul. Alternatively, if God does not exist, possessing a soul and putting it into a specific state (such as living a moral life) is necessary for a meaningful existence. However, many supernaturalists view both aspects as necessary for meaning in life -- to have a meaningful life, one needs to believe in both the existence of God and a soul.

Similarly, morality in relation to the concept of faith is also part of leading a meaningful life. For instance, Immanuel Kant argues in his *Critique of Practical Reason* that the ultimate end of human endeavour, or the highest good, consists of obtaining two components: that of complete moral virtue (which lies in one’s duty to tell the truth); and happiness distributed in proportion to virtue (Reath, 1988; Johnson and Cureton, 2016), where if one observes his duty and follows the moral law, then one is worthy of happiness (Hughes, 2004, p.69). However, according to Kant, events in this world do not allow the existence of happiness in proportion to virtue. Reverting to the doctrine of God for

meaningfulness, Kant's solution for the individual's duty to remain rational for them to act upon it is to postulate the existence of God, or the moral faith that God will reward morality in the afterlife (Lin, 2019). In other words, the individual attains the highest good only by their ability to both connect virtue (in terms of following the moral life) and happiness in the afterlife (Reath, 1988, p.602).

Similarly, the philosopher John Cottingham (Metz, 2008, p.201) also argues that, while leading a moral life is necessary for meaningfulness, morality alone is not sufficient. Firstly, for there to be objective moral principles (such as hope, compassion or sympathy), God must exist to have issued moral rules that are eternal and absolute. Otherwise, without those principles, life would be meaningless. Secondly, without *belief* in a spiritual realm or God, one would not be inspired to live a moral life and engage in worthwhile moral activities, and subsequently life would be meaningless. As Cottingham (2003, p.104) states:

Nothing in life is guaranteed, but if the path we follow is integrally linked, as good spiritual paths are, to right action and self-discovery and respect for others, then we have little to lose; and if the claims of religion are true, then we have everything to gain. For in acting as if life has meaning, we will find, thank God, that it does.

Hence, in this strand of philosophy, a meaningful life requires the fulfilment of a range of conditions connecting in complex ways across God, spirituality and morality.

2.1.3 Objective, mind-independent goods

In other philosophical strands, the existence of a god (or God) is not necessary for meaning in life. For instance, the theory of Objective Naturalism advocates that the meaning of life is derived from objective elements in the natural world which are *mind-independent*, rather than from a supernatural or spiritual realm. To be mind-independent is to consider something as real and objective, or something that truly exists and does not depend on human cognitive faculties or the capacities of our imaginations (Khalidi, 2016, p.223). In turn, these objective elements hold an inherently worthwhile condition that confers meaning for anyone, regardless of what one wants or chooses (Metz, 2021, Seachris nd). As Brooke Trisel (2017, p.161) writes, "...one accrues meaning in one's life by engaging with inherently valuable and natural, mind-independent goods." Hence, this emphasis on mind-independence distinguishes Objective Naturalism from supernaturalist theories (see 2.1.2) and Subjective Naturalism (see 2.1.4).

Roger Crisp (2017, under “4. Theories of Well-being”) suggests that mind-independent objective goods “...consist neither merely in pleasurable experience nor in desire-satisfaction. Such items might include, for example, knowledge or friendship.” Further examples of objective goods can be seen in Thaddeus Metz’s (2021, under ‘3.2 Objectivism’) statement that “[m]orality...and creativity are widely held instances of actions that confer meaning on life”, regardless of who seeks to actively engage in them. The British literary theorist Terence Eagleton (2008) further argues that we find meaning in life through the objective goods of happiness and agapeistic love. Eagleton regards happiness as part of our nature and cites Aristotle’s notion of well-being as a way of life, rather than personal inner contentment. Eagleton suggests that happiness must be coupled with impersonal unselfish love, not of those whom you desire or admire: “For love means creating for another the space in which he might flourish, at the same time as he does this for you. The fulfillment of each becomes the ground for the fulfillment of the other.” (Ibid, p.96). Hence, for Eagleton, it is through objective happiness with love and concern for others that we attain meaning in our lives.

Similarly, British philosopher Bertrand Russell argues that, even through a fleeting and painful life, we can still find meaning through the objective freedom of our thoughts. In his 1903 essay, “A Free Man’s Worship”, Russell presents a fictitious account of the creation of the world between Mephistopheles (the devil) and Dr. Faustus. Russell describes a desolate and pessimistic version of the world as revealed to us by modern science, where the fate of humanity along with the “whole temple of Man’s achievement must inevitably be buried beneath the debris of a universe in ruins” (1918, p.48). However, Russell argues (Ibid, p.50) that in spite of this meaninglessness in life, Man is free within his thoughts to “defy ... a hostile universe” (Ibid, p.51): “To abandon the struggle for private happiness, to expel all eagerness of temporary desire, to burn with passion for eternal things--this is emancipation, and this is the free man’s worship.” (Ibid, p.55).

Hence, it is through our thoughts, where we can choose to “worship” the objective ideals of goodness, beauty, art, and philosophy, that make life meaningful, rather than subjective standards of “temporary desire” or “private happiness”.

2.1.4 Subjective Naturalism; subjective meaning

The philosophical theory of Subjective Naturalism postulates that meaning in life varies from person to person and can emerge without the belief in a God, after-life, transcendent realm or in objective goods. Rather, meaningfulness emerges when one achieves what one believes to be important and “...is a function of one getting what one strongly wants or by achieving self-established goals...” (Seachris,

nd, under “Subjective Naturalism”). When one accomplishes these goals or obtains something one strongly desires, feelings of happiness and satisfaction or fulfillment arise.

Other researchers echo these sentiments of subjectivity in defining meaning in life. For instance, Reker and Wong (1988, p.221) define personal meaning in life as the “cognizance of order, coherence and purpose in one’s existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment”. The researcher Michael Steger (2012, p.165) proposes that “[m]eaning is the web of connections, understandings, and interpretations that help us comprehend our experience and formulate plans directing our energies to the achievement of our desired future.” Finally, the philosopher Richard Taylor (1984, p.256-268) recalls the ancient Greek myth of Sisyphus who was condemned by the gods to roll an immense boulder up a hill for eternity, where the boulder, when it nears the top of the hill, only rolls down again so Sisyphus’s task is never complete. Taylor understands this as “endless pointlessness” and sees it reflected in human life. He then asks us to imagine an alternative version in which the gods implant within Sisyphus a compulsive impulse to roll stones, which at once changes how we see Sisyphus’s task: his life is now imbued with meaning as he carries out his inner desires. Hence, Taylor concludes (Ibid, p.268): “The meaning of life is from within us, it is not bestowed from without, and it far exceeds in both its beauty and permanence any heaven of which men have ever dreamed or yearned for.”

2.1.5 Youth

The last tenet of meaningfulness in philosophy I will discuss in this subsection is the proposition by German philosopher Mortiz Schlick that “the meaning of life is youth”. (1979, p.123) Schlick writes (1979, p.112) that only the childlike do not ask the question of whether life has meaning; rather, only “the seekers” (Ibid, p.112), or those who are not innocent, ask this question. Some may lament that they did not fulfill their youthful goals, but still believe that life holds meaning for those who have attained theirs. Others may achieve their goals and find their achievements hold no meaning. Disappointed, they set new hopeful goals, only to be disappointed again; this cycle continues until death. Hence, Schlick concludes that there is no meaning in life if the purpose of our lives is to do something only for the sake of something else (Messerly, 2015). These activities become cyclical work and serve goals and purposes outside of themselves.

According to Schlick, then, meaningfulness is to be found through what he calls “play”, meaning activities that are intrinsically valuable and independent of any goals (1979, p.114):

There really are such activities. To be consistent, we must call them play, since that is the name for free, purposeless action, that is, action which in fact carries its purpose within itself. We must take the word 'play', however, in its broad, true, philosophical meaning - in a deeper sense than is commonly accorded to it in daily life.

In this sense, Schlick states that we must learn from the child and from the enthusiasm of youth, whereby true play lies in the devotion to the activity and not any goal outside of the activity. It is through "...things which completely take hold of him..." (Ibid, p.120) that one finds the purest joy. Schlick goes on to describe this state of emotional immersion as the "concept of youth"; youth, then, "is a state, a way of leading one's life..." rather than a specific period of life. (Ibid, p.123) Hence, for Schlick, meaningfulness lies in engaging in activities as a youth, where activities become play as for the youthful, or taking "self-sufficient action that acquires its value independently of the purpose". (Ibid, p.122)

2.2 Meaningfulness in videogames

This subsection will examine scholarship on the various manifestations of meaningfulness in videogames. Again, it is not an exhaustive coverage of the literature but, rather, focuses on prevailing thinking which considers the capacity of videogames to evoke eudaimonic experiences in players. In particular, it will study characteristics present within videogames that give rise to feelings of meaningfulness within players, such as games' fulfillment of psychological needs; aspects of player engagement; and notions of player agency and freedom within the game world.

2.2.1 Self-determination theory - autonomy; competence; relatedness

Self-Determination Theory (SDT) (Ryan & Deci, 2000) represents a broad framework for the study of human motivation and behaviour. As a theoretical framework, it is associated with eudaimonic experiences and is based on the satisfaction of higher-order needs. The theory argues that humans have three innate psychological needs. They are the needs for: *autonomy* (a sense of control or volition); *competence* (a sense of mastery or effectiveness); and *relatedness* (a sense of connectedness with people and experience caring for them). These needs "...appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being." (Ibid, p.68). Accordingly, Ryan and Deci (Ibid, p.326) argue that "...when people reflect on aspects of life that convey meaning, they are often focused on

experiences of *relatedness*, *competence*, and *autonomy* in a deep and personal way—that is, on their relative fulfillment of basic psychological needs.” (emphasis added).

In relation to video gameplay, Ryan, Rigby, & Przybylski (2006) initially applied SDT in investigating whether players are intrinsically motivated to satisfy the basic psychological needs of autonomy, competence and relatedness in the context of play. Their study showed that by applying SDT and assessing satisfaction of player needs, each of the basic psychological needs that constitute SDT independently (Ibid, p.359) contributed to the psychological attractiveness of the videogames and functioned as a motivator for play (Ibid, p.361). Firstly, when a player acts with volition on what they believe to be important, their own perception of their *autonomy* is high and thus facilitates a more meaningful experience. As such, videogames that contain provisions for choice and freedom of tasks or goals, such as non-controlling instructions, are shown to enhance autonomy and intrinsic motivation to play (Ryan, Rigby, & Przybylski, 2006, p.349). Hence, the freedom in videogames for players to choose how they approach the establishment of gameplay goals is considered not only an intrinsic motivator to play, but also the evocation of meaningful experiences. On the same reasoning, research by Vella et al. (2015, p.4), which compares players engaged in solitary play against players who play socially, shows that solitary gameplay also more greatly fulfills the psychological need for autonomy and are deemed more meaningful.

Secondly, the need for *competence* is met when aspects of a videogame present challenge and feelings of effectance arise when those challenges are overcome. Traditionally, needs for competence have been met by videogames that provide *functional challenge* which warrants the use of dexterity, skill and strategy to solve environmental based puzzles or obstacles and defeat enemies (Cole, Cairns, & Gillies, 2015, p.122). However, videogames may also provide other aspects of challenge such as *emotional challenge*, which is achieved “...by leaving parts of the experience ambiguous, confronting them with difficult material or by use of strong characters, story and good writing.” (Ibid, p.123). Cole, Cairns and Gillie cite *Papers, Please* (2013) as an example of a game which provides little functional challenge, but presents considerable emotional challenge in the form of the player having to make difficult moral choices in the fictional setting of making gatekeeping decisions for immigrants. Further, Kumpel and Unkel (2017, p.32), in their findings out of surveys with gamers and discussions with gaming scholars, note that *cognitive challenge*, whereby players have to contemplate videogame stories with far-reaching decisions and calculating different outcomes, were also perceived as meaningful.

Finally, Oliver et al. (2016, p.401) note that, in the context of SDT, narratives which tend to provide feelings of closeness with characters, particularly concerns regarding meaning in life and human

connection, fulfil the need for *relatedness*. An example can be seen in *Mass Effect 2* (2010) where players spent time with non-player characters (NPC) which function as crew members. As players got to know their virtual companions, meaningful connections, such as romantic relationships, emerged and unfolded over time between player avatars and NPCs. These connections are formed as players learn more about the characters as they undertake relevant missions and engage in relationship specific dialogue. Rogers et al. (2016, p.10) also cite a player's recollection of the game *Metroid Prime* (2002), which noted the meaningfulness of the game in their feelings of closeness to the protagonist Samus, specifically respecting the character's virtues of compassion and intelligence and thus fulfilling their need for relatedness. Finally, Kämpel and Unkel (2017) also state from their survey findings how a player's emotional connection to in-game characters fulfilled the need for relatedness and was thus perceived as meaningful.

2.2.2 Provision of introspection: insight; story; solitary play

Games which provide introspection, contemplation and opportunities for greater understanding, particularly of existential concerns or aspects of the human condition, are also deemed to be meaningful. Besides the important role in gamers' experiences of psychological needs for autonomy, competence and relatedness (out of SDT as discussed above), Oliver et al. (2016) also identify the human psychological need for "insight" which is rooted in eudaimonic experiences and emerges from introspection. In turn, the researchers describe insight (Ibid, p.393; emphasis added) as "...the feelings associated with *contemplating, introspecting, and experiencing greater understanding* of essential values, fundamental beliefs, and important life lessons." Such need for insight, then, is actualised through entertainment experiences constituted of strong narratives that embody existential concerns regarding death, isolation, identity, freedom, and meaning.

Contemporaneous research by Rogers et al. (2016) echoes this finding. In investigating players' perceptions of the hedonistic and eudaimonic elements of videogames, the researchers conclude that meaningful games tend to provide stories that speak more directly to the human condition. These stories provide lessons and themes for introspection which reveal insight into life's purpose, essential human values and human virtue (Ibid, p.74). In their research, players remarked on three aspects of a videogame that were deemed meaningful. The first is themes in the game's story which deal with profound human experiences, such as isolation or vengeance, and the player's reflections on them (Ibid, p.76). The researchers cite a player's recollection of *The World Ends with You* (2008) being a meaningful story as the player identified with the game's story themes of isolation via the mind of the protagonist, Neku, who sees society as an annoyance and prefers to be alone in the world. The second

aspect is the moral choices in the story as offered by the game. The researchers cite the morality system in *The Witcher* (2007) in which the player faces moral choices which impact the outcome of the game's story. A player thus deemed the game meaningful as their decisions were cause for contemplation and the player is left wondering on the moral outcomes they had not chosen. (The third aspect is a connection to the characters in the game (as already discussed above in 2.2.1)).

Further research by Kümpel and Unkel (2017) support these findings by Oliver et al. (2016) and Rogers et al. (2016). The researchers explore how specific game characteristics -- namely, game narrative, game mechanics, solitary or social play (played alone or with others), perceived cognitive and affective challenge and need satisfaction -- produce different forms of videogame entertainment experiences. In relation to the provision of introspection for meaningfulness, in the surveys conducted by Kümpel and Unkel (2017), players reported (Ibid, p.32) that what they considered meaningful entertainment experiences involved the contemplation of far reaching decisions and calculating different outcomes offered by the videogame's story.

Finally, introspection is also afforded by solitary rather than social modes of being. Research by Long and Averill (2003) explores the mental experience of positive solitude from philosophical, spiritual and creative perspectives, and suggests that “[s]olitude provides opportunities not offered by our usual social environment to engage in activities or thoughts we find intrinsically interesting.” (Ibid, p.24). In his work concerning the value of solitude, Koch (1994) similarly identifies the virtues of freedom and self-reflection as being linked to solitude. This freedom to socially disengage allows for space and time to experience the intellectual virtues of contemplation and learning through the interpretation of one's own thoughts and experiences. Cole, Cairns, & Gillies (2015, p.125) further suggest that the use of solitude appears to be a commonly used aspect of videogame design that supports and encourages reflective gameplay experiences, where reflection and introspection also connect with meaningfulness.

2.2.3 Provision of appreciation

Oliver and Bartsch (2010) suggest that particular experiences of enjoyment, specifically by way of *appreciation*, may also be meaningful. Gratification from traditional media entertainment, such as cinema, typically refers to enjoyment or pleasure as “the primary affective experience sought by viewers...” (Oliver and Raney, 2019, p.111-112). However, enjoyment is not necessarily connected to happiness or utility. In this sense, Oliver (1993) uses the term “sad film paradox” to describe the

phenomenon of people who select entertainment that evokes *somber* moods (i.e. not happiness), but who still seem to experience *enjoyment* while consuming such content.

In the same vein of multidimensionality of viewers' entertainment experiences, Oliver and Bartsch (2010, p.57) introduce the concept of *appreciation* as a unique audience response to more somber contemplation of human poignancy and meaningful life questions, and which can be differentiated from enjoyment of fun or entertainment. To that end, they define "appreciation" as "an experiential state that is characterized by the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience" (Ibid, p.76).

Interestingly, Oliver et al. also note (2016, p.393) that "...meaningful games may give rise to feelings of appreciation because they address needs associated with insight." Indeed, as discussed in section 2.2.2, one way through which insight is actualised in videogame experiences is stories which highlight fundamental values or contain depictions of the human condition. According to Oliver et al. (2016), then, players' introspection of such stories will thus also give rise to feelings of appreciation, i.e. of feeling moved and perceiving deeper meanings within them.

