



**Sacred Games – Becoming Gods**  
**Priming Digital Game Ethics**

Anders Falk



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**Sacred Games – Becoming Gods**  
**Priming Digital Game Ethics**

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Licentiate Disseration in  
Technoscience Studies



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## ABSTRACT

The point of departure for my research is a perceived breach and resulting dissonance between how digital games and other parts of society that are similar in form, enact certain aspects of life. This shift was made especially clear in massive multiplayer games in 2004 with the release of World of Warcraft, the design of which panders to cultural weak points, rather than attempting to mimic them.

Digital games are far-reaching. In February 2019, 'Apex Legends' reached over 10 million players in less than 72 hours. Nonetheless, the idea of games as separate from the 'real' is persisting. Digital games have become a cyclopean gathering of liminality, and there are still no form-based ethics emerging, from either industry or society. Even though society is now undergoing the same abstracting digitisation, that has been a base for game design for a long time, there is a continuing separation in the knowledge applying to games or 'reality'.

The purpose of this thesis is to explore different ontological, epistemological, and ethical understandings of digital games as media, technology, modes of experience, and form. This is undertaken by using the situated and reality producing grating<sup>1</sup> of technoscience, together with an eclectic range of concepts such as media as a message, agential reality, liminal phases, anticipation, and ergon.

The research delineates a primer for applied studies within the rhizomatic structure of digital games, digitisation, technoscience, and media-technology. In accordance with this aim, the thesis has a fragmented, non-linear, and mosaic approach.

This licentiate thesis is a compilation of three papers with a complementary introduction and an epilogue.

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<sup>1</sup> A figuration borrowed from optics. A grating is diffracting light into beams and patterns revealing specific color and properties of the diffracted light. In this text gratings split and reveal properties of diffracted phenomena, adding understandings without overwriting already present meanings.





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## INTRODUCTION

*What festivals of atonement, what sacred games will we need to invent? ... Must we not ourselves become gods simply to seem worthy of it?*

(Nietzsche [1882] 2010, sec. 125)

My endeavors into digital games and media technology have taken me on quite a journey during working on this thesis between 2010 and 2019. Digital games as a research subject and technology has, among other re-configurations, gone through the contexts of budding academic interest and disciplinary debates, an explosion of hand-held devices and a movement towards constant connectivity. It has also gone through a multitude of monetisation models, a wide span of social interaction models, legislation and a fear stemming from the perceived impact on players. Some of the contexts, such as those that have increased the cultural affordability of venues and topics that include digital games have opened doors, at the cost of others. Coupled with the quick evolution of the perspective of ‘games as artefacts’ and the cementing of ‘winners’ in design approaches, norms have been created within digital games from graphical user interfaces to the transparency of character progression.

This thesis explores digital games through the conceptual layering of onto-ethico-epistemological plateaus of understanding with the goal of unlocking supplemental ethical enquiries for the medium. The concepts employed, share a rejection of the binary categorisation of digital games as separate from ‘real’ life and being signified as a fringe activity. Recognition for problems springing from this recurring categorisation of digital games as a lesser and separate reality is still lacking, even if there is an increased criticism of this dichotomizing view. Through increased inclusion of digital games and other computer-run digitised spaces, ushered along by the large-scale introduction of computers in all their forms, shapes, and sizes, computerised media has begun to integrate the view of what is real. However, ethics in relation to computerised media has yet to be sufficiently normalised to become included into the common conception of reality.

I argue throughout this thesis that digital games have been, and indeed still are, the front-runners for the development and introduction of the technology available to the public and for digitisation in itself. The slow and awkward reactions of society to digital games might have been expected, as games even though they have emerged from old cultural technology, have all too often been historically framed as a fringe activity. This may be due either to the history of the stakes that follow games through mythos and activity alike, or as inconsequential play. Because everybody seems to know games through their own personal contact with them, I find a deep uprooting of the fundamentals or an ontological approach as being necessary in order to dismantle the common knowledge surrounding games.

The return to ontology, or questions and theories of being, needs to be addressed if one wants to work with epistemology or knowledge production in game development, retention, play, and utilisation and, as in the case of this thesis, game ethics. The

technoscientific approach used throughout this thesis stems from the inseparability of ontology, epistemology and ethics.

The ontological approach, often perceived as a detour for understanding the medium and technology of digital games, is well known. Excellent examples of ontologically meaningful approaches can be found from Sebastian Deterding (Deterding 2011, [a] 2014, [b] 2014) and Ian Bogost (2008). The approach in this thesis differs in that the digital games are posited as answers to older human questions. A broad approach to meaningful and rational activity, for both individuals and communities, are explored in order to escape what McLuhan calls the tyranny of the visual (McLuhan 1962).

The visual tyranny is specifically insidious in the case of digital games as a medium since legislation and recommendations concerning games are currently self-enforced by the industry and seem to cultivate the outside perspective inherited from primarily visual media such as film. A further aspect, adding weight to supplementary venues of ethical consideration, is the wave of digitisation, abstracting, or making everything measurable in order to become compatible with computers and other electronic media, which society is embracing. This variety of design and implementation is something digital games have done for a long time, and indeed does well, meaning that lessons learned in a digital game confined environment may prove very valuable for a society going through a 'gamey' design phase of its own.

This thesis is organised as follows. Following the introduction, I set out the aim of the thesis and the research questions. There then follows a background, in which the papers are briefly summarised. In the background, I introduce some of the scholars and their concepts, which through their interplay build my understanding. After a short presentation of my methodological approach, the three papers are presented. The thesis ends with a concluding discussion in the form of an epilogue.

This thesis includes three papers, namely:

- Stratifying Digital Games, Ethics and Digitisation (submitted to Computer Games: Interfaces of Media Reality)
- Anticipating Agency - a playful shift from uncertainty to indeterminacy (Conference paper, Anticipation, 2017)
- (Re)framing computer games with(in) agential realism (Proceedings, The Philosophy of Computer Games Conference, Krakow, 2017)

## AIM AND RESEARCH QUESTIONS

The overarching research aim is to argue different understandings of the ethical considerations concerning digital games. This is done by the exploration of theoretical parallels to digital games as media-technology, highlighted through ontological, epistemological, and ethical gratings. In order to focus on more applied research, without getting weighed down with theoretical explanations, the thesis aims to delineate a rhizomatic network of ontological and epistemological understandings in furtherance of making different possibilities explicit for development, evaluation, teaching, and further research.

I am posing my research questions as:

- What can digital game roles and messages become, if diffracted differently?
- How can games and game development be explored on a meta-level as an anticipatory practice?
- How can games be understood as a reality producing practice?



## BACKGROUND

The background for this thesis is a perceived lack in the current debate on game ethics, contact points to society, and intra-action within society, as the research explores different figures and approaches to understanding games in the hope of furthering the ethical debate concerning digital games.

Approaching language as McLuhanesque media, the Thai-English proverb ‘same same but different’, in short sums up the theoretical approach of this thesis. This parable to a Thai proverb becomes relevant because of the Thai language’s heavy reliance on context, coupling the relaxed approach with Thai mentality and the much used answer ‘mai pen rai’ มาไม่ไร, which would be a better fit than the English equivalent. Mai pen rai roughly translates into ‘no worries’ or ‘ok’ and gives a base for the ‘same same but different’ proverb, granting the option to turn a ‘no’ into a humoristic affirmation from difference. However, since I do not speak Thai, English must suffice.

The theoretical background to this thesis is an excavation concerning media, meaning and purpose, with the aim of enabling a different contemporary orientation. This is to bring focus to what I perceive as the modern habit of separation between doing and meaning. Outside of philosophy, one does not involve questions of meaning and being when researching modern practical science and technology, resulting in what I perceive as a quite oxygen-deprived environment for technological development. This is a development that time and again overlooks the long perspective of recurring problems in favour of ideas present right now. Or in other words, what I want to explore is digital games posited as different cultural and technological answers to these recurring existential questions that have been mulled over for at least 2,500 years, if we are only to consider Western culture.

The affirmative difference suggested by Deleuze(1994) is ontological difference following similarities rather than oppositions. Once again, I do not aim to focus on the similarities of traditional media forms, but rather the underlying questions these traditional media forms are an answer to.

None of the core scholars presented in this thesis, outside of the papers, have been active in game studies or games research, except McLuhan who has worked with everything concerning media, and as such their work is especially relevant to digital games. This approach, inspired by McLuhan’s media research, seeks to study digital games as a specific media through its internal patterns. Thus, I want to present the following scholars and some of their concepts inspiring me for my research.

### Van Gennep

Arnold Van Gennep was an ethnographer influential in the recognition of rites of passage as being universal in culture. He also coined the term ‘liminal’ in 1909 as a way to describe the threshold between discrete states of status in a culture.



## Rites of passage

Rites of passage are rites that usher a member of a community or culture from being part of a specific space to being part of another equally specific space. Since this type of rite is present in most cultures, they can be a way of understanding different positions one can inhabit within that culture. Furthermore, they can be used to map the internal relations of these positions, and to whom and/or what that have agency over transition between the different positions. Rites of passage according to Van Gennep (1960) are broadly divided into three groups.

- Pre-liminal rites/rites of separation: This means a metaphorical 'death' as the subject gives up something important in exchange for identity and status. For example, initiation rites when joining certain Christian or Buddhist convents, or the military shaving of the head and the military recruit foregoing identity and former social standing.
- Liminal rites / transition rites: This contains two essential characteristics. First, the rite *"must follow a strictly prescribed sequence, where everybody knows what to do and how"*. Second, *everything must be done "under the authority of a master of ceremonies"*. Liminality is introduced to explain the metaphorical space that lies between and between, as Turner later puts it, that one inhabits during the actual transition.
- Post-liminal rites/rites of incorporation: The subject is re-incorporated into society inhabiting a new position and therefore belonging to another discrete state in society. An example is when during election speeches, the running candidates fling metaphorical 'poop' on each other, which is then followed by cordial relations and exchanges immediately after the election.

## Turner

The anthropologist Victor Turner re-discovered and developed the concept of liminality in the 1960s. He moved the narrow usage of liminality within Van Gennep's rites of passage to a force driving 'communitas'. Communitas refers to the spirit of the community and for Turner it plays a role in the interplay between social structure and anti-structure (Turner [1969] 2008). Liminality and communitas both belong to anti-structure, and hence while within these states people are equal and so can share experiences. He also argues that liminality is so intense that there is no way to uphold it indefinitely. Either the liminal phase ends by the persons re-entering into society or the liminal space in itself becomes structured. Furthermore, his studies of Zimbabwe's Ndembu society (Turner 1967) is a way to study and posit what he calls tribal and non-tribal societies as being very similar in these structural aspects even if the context is a world apart.