2.2.4 Agency - player commitment; Interpretive fictional agency (IFA)

Finally, the notion of "agency" in relation to video games may also be connected to games' meaningfulness. "Agency", as used in both videogame studies and academic discourse, generally refers to a sense of control or volition. For instance, Janet Murray describes "agency" as "...the satisfying power to take meaningful action and see the results of our decisions and choices." (Murray, 1997, p.126)

However, Tanenbaum & Tanenbaum (2009) argue "...that when play and story intersect, agency is better understood as a commitment to meaning, instead of a desire to act freely." (Ibid, p.2). In turn, "commitment to meaning" refers to where the player expresses meaningful intent behind the action or thought, and receives satisfying feedback of that intent (Ibid, p.8). This commitment from the player may be a cognitive process, or it may involve the player carrying out an in-game action. To illustrate their point, Tanenbaum & Tanenbaum cite (Ibid, p.5) the example of *Metal Gear Solid 4* (2008), where, during a microwave tunnel scene, players must continually push a button on the controller to quickly move the player character, Snake, through his pain to finish the mission. This sequence is shown in split-screen as players see the final moments of a climactic battle. Players are prompted to tap the button to keep Snake moving forward as he grows ever more crippled. Although this sequence is

scripted so that their actions and choices have no impact on the game's story, players "commit to meaning" by choosing to engage in the fiction, interpreting and reflecting on these aspects of the narrative (Ibid, p.5). The game also maps these commitments to outcomes clearly understood by the player, such as the progress of Snake. Tanenbaum & Tanenbaum thus suggest that this reframing of agency as "commitment to meaning" also enables us to understand players and designers as being collaborative, whereby players share in the story's creation. Hence, they argue for meaningful videogames through this sense of agency: "...game designers should strive to create game and narrative experiences in which the player can demonstrate commitment to the experience, and, crucially, where that meaningful commitment is reinforced by the game's behavior." (Ibid, p.9).

On a different note, "agency" may also be understood in relation to the game's challenge. In their analyses of interviews with players on understanding mixed-affect emotional experiences of playing what they call avant-garde videogames, Cole and Gillies (2019, p.9) report that the notion of agency becomes a significant aspect of their results. Specifically, they construct four new categories of agency within which to frame players' experiences: *Actual* agency (how much effect the player's actions have in the game world); *Interpretive* agency (referring to a player's ability to build their own cognitive and emotional understanding of the game world); *Fictional* agency (referring to how much a player can affect the game world or story); and *Mechanical* agency (referring to the range of action afforded to the player in the game).

In turn, further cross-sections are explicated as: *Actual mechanical agency* (players' actions and decisions which lead to a significantly different outcome in terms of systems and mechanics); *Actual fictional agency* (players can manipulate the outcome of the story or characters via their actions); *Interpretive mechanical agency* (in the absence of feedback from the game, players are encouraged to examine their feelings about their actions in it); and *Interpretive fictional agency* (IFA) (players build their own understanding of the story and characters within a minimal narrative framework).

On the last, Cole and Gillies (2019) argue that IFA requires the greatest amounts of cognitive and emotional efforts to understand what is happening within the game's narrative, leading to a more personalised experience and understanding "of the fiction, story, and characters" and a greater chance of a deeper emotional experience (Ibid, p.13). As Pete Etchells also notes (2019, Loc.133), a personalised approach to play, or one which offers players the freedom to choose how to play, allows for a uniquely personal and meaningful experience. He cites the example of *World of Warcraft* (2004) which offers multiple ways to experience the game, such as through creating different classes of characters (e.g. druids, human warriors or dwarven hunters), or choosing their mode of play between

styles such as online competitive team-based play or a solitary role-playing style. For instance, some players may choose a “pacifist” game play style and abstain from combat, instead leveling up through harvesting flowers and mining for ore. This agency of creating gameplay as an inherently personal experience thus adds to the game’s sense of meaningfulness, where the player might define themselves via their game choices as they also define their own meaning in life.

Finally, videogames which incorporate IFA are also crafted with exploration as a fundamental underpinning in their design. Hence, Cole and Gillies (2019) also connect IFA to environmental storytelling, which is the process by which game designers embed narrative information into the environment (Jenkins, 2004), relying on the player to conduct a greater amount of exploration. This suggests that meaningfulness and eudaimonia from videogames are also connected to games which support exploration and afford the player time and freedom to reflect as they construct their personalised experience of the game narrative.

2.3 Summary

As outlined through section 2.1, philosophers, psychologists and scholars have considered the notion of meaning, its constellation of concepts and the complexities of defining it through a composition of:

- The highest good:
 - Eudaimonia (happiness, flourishing, fulfillment) through intellectual virtues (contemplation, introspection, learning) and virtue of character (courage, generosity)
 - The fitting-fulfilment view - engagement with subjectively worthwhile projects that also have objective value
- Acting as moral agents
- Spirituality - the belief in God or a spiritual realm
- Objective, mind-independent goods - morality, creativity, happiness, unselfish love
- Subjective meaning - the pursuit and attainment of self-established worthwhile goals and achieving what one believes to be important
- Youth - engaging in action with enthusiasm, which carries its purpose within itself

In turn, components of meaningfulness in relation to videogames, as discussed in section 2.2, manifest through the following discrete game characteristics:

- Fulfilling psychological needs for autonomy, competence and relatedness (Self-Determination Theory)
- Provision of introspection - fulfilling the need for insight; opportunities for reflection through stories which explore existential concerns (e.g. death, isolation, identity, freedom) or facing moral choices; through solitary play
- Provision of appreciation - perception of deeper meaning, the feeling of being moved, motivation to elaborate on thoughts and feelings inspired by the experience
- Player's agency
 - As a “commitment to meaning” by choosing or intending to engage with the game
 - Interpretive fictional agency where players create gameplay as an inherently personal experience and build their own understanding of story and characters

The above summaries outline the interconnected array of ideas and characteristics which evoke meaning. This implies that defining a specific isolated component to alone evoke meaningfulness for a broad range of individuals or players would be difficult to achieve, if not unproductive. On this reflection, I therefore adopt a holistic approach to incorporating elements across this broad array of theory in order to produce a videogame artefact to evoke meaningfulness, and in the process explore its capacity for meaningfulness. I now turn to describe and examine this approach in the next two sections.

3. *Los* and the prototype design framework

The prototype created out of the creative practice component of my research is *Los*, a 3D first-person exploration videogame prototype that takes place in a fictional Scandinavian-like landscape. Its title is inspired by Rebecca Solnit's discussion (2010, p.40) on one's desire to be lost and on moments of self-discovery through solitude. She writes that “[t]he word ‘lost’ comes from the Old Norse *los*, meaning the disbanding of an army, and this origin suggests soldiers falling out of formation to go home, a truce with the wide world.” For Solnit, this “truce”, in turn, is about going beyond what we know, to embark on adventure, get lost and explore so that we may learn something about ourselves. *Los* thus embraces this premise of journeying to an unknown place, to freely explore and to engage in introspective thought and learning.

Los does not contain any traditional “mission”. The prototype's aim is to encourage the player to explore the game environment and, through the intermittent retrieval of messages and collection of

journals, to construct a personalised version of both the protagonist's family life and the connection of the environment's inhabitants to a spiritual realm. As the player will discover, the plateau was home to a forgotten ancient people who regarded it as a sacred place and connected the ground with a spiritual or transcendent realm in the sky above. They created megalithic sites and carved cosmological symbols into them to reflect stars and constellations that they could see from the ground.

The prototype begins with the player's character having arrived at a remote train station on a rural plateau to assist in a research project conducted by the character's colleague, Professor A. Camus. On exploring the train station, the player's character has the option to collect her belongings (a backpack and mobile phone) and a letter left for her by Professor Camus which explains a delay, the result of which Professor Camus had gone ahead and left research notes for the player to retrieve and read. Professor Camus's research notes become an additional narrative device which captures the professor's thoughts as she considers the ancient people's spiritual connection to the plateau. As the player wanders through the plateau, they receive intermittent mobile phone signals which deliver either a voice or text message to the player character's mobile phone (the game is set in 1997) before the signal is lost. These messages are left by various characters, such as the protagonist's mother and her sibling, Sam, who is grappling with finding meaning in life after the loss of their father. Through these messages, the player learns that their character's father had died in a car accident. The player also recovers a letter left by the protagonist's father.

In relation to the research question, I have put together a design framework in which to situate the prototype that incorporates its tenets of meaningfulness (as aligned with the discussions in section 2) as a demonstration of *Los*'s capacity to generate personal meaning. The conceptual diagram below (Fig. 1) illustrates this framework:

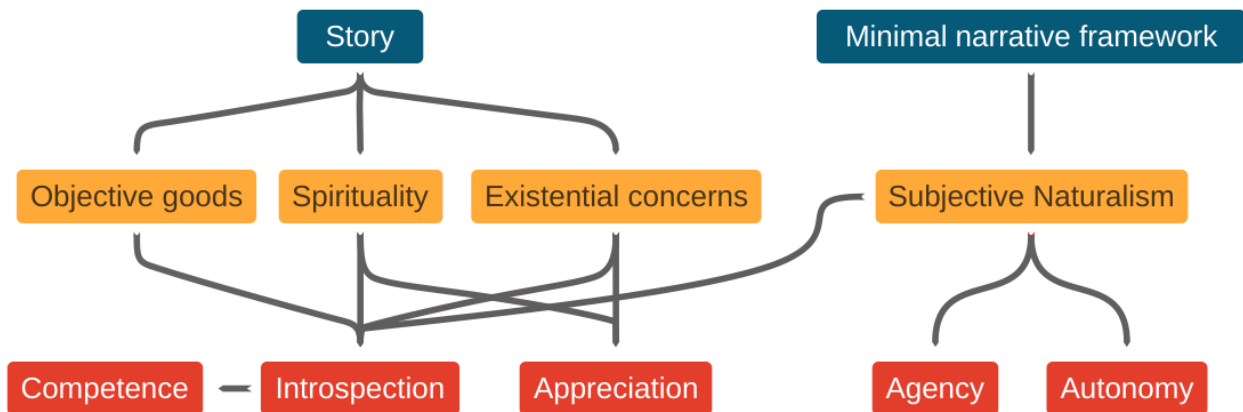


Fig. 1 - Conceptual diagram of the design framework for *Los*

The top row, coloured in blue, comprises the two main design pillars for the game: *story* and *minimal narrative framework*. The design pillar of *story* consists of the prototype's story being centered around objective goods (namely, familial agapeistic love), spirituality and existential concerns (via themes of Absurdism) as incorporated through, respectively, its characters' letters and messages, story world and thematic matters (more in 3.1, below).

The design pillar of *minimal narrative framework* consists of affording the player freedom to act and think freely in the prototype through the following features:

- An open world game design which enables the player to freely explore the prototype's environment and solicits their piecing together a personalised version of the story. This design also affords the player time and space for contemplation and reflection;
- A large, rural environment of a large 3km playable area with isolated points of interest (cabins, monoliths, station house) positioned throughout;
- Very little functional challenge for the players to overcome, except for learning the WASD control schema;
- A deliberate design of solitary gameplay in a socially disengaged space designed, again, for players to have freedom, time and space to engage in self-reflection, reflective thought and interpretations of their experiences; and
- An absence of any objective or mission mechanic, relying instead on the player's curiosity about the game world and its story as motivation to explore the game. Hence, for example, the game begins with the player finding themselves at a train station with multiple options on how

to proceed (Fig. 2): they could explore the station house; follow the railway line; or explore the plateau.

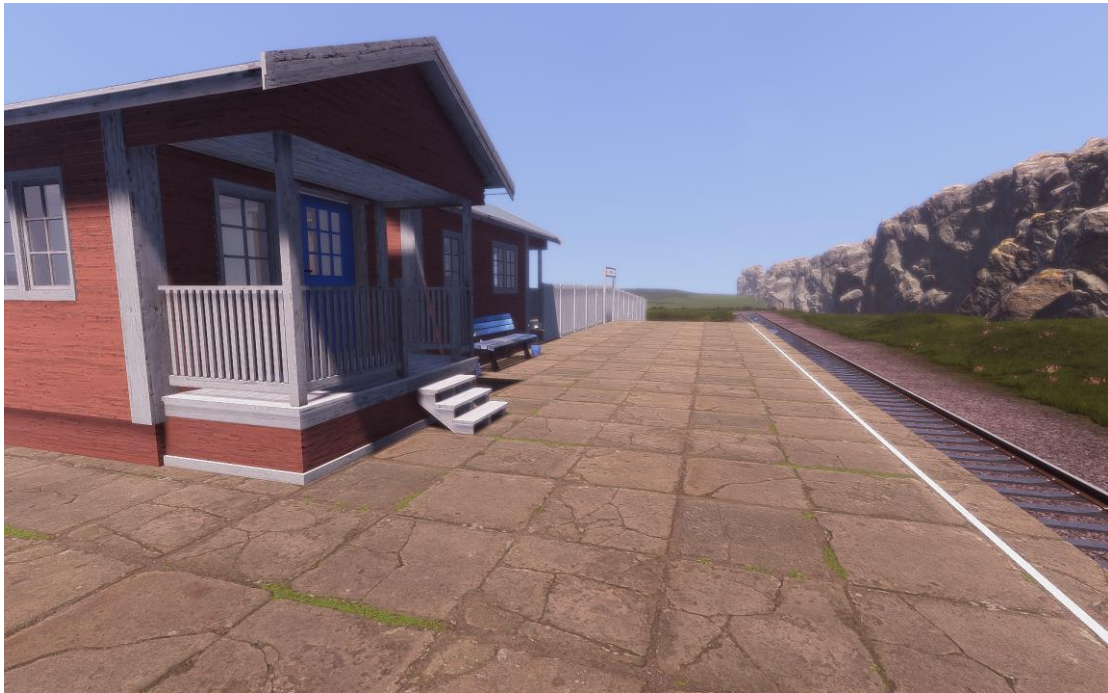


Fig. 2 - Multiple options for the play to freely explore

Also key to the minimal narrative framework is the prototype's environment, designed to be remote and solitary and as inspired by isolated Norwegian landscapes such as Hardangervidda, a far-flung mountain plateau in central southern Norway (Fig. 3), and Nordic islands such as Rolvsoy. I wrote in my journal that these remote places "...relate to the evocation of introspection through solitude/solitary play. I want to create the experience of being alone, which for me seems to be a remote place, away from civilization, usually quite hard to reach. There is little or no human presence and a freedom to explore the landscape." (My design journal 21/03/2020). To create this secluded environment of *Los* as part of its minimal narrative framework, I explored and used reference images of remote Norwegian landscapes to capture the correct fauna, color and shape of the terrain. In addition, I used postprocessing and fog to create a sense of distance and space (Fig. 4). In consistency with these remote aspects of the landscape, no other characters are physically present within the game.



Fig. 3 - A reference example image from the Hardangervidda plateau in Norway.



Fig. 4 - A screen capture from the prototype's environment.

The middle row, then, comprises four themes of meaningfulness (coloured in yellow) as drawn from the philosophical concepts discussed in section 2.1. As mentioned, three themes -- objective goods; spirituality; and existential concerns -- which give rise to meaningfulness are connected to the first design pillar of *story* (more in 3.1). The remaining theme of Subjective Naturalism is connected to the second design pillar of *minimal narrative framework* by being the key idea of meaningfulness channeled through *Los*'s game mechanics and features of narrative design, as described above. For instance, the absence of game objectives in *Los* (as part of its minimal narrative framework) is designed to allow players to set their own goals or purpose, hence resonating with the ideas of Subjective Naturalism (as a theme of meaningfulness), where meaningfulness arises out of accomplishing self-established goals.

The bottom row, coloured in red, refers to characteristics of videogames and/or gameplay that give rise to meaningful experiences (as discussed in section 2.2). In keeping with the holistic approach I had advocated earlier of incorporating elements of meaningfulness across philosophy and media theory to demonstrate a videogame's capacity for meaningfulness (see end of 2.3), in this row I also connect the various concepts of meaningfulness between media elements, philosophical ideas and videogame attributes. Hence, the bottom row demonstrates (see the specific lines in the diagram) individual or specific relations to themes of meaningfulness by way of how they might arise from the combination of design pillar (top row) and philosophy of meaning (middle row). Continuing the example between minimal narrative framework and Subjective Naturalism, the overall effect, then, is to furnish the characteristics of autonomy and agency (bottom row) which the research has shown to be part of meaningful gaming experiences. The next sub-sections will discuss these connections of game design, theory and meaningfulness of the prototype in greater detail.

3.1 Story

3.1.1 Existential concerns: Absurdism

The prototype's story deals with existential concerns primarily through its narrative theme of Absurdism, chosen because the responses presented within Absurdist philosophy deal squarely with the search for meaning within human lives in an apparent meaningless universe. The Absurd arises due to the paradoxical disharmony between life having no meaning and an individual who will inevitably seek to understand life's purpose in the meaningfulness of the universe (Aronson, 2017). Philosophers Søren Kierkegaard and Albert Camus separately suggest three different responses to this

dilemma: contemplation of suicide or escape from existence; religious or spiritual belief; or acceptance of the Absurd.

The first response is the *contemplation of the question of suicide or escaping existence* as a response to the Absurd. Camus (1955, p.3; emphasis added) writes: “There is but one truly serious philosophical problem and that is suicide. *Judging whether life is or not worth living amounts to answering the fundamental question of philosophy.*” For Camus, when one realises that life holds no meaning, one’s response to that realisation is then to think seriously about whether life is worth living or not.

The second solution is *belief in a religious, spiritual, or transcendental realm*. For Kierkegaard, in order to escape the Absurd, one must take a “leap of faith” and place our faith in God and accept the possibility of a divine realm. In his *Journals and Papers*, Kierkegaard (1967, p.7) writes: “[w]hen the believer has faith, the absurd is not the absurd – faith transforms it, but in every weak moment it is again more or less absurd to him. The passion of faith is the only thing which masters the absurd.” In this sense, Kierkegaard specifically refers to faith as the belief that God can make the impossible possible. Through this dimension of possibility, humanity is thus free to consider our choices; in that freedom is thus also where meaning arises (Carlisle, 2010).

The final solution is *acceptance of the Absurd*. For Camus, the Absurd teaches us that there is no inherent meaning in our lives. In acknowledging this lesson, we gain our freedom and an opportunity to create our own meaning, and thus not surrender to the Absurd (1955, p.45). He writes (Ibid, p.45): “[b]eing aware of one’s life, one’s revolt, one’s freedom, and to the maximum, is living, and to the maximum.” For Camus, it is through this revolt against the Absurd and by living one’s life in spite of the Absurd that we find our happiness and therefore personal meaning.

The prototype’s story utilises these existential solutions as three philosophical lenses through which to articulate its existential concerns of mortality, spirituality and happiness. Firstly, Camus’s concept of contemplation of suicide as a response to the Absurd is examined through audio and textual phone messages that the player’s character receives from her sibling, Sam. One major narrative thread of *Los*’s story is Sam’s existential crisis as they consider their own existence within a world that seems meaningless due to the death of their father in an accident. These messages explore Sam’s experience of death and how one might deal with this aspect of the human condition (see Fig. 5a as an example of one such mobile phone message). As the player explores and retrieves further messages, another message presents Sam’s potential consideration of suicide (Fig. 5b). This moment in the story is designed to engage the player in introspection and contemplative thought. In particular, these mobile

phone messages were also written and inspired out of conversations the researcher had with his brother who was grappling with similar existential concerns (see also section 4.1.2).

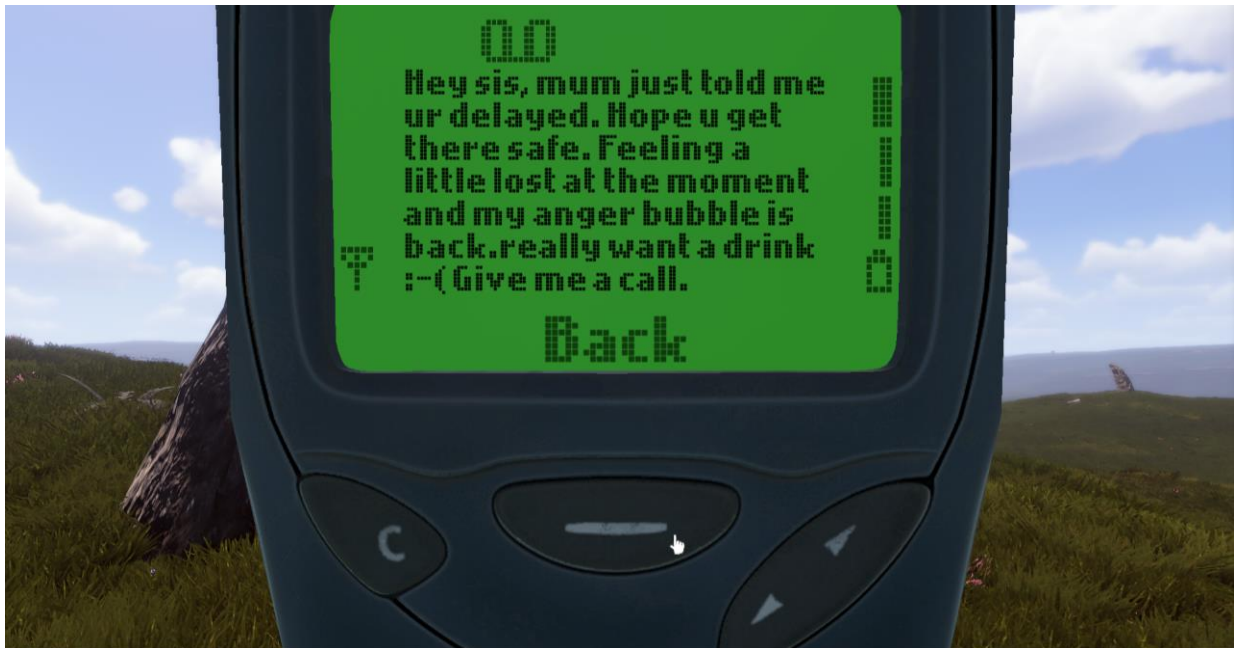


Fig. 5a - A message received on the mobile phone inspired by conversation with a family member

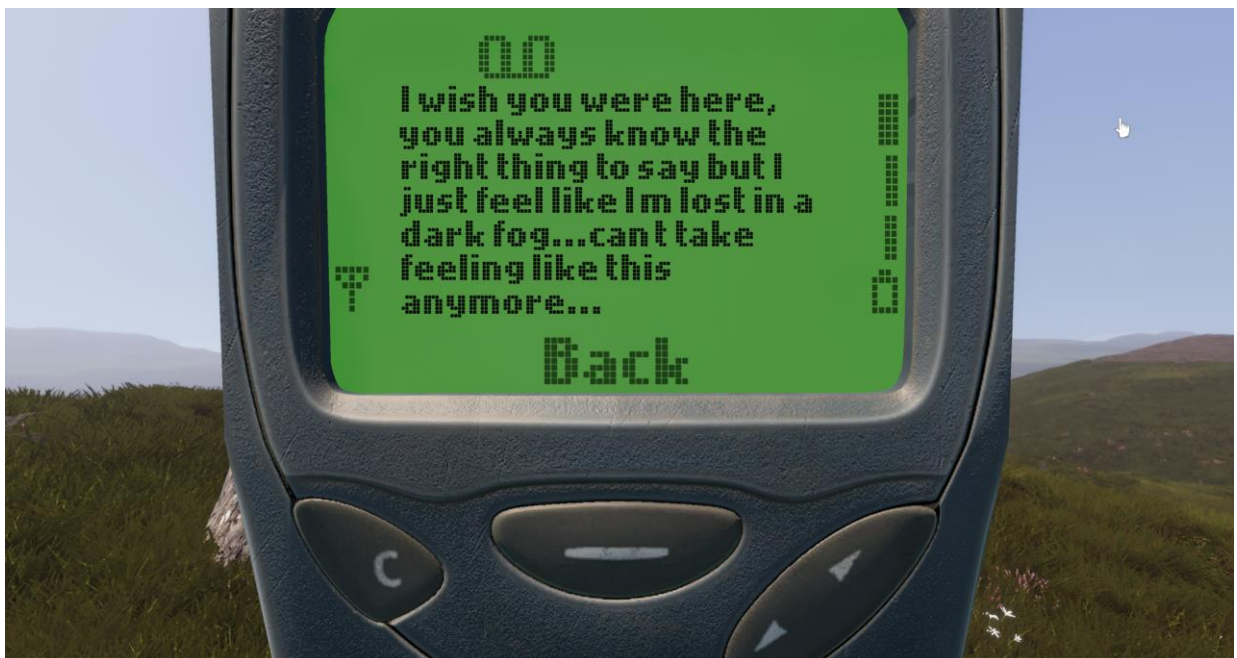


Fig. 5b - A further message that deals with the contemplation of suicide as a response to the Absurd

The second solution of spirituality in relation to *Los*'s story will be discussed in 3.1.2. The final solution of Absurdism, then -- that of awareness and then acceptance of the Absurd -- is explored in the prototype through the letters from the protagonist's father and further audio and textual phone

messages from Sam. As the narrative unfolds, the protagonist's father and sibling both come to this conclusion of acceptance in their revealed correspondences with the player protagonist. As an example, the story block below discusses aspects of Sam accepting the death of their father, and looking to the future:

Hey...sis, its me....AGAIN! I'll feel better today, maybe unloading on you like this has been a good thing cause I woke up this morning feeling OK :-) first time in a while that's happened! I was thinking about Dad...remember how he always talked about how life is short...you have to do what you want to do...BLAH BLAH...well I think I'm gonna. Been thinking about taking a trip somewhere, I always wanted to see the great pyramid..oh and ring me??? Geeze :-)

Introspection / Competence

Per the framework (Fig. 1), the prototype's story of existential concerns thus focuses on providing themes to solicit introspection and contemplation, particularly of fundamental beliefs such as those presented in Absurdism -- mortality, spirituality and happiness -- to evoke experiences of meaningfulness out of the work.

I also designed the prototype's story to be both ambiguous and fragmentary primarily through players' retrieving of story fragments. The intention is to challenge players to understand the narrative through both presenting the player with difficult material (i.e. death and the contemplation of suicide) within the story's existential themes, and also to expend cognitive and emotional effort to interpret and construct their own understanding and version of the narrative. In so doing, I thus seek to engage the player in meeting and overcoming emotional challenge (Cole and Gillies 2019, p.4; Cole, Cairns, & Gillies, 2015, p.123), thus affording them opportunities to fulfil the need for *competence* as established by SDT (Ryan, Rigby, & Przybylski, 2006).

It must be noted that the prototype was designed to avoid a traditional "fail state", such as player death, as is usual for games that provide functional challenge. Instead, the prototype's "fail state" may lie in a more meta sense. Where players seek out meaningful games for eudaimonic gratifications, it is possible that the player may not subjectively connect with existential themes presented by the story and hence not be motivated to explore and uncover more. In this event of the player not meeting and/or overcoming the prototype's emotional challenge (and hence not evoking meaningfulness through the story), the meaningfulness of the prototype and/or the value of the prototype as a meaningful experience would also diminish, thus constituting a different kind of "fail state". Hence, videogames which incorporate emotional challenge for meaningfulness in player competence are concomitantly

dependent on players to be suitably engaged with the existential concerns presented by the game's story.

Appreciation

I also designed the existential concerns of the prototype's story to evoke meaningfulness through "appreciation" -- namely (per 2.2.3), "an experiential state that is characterized by the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience" (Oliver and Bartsch 2010, p. 76). The prototype seeks to elicit players' feelings of being moved through its moments of human poignancy (pain, grief, death), and to encourage them to consider the deeper meanings associated with existential concerns, particularly those attached to the concept of death, loss and mortality. A further example of such a story block for appreciation can be seen in this portion of the script which was recorded by Sam and left as an answer phone message for the protagonist:

Hey...sis...sorry it's late....needed to talk to you...even if it's just your answer phone...no matter what I do, I just can't sleep at the moment. I've got that weird feeling before I go down...it's like my brain don't want to go there again. I try to, but...something....is building up inside me again. I keep having this dream about running away and starting a new life without anyone knowing. I drank an entire bottle of vodka tonight and still want more...it's just the shit that going through my head is disturbing...I mean, what's the fucking point...one day you're driving to work and some idiot slams into you and thats its you're gone....what am I supposed to do with that? The universe just feels pointless and empty...I just hate seeing dad's empty face when I close my eyes...

As the message shows, Sam is grappling with finding meaning in life after the loss of their father. This part of the prototype thus attempts to create a somber and thought-provoking moment by exposing the player to a particular moment of grief and mourning as an intoxicated Sam pours their thoughts and feelings into questioning the meaning of their father's death and how they come to terms with it. As Cole, Cairns and Gillies (2015, p.123) note, exploring emotional tension (Sam's emotional strain over their father's death) within a game's narrative provides enjoyment and motivation for the player. Again, as players retrieve and construct their own version of the narrative, the idea is for them to engage in contemplative thought of the prototype's meaningful themes of existential concerns, prompting appreciation and elaboration on their thoughts, feelings and deeper meanings.

3.1.2 Spirituality

The second solution of Absurdism postulates that meaning arises through the belief in a religious, or spiritual experience. As discussed in section 2.1.2, God and spiritual experience are also significant existential concerns for meaningfulness. In relation to the latter, the theory of supernaturalism also argues that for meaning to arise, there must be *belief* in a spiritual realm and/or God.

To that extent, I also specifically designed the prototype's story to incorporate belief in religious and spiritual experience, specifically through Professor Camus's journals as left for the player to discover and the prototype's mode of environmental storytelling to expose a spiritual connection between the environment's ancient inhabitants, plateau and the cosmos. Fig. 6 displays one of Camus's journal entries discussing her thoughts and feelings about the ancient people's spiritual connections. She speculates that the culture had a belief in a spiritual realm and the carved symbology on the monoliths is a remnant of that belief, theorising that the ancient people who built the megalithic landscape within the game had a connection to the sky and the universe:

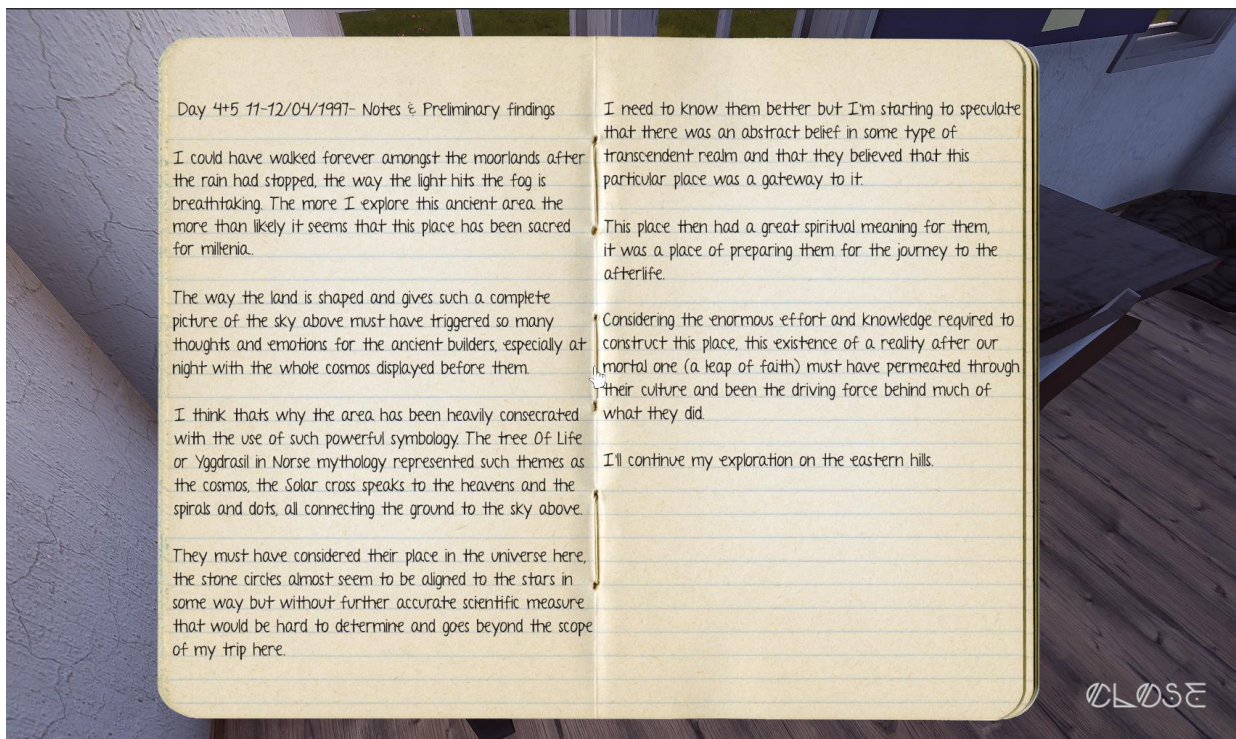


Fig. 6 - A journal entry left to the player by Professor Camus.

Through the story's mode of environmental storytelling, spiritual beliefs are also expressed by carved symbolism and spiritual motifs embedded in the standing stones located throughout the plateau. During my collection of reference material, some of the environments I studied contained megalithic standing

stones and stone circles with intricate carved symbols and motifs. These stones and symbols caught my attention, and I became curious about their mystery and what meanings these carvings had. I further learnt that anthropologist Genevieve von Petzinger, who studied the Upper Paleolithic (Ice Age) creation of geometric symbols located throughout Europe, suggests (2016) that these symbols were early forms of human graphic communication. These symbols had the ability to preserve and transmit messages beyond a single moment in time. In essence, early humans were beginning to represent for future reference things around them that were meaningful to them, such as celestial objects or star constellations (2015). These were embedded spiritual symbols communicating meaningful spiritual themes.

With this concept of transmitting messages through symbolism in mind, I created environmental assets in *Los* of various 3D monolithic standing stones (Fig. 7a) and a set of 2D Nordic symbolic motifs (Fig. 7b), such as a series of “dots” which represent stars and “spiral” for galaxies. I wanted to capture the sense of mystery and curiosity that surrounded these symbols and, in the same sense of the Paleolithic people, convey spiritual themes to the player.



Fig. 7a - 3D monolithic standing stone

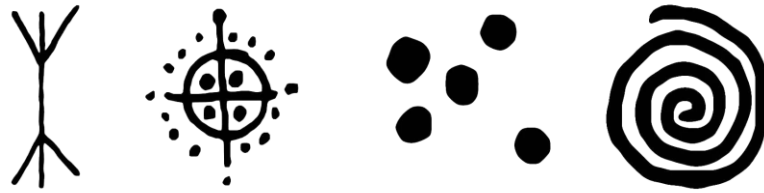


Fig. 7b - Nordic symbolic motifs

I also embedded concepts of spirituality in the name I gave to the prototype’s fictional setting, *Aurvandil* (Fig. 8). In Scandinavian mythology, Aurvandil is a figure portrayed as the personification of a star. Hence, the choice of this name for the plateau in referencing a star connects the ancient people’s reverence for the universe to the landscape and also to the narrative’s absurdist theme of an abstract belief in a spiritual realm. Again, the intention is to convey ideas of spiritual sense and belief in the prototype to the player.



Fig. 8 - Aurvandil, the fictional setting of the prototype

Introspection (Competence) /Appreciation

I had designed these modes of invoking spirituality through story themes and environmental storytelling to facilitate *introspection* and *appreciation* as aspects of meaningfulness in videogame play. I also used ambiguous story fragments, primarily through Professor Camus’s journal entries (e.g. Fig. 9), which relate to the spiritual themes of the story (the ancient people, their essential values and fundamental beliefs in a spiritual realm) to encourage players to contemplate on these ideas and aspects of the prototype’s environment. Using Doris Rusch’s suggestion (2017, p.101) that a certain degree of opacity in meaningful games may “...focus more on evoking ideas, prompting self-exploration, and

allowing the player to find his or her own meaning”, I similarly employ opaque and suggestive descriptions of the symbols through the journal entries to evoke ideas and mystery for the player, in turn soliciting introspection and overcoming the emotional challenge (and hence achieving competence) of thinking through what they are and their meanings.