### Liminal phase

With the liminal phase, Turner ([1969] 2008) refers to someone in transition between or outside the discrete positions acknowledged in a culture. This either exempts individuals from the normal rules or leads to problems in how a society should deal with them. In any case, it becomes problematic if a person fails the transition. As a way of

coping with this stress, most cultures have rites of passage aiming to smoothen the transition for both the person and the community. Often these rites are upheld by religious or magico-religious rites, where transcendent power marks the person as taken back into the community as something else. In modern secular societies, the state often presides over the transitions where the individual has little or no say, e.g. paternity, voting age, and law. Religion more often puts a transcendent mark of approval on transitions initiated by the person in question.

## Deleuze & Guattari

Gilles Deleuze, a French philosopher, and Pierre-Félix Guattari, a practising psychotherapist, activist and philosopher, belong to and are influencing the family or strain of philosophy commonly called 'continental philosophy'. Continental philosophy can loosely be described as an answer, problematisation, and non-conformity to analytical philosophy. These points are important as this thesis relies heavily on the same foundation in contrast to what I call analytical media studies and analytical game studies. Some of the semblances in continental philosophy include the following.

- Pre-theoretical substrate of experience enacts different science compared to philosophy as subsumed to natural science.
- Situated problems (historically, contextual, geographically) are in favour of the discrete problems preferred by analytical philosophy.
- The possibility of re-configuring experience, agency, and outlook, meaning that practice and theory cannot be separated.
- Meta-layers of itself. Since experience is situated, a change in doing and/or approaching a thing is favoured over the more classical analytical, empirical inquiry into a thing.

This rough delineation of continental philosophy suggested by Rosen(1998) correlates well with ideas permeating the thesis as both ends and means. This entails changes in perception and standpoints as something that is an actual means to re-configuration. The dynamic enacting agency of the parties' relationship define that relationship. Thus, the resulting theory is more than the objective of the researcher and the innocent hunt to better understand the subject matter as a prefixed and pre-existing thing, separate and unaffected from a research relationship. The rejection of innocent or objective positions can both result in scepticism for action altogether. Much like the more grounded example of witnessing an accident, the seeing in itself results in some kind of responsibility, even if agency in a specific relationship might be miniscule.

Deleuze's concepts are more or less present in and influencing all my work. The concepts standing out are difference (affirmative), plateaus, rhizome, and line of flight. Apart from 'difference' the concepts are extruded from 'A Thousand Plateaus'([1980] 2015), one of the many works written collaboratively by Deleuze and Guattari. A thousand plateaus is the second half of the series they call the 'schizophrenia suite', the first half being 'Anti-Oedipus'. These are widely regarded as seminal pieces, in and of, the continental strain of philosophy.

## **Difference**

My interpretation of the concept difference originates from Deleuze's thesis 'Difference and Repetition'(1994). In *Difference and Repetition* Deleuze does not position difference in opposition to something which exists, but rather difference is what creates something new. This posits difference at an ontological privileged understanding in relation to identity, instead of the more commonplace idea that difference exists between identities.

Affirmative ontological difference neither starts nor finishes with Deleuze. If one starts from a philosophical understanding of oppositional difference, sometimes called 'Leibniz's law' after the 17th century German philosopher and mathematician Gottfried Wilhelm Leibniz, it means that two things are identical if they share the exact same properties(Forrest 1996; 2006). This was later criticised by Hegel, amongst others, who state in short that there is a difference between being and appearance, leading up to Deleuze. Other differential ontologies are Nietzsche leading to Derrida and the concept of difference(Derrida 1967 by Éditions du Seuil, 1972).

Interpretations of quantum mechanics suggest that Leibniz's law fails in the quantum domain. I respond to this by interpreting the concept difference in conjunction with Barad's concept agential cuts (2014), her critique and option to the classic Cartesian cut. One of the main problems the concept solves is the dichotomy concerning good versus bad, which is made obsolete. Searching for difference in order to distinguish between things, becomes superseded by difference from an ontological similarity and connection, and a constructive need for things to accommodate the difference, a multiplicity rather than singularity. For studying and understanding digital games and the digitised as an additional reality in favour of alternative realities or opposed to a true reality, difference is one of the main ontological/ethical/epistemological origins. Deleuze's difference also posits research as an isotonic eccentric figure. Or put simply, researching a subject creates a motion expanding, connecting and multiplying the subject rather than isolating and making it smaller.

## **Rhizome**

The rhizome is a central figuration employed in 'A Thousand Plateaus'([1980] 2015) as a shift from hierarchical concepts. This metaphor considers knowledge as a tree, in which certain knowledge makes possible further and more specialised knowledge following branches and trunks. This metaphor stands close to a disciplinary understanding and approach to knowledge that seems to saturate much of current education, religion, and career regimes. The philosophical concept rhizome is borrowed from its botanical namesake. It is an image of thought or figuration that posits knowledge and usage as non-hierarchical without fixed entry and exit points into the figuration. The botanical counterparts, including coral reef and the genetically identical colonial colonies of grass, moss, fungi, and strangely enough forests, are the largest organisms on earth. These entities have no determined centre, start or end. That being said, a specific excursion through one of these organisms would of course have a specific beginning and end, if only temporarily and partially determined.

Deleuze and Guattari([1980] 2015, 17 – 51) delineate the rhizome into 4 principles:

1. Connectivity and heterogeneity - every node can, and must, be connected to every other node.
2. Multiplicity - a rhizome has substance in itself meaning roughly that the whole is greater than the sum of its parts.
3. Assignifying rupture - a rhizome can break or rupture but will grow new and old lines of flight.
4. Cartography and decalcomania - a rhizome is not amenable either to any existing structure or to be viewed as a generative model. It is becoming a map / remap not a tracing.

### **Plateaus**

Plateaus are interpreted from (Deleuze and Guattari [1980] 2015) and are employed in this thesis as the ontological/ethical/epistemological origin for my research question. If the rhizome is the figuration then plateaus are the nodes which emerge from the intersecting connections and lines of flight. Plateaus are places of rest and understanding, where from new maps are made and new courses plotted. Even if one organises things rhizomatically, a specific approach or instance, outside quantum mechanics, always ends up as having been linear. From these plateaus, different available possibilities exist and different things are perceived as attainable. As a metaphor, every point in a road system is reachable from every other point. There is no clear beginning or end. But that does not mean that when travelling along a specific road everything is visible. In such a system, there tends to be places for rest and further plotting, either by design or organic development. For me, a plateau is the same whether it be for understanding or for knowledge. They are the equivalent of theoretical and skill dependent rest stops, diners, and viewpoints at certain positions within a system.

A parallel can be drawn to the threshold concepts which I encountered during a brief period studying university pedagogics. Within the university pedagogic academic discipline, threshold concepts were employed and widely accepted. The reason for utilising threshold concepts was to identify shared concepts within courses and disciplines, which must be traversed in order to pass at a certain position in the subject. Even if plateaus differ from threshold concepts, they still share epistemological similarities. Difference is made in the plateaus stem from a rhizomatic understanding of knowledge and knowledge production rather than from a hierarchical ditto. Plateaus are situated rather than objectively transcendent. Plateaus work in the same way as a threshold concept, but within a multiplicity of affirmative difference. These concepts both allow shifts in perspective that make possible different lines of flight and vanishing points, even though they do not share ontology or epistemology.

### **Line of flight**

Line of flight is a recurring image of thought or figuration, which refers to a vector with a specific origin and a specific aim on a theoretical horizon. The vector concept is borrowed from three different understandings of 'vector':

- The mathematical Euclidean vector having magnitude and direction, often employed to achieve movement in code.
- The epidemiological vector referring to an organism that transmits a pathogen from one organism to a new host.
- The molecular biology vector referring to the transfer of genetic material to a target cell wherein the new genetic material can be replicated.

Line of flight is a concept from art used to simulate a perspective such as something which gains perspective if it follows a line of flight through a vanishing point on the horizon. More complex drawings use an increasing number of vanishing points.

The figuration line of flight then represents a theoretical direction having magnitude, and may carry new material from one plateau to another. It can also intersect or intervene to create difference in existing lines of flight. At the same time, complexity from a specific plateau can be built by increasing the number of active vanishing points.

## Haraway

Haraway has made contributions to a wide range of fields, including primatology, philosophy, technoscience, science and technology studies (STS), feminist studies, history of science, and ecofeminism. Her audacious situated approach to research, technology and ethics has been sharp enough to spark controversy and made me think that it was important to study digital games, society, technology, and ethics to PhD level.

Haraway is considered to be the research fundament by my main supervisor, and as such I encountered Haraway's research early on in my PhD studies. The problems and world she works with always seem to elude me, by not being close enough in time but not far enough away either, for me to 'get her' in more than just fragments.

### Technoscience, Worlding and Reality Production

Technoscience is a concept frequently used by Donna Haraway. She holds that concept despite all the hype. Technoscience as an overarching theme is not the greatest story ever told as she puts it, but "*it is playing powerfully to large, widely distributed audiences*"(D. J. Haraway 1997, 4). She stresses that "*the world-building alliances of humans and non-humans in technoscience shape subjects and objects, subjectivity and objectivity; action and passion, inside and outside in ways that enfeeble other modes of speaking about science and technology: In short, technoscience is about worldly, materialised, signifying and significant power*"(D. Haraway 1997, 51).

One characteristic of technoscience is, as Gulbrandsen(Gulbrandsen, E., Trojer, L., Björkman, C., & Elovaara, P. 2006) is emphasising, the reverse logic – knowledge has to be used in order to be tested.

A synonym to worlding is reality production. Trojer, Gulbrandsen(1996), who build their understanding on Haraway, emphasise that "*as researchers we not only observe, unveil, analyse and solve problems 'out there'. Our knowledge-producing activities are a*

*(re)productive force whose effect is not contained by the walls of the ivory towers – if they ever were. As researchers we do not have a standpoint outside a civilisation in crises. We are implicated in it. Our knowledge constructions are efficient. They produce ‘reality’. They produce chances of life and death and distribute the chances unequally”.*

Haraway’s use of worlding/reality production reinforces the acknowledgement of non-innocent positions, which I mean is central in game ethics.