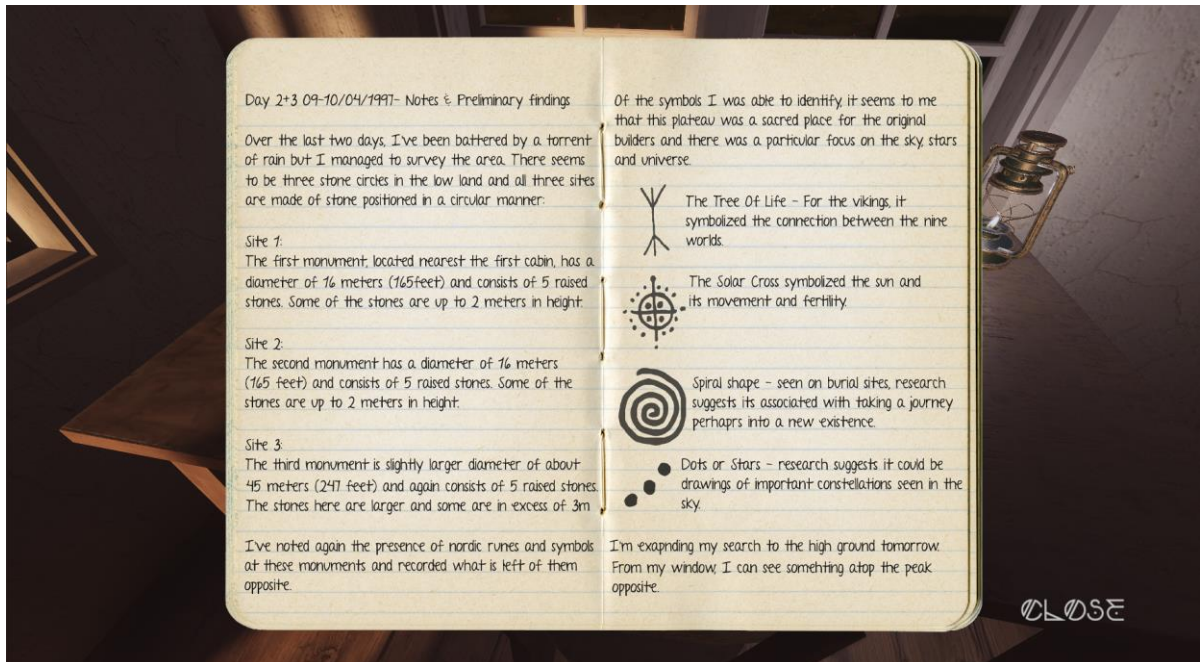


Fig. 9 - A Camus's journal entry discussing the connection between symbols and a spiritual realm

Just as the monuments and symbols in my reference material had inspired me to reflect, I wanted to evoke that same sense of mystery, contemplation, introspection and feelings of being moved from these embedded environmental elements with their associations to the afterlife. These elements were thus my strategy out of environmental storytelling of arousing the player's curiosity and inspiring them to reflect on the deeper spiritual meaning of these motifs and, in turn, enhance the game as a meaningful experience. Hence, through the inclusion of spiritual themes in these ways, the prototype aims to provide a space for contemplating aspects of being human, thus soliciting introspection (with the concomitant emotional challenge/competence in that process of reflection) and appreciation. Rather than the cyclical process infused in many hedonic videogames of living, dying, learning and being reborn as Michael Highland suggests (2010), it is, rather, through the inner experiences of introspection and being moved in *Los* where meaningfulness emerges.

3.1.3 Objective goods

As discussed in section 2.1.3, meaningfulness also arises when one engages with mind-independent or objective goods, such as friendship or love. In *Los*, the objective good of familial love is weaved

through the prototype's story. In this sense, I also keep in mind Terence Eagleton's note (2008) that it is through agapeistic or unconditional love, such as a parent's love for their offspring, that we attain meaning in our lives. The connection between objective good and story is made particularly through the player character's relationships with her family members, and exposed in their various correspondences with her. An example of one such correspondence is a letter by the protagonist's father (Fig.10) reminiscing about a past memory which depicts a moment of familial intimacy as he recollects about spending time with his daughter, the player protagonist:

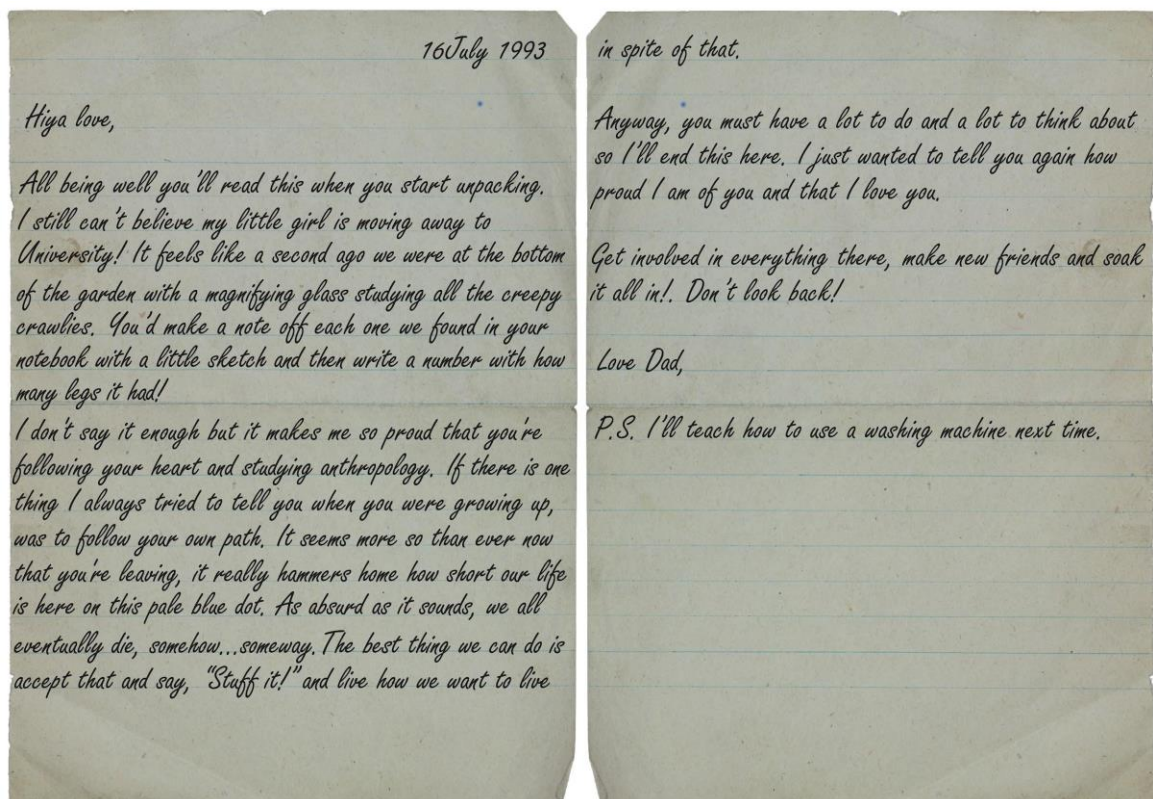


Fig. 10 - Letter from Dad - acceptance of the Absurd

Introspection / Competence

Through its themes of familial love and support, the prototype's story thus connects the philosophical concept of objective goods to introspection and contemplation as tenets of meaningfulness. The design behind the father's letter is to expose players to the character's feelings of pride and love for his daughter as he looks forward to her starting University and a new phase in her life. The intention is to present such story fragments to engage the player in introspective thought as they recover snippets of and reflect on the characters' familial relationships in their explorations. Thus, incorporating themes of familial love as a mind-independent and naturally valuable good within the prototype's story

facilitates the emergence of meaning in how players reflect and cognitively and emotionally personalise their interpretations of these familial relationships.

3.2 Minimal narrative framework

3.2.1 Subjective Naturalism: Agency (player commitment; IFA); autonomy

As described in the introduction to Section 3, the design pillar of the *minimal narrative framework* in the prototype consists of various features which afford the player freedom to act and think freely in its game world. This nature of free and purposeless actions in *Los* also facilitates subjective meaning for the player in terms of my intention for the player to achieve what they believe to be important, thus imparting meaning in the philosophy of Subjective Naturalism. The minimalism of the prototype deliberately surrenders control to the player in terms of how they should proceed, think and act in the game world, thus allowing the player to establish their own goals and pursue actions that are personally meaningful or purposeful to them.

Agency / Autonomy

The intention behind the design of such freedom of play is to expose players to acquire autonomy and agency, two concepts which have been shown to impart meaningfulness in a videogame (see 2.2.1 and 2.2.4). In terms of agency, the idea of the prototype's minimal narrative framework is to facilitate players' perception of *autonomy* -- one of the psychological needs identified through SDT as the need for a sense of control or volition (Ryan, Rigby, & Przybylski, 2006). In their research, Ryan et al suggest that videogames that are designed to "...provide considerable flexibility over movement and strategies, choice over tasks and goals..." (Ibid, p.349) enhanced the perception of autonomy. These elements for autonomy are all reflected in the prototype's minimalism in how players can act with volition in the game, establish their own purpose or objectives, set their own goals and choose their own tasks, and are not subject to any controlling instructions. It allows players to assign personal value as they choose how to approach playing the game, and establish their own purpose for exploration and play.

The establishment of the player's own approach to play in this framework also solicits the player's agency in terms of their "commitment to meaning", per Tanenbaum & Tanenbaum (2009), by way of moving the game's narrative along. There is no purpose or play in the prototype other than the one to which the player commits themselves. Where the player commits to exploring the plateau, they seek fragments of the game story through text and voice messages, aspects of environmental storytelling

(such as the monoliths) and/or Camus's journal entries. Following Tanenbaum & Tanenbaum (2009), the prototype also maps the player's commitment to exploration to narrative outcomes that the player can clearly understand. The prototype accomplishes this by providing the player with satisfying feedback of their exploratory actions within the game with additional story fragments, about which they can further interpret and reflect on aspects of the narrative.

Additionally, the design of the freedoms provided by the minimal narrative framework within the prototype also aims to present a space for the player's subjectivity in creating their own personalised understanding of the narrative. This is achieved particularly through the player's exploration of the prototype's environment and uncovering of story fragments via pieces of environmental storytelling and ephemera located throughout the environment. Hence, the aim in this space is also to impart meaningfulness through soliciting the player's Interpretive Fictional Agency (see 2.2.4) in building their own understanding of the story and characters, which they are encouraged to do through this minimalism of design. An example of this personalised understanding can be seen in a text message which arrives from the player's mum:

Hiya love, sorry to bother you, know you are busy...but can you give me a call when you can?
I'm worried about Sam. I had a garbled drunken message about your father. I wish those two had spoken about it before he died. Anyway, speak soon xx

This message alludes to the fact that something had happened between Sam and their father before he died. The use of the word "it" was deliberately placed within the text to be ambiguous and open to more than one interpretation, allowing the player to create their own understanding of the story. As the player has been given the freedom to explore the prototype's environment and uncover story fragments at their own pace, the above message may have been retrieved and read before players have listened to the answer phone message left by Sam which explores the difficulties of losing their father (see section 3.1.1). In turn, these designed ambiguities within the story fragments aim to encourage the player's Interpretive Fictional Agency in creating a personalised interpretation of the narrative and characters.

Introspection / Competence

The personalised interpretation of the narrative as encouraged through the prototype's minimal narrative design also solicits introspection as players contemplate and reflect in their own ways on the moral decisions and existential themes of the story. For instance, as players discover and assemble the narrative pertaining to Sam's struggles with the experience of death, this process of assembling the

prototype's story fragments is designed to result in reflection on the player's part and encourage greater understanding of important life issues such as the inevitability of death and human mortality. Additionally, players are encouraged to contemplate and reflect on the moral decisions and implications of Sam's suicidal thoughts as they listen and read their messages. In this sense, their introspection also solicits cognitive and emotional effort to meet the emotional challenge (discussed in 2.2.1) of constructing the fragmented elements of the narrative and contemplating on its weightier themes.

Finally, contemplation and reflection (and concomitant competence in meeting emotional challenge) is also evoked through the prototype's design of journeying, as reflected in its inspiration of "Los" from Solnit (see introduction to section 3). Besides Solnit's writing, the prototype also took gameplay inspirations from walking simulator games such as *Dear Esther* (2012) which provides players the freedom to explore an uninhabited Hebridean island while listening to narrative fragments. Players are exposed to different fragments on different playthroughs, which presents a slightly different version of the story each time for the player to assemble and out of which to make sense. Hence, the idea for *Los* is also to solicit contemplation for the player through their own personal exploration and journeying in solitude across the prototype's remote plateau.

3.3 The MDA Framework / The Experience

Interestingly, although the approach taken in designing *Los* was guided by the design framework discussed at the beginning of this section, it does align with current game design scholarship such as the *Mechanics-Dynamics-Aesthetics* (MDA) framework created by Hunicke et al (2004). The MDA framework was designed to "...clarify and strengthen the iterative processes of developers, scholars and researchers alike, making it easier for all parties to decompose, study and design a broad class of game designs and game artifacts." (Ibid, p.1). The MDA framework suggests that games are consumed artefacts, and analyses them through the separate but causally linked lenses of *Mechanics*, *Dynamics* and *Aesthetics*, which are defined as follows.

Firstly, *Mechanics* are described as "... the various actions, behaviors and control mechanisms afforded to the player within a game context." (Ibid, p.3). Secondly, *Dynamics* are described as the run-time behavior of the *Mechanics* which act on both player inputs and each other's outputs over time. Finally, *Aesthetics* are described as the emotional responses evoked in the player as they interact with the game system. Hunicke et al (Ibid, p.2) put forward the following taxonomy to describe the aesthetics of a

game: sensation (game as sense-pleasure); fantasy (game as make-believe); narrative (game as drama); challenge (game as obstacle course); fellowship (game as social framework); discovery (game as uncharted territory); expression (game as self-discovery); and submission (game as pastime). These aesthetics can be understood as different goals of games and the components of “fun”.

The researchers note (Ibid, p.2) that when designing videogames, it is important to consider both the designers’ and players’ perspectives. From the perspective of the designer, mechanics give rise to dynamics which in turn generate aesthetic experiences. Viewed from the perspective of the player, these components are experienced contrariwise. Players experience the game through an aesthetic experience which the dynamics create. In turn, these dynamics arise from the videogame’s mechanics.

Considering my perspective as a designer in designing *Los*, creating mechanics that support the theoretical underpinning uncovered in section 2 -- such as an open world, minimal functional challenge and the absence of any objective or mission -- allows meaningful dynamics to emerge. I approached the design of the mechanics by considering the dynamics I wanted to evoke, such as freedom, autonomy and introspection. As a starting point, I researched a broad range of video games that incorporated mechanics that aligned with these dynamic goals. I noted how videogames which incorporate an open world mechanic, such as the *Elder Scrolls Series*, typically implement a non-linear game world which the player can freely explore. Furthermore, implementing the mechanic of player curiosity through the removal of objectives and controlling instructions allows the player to act with volition. To understand the emergent behaviors or dynamics these mechanics produced, I engaged in an iterative process of creating testable prototypes (discussed in section 4.1.3). These prototypes allowed me to experience how these mechanics acted together to evoke meaningful elements through play and thus give rise to the desired aesthetic responses such as discovery or submission.

Furthermore, Jesse Schell states (2014, p.4) that a game designer needs to utilise an array of skills such as architecture, cinematography, creative writing, sound and introspection to create an experience. For Schell, this creation of experience is paramount to constitute the value of the videogame: “When people play games, they have an experience. It is this experience that the designer cares about. Without the experience, the game is worthless.” (Ibid, p10). During my game design process, I was conscious of deploying a similar variety of skills with the goal of creating a meaningful experience. For example, I designed the existential aspect of the prototype’s story based on text and phone messages I had with my brother (discussed in section 3.1). I wrote both the story and script blocks along with their alternative versions to allow the story to be both ambiguous and fragmentary. I arranged and met with an actor to oversee a series of recording sessions where I recorded various takes. I used an audio editing

program to mix these recordings and optimise them ready for importing into the game engine. Within the game engine, I connected these assets to specific game objects and events that I had scripted to respond to player interactions. As described, the various skills discussed here and others were employed throughout my game design process as I worked toward attaining the desired meaningful experience.

4. *Los* - An exegesis

This final section of my thesis is an exegesis to critically reflect on the creative practice of this project -- that of designing a videogame prototype aimed at conveying meaningfulness. It will discuss and explore the underlying processes which constitute my practice, such as the triggering of mental states, reflection of personal concerns in the midst of practice, the nature of thinking through space and time in the prototype, and the role of myth and spirituality in my practice of realising this prototype. Specifically, it will consider models of practice that are harnessed in how I have created stories within games to be meaningful and to impart meaningfulness through the creation of the prototype's environment. The aim is to reflect on how meaningfulness manifests itself through my creative practice of game design as well as, albeit to a lesser extent, through the act of play.

This exegesis will examine my creative practice of designing a videogame to be meaningful through two lenses:

- Subjectivity (specifically in relation to its generative capacity and the role it plays within the creative practice); and
- Spirituality and inner experience (specifically in relation to the concepts of a spiritual journey and fulfilment through spiritual illumination).

4.1 Subjectivity / Subjective meaningfulness

The first aspect to my creative practice of designing *Los* is the importance of subjectivity, defined as “the influence of personal beliefs or feelings, rather than facts” (Cambridge Dictionary 2020). As also discussed in section 2.1.4, the manifestation of meaningfulness varies from person to person and this subjectivity, also encapsulated in the philosophical theory of Subjective Naturalism, is an underlying fundamental concept in evoking meaningfulness in each person's life.

Here, I acknowledge my subjectivity relating to my creative practice, and reflect on its manifestation in relation to meaningfulness in three ways: the first is in terms of my mental states with respect to my practice; the second is private thoughts and feelings on my own existential concerns; and the third is through my subjective experiences in the realisation and experience of the prototype's space, time and freedom as both designer and player.

4.1.1 The struggle of practice

My creative practice is closely related to my specific mental states as an independent being who feels, thinks and reflects while engaging in creative practice. In turn, these mental states and inner thoughts orientate the direction of my creative practice and, more importantly, render the creative process subjectively meaningful.

Specifically, my mental state in my creative practice is entwined with my identity as a designer and researcher of videogames. I am committed through my practice to creating a prototype, in this case one that is capable of evoking meaningfulness. The French sociologist Pierre Bourdieu describes this commitment as “*illusio*” (derived from the root word of *ludus* (*game*)), which refers to a particular notion of interest by an agent in their action -- namely, an interest by way of participating, “to admit that the game is worth playing and that the stakes created in and through the fact of playing are worth pursuing” (1998, p.77). It is a specific kind of interest which involves an intimate complicity with the agent's mental structures as well as objective social space -- an interest whereby “games which matter to you are important and interesting because they have been imposed and introduced in your mind, in your body, in a form called the feel for the game.” (Ibid, p.77) Hence, having such a personal stake or interest in the creation of my prototype through my commitment to and identity as a videogame designer emphasises to me the importance of my practice.

However, this investment in my practice also triggers a paradoxical creative mode of being where I embody both *void* and *anxious* mental states. In particular, the latter state of *anxiety* is one which also affects other creative professionals. The game designer Ken Levine suggests that anxiety is part of his creative practice and the generating of new creative ideas: “You have to really put yourself in the world of the game, because you can hold yourself back at a remove, but I need to get the engine going... and I realise I'm also super anxious by the time I get to this state.” (2020, 13:10). Hence, as Levine suggests, this anxious state allows for a creative mental state to arise and thus becomes a *tool* for generating creative ideas; it is also what Jean Carabine describes (2013, p.2) as the “struggle”, or a way of staying within an uncomfortable process until new ideas emerge.

I, too, found myself within this state of struggle as I began my creative process for *Los*. I was in a state of unknowing about the “thing” I was about to create. I was unsure of how or where to begin, and this void of ideas led to my own feelings of anxiety about not knowing how to proceed. I found myself in a situation of uncertainty as I generated ideas, rejected them and generated new ideas. I have often found myself in this pattern of action in past creative projects, guided by feeling my way through until, in that critically subjective sense, something felt subjectively “right”. Donald Schön refers to this pattern of acting on subjective judgements as “reflection-in-action”, where the practitioner not only “...tries to make sense of it [a puzzle or problem the practitioner is trying to solve], he also reflects on the understandings which have been implicit in his action, understandings which he surfaces, criticizes, restructures, and embodies in further action.” (1983, p.50). For Schön, this pattern manifests itself as a capacity for reflection while in the midst of practice and allows the practitioner to navigate through its uncertain or conflicted aspects.

In the same way, on reflection of my practice for *Los*, existing in these creatively void and anxious modes paradoxically orientated my creation of ideas, and produced a cyclical process of reflection and contemplation which allowed me to generate creative ideas that also drew on my subjective thoughts and feelings on existential concerns (see 4.1.2 below). While engaged in my creative practice, I reflected upon the subjective viability of these ideas, enabling my creativity to take new directions. Moreover, I stayed within these creatively void and anxious modes because the construction of knowledge through my practice is important to me; I act because I am passionate about it. To borrow a term from Susan Wolf (1997, p.209), I was “actively engaged” by the prototype; it gripped and excited me.

My creative process thus took on reiterative steps in this simultaneous uncertainty, void and engagement. I began by free writing notes in my journal to gain some initial insight into my mental process as I engaged in my creative practice. Examples of these notes are “...connection between mental states...voids states” and “...connection that you pull in to make something...fills in the voids” (my journal notes). I then re-read these notes and began sketching down ideas and scribbles that arose as I reflected on how my creative process was functioning. For example, one idea is that I was entering a specific mental state of anxiousness triggered by my creative practice, thus allowing access to subjective inspiration. As I considered different concepts, such as my individuality, inner mental states and subjectivity, I tried linking them together by drawing connecting lines between them to understand their relationships to one another (Fig.11). For example, as I reflected, I began to understand that my process of making something engaged my pre-existing subjective connections to aspects I found meaningful, such as the personal existential concerns (discussed in the next section). Through this reflective and iterative process, I thus obtained further clarity into these concepts and their relationships

with one another. Although initially, I viewed my creative practice as one process, I realised that my creative practice contained distinct stages or phases such as the state of struggle previously discussed in this section.

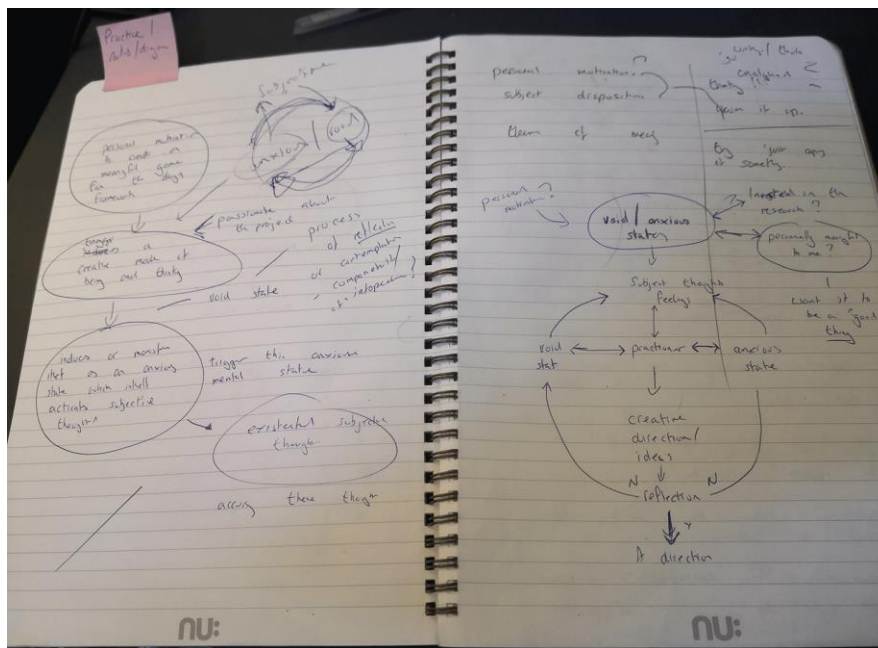


Fig. 11 - sketches of practice

Formalised into the diagram below (Fig.12), it shows that my active engagement leads to paradoxical void and anxious mental states as manifest from my investment in my practice. In turn, these mental states generate ideas (in reference to personal thoughts and feelings) and, finally, creative direction.

My model of creative practice thus demonstrates that the process of designing the prototype is a holistic and paradoxical subjective space for creative anxiety and creative generativeness. It demonstrates that harnessing subjective mental states and active engagement allows complex feelings, thoughts and reflections to manifest themselves, which then becomes a gradual unfolding of these inner states until the strands of meaningfulness are collected and connected to orientate the construction of a unique narrative. In turn, these collections and connections demonstrate the role and significance of subjectivity in generating meaningful connections through paradoxically creative approaches to creating stories within games to be meaningful. At the same time, such subjectivity also needs to encompass personal reflection and introspection of existential concerns, to which the next sub-section turns.

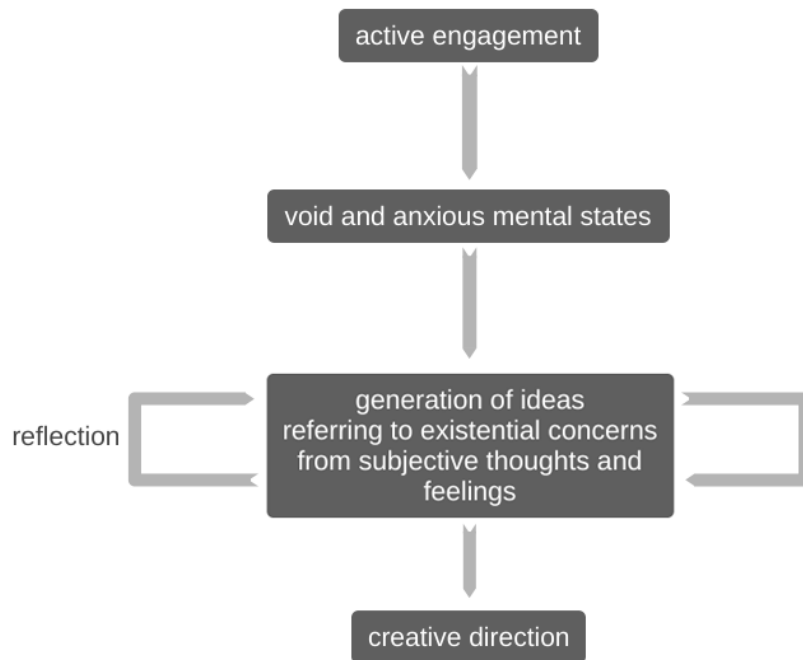


Fig. 12 - diagram of my model of creative practice

4.1.2 Existential concerns

As alluded above, my subjective state within my creative practice of *Los* also included personal thoughts, contemplation and introspection, particularly concerning death and meaning in life brought about by personal events and private reflective notes. During the initial phase of exploring inspirations for meaningfulness in the story of *Los*, my cousin Richard committed suicide. He had suffered greatly in the past few years with depression and indeed throughout his life. Just after this, I discussed with my mum how depression had always been a shadow that loomed over family members who had often suffered bouts of it. I'd written in my notes how this event had caused me to reflect on past conversations with my brother and his personal battle with questioning of existence, as well as the loss of our father when we were children:

There was a particularly tough period he [my brother] went through where he and I exchanged messages and phone calls about how he was feeling or at least as much as he could get out. A lot of it was really tough for him to articulate and unlock. (my journal notes)

As I thought further about this period in my life, I remembered I had saved some of the conversations between my brother and I at particular times. Reading back through them, they captured moments of my brother's existential angst and his own inner struggle with finding meaning in life.

As included in Fig. 12 (above), this process of accessing and exposing my own inner experiences through introspection also provided me with creative directions in which to take my practice. I *exposed* and unfolded these personal existential experiences by integrating them into the prototype's story of existential concerns, transcribed as its featured phone messages, journals and letters. In that sense, too, as Simon Blond writes, being creative is "...self-revelation. It reveals the subject's most private feelings so that the artist stands naked in an act of self-exposure." (2009, p.13). Although unaware at the time of generating ideas for the story, the harnessing of my personal concerns and enquiring into my own personal experiences felt subjectively "right" as a knowledge that I was not entirely able to articulate. Donald Schön, again, suggests that this mechanism of a practitioner knowing more than they can say is "knowing-in-practice" (1983, p.8), or a method of intuitively knowing which, in turn, manifests as a capacity for reflection on a practitioner's intuitive knowledge in the midst of practice or action. Through my own reflective and iterative processes, I instinctively knew that weaving my own existential experiences through the prototype's narrative was an appropriate creative direction to take. Indeed, this reflective process suggests that meaningfulness, channeled through the subjectivity of my personal reflections, is inherent within my creative practice. In short, meaningfulness arises as I harnessed these ideas of subjectivity in creatorship to forge connections between my own subjective existential experiences and the prototype's story.

4.1.3 Space, time and freedom as designer and player

The third aspect of subjectivity as a concept of meaningfulness in my creative practice manifests through my treatment and experience of space, time and freedom in the prototype. In reflection, my creative practice was split into two distinct roles or modes of being. As a *designer* and as described above, I harnessed my subjective thoughts and feelings to orientate the development of a prototype aimed at evoking meaning within a player. As a *player*, I engaged in play to experience meaningfulness from the prototype. In turn, this process of embodying two modes of being manifests as an interconnected relationship between development and play, whereby play informs the design and design is, in turn, proposed, prototyped and played.

First, some exposition on the design of the prototype's space and environment. As discussed in section 3.2, space, time and freedom are important components of the game's design as conduits of meaningfulness for the player (namely, agency and autonomy). As also mentioned, in my consideration of these components when creating the prototype, I was inspired by *Dear Esther* (2012) in which the player slowly explores a deserted and isolated island. Robert Briscoe (2012, 2:46) reflects in his GDC talk, "The Art of *Dear Esther*", that he wanted to "make the environment more than a backdrop...[to] make it like an immersion tank, to really draw the player in and make it an integral part of the storytelling process." While searching for artistic inspiration, Briscoe was personally drawn to an impressionistic art style. He noted that the use of soft colours and muted lighting within the impressionistic style of painting generated atmosphere and mystery, and held an immersive quality. Embracing this painterly style for the creation of *Dear Esther*'s Hebridean island environment (Fig.13) allowed Briscoe to evoke a reflective emotional space.



Fig.13 - *Dear Esther*'s Hebridean island environment showing the use of soft colours and muted lighting.

This emotional space thus supported a reflective mental state for the player which, along with the freedom to explore the island at their own pace, encouraged the player's investment in the creation of a personal version of the narrative.

As a designer, I decided to adopt this concept of using the environment as a tool to elicit a solitary mental state through the use of atmosphere, colour and lighting. I began by considering my own subjective connection to types of spaces and environments and how they evoked feelings of solitude within me. I wanted the environment to create a sense of being alone and disconnection which was capable of allowing the player to engage in introspective thought. I drew sketches and created mood

boards as “jumping off” places with which to begin creating the environment. Inside the game engine, art editor and modelling software, I built small testable spaces (Fig.14) with which I could experiment. As I iterated, I also drew on my subjective thoughts and feelings about isolated rural open spaces, such as plateaus where one could almost see and walk forever. As mentioned in the introduction in Section 3, my thoughts on solitude in the prototype were inspired by the remoteness of Nordic environments. I’m particularly drawn to nameless places and often take walks with my dogs to spaces that are disconnected or which, as Rebecca Solnit reflects, “...awaken a desire to be lost, to be far away...” (2010, p.40). For Solnit, these moments of self-discovery are connected to “the blue of distance”, the colour one sees as light is scattered over the horizon. This colour of solitude also became a primer for me to perceive space and distance; it aroused a sense of wanderlust, of becoming lost in the landscape.

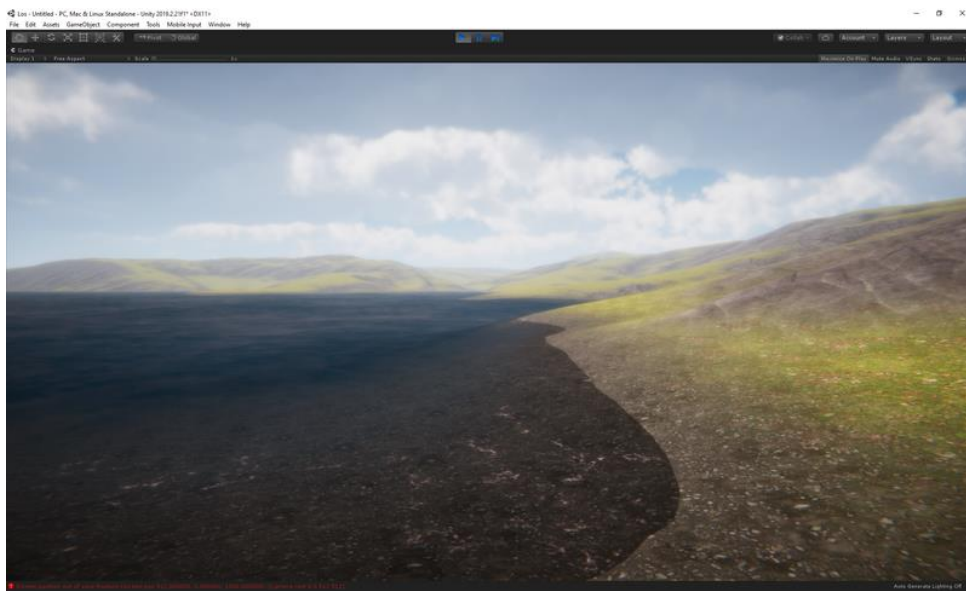


Fig. 14 - Early island test taken from design journal

As a player, through the act of play I am exposed to the prototype as a whole, where aesthetic elements, mechanics and story intertwine, rather than through its discrete component parts. As I play, I am able to wander through the environment and experience the colour palette of greens, greys and blue light that I had created during the design process. As I explore these spaces further, I am able to reflect and “feel out” how colour, lighting and space combine to evoke meaningful feelings of solitude and perceive my own freedom of thought and action.

It is through this process of intertwined design, play and redesign that I reflect on my subjective perceptions of space, time and freedom and how they evoke meaning as both player and designer. As a *designer*, I exist in the transitory environment of the prototype, visually thinking and seeking those

aspects of meaningfulness such as freedom and solitude. This is also what Paul Carter calls “material thinking”, or an “intellectual adventure peculiar to the making process” (2004, p.10). This “intellectual adventure” through the making process thus provides a specific way of understanding the digital world of the prototype, one that is grounded in digital material practice which eschews working with traditional materials such as canvas, oils and brushes. Instead, this approach situates itself in the digital world of the game engine dealing with the materiality of the virtual in terms of modelling polygons, vertices and digitally painting texture maps.

Conversely, as a *player*, this interconnected process primed me to be in a conducive mental state, or a preparedness for feelings of solitude and freedom of thought to manifest through the incorporation of the subjective use of space and colour. This inner state of preparedness complemented and supported the non-controlling mechanics of the prototype (i.e. the minimal narrative framework) that gave rise to the feelings of freedom of action, purpose and volition which underpinned the meaningful components of agency and autonomy for me as a player. Therefore, designing videogames to impart meaningfulness through their interactive worlds should embrace the role of the player alongside the role of the designer. Engaged thus in both play and design, videogames become this nexus of connections of meaningfulness from different perspectives connecting, overlapping and existing together.

4.2 Myth, spirituality and inner experience

The second evocation of meaningfulness in my creative practice of *Los* is the role of myth, spirituality and inner experience. As discussed in section 2.1.2, meaning can be found in religious or spiritual beliefs, or beliefs in a transcendent realm. Indeed, part of the appeal of using Absurdism as a narrative framework for the story of *Los* was the philosophy’s inclusion of a solution which addressed these beliefs and thus allowed me a way to thread these themes into the prototype’s story.

I began my approach to creating the spiritual aspects of *Los*’s story by investigating how meaningfulness could be imparted through story within primarily Western spiritual practices. As neither a religious nor particularly spiritual person, I was intrigued to learn that traditionally religious and spiritual practices throughout history have been communicated through the use of mythology, symbolism and ritual. Within religious and spiritual contexts, myth is often used interchangeably with the term “story” or “narrative” (Wright, 2018, p.378). Joseph Campbell, as one of the most influential thinkers on myth, suggested that world mythologies portrayed a journey story or narrative of the archetypal hero, also known as the monomyth (Campbell, 1988). Many spiritual myths, such as those

of Moses, Buddha, Christ and Muhammad, similarly involve a journey of the self (Moyes and Campbell, 1988), whereby the “spiritual hero” embarks on a spiritual adventure, undergoes a transformation of consciousness out of trial or illumination, and leaves behind their old self as they cross the threshold into the supernatural realm. In this journey of illumination or contemplation to reach an inner state of fulfilment, they return to their life in a richer condition.