### **Situated knowledge**

Haraway has coined the concept ‘Situated Knowledges’(D. Haraway 1988), which is paramount to the understanding of knowledge production within the PhD program in which I am enrolled. Situated knowledges can perhaps be seen as a framework parallel to continental philosophy, in that it acknowledges context and the researcher as an influential part of knowledge production. Context means that someone somewhere with a certain history is accountable for, and part of, the knowledges produced.

The multiplicity of an epistemological approach requires the researcher to acknowledge one’s own being in the research, and to be very explicit about that. I have noted that doing so takes up a considerable amount of time and effort, rendering the approach a productive grey zone and not always a worthwhile one. For digital games, the epistemological framework of situated knowledges is a given for me, as there is no point in coming close to an absolute truth. I believe the current view on digital games as being discrete artefacts hinders many possible avenues of interest for the technology.

That being said, one could elaborate the connections and meanings for a classical scientific method such as the hypothetico-deductive model argued by Popper(1939). In short, a process that functions by formulating a hypothesis in a form that can be falsifiable. The crux being that in order to be proven wrong, the data needs to be readable or observable, and as such what is being measured must be predetermined with everything that entails.

### **Barad**

Barad, with a background in quantum physics, introduced her ontology ‘Agential Reality’ in her book ‘Meeting the universe halfway: quantum physics and the entanglement of matter and meaning’(2007). Following Niels Bohr’s theoretical line of flight, she argues through her two slit light experiment that relation is the ontological base, rather than the more common(sense) view that objects are the ontological base. Stemming from a shift away from the current norm of understanding, to a different theoretical plateau of understanding that all things shift as the horizon does if one moves. New theoretical vanishing points might appear while some may stay the same. This results in new possible lines of flight that go through, miss or cut new things in their path.

### **Agential realism**

In Barad's theory of agential realism and ontology, agential reality phenomena such as objects/subjects consist of the "ontological inseparability of intra-acting agencies". Intra-action, being a neologism, is a challenge to classical object-based metaphysics, signalling a shift from action between, to action within. Phenomena or objects do not precede their interaction, rather, 'objects' emerge through specific intra-actions. The relation predates the relata.

Apparatuses creating phenomena are not assemblages or collections of humans and non-human actors, as in Latour's actor-network theory. Rather, they are possible humans, or non-humans. Apparatuses determinate meaning and material beings, while simultaneously temporarily excluding all other meanings.

### **Onto-ethico-epistemological**

Simply put the neologism, onto-ethico-epistemological, that Barad ascribes to Donna Haraway signals the inseparability of knowing (epistme), ontology (being) and ethics (consequences and responsibilities). Agential reality temporarily determines subjects and objects within a rhizomatic tangle of relationships, while at the same time temporarily excluding all other subject object matterings, epistme and ontology to become inseparable. Further, as relata is always in a discursive state of becoming, there are always ethical implications. As things, subjects, and objects are all not stable, one cannot isolate and approach ethical questions.

### **Agential cut**

Barad's concept, agential cut, illustrates literally how any act of observation makes, as in quantum physics, a cut between the included and the excluded. Since nothing is inherently separate from anything, the cuts are only temporarily enacting.

As I am not a physicist, I have connected this to measuring. Measuring something makes all the non-measured properties inconsequential. While the act of measuring in itself creates the measured. These are however only defining properties within that measuring.

### **Aristotle**

Aristotle 384–322 BC is an extremely prolific figure in western philosophy, biology, ethics, and politics. He invented or popularised many categorisations and measurements as we know them today. Most of his reasoning concerning humans requires us to sift through ideas and restrictions, including but not limited to citizenship, family status, function variation, and gender. One might remark that these are very current questions, but for the scope of this thesis people are equal in rights if not in opportunity.

## **The good life**

The good life is Aristotle's search for the highest, most, or best 'good'. For me, the concept allows discussion of the good, meaningful, and the bad with nuance, without resorting to transcendent moralisation or dichotomising a universal good and evil. As employed throughout this thesis, the good life is the equivalent of virtuous and rational acting, done for its own sake. This renders the usual criteria for evaluating 'good' concepts such as wealth, bodily pleasure, and pursuit of honour and fame as obsolete. Aristotle argues that, as wealth is used for the acquisition of other things, it cannot be the highest good. Neither can honour nor fame be the highest good, because they have nothing to do with the individual, but rather how others perceive that individual. Bodily pleasure is disqualified from being the highest good, as Aristotle considers that it is not restricted to human beings.

## **Ergon**

Ergon is according to Aristotle the defining action, and thus the virtuous and rational action of a person: an important concept, especially in relation to meaningful and rational activity as part of a determining relationship as found in Barad's agential reality. Aristotle utilises the flute player as an example, where playing the flute is the flute players ergon. The flute player plays the flute, and the player becomes more of a flute player by playing. Simultaneously, since it is a flute player that is playing, the playing is done for its own sake. This means that for a flute player the act of playing the flute is both virtuous and rational. However, this does not make playing flute an inherently virtuous and rational action for everybody. I think it is noteworthy that ergon is always a verb, which again accentuates the possibilities of interplay between Aristotle's and Barad's theories by adding layers of meaningfulness to the theoretical pot. The focus on the doing in itself, reinforces the inability to be outside that which is being measured.

## **McLuhan**

McLuhan is a precursor in respect of agential media. He is mostly known for the slightly cryptic catchphrase the "*medium is the message*", arguing that form trumps the content on impact. Putting form before content opens up technology/media to historical re-configurations, as well as making the theory relevant for a postmortem media, such as digital games. He was uncannily precognisant in regard to communications systems, e.g. the internet in the guise of a global village and the impact on society.

I want to emphasise that it requires a lot of work to read McLuhan, and I would argue that one uses rather than understands his concepts. As context, McLuhan was a soft science rockstar, of such a caliber that I cannot find any current contemporary, with all the eccentricity that comes with that status. As an example, he claims he only read the right page of serious books, to keep him on his intellectual toes. When reading frivolous books, he relaxed by reading it all (1967). When his experimental book *Fiore* was published, a typographical error was identified in which 'message' was misspelt as



'massage' resulting in the title 'The Medium is the Massage: An Inventory of Effects' (McLuhan and Fiore 1967). They decided to keep the misspelt title. There is also a version of the story where they claim that the medium is the message had become overused, so they changed it as a pun.

What makes McLuhan a theoretical pillar in this thesis is his focus on a human-media recursive loop in favour of the human-content recursive. This is especially valid concerning the search for a different origin for ethical considerations, since most ethical considerations seem to be based on a visual content plane.

### **Media-technology**

Working within bachelor programs in media technology, mostly in connection with digital game, I find McLuhan's interchangeable approach to medium, media, and technology thought-provoking and I have since adopted and incorporated the view as my own. McLuhan takes the media-technology reconfiguration a step further by positing and understanding media as extensions of man. By this, he brings focus to technology as a grating, adding or subtracting to ways of perception and mediation. Technology affects how and what we perceive, and thus also how and what we can understand. For me, this specific line of flight is indirectly continued in Haraway's seminal essay 'Cyborg Manifesto' (1991).

Traditionally, media seems to be coupled with technology consciously and intentionally designed to transfer a specific message that is detached from the medium and can be experienced through the senses, for example the content of a book or a website. McLuhan's interchangeable view of media and technology relays a couple of core points eloquently, for example that the media is the message and the content in a wide examination is secondary. Media, and technology by way of being in relation to anything, creates difference, intentionality or not. Media-technology has an impact through form one way or another.

### **Media as message**

In his book 'Understanding Media: The Extensions of Man' (1994), McLuhan coined the phrase "The medium is the message". Simply put, it means that the form or character as he calls it, is much more important than any specific content contained in an instance of media. The printing press, and how books are printed, is more important than a specific printed book, and so on.

McLuhan, true to his form, uses the term 'message' to signify both content and character. The content of the medium is a message that can be easily grasped but not easily seen through, while the character of the medium is another layer of meaning. McLuhan even goes as far as stating that "...it is only too typical that the 'content' of any medium blinds us to the character of the medium."

## METHODOLOGICAL APPROACH

Drawing from, in favour of tracing from, my empirical foundation through years of experience in and around game development, teaching, playing, and analysing, the aim of my methodological approach is to process digital games from within society and culture, as a tricky actor. I attempt to avoid approaches that study and rely on a pre-cut and pre-defined digital game sphere. The means and goals for achieving this have been an in-depth search for concepts that process fuzzy, partial, and situated realities from a plethora of origins. As Massumi points out in the foreword to 'A thousand plateaus', 'process' refers to both stratifying and de-stratifying the dimensions of a phenomenon, with the sometimes added aspect of a Kafkaesque trial (Massumi 1987, XVII).

My choice of scholars and their concepts renders my methodological approach in a diffractive mode. The problem with referring to intangible diffraction has been explored by Björkman (Björkman 2005 (Dissertation Series No 2005:02), 38) and her understanding of a diffractive mode as *"...if I am the grating, where my different positions and perspectives are the slits through which the material I study, as well as my experiences, pass, this will create many images on the 'screen', i.e. the stories that I tell. This is thus a diffraction pattern, where some stories are stronger than others, some stories disappear, but many stories exist. The broad light beam (the initial story, the source) is diffracted into several stories. The slits make it possible to see parallel and different, diffracted, stories."* I agree with Björkman, except that I do not have the same high hopes for conscious agency. Continuing from Björkman's understanding, I would posit the literature, authors, and concepts as gratings. While I and my understanding together compose the enacted light while the measured leave marks on a screen. This is because I understand the metaphorical grating as the only selectable part of such a diffraction apparatus. Hence theory and practice are intertwined and cannot be separated in my research.

It goes without saying that this thesis also draws from a sizeable literature study, both in the form of traditional academic never-ending article and book reading, but also includes an equally never-ending game reading.



## SHORT PRIMERS FOR PAPERS

### Stratifying Digital Games, Ethics, and Digitisation

The aim of this paper was to stratify digital games as a causal reality producing phenomenon, and to explore onto-epistemological understandings emerging from such a slant on the digital game medium. This included further developing an epistemic rhetoric for an emerging digital game ethics rhizome spanning, *inter alia*, agential reality, reality production, meaning, values, and digitisation. The paper took an anticipatory outlook on digital games rather than following a cause-effect idiom to delineate ethics originating within that specific media-technology.

Yet another intention is to contribute to a technoscientific approach for applied digital game research, delineating possibilities and responsibilities that arise from such an approach.