My reflections on this concept of spiritual adventure or journey remind me of my own research journey and the manifestation of the prototype through my creative practice. Before I began my research, I often found myself thinking about aspects of a game either long after I’d finished playing or during my time creating it. These thoughts developed into the desire, crystallised as this thesis’ research question, to explore how videogames create inner experiences that can be so affecting in deeply personal ways. This desire to understand and answer my research question might thus be, for me, what Joseph Campbell terms the “call to adventure”, where “[t]he familiar life horizon has been outgrown; the old concepts, ideals and emotional patterns no longer fit; the time for passing of a threshold is at hand.” (Campbell, 1988, p.51). Indeed, as I reflect on this exegesis, I have found myself engaged in periods of introspection not only during the creation of the prototype, but also as I sought to understand how my creative practice connected with notions of meaningfulness. In turn, this process of self-exploration has allowed me to grow and understand myself as a creative in new ways, particularly in my states of anxiety and access to subjectivity and personal reflections through my creative practice. In this process is also a more effective harnessing of reflective periods, the activation of inner mental states and the harnessing of subjectivity within my practice.

The suggestion here is that, as a designer and researcher, I too have undergone a journey of illumination through my exploration of how videogames create meaningful experiences. As Joseph Campbell has illustrated, the monomyth of the hero’s journey provides a framework which guides individuals not only in myth, but also in life towards personal growth and transformation through contemplation as they face challenges within the unknown realm. Indeed, per John Cottingham in section 2.1.2, the manifestation of meaningfulness arises through following a spiritual path or journey which is intrinsically linked with self-discovery. Thus, by being actively engaged in the creation of a videogame with spiritual themes also, as a correlated parallel, exposes my own spiritual journey of self-growth and discovery, and achievement of another state of fulfilment and spiritual richness.

5. Conclusion

The aim of this thesis is to answer its central research question: *How do videogames have the capacity to generate personal meaning?* I began my research by analysing various philosophical and psychological perspectives which focused on the notion of meaningfulness, including its multitudes of concepts and the difficulties in defining it. I then examined extant scholarship on meaningful media, including considerations of aspects of videogames which render them meaningful experiences. I extracted various concepts from my theoretical research as reference points between philosophy and media theory for a holistic design framework from which I developed a prototype aimed at evoking meaningfulness. I then produced an exegesis which critically reflected on my creative practice and the tenets of meaningfulness inherent in that practice.

In my thesis, I suggest that in the midst of design and play, videogames become a nexus of connections on meaningfulness through not only their constituent elements, such as story, aesthetics and gameplay, but also through the practice of their design as subjective meaningfulness, spirituality and journeying. The capacity of videogames to generate personal meaning is through a holistic constellation of ideas of meaningfulness channeled through philosophy and media theory. In the interplay between elements of meaningfulness and existential concerns expressed through story, environments and design, the capacity of videogames for meaningfulness is also in their being a place where players and designers may contemplate and reflect on essential aspects of human existence, such as death, identity, creativity, spirituality and freedom. Design aspects such as space, time and freedom (including minimal narrative frameworks and non-controlling instructions) also support the capacity of videogames for meaningfulness through environmental storytelling, players' meeting of emotional challenge and personalised constructions of the narrative. They become avenues to fulfil the human psychological needs of autonomy, competence and relatedness for meaningful experiences. These are all respects in which videogames have the capacity to be meaningful.

As with other human endeavours that are considered objectively capable of evoking meaningfulness, such as literature, art or film, videogames are also appearing to be a cultural medium that is evolving to provide experiences which speak to humanity's deep longings for meaning and purpose. They have the capacity to embody a range of meaningful components which manifest in complex subjective ways. They actively *engage* both players and designers, soliciting passion, compelling action, inspiring thought, feelings and reflections on inner experiences. Through such active engagement, videogame developers may entwine their subjective thoughts and feelings into their creative practice in much the same way as artists, writers and poets have done throughout human history. Hence, videogames are

what Susan Wolf terms (2017) “projects of worth”: they actively engage, grip and fulfil us. They thus have the capacity to generate personal meaning.

In this respect, it is also important to acknowledge the limitations to this research. Firstly, due to the vast scope and complexities of the discourse on meaning, an exhaustive examination of the literature is not possible. As explained in my methodology of research of theory (1.1.1), I have outlined here the most salient concepts of meaningfulness I could find in the course of my reading. Secondly, the research only considers a solitary play mode in its design of a game aimed at evoking meaningfulness.

In light of these limitations, future research to expand on this topic would thus also benefit this work with further experimental prototyping which focuses and explores additional or alternative perspectives or philosophical concepts that consider meaning. These may then reveal additional avenues of enquiry on the emergence of meaning which could then be distilled and integrated within the design framework established in section 3. These additional avenues may include, for example, Aristotle’s notion of the highest good which required the fulfillment of a broad range of conditions such as the virtues of courage and generosity, or stories which explore other aspects of objective goods such as friendship. Further, different modes and experiences of gameplay would also address the current work’s limitation of only exploring solitary gameplay. For example, videogame characteristics such as immersion, audio design or character animation might also be considered in terms of their capacities for evoking meaningfulness. Other gameplay modes, such as cooperative play or multiplayer, could also be examined. Additionally, systems-driven experiences could also be explored, where the narrative arises within the mind of the player through moment-to-moment emergent play.

In conclusion, my research thus adds to emerging scholarship that videogames do indeed elicit meaningful experiences within players and which has so far focused on individuals’ perceptions of meaning (Oliver et al., 2016; Rogers et al., 2016); the psychological needs for insight (Oliver et al., 2016), autonomy, competence and relatedness (Ryan, Rigby, & Przybylski, 2006); and emotional challenge through interpretive fictional agency (Cole and Gillies, 2019). In contrast, my research exposes the philosophical, subjective, objective and spiritual theoretical foundations that underpin this emergence of meaning within players and designers of videogames. These findings provide suggestions not only for designing games for complex eudaimonic experiences, but also alternative imaginaries of why and how videogames are meaningful in terms of the deep, reflective thought and transformative journeys they provide. They give game developers, interactive storytellers and other creatives an additional toolset with which to begin creating, producing and delivering meaningful narrative experiences. Alongside the hedonic landscape that is prevalent in videogames today, I hope

that my findings show that meaningful videogames have the capacity to speak to the more positive aspects of human experience which make life meaningful. Embracing feelings of meaningfulness gleaned through complex emotional narrative experiences may be gratifying not only to players, but complementary as well to overall feelings of entertainment and thus player retention and engagement. My hope is that this research will thus provide fertile ground for game developers who are seeking to create meaningful game experiences and bring further weight to the argument that videogames are continually evolving and maturing from their characterization as a shallow form of entertainment.

Appendix 1: Game Design Document

LOS

Game Design Document

*“The word “lost” comes from the Old Norse los - a truce with the wide world.”
- Accepting our place in a meaningless universe*

Prototype version history

Revision name	Comments
12.06.20	Prototype release
02.06.20	Fixes to mobile phone UI
23.05.20	Time of Day added cleaned up player movement
10.05.20	Examination system, added notepad prop
02.05.20	Added texts and audio messages
18.04.20	Further assets to populate world
12.04.20	Added procedural terrain
01.04.20	Tweaks to mobile mechanics & UI
25.03.20	Base mobile mechanics functioning
18.03.20	Initial build

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“What's the soul?”

Los is a first-person exploration and adventure video game where you explore a mysterious ancient landscape and discover its story.

Design pillars:

- Story
 - deals with existential concerns
 - appreciation,
 - insight
 - relatedness
- Minimal narrative framework
 - agency
 - joyous play
 - autonomy
 - competence
- Solitary play mode
 - introspection

Premise

The game is set in 1997, in a fictional remote scandinavian landscape named Aurvandil.

After a long journey, you arrive at your final destination ready to assist Professor Camus and her research into the mysterious standing stones found throughout the environment.

Arriving at a small rural station down, you take a deep breath ready to start. You expect the research team to greet you but instead it's deserted. Finding only a letter addressed to you, you open it...

The story deals with the existential themes of:

- Dealing with death / Absurdism
- Our place in the universe

It takes inspiration from Albert Camus existential work 'The Myth Of Sisyphus', Kierkegaard and existential absurdism.

(Overview - just for reference)

In absurdist philosophy, the Absurd arises out of the fundamental disharmony between the individual's search for meaning and the meaninglessness of the universe. As beings looking for meaning in a meaningless world, humans have three ways of resolving the dilemma.

- Suicide (or, "escaping existence"): a solution in which a person ends one's own life. Both Kierkegaard and Camus dismiss the viability of this option. Camus states that it does not counter the Absurd. Rather, in the act of ending one's existence, one's existence only becomes more absurd.
- Religious, spiritual, or abstract belief in a transcendent realm, being, or idea: a solution in which one believes in the existence of a reality that is beyond the Absurd, and, as such, has meaning. Kierkegaard stated that a belief in anything beyond the Absurd requires an irrational but perhaps necessary religious "leap" into the intangible and empirically unprovable (now commonly referred to as a "leap of faith").
- Acceptance of the Absurd: a solution in which one accepts the Absurd and continues to live in spite of it. Camus endorsed this solution, believing that by accepting the Absurd, one can achieve the greatest extent of one's freedom. By recognizing no religious or other moral constraints, and by rebelling against the Absurd (through meaning-making) while simultaneously accepting it as unstoppable, one could find contentment through the transient personal meaning constructed in the process.

The story proposes to explore these ideas through three conduits:

- A brother of the player character who considers "escaping existence"
- The ancient people who built the standing stones and their connection with a spiritual realm
- The father of the player character and acceptance of the Absurd

Story outline

Setup

1997 - The player arrives/wakes at a small rural station

The player's character's purpose is to assist in a research project run by Professor Camus who is studying the ancient megalithic landscape and the standing stones scattered around the environment.

Exploring the station house, players will find a letter from Professor Camus explaining that she/he had heard of your delay in reaching the research site and had left your belongings locked in one of the store rooms / lockers (puzzle: there may be a key with the letter for the locker) .

The letter explains that the phone reception is terrible and so details the research trips locations, Camus would appreciate it if you could visit the sites to get your opinion (related to what she experiences there) and that she would leave some research notes behind at the sites for you to familiarise yourself. Then to meet her at the northern station.

This prompts the player to grab their backpack and phone and head off to the first research site.

Inside the station will be an 'info map' which explains about the ancient megalithic landscape and that there is a choice of paths to take.

The player can head off and explore.

Story chunks

Theme: dealing with death / escaping existence

After exploring the area for a short time, the player will hear a notification from their mobile phone that they have a new answer phone message. The player will be able to either play the message or leave the phone in their pack.

This message will be from their mother and will just be a quick message saying that she tried to ring and catch you just before you left but will try again later. This is used to introduce the mobile phone mechanic.

The player will receive intermittent answer phone / text messages from their mother and brother while they are exploring. This intermittency is in part due to the technology of the time, their remote location and serves as a narrative device to split up the delivery of main story beats.

Through these answer phone messages, the player learns that (early ideas) :

- They have been travelling for some time and been out of touch (before the internet)
- The player character's brother has been struggling with accepting the death of their father.
- leads to the brothers into direct confrontation with the Absurd - Some ideas:
 - questions about '*what's the point of it all*'
 - Your dad had been ill for a while before his death
 - Your brother has suffered from depression throughout his life
 - Begins to consider the question Albert Camus did is life worth living given that it is absurd and futile
- The player came on the trip after the death of her father

Theme: Transcendent realm / Our role in a meaningless universe

As you explore, you'll come across ancient megalithic sites that contain standing stones and remains of where Professor Camus had set up camps (maybe some of these camps need an alternative way).

Her/his goal was to understand:

- why the stones seemed to align to stars
- what those alignments meant to ancient people who built them
- why they decided to incorporate them into their structures.

She/he believes that by identifying the patterns and symbolism on the stones, that ancient peoples' connection to the sky, stars and the universe as a whole could be understood.

The ancient people bury their dead at these sites. They prepare gracefully for it, talk about it, celebrate it - they're journeying to the next.

Much of this theme can be told through research notes (text/audio) that the player collects.

Camus tells of hearing chanting and seeing strange things while in some of the stone circles, almost ghostly or spiritual experience. The player will also experience some of this.

Eventually she begins to theorise that there was an abstract belief in a transcendent realm and that this life was preparing us for the journey (the existence of a reality that is beyond the Absurd, and, as such, has meaning - requires an irrational but perhaps necessary religious "leap" into the intangible and empirically unprovable (now commonly referred to as a "leap of faith").

Theme: A father's letter - Acceptance of the Absurd

At the end of the game after you have visited the standing stones, as you approach the station, you reach into your backpack and pull a letter out from your father who wrote to you just before you went

away to University. In it he describes how he is sad that you're leaving home but also overjoyed that you're following your heart and studying anthropology.

He also tells the player that they had always followed their own path... (still working on this... needs more) but should talk about how the father saw life without explicitly going into the Absurd.

Acceptance of the Absurd: a solution in which one accepts the Absurd and continues to live in spite of it. Camus endorsed this solution, believing that by accepting the Absurd, one can achieve the greatest extent of one's freedom.

This letter presents the accepting view of absurdism in that if you accept life for what it is, that we all die, but if we choose freedom, to live in hope, to love and all the other good things that life has to offer.

Story objectives

- To evoke existential introspection from the player
- To fulfil relatedness with connections to in game characters

Gameplay

Mechanics

Mobile phone

Players will have a mobile phone that will be introduced shortly after they have started the game and begun exploring.

The phone will serve as the primary narrative delivery device and will be used to split up the delivery of main story beats. This will be accomplished by:

1. Players will receive intermittent audio & text messages.
2. There would be a notification sound
3. The player can **choose** whether or not to inspect their phone
4. If they choose to inspect the phone
 - a. A 3D asset of the phone will be produced and a navigable UI can be accessed.
 - b. On the screen will be a new message notification
 - c. Clicking on the screen with the mouse will produce a chronological list of the message they receive
 - d. Clicking on a message will play the relevant audio asset
5. From a family member regarding the death of the player's parents.
6. Later in the game - a saved answer phone message
 - a. Reminder about a saved message that will be removed

Exploration

Set in an open world environment in which the player can roam around and explore at will.

There are trail signs, maps and information signs around the island which help the player to navigate.

There are no time limits in the game.

Examine System

Players should be able to pick up and interact with objects / ephemera they find in the environment.

Inventory / backpack

Players can choose to store things in their backpack.

- Textual notes
 - Research logs
 - Photos
- maybe audio tapes if scope allows (playback through a Walkman - find this at a camp)

Art Style

Mood board / reference

- A realistic style will be used
- Scandinavian landscapes as reference.



Standing stones

Early ideas / mood board



Environmental storytelling and ephemera

Early ideas:

megalithic stones and rocks in the landscape
Patterns & shapes - they maybe represent

Design Framework

See fig. 1 for the conceptual diagram of the design framework.

Story

- Explore existential themes of death and absurdism
 - Evoke Insight within the player - the experience will evoke complex subjective feelings of introspection and reflection on existential questions
 - Evoke feelings of Appreciation within the player - a response that evokes the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience

Minimal narrative framework

- No cutscenes or taking control away from the player
- Open world design allows greater sense of exploration allowing the player to approach playing the game in the way they want to (Joyous Play).
- Give player story chunks - Allows the player to piece together a personalised experience of the games narrative
- support this with environmental storytelling / ephemera

Solitary play

- Single player mode allows for solitude
- Open world allows time for player to think and reflect on elements of the story (introspection)

Technical

- Unity 2018.412f1
 - UFPS - First person
 - Adventure Creator - Visual scripting / inventory / interaction system
 - Custom examination system

Ideas & Inspirations

“How can we act, how can we choose? Be Free, Release your Fear!”

- Existential concerns of Death & Freedom
- The Stranger - Albert Camus / The Myth Of Sisyphus
 - Camus asks if life is worth living given that it is absurd and futile
 - Accept life
 - What we do in the face of death - reacting in a personal way
- A Field Guide to Getting Lost - Rebecca Solnit
 - Solitude and Introspection in a remote location
 - getting lost somewhere, allowing yourself time to explore the self
- Ancient Scandinavian Landscape and theories connecting the stones to our place in the universe

Background

Existential concerns

Irvin Yalom is credited with the four “ultimate existential concerns of human beings”.

- Death
- Freedom
- Existential isolation
- Meaninglessness

Albert Camus - The Myth Of Sisyphus

* Compared human existence to the plight of the mythical figure of Sisyphus

* Camus asks if life is worth living given that it is absurd and futile

'There is but one truly serious philosophical problem and that is suicide. Judging whether life is or not worth living amounts to answering the fundamental question of philosophy.'

- Although life's struggles have no ultimate purpose and always ends the same way (death) you can build an honest and worthwhile life.
- By accepting and understanding how things really are you can build a satisfying life.
- In choosing to live your life your way, you are choosing hope, love and the good things that life has

Bibliography

- Ahn, D., Annie Jin, S. and Ritterfeld, U. (2012). "Sad Movies Don't Always Make Me Cry". *Journal of Media Psychology*, 24(1), pp. 9-18. [Online]. Available at: <https://doi.org/10.1027/1864-1105/a000058> [Accessed 24 January 2021].
- Anthony, D. (2011). *Kierkegaard, D. Anthony Storm's Commentary on - Journals and Papers*. [Online]. D. Anthony Storm's Commentary on Kierkegaard. Available at: <http://sorenkierkegaard.org/kierkegaard-journals.html> [Accessed 2 Nov. 2019].
- Aristotle. (trans. 1931). *Nicomachean ethics* (W. D. Ross, Trans.). London: Oxford University Press.
- Aronson, R. (2017). Albert Camus. [Online]. Stanford Encyclopedia of Philosophy. Available at: <https://plato.stanford.edu/entries/camus/#ParCamAbs> [Accessed 27 May 2020].
- Aronson, R. (2017). Albert Camus. [Online]. Stanford Encyclopedia of Philosophy. Available at: <https://plato.stanford.edu/entries/camus/#HapFacOneFat> [Accessed 28 November 2020].
- Aquinas, T. (2017). *The Summa Theologiae of St. Thomas Aquinas*. Trans. by Fathers of the English Dominican Province (1920) published by New Advent. [Online]. Available at <http://www.newadvent.org/summa/2003.htm#article8> [Accessed 19 December 2019].
- Baker, D. (2011). Queering Practice-Led Research: Subjectivity, performative research and the creative arts. *Creative Industries Journal*, 4(1), pp. 33-51. [Online]. Available at: https://doi.org/10.1386/cij.4.1.33_1 [Accessed 24 January 2021].
- Banks, J. and Bowman, N. D. (2014). The win, the worth, and the work of play: Exploring phenomenal entertainment values in online gaming experiences. *Meaningful Play 2014 Conference Proceedings*. October 16 – 18 2014. East Lansing, MI: Michigan State University. [Online]. Available at: https://meaningfulplay.msu.edu/proceedings2014/mp2014_submission_85.pdf [Accessed 21 April 2021].
- Barrett, E. and Bolt, B. (2010.) *Practice As Research: Approaches To Creative Arts*. London: I. B.Tauris.
- Barthes, R. (1966). Introduction to the Structural Analysis of Narratives. *Communications*, 8, pp. 1-28.
- Bartsch, A., Kalch, A. and Beth Oliver, M. (2014). Moved to Think. *Journal of Media Psychology*, 26(3), pp. 125-140. [Online]. Available at: <https://doi.org/10.1027/1864-1105/a000118> [Accessed 24 January 2021].
- Berthold, D. (2012). Kierkegaard and Camus: either/or?. *International Journal for Philosophy of Religion*, 73, pp. 137–150. [Online]. Available at: <https://doi.org/10.1007/s11153-013-9400-y> [Accessed 12 May 2021].