### Anticipating Agency - a playful shift from uncertainty to indeterminacy

In this paper we examined futures within an ontology based on *relata*, which Barad names 'agential reality'. This examination is situated within (digital) games in agential reality. By this we wish to exemplify a shift to indeterminacy from uncertainty, and how agency is enacted. Furthermore, we propose an agential realist anticipatory design approach called 're-verb'. Re-verb situates (digital) games as part of everyday life, (re) shaping personal and societal ideologies and politics. Re-verb focuses on situated arrangements of play, and not games as predetermined artefacts. We are accountable for the (re)verberations enacting agency in play. This process of ongoing future-making is situated, similar to the acoustic term *reverb*: how sound is affected by a specific space, and vice versa, the simulation of a specific space through sound. Embedded in the term re-verb is a focus on verbs as the anticipated doings for specific practices, while 're' points to the temporally situated re-solving of indeterminacy.

Anticipating Agency was a way to highlight a design mode drawing directly from Barad's onto-ethico-epistemological origin. Because the theory practice dichotomy is impossible in Barad's agential reality, a different understanding of digital media or media-technology results in different methods or modes for production.

### (Re)framing computer games with(in) agential realism

In this paper we tried to understand computer games as emergent within the real and everyday life, through a thorough account of how play has been, and still is, an intrinsic part of human cultural evolution. Despite the fact that these games have been trapped in understandings as activities that are considered safe, pleasurable, and non-productive.

For this reason, we proposed a (re)framing of (computer) games within the onto-epistemological framework of agential realism proposed by Karen Barad(Barad 1998, 2003, 2007). With a hope of opening up space for the study of games as emergent within the real and as part of everyday life. At the same time, we wanted to avoid the further creation of dichotomies and predefined boundaries in agency, causality and subject-object relations.

By re-turning (to) Huizinga's notion of play(1950) we tried to make a difference by adding to the plethora of understandings of games. With this re-turn we not only wanted to reject play as a super-category of actions for games, we also wanted to reject humans as a super-object of agency in processes of becoming, and 'ordinary life' as a super-object to other phenomena in the real (e.g. games). Games could then be figured as (re)verberations within the real.

# STRATIFYING DIGITAL GAMES, ETHICS, AND DIGITIZATION

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## Abstract

Focusing on game-technology as part of life, the paper aims to stratify digital games as a causal reality producing phenomenon. This includes developing an epistemic rhetoric for an emerging digital game ethics rhizome spanning inter alia agential reality, reality production, meaning, values, and digitization. The paper takes an anticipatory outlook on digital games rather than following a cause-effect idiom to delineate ethics originating within that specific media-technology.

## Keywords

Digital game, media-technology, technoscience, agential realism, anticipation, line of flight, rhizome, ethics.

## Introduction

While driving, I heard a representative for the Swedish IT industry's interest organization answer the question: should the public fear a new IT bubble like the one in 1995 - 2000 and a similarly resulting economic crash? The representative's answer was a firm no, as IT is not a separate field anymore. He described the current development of IT as a digitizing movement in society. If true, there are phenomena that have been pioneers, forerunners, and settlers in delineating digitized spaces as an intra-acting part of society. CAD and 3D, web infrastructure/design, data acquisition/analysis/storage, robotics, automation, and digital games stand out even though there are others.

Of these examples I argue that digital games share the most contact points with digitization. Digital games are one of the inherently "real" digitized spaces that are both accessible and created for the public to be used for its own sake. As such, this paper argues that games are digitization in itself. However, this requires a stop to the absurdity criticized by Huizinga (1950) and later Malaby (2007) of understanding games as something other than real. Described in greater detail in another section, an agential cut between "the real" and games is gravely flawed. Because no matter how one continues, if the origin is separation between games and reality, we end up fighting the same theoretical windmill, originating in the separation itself.

Digital games should be of greater interest for a society undergoing digitization. Even so, they lack a basic ethical framework of their own. This does not mean that the visually oriented ethics inherited from television and cinema are necessarily wrong, outdated or unnecessary. However, they do not concern the medium of digital games to the same extent as they concern the medium of video games. The understanding of games as video games are found predominantly among those, who do not play games themselves, meaning the viewing of games and thus the only thing available is the audio-visual content as in contrast to playing the game. Even if adhering to a visually oriented ethics, there are hints of a deeper dissonance between the visually oriented ethics and games as media-technology. Luck's paper on the gamer's dilemma is one such example. The gamer's dilemma brings attention to the paradox that a clear majority of people find virtual murder tolerable while finding virtual pedophilia intolerable, pinpointing the ambiguity on games being real, representational or mechanical following current onto-ethico-epistemological landscape of reasoning of games (Luck 2009).

## Aim

The paper aims to stratify digital games as a causal reality producing phenomenon and to explore onto-epistemological understandings emerging from this slant on the digital game medium. An added intention is contributing to a technoscientific approach for applied digital game research delineating possibilities and responsibilities that arise from such an approach.

By focusing on game-technology as part of life, the paper follows Deterding's line of flight (2011, [b] 2014, [a] 2014) that game-full technology should be a means towards Aristotle's good life (Aristotle [-340 BC] 1934; May 2010). The paper ouroborically (re) turn digital games with;

- Media theory (McLuhan 1962, 1966, [a] 1967, [b] 1967; McLuhan and Fiore 1967).
- An amalgamation of Aristotle and Barad's philosophy and ontology (Aristotle [-340 BC] 1934; Barad 2007, 2014).
- Rites of passage and liminal phases through anthropology (van Gennep 1960; Turner 1967, [1969] 2008).
- Meaning through digital games in a secular age (May 2010; Dreyfus and Kelly 2011).

## Methodological and theoretical considerations

Inspired by Deleuze and Guattari's epistemic rhetoric in *A thousand plateaus* (1980) the paper is composed of a network of plateaus in favor of chapters with the aim of the plateaus being semi-independent of one another. "...you read it as you would listen to a record...there are always cuts that leave you cold. You skip them. You don't approach a record as a closed book that you have to take or leave. Other cuts you may listen to over and over again. They follow you. You find yourself humming them under your breath as you go about your daily business... an open system." (Massumi 1987)

The paper can be seen as a map, displaying diffraction patterns making up the beginnings of an ethics rhizome originating within the gratings of digital games and the digitizing movement. It is noteworthy that maps are not tracings of reality. They have aims and goals to show one perspective on a specific space through measurements, hierarchy, signifiers and categorizations. Maps can be compared and layered, stratifying space through a multiplicity of explicit understandings, delineating rhizomatic understandings. “The rhizome is altogether different, a map and not a tracing. Make a map, not a tracing... What distinguishes the map from the tracing is that it is entirely oriented toward an experimentation in contact with the real. The map does not reproduce an unconscious closed in upon itself; it constructs the unconscious.” (Deleuze and Guattari [1980] 2015, 13)

Inspired by digital games, McLuhan, Deleuze, and Guattari, the paper will be mosaic in its approach, as I have found no better way of solving the recurring problem concerning non-descriptive ontological re-configuration. Different ontological and epistemological foundations in situated play with digital games as a medium make linearity both tricky and undesirable.

As McLuhan uses media, medium, and technology interchangeable, I will refer to them as media-technology.

Throughout the text, Barad’s concept of (re)turning will be utilized (Barad 2014) as a way of stratifying and de-stratifying the core concepts - digital games and digitization. (Re)turn does not connote return to something that has been, but rather (re)turning as in turning over and over anew, becoming meaningful through affirmative difference.

Lines of flight is an art-concept stratified into a philosophical-concept by Deleuze and later expanded together with Guattari ([1980] 2015, chap. 1). Vanishing points are where parallel lines in 2-dimensional art intersect to simulate cohesive depth in the scene. More complex perspectives can be simulated by adding more vanishing points to a scene. If using one vanishing point in a scene, this point corresponds with the oculus or eye focal point of the simulated viewer. Line of flight as a vector borrows additional meaning from physics and epidemiology. From physics the vector inherits direction, magnitude and capability of determining the position of a point relative to another point. From epidemiology vector inherits the transmitting property. As such, the line of flight has a specific origin followed through a specific perspective and the horizon enacted, de-territorializing and re-territorializing along the way. The vector’s intensity is enacted through layering or stratifying concepts within specific measurements or causal intra-action. This is in recognition of and hopefully (re)production of multiplicity rather than re-establishing a “...discourse of sovereign judgment, of stable subjectivity legislated by “good” sense, of rocklike identity, “universal” truth, and (white male) justice” (Massumi 1987), which too much research does.

Thus, this results in the paper having a take in an approach of a smooth understanding of digital games, stratifying and striating digital games over and over again while simultaneously delineating objects along the path and mapping the origin of the current horizon. The striated being mapped, measured and determined through casual intra-



actions, although the smooth space is still there. One is always standing somewhere when mapping towards a specific horizon. The mapped is accurate and recognizable as an epistemological marker only from the specific origin where it was created, creating a plateau of specific understanding. Note that having mapped from one such plateau does not make other plateaus less true. Quite the opposite, mapped objects can be used to trace the cartographer's origin rather than explain what the object is (Deleuze and Guattari [1980] 2015).

## Digital game – Media-technology

McLuhan was a media-centered professor and philosopher, whose theories on media-technology were ahead of their time. This media ecology, as it was later called, has become a cornerstone of media theory. His perspective on technology and media is seen as part of being human in the same manner as Huizinga posited play (1950) and Van Gennep rites (1960). McLuhan argues that just as Darwin's theory of evolution stripped humans of the privileged status of having agency within the context of their own development, we need to incorporate media-technologies, viewed in the broadest sense, into what it means to be human (1967b). Part of this incorporation is submitting technology to the evolutionary process of becoming human. Blind mutations of situated evolutionary advantage, that evolve life, are then also evolving technology and hence digital games as extensions of human development. Technological development on a meta level, as a subsumed aspect of human development, becomes part of the evolutionary processes by succession, rendering digital game's development process unbound from the constraints of conscious human direction, an independent vector of human development.

This indicates that the effects of the medium vastly exceeds a specific instance of said media-technology's content or session and is incidental to the instance. As a dyslexic I like the printing press as an example and luckily for me McLuhan centers his book the Gutenberg galaxy on the effects of movable type. Among the effects are nationalism, dualism, domination of rationalism, possibility to study alone and a visual tyranny in favor of equality of the senses (1962). None of these effects are linked to a specific printed book, but to the medium or technology of print itself. This is not a claim that there are no influential instances of media-technology but, if viewed as a whole, media-technology is the message.

## Stratifying measuring

What is a medium then? Even if the fluidity in resolution or scale can be perceived as problematic, McLuhan's rule of thumb is that the content of one medium is always another medium like a matryoshka dolls. The doll contained must be a doll for the containing doll to be a matryoshka doll and so on. Determining a medium also means temporarily reconfiguring the rhizomatic nature of things to a specific hierarchy of mediums along that line of flight. "Flight/escape. Both words translate fuite, which has a

different range of meanings than either of the English terms. Fuite covers not only the act of fleeing or eluding but also flowing, leaking, and disappearing into the distance (the vanishing point in a painting is a point de fuite).” (Massumi 1987)

Determining can be likened to measuring. As Barad explains it in an agential realist perspective “In summary, “measurements” are causal intra-actions. They are not mere laboratory contrivances that depend on human beings for their configuration and operation. They are not the artifacts of special agents that are not accounted for by the theory. “Observer” and “observed” are nothing more than two physical systems intra-acting in the marking of the “effect” by the “cause”; no human observers are required (though “humans” may emerge as being part of practices).” (2007, 341). Of specific note is that measuring enacts one signifying value and thereby excluding all other signifying values, which is the essence of digitization. Measuring temporarily determines a hierarchy within the rhizome and simultaneously create both the scale, rationality and dichotomies for that specific measurement.

I want to emphasize that the shift from subject/objects in favor of agential separability is not a matter of uncertainty about what something is, but rather an ontological shift to indeterminacy. While classical cartesian uncertainty can ultimately be solved, for example by closer examination and measuring, indeterminacy can only temporarily be resolved. Even though extremely interesting this text is neither the place nor have space for the deep dive that agential realism deserves. More on the subject can be found in (Barad 2007, 2014) and specifically in relation with digital games (de Petris and Falk 2017) now that measuring holds an agentially decisive role for determination.

Recorded reflections and reactions to media-technology make indeterminacy easier to perceive, through past determinations and society poised as a loose measuring instrument inside the phenomena. The records show that it is both a question of indeterminacy in regard to what something is as well as its nature. McLuhan uses Shakespeare as an example and argues that “...wrote plays considered very vulgar and popular in his own day. Nobody had any criteria for measuring his greatness at that time, he was a popular artist” (McLuhan 1977). Another example of different determinations is classical music, that often come across as serious and elitist, at least according to my students, but were written as mass-media. Addressing the serious aspect of classical music, I let Mozart’s *Leck mich im Arsch* speak for itself.

This apparent inability to determine the quality of current media-technology McLuhan comments by stating that “The measurements we do use are just results”. In this particular instance the measurements he refers to is the measure of ‘classical greatness’ - if there is such a thing as great TV (McLuhan 1977). If approximating that digital games are approximately at the same level of maturity now 2019, as TV were in 1977, measurements of digital games are stuck on results while missing the causality. There has been a softening of result-based measuring, along with auteur-like status achieved by developers such as Mayer, Shafer, Pope, Suda 51 and studios E.G. Valve, Blizzard and Rock Star. Measuring and values of quality still seems to gravitate towards a space of quantitatively increasing numbers of everything from frame rate and revenue to

players and in recent meta layers views of “Let’s play” videos. I argue that the return of applied biometrics, last tried around 2010, decreases the probability of a shift towards non-metric qualities further. The 2010 foray into biometrics were tentative and closely bound to specific projects, such as Left 4 Dead’s “AI” the director (Turtle Rock Studios, Valve Corporation 2008; “Mike Booth, the Architect of Left 4 Dead’s AI Director, Explains Why It’s So Bloody Good” 2018). These technologies did not make it to home consumers but will presumably reawaken as part of the emerging much broader extended reality or XR technologies. If that is the case, there is a chance of measuring agents forcing discrete digitization of our biological response to stimuli, something that has historically been tightly tied to quality.

Yet another aspect of measuring is that if it equates to results, the measured is most likely currently enacted as mass-media. From the agentially separated ouroboric perspective inside the phenomena, something becomes mass-media by measuring results. A Swedish example would be the waving of entrance fees to certain museums and the subsequent focus on media-technology stemming from this new agential cut – a cut that focuses on visiting numbers in favor of the traditional esoteric quality of experience that a certain exhibition has. In one move, the change of signifying values created an easier quantified measurement in numbers of visitors than the historically slippery subject of cultural value while simultaneously making entrance fees into logical gates or measuring agents for the success of the endeavor.

In a text concerning ethics and digital games, I feel that a foray into violence is necessary. McLuhan states that violence is a means of self-expression, however, the violence we as humans have now become capable of was unthinkable already in 1977. I connect this with the constant threat from weapons of mass destruction and the cold war. Games can portray the violence we are no longer willing to commit, McLuhan argues through the game of cricket. From this line of argument one can speculate on a plausible answer from McLuhan if confronted with the conundrum posed by Luck in the gamer’s dilemma (2009). Namely, violence in this context refers to encounters in a broad and abrasive sense. Violence expressed in games might call back to violence as ambivalent for most of us. Most of us would probably say that violence, in some cases is acceptable, while most of us hold no ambivalent feelings towards pedophilia.

McLuhan describes games as ways of discovering and dramatizing what the society you are currently in is all about. From this, it can be deduced that McLuhan posit culturally situated mapping and dramatizing as part of the games content. As in the case described earlier, cricket is the game McLuhan talks about. As someone who lives and grew up in northern Europe, cricket is far from my associations of digital games and society. This however only shows that I, or the society I live in, have no relation to cricket, which reinforces the idea that the rules at play in a certain space do not care about decal-limits e.g. games. This idea is an echo of the perspective that Buchanan argued regarding design in 2001 – “products – digital and analog, tangible and intangible – are vivid arguments about how we should lead our lives.” To layer the concept, critical knowledge theory, abstractions (of aspects) of life can be made more prominent

from the added aspect of production in place of showing. Trojer contributes a layer to the research community and the scientist positing the problem, that research is part of the problem itself, not solely producing solutions and progress. She describes research as reality production, when addressing these aspects (2002, 31). Ekdahl stratifies reality production through the elbow room added by epistemological plurality in regard to both technological education and research (2005, 105). Deterding contributes to reality producing aspects by design, achieved through gameful and persuasive technologies and the shift in agency (2009).

What if technology becomes a measuring agent in the phenomena of the often used “real” or similar stratifications relying on super-objects? Super-objects as concept is found in Bryant’s *Democracy of Objects*. Wherein he argues “...that there is no super-object, Whole, or totality that would gather all objects together in a harmonious unity” (2011, 32). The idea is that if all layers of being are equally real and exist on an even plane, then umbrella terms such as the world or the real are left without meaning. They do not refer to a specific determined becoming, quite the opposite. They allow us a chance to argue without foundation, e.g. games are not real. These juxtaposed arguments based on super objects as a contrast to the concept of reality production will be further put on edge by digitization. In McLuhan’s description of games, for example, games must have an audience, if reality is being produced. Games are a very influential media-technology. Life will arguably have emulated this logic from traditional games to such an extent that we now crave an audience for everything we do, while we ourselves are an audience whenever we are not performing or playing. Further, digitized spaces will build identity and persona through abrasive encounters with the audience as in the aggressive identity building found all too often in online communities, layers of reposting, and sub-reddits. Perhaps cultural processes have always had this demand of an audience to win legitimacy and games merely superimposed modes of experience upon these processes?

Acknowledging humanities entanglement with media-technology makes agency in the development of media-technological systems tricky. McLuhan caught this early, criticizing academics for driving (society) while only looking in the rearview mirror. When confronted by others about this critique, he responds that he himself has later taken another look in the rearview mirror. Much to his own surprise, one can see the future in a rearview mirror, although only the foreseeable future. According to McLuhan (McLuhan 1977) people tend to connect rearview not with a distortion of the present but as a reference to the past. This grating is in the case of McLuhan’s rearview mirror a metaphor of nostalgia, which enters where identity is missing. Let’s for this paper posit the opposite as anticipation. Nadim rejected anticipation as a verb during the 2nd conference on Anticipation (8-10th November 2017). Anticipation according to Nadim is an ontological action, and anticipatory systems can be equated to living systems. This spark 2 direct questions. First of all, where does this leave design? A current trend as an example is design fiction meant to plot a future with only the foreseeable of the present. Media is subsumed to anticipatory systems that once again posit them as something we must deal with, rather than create. Second, if life is anticipatory then

games can invite the living to the realm of nonliving and to a space contingent on a causal action-reaction system - re-turning technology as a measuring agent once more.

## **Stratifying digital game ethics**

Having presented a basic understanding of digital games, digitization, and media-technology, the paper continues by exploring current ethics for the established rhizome and delineating what ethics can or needs to become.

### **Current game ratings**

Game content rating systems will be represented by the Pan European Game Information (PEGI) system, an instance where saving space trumps my dislike of generalization. PEGI, introduced in 2003, has in several cases overwritten national age recommendations for video games in countries that adopted the system. PEGI is a self-regulatory system currently used primarily in European countries. It contains 5 age segments 3, 7, 12, 16, 18 according to 9 criteria. The current criteria used is violence, bad language, horror/fear, sex, drugs/alcohol, gambling, discrimination, online, micro transaction. PEGI is explicit in that it does not reflect the required skill to play or the difficulty level of gameplay.

### **(Re)turning Media-technology with McLuhan**

The similarities between rites of passage and larger digital games creates a strong incentive for game ethics that is for children while aimed at adults. Rites of passage, explored in greater detail in another plateau, connote the digitized path societies create to usher individuals between discrete states within itself. When looking at existing content rating systems, children are the only clear target group. But why children? One part of the answer might be that children are susceptible as a group paired with a history of games that target a young audience. Games are subsumed to be played and played, in modern history, and thus being trapped in understandings as non-productive, pleasurable and consequence free (Malaby 2007). Age-based recommendations can be read as a means to keep games as a medium within childish constraints of use, reproducing and specializing the digital babysitter that was formerly the use of television. At the same time, this trivializing understanding of games lets the message of the medium itself go unchecked. I would even argue that as long as play is viewed as trivial, there can't be a constructive ethos for games as they are separated and excluded from the significant. In other words, there is no game ethics for adults, not even recommendations. The measurement delineates games through a cut that posits age as the scale for human resistance to visually bad influences. While digital games are assessed from visual representation, if one happens to be over 18, everything becomes recommended. This portrayal of ethos in general and for exposed groups such as children especially is too simple in relation to the complex network games are a part of.