- Blond, S. (2009). Creativity in Art: A Modernist Challenge To Postmodern Myths. In Crouch, C (Ed), *Subjectivity, Creativity, and the Institution*. Boca Raton, Fla: Brown Walker press, pp. 117.
- Bogost, I. (2010). *Persuasive games*. Cambridge, Mass: MIT Press.
- Bolt, B. (2004). *Art Beyond Representation*. London: I.B. Tauris.
- Bopp, J., Mekler, E. and Opwis, K. (2015). "It Was Sad But Still Good.". *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems - CHI EA '15*. [Online]. Available at: <https://doi.org/10.1145/2702613.2732852> [Accessed 24 January 2021].
- Bourdieu, P. (1984). *Distinction: A Social Critique Of The Judgement Of Taste*. Cambridge, Mass.: Harvard University Press.
- Bourdieu, P. (1986). The Forms of Capital. In J.G. Richardson, (Ed). *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood Press, pp. 241-258. [Online]. Available at: <http://www.socialcapitalgateway.org/content/paper/bourdieu-p-1986-forms-capital-richardson-j-handbook-theory-and-research-sociology-educ> [Accessed 27 January 2021].
- Bourdieu, P. (1990). *The Logic Of Practice*. Stanford, California: Stanford University Press.
- Bourdieu, P. (1991). *Language & Symbolic Power*. Translated from the French by Raymond, G. and Adamson, M. Cambridge, Mass.: Harvard University Press.
- Bourdieu, P. (1998). *Practical Reason: On The Theory Of Action*. Stanford, California: Stanford University Press.
- Braga, M. (2013). *Gone Home review – A startling and unexpected storytelling triumph*. [Online]. Financial Post. Last updated: 15 August 2013. Available at: <https://business.financialpost.com/technology/gaming/gone-home-review-a-startling-and-unexpected-storytelling-triumph> [Accessed 12 Dec. 2019].
- Brencio, F. (2016). Sufferance, Freedom and Meaning: Viktor Frankl and Martin Heidegger. *Studia Paedagogica Ignatiana*, 18, p. 229. [Online]. Available at: <http://dx.doi.org/10.12775/SPI.2015.011> [Accessed 18 September 2020].
- Campbell, J. (1988). *The Hero With A Thousand Faces*. London: Paladin.
- Camus, A. (1955). *The Myth of Sisyphus and other essays*. Translated from the French by J. O'Brien. New York : Vintage Books.
- Carabine, J. (2013). In the Studio: Researcher Subjectivity, the Infant Observation Method, and Researching Creative Practices. *Methodological Innovations Online*, 8(1), pp. 65-85. [Online]. Available at: <https://doi.org/10.4256/mio.2013.0005> [Accessed 24 January 2021].
- Carlisle, C. (2006). *Kierkegaard: A Guide for the Perplexed*. London: Continuum.

- Carlisle, C. (2010). *Kierkegaard's world, part 1: What does it mean to exist?* [Online]. The Guardian. Last updated: 15 March 2010. Available at: <https://www.theguardian.com/commentisfree/belief/2010/mar/15/kierkegaard-philosophy-existentialism> [Accessed 28 Jan. 2020].
- Carlisle, C. (2010). *Kierkegaard's world, part 8: God and possibility* [Online]. The Guardian. Last updated: 03 May 2010. Available at: <https://www.theguardian.com/commentisfree/belief/2010/may/03/religion-philosophy-kierkegaard-possibility-god> [Accessed 30 April. 2021].
- Carpenter, N. (2019). *Why Gone Home is the most important game of the decade* [Online]. Polygon. Last updated: 13 November 2019. Available at: <https://www.polygon.com/2019/11/13/20963006/gone-home-most-important-game-of-the-decade> [Accessed 12 Dec. 2019].
- Carter, P. (2004). *Material Thinking*. Melbourne: Melbourne University Press.
- Chandler, B. (2013). The Subjectivity of Habitus. *Journal for the Theory of Social Behaviour*, 43(4), pp. 469-491. [Online]. Available at: <https://doi.org/10.1111/jtsb.12025> [Accessed 24 January 2021].
- Cole, T., Cairns, P. and Gillies, M. (2015). Emotional and Functional Challenge in Core and Avant-garde Games. *CHI PLAY '15: Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play*, pp. 121–126. [Online]. Available at: <https://doi.org/10.1145/2793107.2793147> [Accessed 07 March 2021].
- Cole, T. and Gillies, M. (2019). Thinking and Doing: Challenge, Agency, and the Eudaimonic Experience in Video Games. *Games and Culture*, 16(2), pp. 1-21. [Online]. Available at: <https://doi.org/10.1177/1555412019881536> [Accessed 24 January 2021].
- Cottingham, J. (2003). *On the meaning of life*. 1st ed. London: Routledge.
- Coulson, M., Barnett, J., Ferguson, C. and Gould, R. (2012). Real feelings for virtual people: Emotional attachments and interpersonal attraction in video games. *Psychology of Popular Media Culture*, 1(3), pp. 176-184. [Online]. Available at: <https://doi.org/10.1037/a0028192> [Accessed 24 January 2021].
- Crisp, R. (2017). *Well-Being*. [Online]. Stanford Encyclopedia of Philosophy. Available at: <https://plato.stanford.edu/entries/well-being/#ObjLisThe> [Accessed 07 April. 2021].
- Croshaw, B. (2010). *On Silent Protagonists*. [Online]. The Escapist. Last updated: 28 September 2010. Available at: <https://v1.escapistmagazine.com/articles/view/video-games/columns/extra-punctuation/8156-On-Silent-Protagonists> [Accessed 3 August 2020].
- Dahlen, C. (2010). *AVC at GDC '10: An interview with art-game creator Jason Rohrer*. [Online]. AV Club. Last updated: 13 March 2010. Available at: <https://games.avclub.com/avc-at-gdc-10-an-interview-with-art-game-creator-jason-1798219349> [Accessed 12 Feb. 2020].

- Denzin, N. and Lincoln, Y. (2005). *The Sage Handbook Of Qualitative Research*. 3rd ed. Thousand Oaks: Sage Publications.
- Eagleton, T. (2008). *The Meaning of Life: A Very Short Introduction (Very Short Introductions)*. [Kindle]. OUP Oxford. Available at: https://www.amazon.co.uk/Meaning-Life-Short-Introduction-Introductions-ebook/dp/B000S1LWWG/ref=tmm_kin_swatch_0?_encoding=UTF8&qid=&sr= [Accessed 24 January 2021].
- Ebert, R. (2005). Why did the chicken cross the genders? [Online]. Roger Ebert.com. Available at: <https://www.rogerebert.com/answer-man/why-did-the-chicken-cross-the-genders> [Accessed 21 April 2021].
- Ervin, A. (2017). *Bit by Bit: How Video Games Transformed Our World*. [Kindle]. Basic Books. Available at: https://www.amazon.co.uk/Bit-Video-Games-Transformed-World-ebook/dp/B06Y1KS9H9/ref=sr_1_1?keywords=Bit+by+Bit%3A+How+Video+Games+Transformed+Our+World&qid=1581945670&s=digital-text&sr=1-1 [Accessed 24 January 2021].
- Etchells, P. (2019). Lost in a Good Game: Why we play video games and what they can do for us. [Kindle]. Icon Books Ltd. Available at: https://www.amazon.co.uk/dp/B07L484RFN/ref=dp-kindle-redirect?_encoding=UTF8&btkr=1 [Accessed 20 February 2021].
- Farwell, P. (1995). Aristotle and the complete life. *History of Philosophy Quarterly*, 12(3), pp. 247-263. [Online]. Available at: <https://www.jstor.org/stable/27744665> [Accessed 12 May 2021].
- Fave, A., Brdar, I., Wissing, M. and Vella-Brodrick, D. (2013). Sources and motives for personal meaning in adulthood. *The Journal of Positive Psychology*, 8(6), pp. 517-529. [Online]. Available at: <https://doi.org/10.1080/17439760.2013.830761> [Accessed 24 January 2021].
- Frankfurt, H. (2004). *The Reasons of Love*. 1st ed. New Jersey: Princeton University Press.
- Frankl, V. (2000). *Man's search for meaning*. New York: Houghton, Mifflin.
- Harley D., Morgan J., Frith H. (2018) Being Alone. In *Cyberpsychology as Everyday Digital Experience across the Lifespan*. London: Palgrave Macmillan, pp. 165-166. [Online]. Available at: <https://doi.org/10.1057/978-1-137-59200-2> [Accessed 14 May 2021].
- Heintzelman, S. and King, L. (2013). On knowing more than we can tell: Intuitive processes and the experience of meaning. *The Journal of Positive Psychology*, 8(6), pp. 471-482. [Online]. Available at: <https://doi.org/10.1080/17439760.2013.830758> [Accessed 24 January 2021].
- Higginbottom, G. and Clay, R. (2016). Origins of Standing Stone Astronomy in Britain: New quantitative techniques for the study of archaeoastronomy. *Journal of Archaeological Science: Reports*, 9, pp. 249-258. [Online]. Available at: <https://doi.org/10.1016/j.jasrep.2016.05.025> [Accessed 15 April 2021].

- Highland, M. and Yu, G. (2008). Communicating Inner Experience With Video Game Technology. *Heidelberg Journal of Religions on the Internet*, 3(1), pp. 267-289. [Online]. Available at: <https://heiup.uni-heidelberg.de/journals/index.php/religions/article/view/397/372> [Accessed 26 February 2021].
- Hofer, M. and Rieger, D. (2019). On being happy through entertainment: Hedonic and Non- Hedonic Entertainment Experiences. In Muñiz-Velázquez, J. and Pulido, C, (Eds). *The Routledge Handbook of Positive Communication*. New York, Routledge, pp. 120-128. Available at: <https://doi.org/10.4324/9781315207759> [Accessed 12 May 2021].
- Hong, V. H. and Hong, H. E. (1967). *Søren Kierkegaard's journals and papers: Volume 1, A-E*. Indiana University Press: Bloomington
- Hughes, J. L. (2004). The Role of Happiness in Kant's Ethics. *Aporia*, 14(1), pp. 61-72. [Online]. Available at: https://aporia.byu.edu/pdfs/hughes-the_role_of_happiness_in_kants_ethics.pdf [Accessed 12 April 2021].
- Hunicke, R., Leblanc, M.G., and Zubek, R. (2004). MDA : A Formal Approach to Game Design and Game Research. *Proceedings of the Challenges in Games AI Workshop, Nineteenth National Conference of Artificial Intelligence*. [Online]. Available at: <https://users.cs.northwestern.edu/~hunicke/MDA.pdf> [Accessed 01 September 2021].
- Iacovides, I. and Cox, A. (2015). Moving Beyond Fun: Evaluating Serious Experience in Digital Games. *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems - CHI '15*, pp. 2245-2254. [Online]. Available at: <https://doi.org/10.1145/2702123.2702204> [Accessed 24 January 2021].
- Isbister, K. (2016). *How Games Move Us: Emotion by Design (Playful Thinking)*. [Kindle]. The MIT Press. Available at: https://www.amazon.co.uk/How-Games-Move-Us-Thinking-ebook/dp/B08BT5MCJH/ref=tmm_kin_swatch_0?_encoding=UTF8&qid=1611504939&sr=8-1 [Accessed 24 January 2021].
- Jenkins, H. (2004). Game Theories: Game Design as Narrative Architecture. In Harrigan, P, and Wardrip-Fruin, N,(Eds). *First Person: New Media as Story, Performance, and Game*. Cambridge: The MIT Press, pp. 118-130.
- Johnson, R. and Cureton, A. (2016). Kant's Moral Philosophy. [Online]. *Stanford Encyclopedia of Philosophy*. Available at: <https://plato.stanford.edu/archives/spr2021/entries/kant-moral/> [Accessed 1 Dec. 2019].
- Khalidi, M. (2016). Mind-Dependent Kinds. *Journal of Social Ontology*, 2(2), pp. 223-246. [Online]. Available at: <https://doi.org/10.1515/jso-2015-0045> [Accessed 27 January 2021].
- Kierkegaard, S., Hong, H., Hong, E. and Malantschuk, G. (1978). *Søren Kierkegaard's journals and papers*. Bloomington: Indiana University Press.
- Koch, P. (1994). *Solitude: A Philosophical Encounter*. Peru, IL: Open Court.

- Kraut, R. (2019). Aristotle's Ethics. [Online]. *Stanford Encyclopedia of Philosophy*. Available at: <https://plato.stanford.edu/entries/aristotle-ethics/#HumaGoodFuncArgu> [Accessed 29 Nov. 2019].
- Kümpel, A. and Unkel, J. (2017). The effects of digital games on hedonic, eudaimonic and telic entertainment experiences. *Journal of Gaming & Virtual Worlds*, 9(1), pp. 21-37. [Online]. Available at: https://doi.org/10.1386/jgvw.9.1.21_1 [Accessed 27 January 2021].
- Lawley, J. and Tompkins, P. (2000). *Metaphors in Mind: Transformation Through Symbolic Modelling*. London: The Developing Company Press.
- Leontiev, D. (2012). The Phenomenon of Meaning: how Psychology Can Make Sense of It. *The Positive Psychology of Meaning and Spirituality: Selected Papers from Meaning Conferences*, 1(2), pp. 33-44. [Online]. Available at: <http://journal.existentialpsychology.org/index.php/ExPsy/article/view/101> [Accessed 27 January 2021].
- Leontiev, D. (2013). Personal meaning: A challenge for psychology. *The Journal of Positive Psychology*, 8(6), pp. 459-470. [Online]. Available at: <https://doi.org/10.1080/17439760.2013.830767> [Accessed 14 April 2021].
- Lin, C. (2019). The Ambiguity of Kant's Concept of the Highest Good: Finding the Correct Interpretation. *The Philosophical Forum*, 50(3), pp. 355-382. [Online]. Available at: <https://doi.org/10.1111/phil.12228> [Accessed 11 May 2021].
- Long, C. and Averill, J. (2003). Solitude: An Exploration of Benefits of Being Alone. *Journal for the Theory of Social Behaviour*, 33(1), pp. 21-44. [Online]. Available at: <https://doi.org/10.1111/1468-5914.00204> [Accessed 27 January 2021].
- Macdonald, M.J., Wong, P. T. P. and Gingras, D.T. (2012). Meaning-in-Life Measures and Development of a Brief Version of the Personal Meaning Profile. In Wong, P. T. P, (Ed). *The human quest for meaning: Theories, research, and applications*. 2nd ed. New York: Routledge.
- Messerly, J. (2015). *Summary of John Cottingham's "On the Meaning of Life"*. [Online]. Reason and Meaning. Last updated: 14 January 2015. Available at: <https://reasonandmeaning.com/2015/01/14/john-cottingham-a-supernatural-conception-of-meaning> [Accessed 11 April. 2021].
- Messerly, J. (2015). *Summary of Mortiz Schlick, "On the Meaning of Life"*. [Online]. Reason and Meaning. Last updated: 24 December 2015. Available at: <https://reasonandmeaning.com/2015/12/24/mortiz-schlick-on-the-meaning-of-life/> [Accessed 11 April. 2021].
- Metz, T. (2002). Recent Work on the Meaning of Life. *Ethics*, 112(4), pp. 781-814. [Online]. Available at: <https://doi.org/10.1086/340462> [Accessed 27 January 2021].
- Metz, T. (2008). God, Morality and the Meaning of Life. In N. Athanassoulis and S. Vice, (Eds). *The Moral Life: Essays in Honour of John Cottingham*. London: Palgrave Macmillan.