While I see PEGI as superficial, it is nonetheless an important game ethical tool. McLuhan has the following to say in a similar situation about the electric medium.

...no time to suggest strategies when the threat has not even been acknowledged to exist. I am in the position of Louis Pasteur telling doctors that their greatest enemy was quite invisible, and quite unrecognized by them. Our conventional response to all media, namely that it is how they are used that counts, is the numb stance of the technological idiot. For the “content” of a medium is like a juicy piece of meat carried by the burglar to distract the watchdog of the mind. The effect of the medium is made strong and intense just because it is given another medium as “content.” (McLuhan, n.d., 19)

As a recommendation for video games PEGI might even be sufficient. However, if video is not the defining aspect of games, there is a strong chance that it acts as a burglar might use meat to draw the watchdog’s attention. This alluring meat only gets juicer and juicer as games get more and more recognition even by people that define themselves as someone who does not play games. There is an air of frustration surrounding games that stems from being able to recognize games as important, coupled with the inability to say in which way they are important. It has been quite some time since there was a medium on the rise that refuses visual tyranny of the senses and even longer since the surfacing of a medium does not rely on any of the senses as a primary intra-face. Instead I argue that games as verb reconfiguring modes of experience, have a drift in meaningful and rational activity at its core.

In the following I look closer at a couple of games, which are age-rated according to PEGI. Knack (SCE Japan Studio 2013) released with the PlayStation 4 is a standard 3rd person beat em up, age-rated 7. As someone who posits the Souls series (From Software 2010, 2011, 2014, 2016) as the first digital game equivalent to a literary classic, I was taken by how hard this game is. You as a player solve literally everything by beating it up and never looking back. Maybe the things you beat up aren’t human but still, you rampage through settlements controlling some kind of weaponized living artefact shown in the fancy graphics. Monopoly originally called Landlord’s game was created as an educational game illustrating economic results of land taxation and rated 3+ (Magie and Darrow 1934). My point is that PEGI, while important, focus exclusively on visual representation or tracing of problems /quests. I argue that the game is an abstraction of a perceived binary system. Graphic representation and fidelity are both an important part of sales and what first draws players to the game. However, the act of playing over an extended period of time tends to replace extrinsic connotations to representational visuals with intrinsically rational meaning within the specific system.

McLuhan means electrical media-technology pushes the media-technology’s hidden message to the surface. While the electronic media’s power over the user becomes absolute, if that user is unaware of the media’s hidden messages and influence. Thus the sooner children can be taught the effects of these forms the better. Through understanding, unwanted effects of media-technology might be negated while wanted effects can be promoted. He even states that we desperately need an understanding of media-technology for us to be able to program the whole media environment (1977).

Concerning education or a more formal use of media McLuhan's stance is that as more media-technology will become available, more care will have to go into what media-technology education employ. As certain media-technologies brings awareness to the nature of the process while other forms bring awareness of the effects. Digital games as of now teaches causality. Both the direct causality found in Hume what will happen if X does Y, and the final causality of Aristotle how does one achieve X.

McLuhan had a soft spot for what he calls literary values. According to him these are examples that a programed media ecology should keep and promote, even when new media-technology is introduced. I agree with McLuhan until the point involving values. Such "higher" values may exist, but I argue that there are plateaus that lie still deeper. Media-technologies and their message will follow the line of flight of Aristotle and Barad in an attempt to find a different good.

### **Ancient good within agential reality**

The paper's stratification of ethics, digitization, and digital games requires an exploration of good. What is good and for whom and how will constitute a good game from the perspective on games as a means of ethical reality production. This will be done be a (re)turn to Aristotle and his *Nicomachean Ethics* (NE).

Aristotle's NE is an ancient text asking the classically big questions, the ones concerning the human good, the good life or *eudaimonia* that have loosely been translated to happiness or alternatively flourishing. As per May (2010) I will use flourishing as related to awakening, enlightenment or self-actualization, to go beyond the modern view of happiness as a transient emotional state.

The base of Aristotle's view on human flourishing can be found in the so-called function argument. Here is part of the argument interpreted by May:

"[A clearer account of flourishing] might perhaps be given if we could first determine the *ergon* of man. Just as for a flute player, a sculptor or any artist, and in general, for all things that have an *ergon* or activity, the good and the "well" is thought to reside in the *ergon*, so it would seem to be for man, if he has an *ergon*.

Have the Carpenter, than, and the tanner certain functions or activities, and man has none? Is he born without an *ergon*? Or as eye, hand, foot and in general each of the parts has an *ergon*, may one lay it down that man similarly has an *ergon* apart from all these?

What then can [the *ergon* of man] be? Life seems to belong even to plants, but we are seeking what is peculiar (*ideon*) to man. Let us exclude, therefore, the life of nutrition and growth. Next there would be a life of perception, but it also seems to be shared by the horse, the ox and every animal. There remains, than, an active life of the element that has a rational principle.

One part of the element that has a rational principle has such a principle in the sense of being obedient to one, the other in the sense of possessing one exercising thought. [human flourishing is] activity of the [rational] soul exhibiting excellence, and if there



is more than one excellent [rational activity], then it is the best (aristos) and teleiotatos.” (2010, 4 –10)

May leaves teleiotatos untranslated. The word can be translated as “most perfect”, as “most complete” or as “most final”. These change possible interpretations of the argument quite drastically. I will not go into details about different interpretations since it is beyond the scope of this paper. There are however aspects I will connect to digital games.

Before moving further into Aristotle, I deem a brief introduction of Barad’s ontology, agential reality and the ‘philosophy’ agential realism to be necessary, to clarify why (re)turning to Aristotle is relevant. Agential realism is another understanding of (an agential) reality and an onto-ethico-epistemological framework. Agential reality aims for “an understanding of reality that takes account of both the exclusions upon which it depends and its openness to future reworkings” (Barad 1998, 104). Agential realism aims for “the goal of providing accurate descriptions of agential reality – that reality within which we intra-act and have our being—rather than some imagined and idealized human-independent reality” (Barad 1998, 105).

Note how Barad switches terminology from interaction to intra-action. Intra-action is a neology describing agentially separable components intra-acting within phenomena. This contrasts with an interaction that describes separate independent entities interacting. Intra-action is thus what enacts and makes meaningful what emerges.

Barad emphasizes that agential realism is not an attempt to render obsolete notions of causality and objectivity, but to shift them inside phenomena. Instead of cartesian cuts, which delineates an exteriority to secure objectivity, an agential cut “delineates the “measuring agency” from the “measured object” [as] “parts” of a particular entangled state” (2007, 351). The same applies to causality where the effect (observing agency) is agentially made separate from the cause (observed object).

Barad adds to the understanding of affirmative difference as it is “formed through intra-activity, in the making of ‘this’ and ‘that’ within the phenomenon that is constituted in their inseparability”. What this implies is that subjectivity and objectivity are not opposed to one another, objectivity is not not-subjectivity. Barad states this is what Niels Bohr tried to tell us, and the key to understanding is a radical reworking of the cause-effect-idiom, “identity is not essence, fixity or givenness, but a contingent iterative performativity” (Barad 2014).

Ergon is a concept I in the role of an agential realist find fascinating because of the understandings inside digital games it unlocks. Ergon is the function or task that determines the being and what is rational activity for that being or determining what rational activity is and what the being is either way it is an assessment of flourishing in things, organic or not. As stated in function argument the ergon of a flute player is playing the flute, the ergon of a sculptor is sculpting. Ergon can thus be the (most) rational activity a thing can do for becoming teleiotatos and thus achieving flourishing. Ergon is key to understanding activity-based agential cuts. If we revisit the example



of the flute player, the playing of the flute would temporarily form a flute player and a flute, within the phenomena of flute playing. This in turn means that flute playing is a causal intra-action temporarily becoming a rational activity. Worth noting is that the same delineating form agential cut is intra-acting between measuring agent and measured.

Among this time space trickery, there is an important point made for digital games, as digital games often posit the player in a phenomenon much like that of the master craftsman. Ergon or determining rational action is often built into the character leaving the player in a mode of refining the act and creating a shortcut into a phenomenon, where the only action is rational action. An added question is if the ergon of digital game characters is defining rather than determining due to the rigidity of computerized systems.

Final causality stratifies digital games through understandings of drive and why ethics originating from within digital games is a pressing matter. Aristotle's perception of causality and the exalted role of making, is both similar and compatible with agential reality and its causal intra-actions. An added aspect is Aristotle's differencing of goals and wishes. Goals, in Aristotle's guise, connotes as means as well as the contemporary understanding of goal which Aristotle separates from wish. Wish is in turn posited as the ultimate or final goal. Positing rational actions within a chain anchored at a wish, rendering actions as goals or what Aristotle calls hypothetical necessities. A hypothetical necessity is a condition that might seem unrelated but still must be fulfilled to realize an end. Having an end thus preludes identifying how and by what means to get there. This aspect becomes important when considering perceived agency and meaningful action for an individual. Knowing what the end-goal or wish is, is a prerequisite for the possibility to strategize a blueprint to reach said wish, which in turn becomes a condition needed for an activity to become meaningful and rational in that specific case. While ergon explains why meaningful and rational activity is needed to live a good life, Aristotle's causality is more concerned with the making of X than with the effects of X (2010). In line with Aristotle's final causality the question of how one lives a good life would probably interest Aristotle more than, for example, in our case how digital games affect a life.

The good life is rational excellent activity, done for its own sake. Utilizing Barad's agential cut, a measuring agent simultaneously enacts subject and object, which means that we are enacted with the same amount of meaningfulness as the activity we occupy ourselves with.

I posit that the majority of games, as a medium, have the ergon of being extremely powerful measuring agents.

## **Stratifying digitized rites of passage**

Having explored good as a concept for digital games through Aristotle, transitions have become a natural node to explore. Approaching the medium of digital games as

nostalgic, I will stratify digital games message by arguing the importance of examining games from a perspective of games as a new guise of traditional action-based transitions. For this I rely on liminal phases and rites of passage as they seem to span a variety of cultural differences while correlating age wise.

Digitizing liminal states to ease and control transitions in itself is nothing new, even if the computer and arguably the game part is. A structured way to move between discrete positions in society is referred to as rites of passage described in the book *rites of passage* originally published in 1909 (van Gennep 1960). Van Gennep starts out by declaring that each larger society contains within it several distinctly separate and different social groupings. He also points out that when one moves from what he calls higher to lower levels of civilization, the (normal) differences among these groups become accentuated and their autonomy increases. In modern society he argues there is only the separation between the sacred and the profane left, between the secular and religious worlds. At the same time Van Gennep points out that as we move lower in civilizations in the broadest sense, the sacred gains dominion over the profane, even the social groupings in these societies have magico-religious foundations.

Van Gennep describes the life of an individual in a society as a series of passages from one age to another, and from one occupation to another. Progression from one group to another is accompanied by special acts enveloped in ceremony. Institutionalization of the ceremonies reinforces the causal aspect and allows societies to secure, contain, and protect transitions. This is done in order for the society in question to negate damage, suffering, and or injury to both community and individual from the often-volatile liminal phases. These transitions are thought of as implicit in the very act of existence to such an extent that human life is seen as a succession of similar ends and beginnings. Where being human is equated with passing from one well defined position to another equally well-defined position, a view elsewhere referred to as discipline societies. Since the goal of these passages are the same, the ways of attaining that goal should be analogous to be fair. Or, as explained through Aristotle's causality, achieving excellence in the same ergon should contain similar hypothetical necessities, if achieved in the same space.

The rites of passage are singled out as a special category of rites by Van Gennep. For further analysis he continues to divide rites of passage into three main groups as follows "...propose to call the rites of separation from a previous world, pre-liminal rites, those executed during the transitional stage liminal (or threshold) rites, and the ceremonies of incorporation into the new world post-liminal rites." (1960, 21). According to Van Gennep's categorization a complete rite of passage would contain all three stages, although in a specific instance all parts would seldom hold the same importance, nor would all parts be equally elaborated. In many cases, rites with juxtaposed aims occur simultaneously and are so intertwined it becomes impossible to distinguish between rituals of separation or protection, as Van Gennep points out. The for digital games so important, liminal aspect was later elaborated by Turner ([1969] 2008). Of special interest is the "magic circles", a concept describing special places that pivot and shift as a person moves from one place in society to another. Even though the concept

magic circle is often ascribed to Huizinga (1950) and made (in)famous by Salen and Zimmerman (2004), I would argue that Van Gennep's concept is still viable as a shifting and porous grating letting things perceived as profane become sacred and vice versa, changing both the individual's life and society.

Digitizing is to convert into a digital form possible to process with a computer, or in other words making spaces striated, quantifiable, and hierarchically ordered. The foundation of current digitization for compatibility with computers is binary, ones and zeros. With the digital prefix for games I want to affirm their boolean quality, a true rule-based space. Any creation of rules with boolean foundations is, from my perspective, an effort to digitize, independently of whether the rules have been computerized. Thus, the nature / culture question becomes an analog / digital question or in the discourse of Deleuze and Guattari smooth and striated space. What becomes different with the introduction of the computerized digital is a true digitized form. Digital as a prefix is an attempt to argue the digitizing aspect as the most formal feature of games, hence digital games.

(Re)turning with/to Barad's agential cut, digitization cuts together/apart in one move. Difference within the cut determines a temporarily excluding dichotomy, while it does not stand in opposition to different truths, adding plateaus that offer different lines of flight. Much like Deleuze and Guattari's ([1980] 2015, chap. 14) concept of smooth and striated space a digitizing agential cut creates an especially strict and rigid striated space (think sedimentary, known, mapped, measurable) that makes a returning or reconfiguring into smooth space (think *aformeus*, unmeasurable, unknowable) again difficult. The traditionally temporary hierarchical categorization of smooth space simultaneously determines the agential aspects of the forms created by the current categorization. Since rhizomes are traditionally self-decomposing, they grow through temporarily becoming hierarchically organized and determined. The difference made will stay and because of that the specific smooth space is lost and can never be returned to. Space can however be (re)turned into a smooth space again. Space has been made different in itself. As such the aim or line of flight of this paper or this concept of digital games can never move in onto-epistemologically concentric circles towards the Truth. Rather, it aims to add nodes and connections eccentrically, plateaus originating lines of flight through games.

Continuing stratification of digital games through Van Gennep and digitization, digitization becomes a means of coping with categorized societies in addition to the explicit categorization of societies. This is a parallel to McLuhan's thoughts on negating damage as discussed above. Rites as a form of media-technology, having the auxiliary task of minimizing damage and difficulty for both society and individuals, is an approach not tried yet. Instead, digital games tend to point towards themselves to maximize player base size and loyalty. The focus on liminality and rites of passage in this text is twofold.

First off are child and teenage phases, where digital games have traditionally had their main success and impact. Children and teenagers may not be the most difficult phases

in life, however it is two big liminal phases still belonging somewhat to the community. To clarify, it is accepted to a greater extent to have a difficult transition from childhood within the public, at least compared to difficulties situated outside traditionally liminal phases. such as E.g. marital, friendship, grief, or work-related problems are more of a taboo in public.

My second focal point concerning digital games and liminality is enforcing the role of digital games. Rites of passage as a causal shifting constitutes rational activity on both a short- and long-term basis, rather than digital games being a representation of rites. I do not claim that developers consciously juxtapose their games to “the real”, but digital games have since the introduction of Ultima Online (Origin Systems 1997) – a digitized version of society – a relatively smooth form, even if it had the usual high fantasy sprinkles on top. The later gained success with World of Warcraft (Blizzard Entertainment 2005) following EverQuest’s (Verant Interactive and Studios 2000) striated form regressed into a nostalgic digitization of a disciplinary society, a society signified by total transparency, and a highly visible golden mean.

Here is one of the paper’s ouroboric tails and rebirth, relying on one of McLuhan’s ideas on media-technology. The idea that one medium contains another medium. One of the hidden layers of digital game design found by de-stratification is secularization (Nietzsche [1882] 2010; van Gennep 1960; Dreyfus and Kelly 2011). Society used to sacred, and thereby separated parts of society handling many of its transitions and rites of passage. Society seems to have been so used to this that it did not notice these hidden functions fading together with the sacred. Digital games stumbled over the vacuum left by the enlightenment and later dichotomy between faith and knowledge, resulting in a modern search for meaning, generally captured by David Foster Wallace and later stratified with the significance of literature by Dreyfus and Kelly (2011). David Foster Wallace captures the beginning insight of the modern loss of the sacred as “...writers and intellectuals or whatever... it’s 3:00 A.M. and the couch has several burn-holes and somebody’s thrown up in the umbrella stand and we’re wishing the revel would end. The postmodern founders’ patricidal work was great, but patricide produces orphans, and no amount of revelry can make up for the fact that writers my age have been literary orphans throughout our formative years. We’re kind of wishing some parents would come back. And of course we’re uneasy about the fact that we wish they’d come back—I mean, what’s wrong with us? Are we total pussies? Is there something about authority and limits we actually need? And then the uneasiest feeling of all, as we start gradually to realize that parents in fact aren’t ever coming back – which means “we’re” going to have to be the parents.” (1993)

The entangled freedom, fear and lostness described by Wallace is contemporary, as so is its resulting problem. Dreyfus and Kelly argue this is not a contemporary take on a classic problem, but a contemporary problem: “It is not just that in earlier epochs one knew on what basis one’s most fundamental existential choices were made: it is that the existential questions didn’t even make sense.” (2011, 13). During the middle ages in Europe a person’s identity was predetermined by God. This world-view and resulting hierarchy trickled down from kings and queens who were said to be directly chosen by

God to every other person, being and thing. Everything was part of, and had a place in, the divine plan. Even though it feels brash to claim insight to the inner contemplations of people during the middle ages, it is enough to say that the culture during the middle ages ought to have been saturated by knowledge of God's existence, rendering existential questions next to unthinkable. A contemporary example can be found in Bryant's object-oriented ontology and his critique of the existence of super-objects, such as the world (Bryant 2011).

The problem with the free or individual choices referred to are as Dreyfus and Kelly put it that "we seem to have no ground for choosing one course of action over any other" (2011, 15). Since this is not a question about willpower to do what one knows is right, but this is a question about what the right course of action is. This right course of action is what I call the good life. The term the good life is related back to Aristotle and is a teleological view on how to live well, since Aristotle philosophers have continued to put forth ideas to solve the question on how to live meaningful lives. In effect the good life represents the idea of a shared or common greater goal, a beacon of meaning that can be used to weigh individual actions.

The breakdown of divine order during the middle ages opened up for genuine existential questioning. The freedom to be who we wanted came at the cost of the divine plan. The following search for the good life is still going strong. Sadly, enough it seems much easier to make age enduring declarations on just how lost and alone we are. Rather than presenting a lasting foundation on what basis a choice should be made. One of the more famous examples must be Nietzsche's claim that god is dead. Through secular patricide, this famous philosopher calls attention to the fact that we no longer live in a culture where the basic questions are already answered for us. But perhaps Nietzsche gave us part of a prophetic answer in his declaration as well. Continuing the God is Dead proclamation we find it and it is not even hidden; "What festivals of atonement, what sacred games will we need to invent? ... Must we not ourselves become gods simply to seem worthy of it?" (Nietzsche [1882] 2010, sec. 125).

I find it interesting in the Swedish edition of the book *The Gay Science* from 1987 that the translation of sacred games is "heliga riter", which would link to sacred rites not sacred games. The original sentence in German is "welche heiligen Spiele werden wir erfinden müssen?" There seems to be some interchangeability here where Nietzsche ([1882] 2010, sec. 125) provides his own line of flight on how to solve the problem of a dead God.

In the *Gay Science* and the following re-introduction of the existential question that has been hibernating under the Judeo-Christian worldview, digital games can be posited as our latest schizophrenic answer to the modern version of feeling lost. Instead of trying to find something to believe in, we seem to, as Nietzsche says, invent it. This is a perfectly understandable space, where McLuhan's "The Medium as the Message" finds a true home. Part of this can be found in the classic narratology versus ludology discipline's claim to be the foundation of the game medium early in game studies. The mere existence of this indeterminate aspect of the digital game medium for me points

at games as medium first while other mediums tend to be message first. I suggest digital games try their best at becoming, as McLuhan would put it, banal as TV. Examples of this would be the pursuit of quantifiable immersion, let's play videos, and the likes.