- Metz, T. (2021). The Meaning of Life. [Online]. *Stanford Encyclopedia of Philosophy*. Available at: <https://plato.stanford.edu/archives/spr2021/entries/life-meaning/> [Accessed 15 Oct. 2019].
- Muriel, D. and Crawford, G. (2018). *Video Games as Culture: Considering the Role and Importance of Video Games in Contemporary Society (Routledge Advances in Sociology)*. [Kindle]. Taylor and Francis. Available at: https://www.amazon.co.uk/Video-Games-Culture-Considering-Contemporary-ebook/dp/B07BBY77DB/ref=sr_1_1?keywords=Video+Games+as+Culture&qid=1581369313&s=digital-text&sr=1-1 [Accessed 24 January 2021].
- Murray, J. (1997). *Hamlet on the holodeck*. New York: Free Press.
- O'Callaghan, J. (2014). Saint Thomas Aquinas. [Online]. *Stanford Encyclopedia of Philosophy*. Available at: <https://plato.stanford.edu/entries/aquinas/> [Accessed 30 Nov. 2019].
- Oliver, M. (1993). Exploring the Paradox of the Enjoyment of Sad Films. *Human Communication Research*, 19(3), pp. 315-342. [Online]. Available at: <https://doi.org/10.1111/j.1468-2958.1993.tb00304.x> [Accessed 27 January 2021].
- Oliver, M. (2008). Tender Affective States as Predictors of Entertainment Preference. *Journal of Communication*, 58(1), pp. 40-61. [Online]. Available at: <https://doi.org/10.1111/j.1460-2466.2007.00373.x> [Accessed 27 January 2021].
- Oliver, M. and Bartsch, A. (2010). Appreciation as Audience Response: Exploring Entertainment Gratifications Beyond Hedonism. *Human Communication Research*, 36(1), pp. 53-81. [Online]. Available at: <https://doi.org/10.1111/j.1468-2958.2009.01368.x> [Accessed 27 January 2021].
- Oliver, M. B., & Bartsch, A. (2011). Appreciation of entertainment: The importance of meaningfulness via virtue and wisdom. *Journal of Media Psychology*, 23(1), pp. 29–33. [Online]. Available at: <https://doi.org/10.1027/1864-1105/a000029> [Accessed 27 January 2021].
- Oliver, M. and Raney, A. (2011). Entertainment as Pleasurable and Meaningful: Identifying Hedonic and Eudaimonic Motivations for Entertainment Consumption. *Journal of Communication*, 61(5), pp. 984-1004. [Online]. Available at: <https://doi.org/10.1111/j.1460-2466.2011.01585.x> [Accessed 27 January 2021].
- Oliver, M., Bowman, N., Woolley, J., Rogers, R., Sherrick, B. and Chung, M. (2016). Video games as meaningful entertainment experiences. *Psychology of Popular Media Culture*, 5(4), pp. 390-405. [Online]. Available at: <https://doi.org/10.1037/ppm0000066> [Accessed 27 January 2021].
- Oliver, M. and Raney, A. (2019). Positive media psychology: Emerging Scholarship and a Roadmap for Emerging Technologies. In Muñiz-Velázquez, J. and Pulido, C, (Eds). *The Routledge Handbook of Positive Communication*. New York: Routledge, pp. 111-119. [Online]. Available at: <https://doi.org/10.4324/9781315207759> [Accessed 12 May 2021].
- Ortner, S. (2005). Subjectivity and cultural critique. *Anthropological Theory*, 5(1), pp. 31-52. [Online]. Available at: <https://doi.org/10.1177/1463499605050867> [Accessed 27 January 2021].

- Peshkin, A. (1988). In Search of Subjectivity. One's Own. *Educational Researcher*, 17(7), pp. 17-21. [Online]. Available at: <https://doi.org/10.3102/0013189X017007017> [Accessed 27 January 2021].
- Power, E. (1999). An Introduction to Pierre Bourdieu's Key Theoretical Concepts. *Journal for the Study of Food and Society*, 3(1), pp. 48-52. [Online]. Available at: <https://doi.org/10.2752/152897999786690753> [Accessed 27 January 2021].
- Przybylski, A., Rigby, C. and Ryan, R. (2010). A Motivational Model of Video Game Engagement. *Review of General Psychology*, 14(2), pp. 154-166. [Online]. Available at: <https://doi.org/10.1037/a0019440> [Accessed 28 January 2021].
- Rachels, J. and Rachels, S. (2012). *Problems from philosophy*. 3rd ed. New York: McGraw-Hill Higher Education.
- Reath, A. (1988). Two Conceptions of the Highest Good in Kant. *Journal of the History of Philosophy*, 26(4), pp. 593-619. Available at: <https://doi.org/10.1353/hph.1988.0098> [Accessed 12 May 2021].
- Reker, G. T. and Wong, P. T. P. (1988). Aging as an individual process: Toward a theory of personal meaning. J. E. Birren & V. L. Bengtson (Eds). *Emergent theories of aging*. New York: Springer, pp. 214–246.
- Riendeau, D. (2013). *Opinion: Finding someone like me in Gone Home*. [Online]. Polygon. Available at: <https://www.polygon.com/2013/8/19/4627606/opinion-finding-someone-like-me-in-gone-home> [Accessed 11 Dec. 2019].
- Robertson, A. (2012). *Finding the meaning in video games: Yes, they have value beyond entertainment and self-improvement*. [Online]. *TED Blog*. Available at: <https://blog.ted.com/finding-the-meaning-in-video-games-yes-they-have-value-beyond-entertainment-and-self-improvement/> [Accessed 1 Oct. 2019].
- Rogers, R., Woolley, J., Sherrick, B., Bowman, N. and Oliver, M. (2016). Fun Versus Meaningful Video Game Experiences: A Qualitative Analysis of User Responses. *The Computer Games Journal*, 6(1-2), pp. 63-79. [Online]. Available at: <https://doi.org/10.1007/s40869-016-0029-9> [Accessed 28 January 2021].
- Rogers, R. (2017). The motivational pull of video game feedback, rules, and social interaction: Another self-determination theory approach. *Computers in Human Behavior*, 73, pp. 446-450. [Online]. Available at: <https://doi.org/10.1016/j.chb.2017.03.048> [Accessed 28 January 2021].
- Rusch, D. (2017). *Making deep games: Designing Games with Meaning and Purpose*. Boca Raton, FL.: CRC Press.
- Russell, B. (1918). *Mysticism and Logic and Other Essays*. London: Longmans, Green, and Co. [Online]. Available at: <https://users.drew.edu/~jlenz/br-ml-ch3.html> [Accessed 08 April 2021].

- Ryan, R. and Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), pp. 68-78. [Online]. Available at: <https://doi.org/10.1037/0003-066X.55.1.68> [Accessed 28 January 2021].
- Ryan, R. and Deci, E. (2000). The Darker and Brighter Sides of Human Existence: Basic Psychological Needs as a Unifying Concept. *Psychological Inquiry*, 11(4), pp. 319-338. [Online]. Available at: https://doi.org/10.1207/S15327965PLI1104_03 [Accessed 28 January 2021].
- Ryan, R., Rigby, C. and Przybylski, A. (2006). The Motivational Pull of Video Games: A Self-Determination Theory Approach. *Motivation and Emotion*, 30(4), pp. 344-360. [Online]. Available at: <https://doi.org/10.1007/s11031-006-9051-8> [Accessed 28 January 2021].
- Salen, K. and Zimmerman, E. (2003). *Rules of play: Game design fundamentals*. Cambridge: MIT Press.
- Schell, J. (2014). *The Art of Game Design: A Book of Lenses*. [Kindle]. 2nd ed. Florida: CRC Press. Available at: <https://www.amazon.co.uk/Art-Game-Design-Lenses-Second-ebook/dp/B00OYUO4PY>
- Schlick, M. (1979). On the meaning of life. In: Mulder, H.L. and van de Velde-Schlick, B.F.B. (Eds). *Philosophical Papers Volume II: 1925-1936*. Netherlands: D. Reidel.
- Schön, D. (1983). *The Reflective Practitioner*. New York: Basic Books.
- Seachris, J. (n.d.). Meaning of Life: Contemporary Analytic Perspectives | *Internet Encyclopedia of Philosophy*, ISSN 2161-0002. [Online]. Available at: <https://www.iep.utm.edu/mean-ana> [Accessed 15 Oct. 2019].
- Seligman, M. and Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), pp. 5-14. [Online]. Available at: <https://doi.org/10.1037/0003-066X.55.1.5> [Accessed 28 January 2021].
- Simpson, D. (n.d.). Albert Camus (1913—1960). [Online]. *The Internet Encyclopedia of Philosophy*. Available at: <https://iep.utm.edu/camus/> [Accessed 5 August 2020].
- Sklar, H. (2009). 'Believable Fictions: On the Nature of Emotional Responses to Fictional Characters', *Helsinki English studies : electronic journal of the Department of English at the University of Helsinki*, 5. [Online]. Available at: <https://blogs.helsinki.fi/hes-eng/volumes/volume-5/believable-fictions-on-the-nature-of-emotional-responses-to-fictional-characters-howard-sklar/> [Accessed 11 July 2020].
- Smith, M. K. (2020). *Pierre Bourdieu on education: Habitus, capital, and field. Reproduction in the practice of education, the encyclopaedia of pedagogy and informal education*. [Online]. Infed.org. Last updated: October 24 2020. Available at: <https://infed.org/pierre-bourdieu-habitus-capital-and-field-exploring-reproduction-in-the-practice-of-education> [Accessed October 26 2020].

- Solnit, R. (2010). *A Field Guide to Getting Lost*. [Kindle]. Canongate Books. Available at: https://www.amazon.co.uk/Field-Guide-Getting-Lost-Canons-ebook/dp/B002VM7FYO/ref=tmm_kin_swatch_0?_encoding=UTF8&qid=&sr= [Accessed 28 January 2021].
- Steger, M. F. (2012). Experiencing meaning in life: Optimal functioning at the nexus of well-being, psychopathology, and spirituality. In Wong, P. T. P, (Ed). *The human quest for meaning: Theories, research, and applications*. 2nd ed. New York: Routledge, pp. 165–184.
- Stevenson, L. and Haberman, D. (1998). *Ten theories of human nature*. 3rd ed. New York: Oxford University Press.
- Tanenbaum, K. and Tanenbaum, T. J. (2009). Commitment to Meaning: A Reframing of Agency in Games. *UC Irvine: Digital Arts and Culture 2009*. Available at: <https://escholarship.org/uc/item/6f49r74n> [Accessed 28 January 2021].
- Taylor, R. (1984). *Good and Evil: a New Direction*. Buffalo, New York: Prometheus Books. [Online]. Available at: <https://archive.org/details/goodevilnewdir00tayl> [Accessed 5 November 2019].
- Thomas, D. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*, 27(2), pp. 237-246. [Online]. Available at: <https://doi.org/10.1177/1098214005283748> [Accessed 28 January 2021].
- Trisel, B. (2017). How Human Life Could be Unintended but Meaningful: A Reply to Tartaglia. *Journal of Philosophy of Life*, 7(1), pp. 160-179. [Online]. Available at: <https://ssrn.com/abstract=2999340> [Accessed 28 January 2021].
- Vella, K., Johnson, D. and Hides, L. (2015). Playing Alone, Playing With Others. *Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play - CHI PLAY '15*, pp. 3-12. [Online]. Available at: <https://doi.org/10.1145/2793107.2793118> [Accessed 01 February 2021].
- Von Petzinger, G. (2016). *The First Signs: Unlocking the Mysteries of the World's Oldest Symbols*. [Kindle]. Atria Books. Available at: https://www.amazon.co.uk/First-Signs-Unlocking-Mysteries-Symbols-ebook/dp/B010MFEGGG/ref=tmm_kin_swatch_0?_encoding=UTF8&qid=&sr= [Accessed 01 February 2021].
- Wallace, J., Montague, K., Duncan, T., Carvalho, L., Koulidou, N., Mahoney, J., Morrissey, K., Craig, C., Groot, L., Lawson, S., Olivier, P., Trueman, J. and Fisher, H. (2020). ReFind: Design, Lived Experience and Ongoingness in Bereavement. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. [Online]. Available at: <https://dl.acm.org/doi/10.1145/3313831.3376531> [Accessed 08 September 2021].

- Warde, A. (2004). Practice and Field: Revising Bourdieusian Concepts. *CRIC Discussion Paper No. 65*, CRIC: University of Manchester. [Online]. Available at: https://www.researchgate.net/publication/238096928_Practice_and_Field_Revising_Bourdieusi_an_Concepts [Accessed 01 February 2021].
- Webb, J. (2012). The logic of practice: Art, the academy, and fish out of water. *Text: Special Issue Website Series*, 14, pp. 1-16. [Online]. Available at: <http://www.textjournal.com.au/speciss/issue14/Webb.pdf> [Accessed 01 February 2021].
- Whitby, M., Deterding, S. and Iacovides, I. (2019). “One of the baddies all along.” *Proceedings of the Annual Symposium on Computer-Human Interaction in Play - CHI PLAY '19*, pp. 339-350. [Online]. Available at: <https://doi.org/10.1145/3311350.3347192> [Accessed 01 February 2021].
- White, K. (2011). *101 Things To Learn In Art School*. Cambridge, Mass.: MIT Press.
- Williams, G. (2019). Kant’s Account of Reason. [Online]. *Stanford Encyclopedia of Philosophy*. Available at: <https://plato.stanford.edu/entries/kant-moral/#AimMetMor> [Accessed 4 Dec. 2019].
- Wolf, S. (1997). Happiness and Meaning: Two Aspects of the Good Life. *Social Philosophy and Policy*, 14(1), pp. 207-225. [Online]. Available at: <https://doi.org/10.1017/S0265052500001734> [Accessed 01 February 2021].
- Wolf, S. (2010). *Meaning in Life and Why It Matters (The University Center for Human Values Series Book 35)*. [Kindle]. Princeton University Press. Available at: https://www.amazon.co.uk/Meaning-Matters-University-Center-Values-ebook/dp/B003L779HQ/ref=tmm_kin_swatch_0?_encoding=UTF8&qid=&sr= [Accessed 01 February 2021].
- Wolf, S. (2016). Meaningfulness: A Third Dimension of the Good Life. *Foundations of Science*, 21(2), pp. 253-269. [Online]. Available at: <http://dx.doi.org/10.1007/s10699-014-9384-9> [Accessed 11 April 2021].
- Wright, J. (2018). In the Beginning: the Role of Myth in Relating Religion, Brain Science, and Mental Well-Being. *Zygon*, 53(2), pp. 375-391. [Online]. Available at: <https://doi.org/10.1111/zygo.12415> [Accessed 01 February 2021].

Filmography

- Bill Moyers/Joseph Campbell. (1988). *Joseph Campbell and The Power of Myth with Bill Moyers*. [Video]. Available at: <https://vimeo.com/ondemand/powerofmyth> [Accessed 20 January 2021].
- FamilyGamerTV/Andy Robertson/ Anna Norman-Walker. (2012). *Cathedral Canon Interviewed About PlayStation Use in Worship (FGTV 2.5)*. [Video]. Available at: <https://www.youtube.com/watch?v=G4R2p3pWxCw> [Accessed: 19 February 2021].
- Gamelab Conference/Ken Levine/Mark Cerny. (2020). *The ever-changing role of a Creative Director*. [Video]. Available at: https://www.youtube.com/watch?v=vbehQ_X5T74 [Accessed 05 October 2020].
- GDC/Dan Pinchbeck. (2012). *Ambiguity and Abstraction in Game Writing: Lessons from Dear Esther*. [Video]. Available at: <https://www.gdcvault.com/play/1016695/Ambiguity-and-Abstraction-in-Game> [Accessed 05 May 2021].
- GDC/Dan Pinchbeck. (2012). *Dear Esther: Making an Indie Success Out of an Experimental Mod*. [Video]. Available at: <https://www.gdcvault.com/play/1015529/Dear-Esther-Making-an-Indie> [Accessed 13 April 2021].
- GDC/Robert Briscoe. (2012). *The Art of Dear Esther – Building an Environment to tell a Story*. [Video]. Available at: <https://www.youtube.com/watch?v=a2oREGSkFgM> [Accessed 14 October 2020].
- GDC/Steve Gaynor/Kate Craig. (2015). *The Level Design Of Gone Home*. [Video]. Available at: https://www.youtube.com/watch?v=n6__ftHSEfM [Accessed 12 December 2019].
- TEDxPenn/Genevieve von Petzinger. (2015). *Why are these 32 symbols found in ancient caves all over Europe?*. [Video]. Available at: https://www.ted.com/talks/genevieve_von_petzinger_why_are_these_32_symbols_found_in_ancient_caves_all_over_europe [Accessed 18 January 2021].
- TEDxPenn/Michael Highland. (2010). *The Enlightened Gamer*. [Video]. Available at: <https://www.youtube.com/watch?v=wHF3WCt6oiY&> [Accessed 5 October 2019].
- Wireless Philosophy / Surprenant, C. (2019). *PHILOSOPHY - The Good Life: Aristotle*. [Video]. Available at: <https://www.youtube.com/watch?v=VFPBf1AZOQg> [Accessed 25 Nov. 2019].
- Youngstown State University. (2017). *2017 Shipka Speaker: Dr. Susan Wolf*. [Video]. Available at: <https://www.youtube.com/watch?v=Bg21zctbl1c> [Accessed: 03 November 2019].

Videogames Reference List

- 3909 LLC (2013). *Papers, Please*. [Digital download] Multiformat. Online: 3909 LLC.
- BioWare (2010). *Mass Effect 2*. [Digital download] Multiformat. Online: Electronic Arts.
- Blizzard Entertainment (2004). *World of Warcraft*. [Digital download] Multiformat. Online: Blizzard Entertainment.
- Campo Santo (2016). *Firewatch*. [Digital download] Multiformat. Online: Panic & Campo Santo. (Played December 2019).
- CD Projekt Red (2007). *The Witcher*. [Digital download] Multiformat. Online: Atari, CD Projekt Red.
- Eddo Stern/C-LEVEL (2004). *Waco Resurrection*. [Computer game] PC. Eddo Stern/C-LEVEL.
- Kojima Productions (2008). *Metal Gear Solid 4: Guns of the Patriots*. [Blu-ray Disc] Konami. Japan: Konami Holdings Corporation.
- Nintendo Creative Department (1985). *Super Mario Bros.*. [Cartridge] Nintendo Entertainment System. Japan: Nintendo.
- Numinous Games (2016). *That Dragon, Cancer*. [Digital download] Multiformat. Online: Numinous Games. (Played December 2019).
- Retro Studios (2002). *Metroid Prime*. [Optical Disc] GameCube. Japan: Nintendo.
- Rohrer, J. (2007). *Passage*. [Online & Digital download] Multiformat. Online: Rohrer, J. (Played December 2019).
- Square Enix Jupiter (2008). *The World Ends with You*. [ROM cartridge] Nintendo DS. Square Enix Nintendo (Final Remix)
- The Chinese Room (2012). *Dear Esther*. [Digital download] Multiformat. Online: The Chinese Room. (Played December 2019).
- Thatgamecompany (2009). *Flower*. [Digital download] Multiformat. Online: Sony Computer Entertainment.
- Thatgamecompany (2012). *Journey*. [Digital download] PlayStation 3. Online: Sony Computer Entertainment.
- The Fullbright Company (2013). *Gone Home*. [Digital download] Multiformat. Online: The Fullbright Company. (Played December 2019).