## Conclusion

Throughout the text, understandings of digital games have been stratified by connecting media theory, ethics, meaning, and liminality. By (re-)turning to games repeatedly, a rhizomatic foundation has been mapped. The rhizomatic approach to games and digitization applied in the paper and the resulting digital game delineate a need for a different approach to game ethics than the current video-based game ethics. Further the connections uncovered between the form of the game and the form of a rite of passage draw attention to the possibility of creating unnecessary discord in societies arising from games separation from the real. Current digital game design patterns are posited as examples of digital games answering post-modern versions of problems traditionally handled by parts of society separated by sacredness. Functions lost to secularization that have not been actively addressed by society.

Parallels between digital games and digitization are drawn to examine similarities in application and form in terms of designed rule-based space constructed with purpose. The inherent rigidity of these categorized systems when computerized are shown as problematic regarding inter alia anticipatory systems, generalization of meaning, and compatibility with other parts of societies. The concept reality production is argued to be an advantageous way of moving forward with digitization as categorizations established are more rigid.

In the shifts I have proposed digital games posited as casual verbs determining players aristotelian rational activity while laying an anticipatory foundation for the individual's communal rhetoric, of which both aspects reach beyond game space. The effects of such a shift are of course unknown as the understandings and approaches outlined have only been tentatively applied to isolated projects and dispersed instances of education to my knowledge. Moving forward, development of clearer ethical guidelines for digital game development and intersecting parallels for digitization is needed for implementation. This would make it possible to collect reactions and input from players, developers, and legislators to explore the possibilities of large-scale implementation.

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# ANTICIPATING AGENCY

## – a playful shift from uncertainty to indeterminacy

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### Abstract

In the light of recent years bank crises, climate change, humanitarian disasters and presidential elections, uncertainty and futures have had a central role in the discourse surrounding these happenings. The same have also been in focus in the emerging field of anticipation studies (see e.g. Poli, 2010; Facer, 2011). As scholars in digital media we have with interest followed this emerging field. We find that questions within anticipation studies overlap with design questions in our field.

### Keywords

Agency, design, games, indeterminacy, uncertainty

With this paper we want to contribute to anticipation studies by addressing the question: how futures gets made. We approach this by framing anticipation within agential realism, the onto-epistemological framework proposed by Karen Barad (1998, 2007). Agential realism challenge the notion of the future as an uncertain “spacetime” linearly following the known present and past. Agential realism makes a shift from uncertainty to indeterminacy, opening up for a causality that is neither finite nor definitive. The relational ontology undergirding this shift is a direct challenge of representational metaphysics instead promoting a performative one where phenomena is the base ontological unit (Barad 2007). In Barad’s own words, “...relata do not preexist relations; rather, relata-within-phenomena emerge through specific intra-actions” (Barad 2003, p. 815).

By situating (digital) games within agential reality we exemplify the shift to indeterminacy and how agency is enacted. Furthermore we propose an agential realist anticipatory design approach called re-verb. Re-verb situate (digital) games as part of everyday life, (re)shaping personal and societal ideologies and politics. Re-verb focus on situated arrangements of play and not games as predetermined artefacts. We are accountable for the (re)verberations enacting agency in play. This process of ongoing future-making is situated, similar to the acoustic term reverb — how sound is affected by a specific space and vice versa the simulation of a specific space through sound. Embedded in term re-verb is a focus on verbs as the anticipated doings for specific practices, while “re” points to the temporally situated re-solving of indeterminacy.

## Introduction

This paper elaborates a technoscientific framing of anticipation through agential realism as proposed by Karen Barad (1998, 2003, 2007). What Barad propose is an ontology called *agential reality* and *agential realism* as an onto-epistemological framework. *Agential reality* aims for “an understanding of reality that takes account of both the exclusions upon which it depends and its openness to future reworkings” (Barad, 1998, p.104). Agential reality is similar to, but not the same as, the differential ontologies proposed by Deleuze (1994) and Derrida (2011).

The future is not an uncertain place in time ready for our increasingly fine detailed predictions. If understood within agential reality, the future is indeterminate not uncertain. The future gets made through our more or less consciously active part in determining specific situated understandings of the real. What appears uncertain may be related to our difficulty to understand a world in becoming, (be)coming from century-old traditions of linear time and cartesian extrinsic natural reality. What we perceive as an anticipatory prediction of a future to come is on the contrary a determining of specific parts of reality. The world we are part in shaping is “not an arbitrary construction of our choosing, [... it is] sedimented out of particular practices” (Barad, 1998, p. 102). This also means that the world is made “intelligible through certain practices and not others” (Barad, 1998, p. 105).

## Anticipation and digital media

We start by putting forward the question if (digital) games stands out considering expectations compared to other (digital) media.

The digital agenda of the EU (2010) with its seven “pillars” is a clear-cut example of expectation on digital media.

*[The] use of digital technologies [...] will provide Europeans with a better quality of life through, for example, better health care, safer and more efficient transport solutions, cleaner environment, new media opportunities and easier access to public services and cultural content*

(European Commission, 2010)

Whereas other media are expected to make (human) life more efficient or easy, digital games are often not. Games are supposed to be challenging and competitive. At the same time, digital games have a huge impact in our everyday lives. In a recent study (AM bean at alt, The Emerging adolescent World of Warcraft video gamer 2016) 97 % of people between the ages of 18-25 play digital games. Digital games are also known for their ability to capture the attention of players, sometimes in such powerful ways that they have been studied as addictive in similar ways to drugs. Digital games can thus be thought of as different from other media in not aiming to make easier everyday life, but rather a way to “escape” from it.

### **Phenomena as the base ontological unit - or play as the constitutive intra-actions of a game(r)**

The main difference that Barad's agential realism introduces is that it recognises phenomena as the smallest ontological unit. This means that things in relation such as subjects and objects are not filled with meaning or inherent properties beforehand. The relata (that which is related) do not pre-exist/post-exist its relations. Subjects and objects become meaningful within phenomena and from intra-actions. Put in other terms, a gamer or a game is not made meaningful without the practice of playing. Becoming game(r) is an ongoing enactment within the phenomena of play.

As phenomena are not either independent "objects" but are made agentially separate by intra-actions, becoming game(r) or practices of playing games are not done in isolation from other phenomena in reality (other everyday ongoings). When playing a console based game, sitting in front of a living room TV, both the player as a human, the controller, the TV, the armchair, etc. become enacted as part of a playing subject. However, if the batteries run low in the controller the situation will be reconfigured and the controller will become an object of observation to the playing subject. Likewise, the avatar will become an object of observation if for some reason it behaves in a way not expected or wanted by the playing subject. This can be compared with immersion, "spatial presence" or flow (Csikszentmihalyi, 2008) in video games and how breaking an immersive experience will change the player's relation to a game. These kind of reconfigurations are examples of material-discursive practices in which intra-actions continually make cuts that differentiates between different subject-object relations, enacting agency in different ways.

Subject-object relations and agency are thus indeterminate, differently made meaningful in specific situations of play.

### **Enacting agency - ReVerbing**

ReVerb - the design framework focus on verbs in favor of adjectives or nouns. ReVerb, thus does not primarily aim to define what the design object is going to be or what feelings the design should elicit.

A concept introduced with the framework is reverbing. With reverbing the aim is to replace or impose different verbs. This is one thing that play and games often lead to, regardless if being consciously planned or not. An example of this is a quick game involving a parent and a child on the way to preschool. A game like this can often be observed near preschools, where parents impose a race to see who gets to preschool first. A game like this makes a reverbing of leave to arrive. A negatively connoted verb in being left there is reverbed into a more positively connoted verb in getting there first. This does in many cases (re)configure the situation, giving the child agency in the subject-object relation, with a new affective verb. At the same time a short game like this is also a reverberation of the larger context at hand. One thing of note here is

that reverbering an experience like the leaving / racing example above is not necessarily a manipulation. Even if one part comes up with the idea the reverberation works by both parts letting the new phenomena overwrite the old. Again the question of agency arises in where we can chose a different phenomena to become whit. This we guess would have to do with the a(e)ffect that the phenomena holds over relata. A parent in need to go to work reverberating societal structures and norms.

ReVerb aims to work with these issues, imposing (re)verbs while being accountable to the reverberations enacted.

ReVerb tries to pinpoint and impose cuts without an a priori separation of subject-object relations in the agency enacted. ReVerb is acknowledging that phenomena cuts whether or not we want it to and that phenomena are active before, after and during something. So the way to approach an anticipated experience or a model of experience as Bogost (2011) describes games are through different cuts made. The phenomena can as an example make the player an explorer, killer, achiever or socializer to use Bartle's player type taxonomie while at the same time defining the object of design. So to extend on Bogost concept of a modell of experience anticipatory manipulation of the phenomena can remodel an experience. To use an example from our reality if we gamble/play on horses Linus is a winner if any amount of money is won even a lesser amount than the cost of the play while Anders is a winner when the winnings exceeds the cost. This means even our shared game's play creates different core mechanical objects Linus game have horses while Anders have money.

Another model worth referencing to is the MDA framework developed by Hunicke, LeBlanc and Zubek (2004) as a way to talk about and analyse games. MDA stands for mechanics, dynamics and aesthetics. Mechanics are the rules of the game, dynamics are the context and interaction between system and player while aesthetichs is the experience derived from playing. The main thing about the framework is that developers can only interact with the system through mechanics while player experience always revolves around aesthetics. Anders have been using this framework as a way to discuss student projects in the game education program while getting passed the good or bad discussion with new students. Even though newer frameworks have been introduced the barebones approach of MDA is what Anders thinks makes it so useful in introductory game education. However the horse example above point to a hole in the MDA framework in that even mechanical objects are only temporarily resolved/determined.

Agency as activity (mechanics)

Agency as participation (dynamics?)

What about agency in the aesthetic part of MDA?

In this way ReVerb is like a nonfinite fluent poststructuralism.

- Focus on verbs, not nouns or adjectives surrender to the idea that what and why something does temporarily resolves the indeterminacy of being
- Treat the object of design as the staging of a game arrangement imposing different verbs

- Do not make a priori differentiations in subject-object relations, that is, do not assume agency is bound to a player subject acting on a game object
- Participation in design is not sharing authorship, it's staging an arrangement for enacting participant's agency.

## Shift to Indeterminacy

### Anticipation and agency in a game of lightning dice

Flashes of potential, hints of possible lines of connection alight now and again. Desire builds, as the air crackles with anticipation. Lightning bolts are born of such charged yearnings. [...] Each faint excitation of this desiring field is a contingent and suggestive inkling of the light show yet to come. (Barad, 2015, p 387).

At first sight lightning bolts may seem like erratic bursts of electrical light, shot from clouds onto the earth. They may seem random in how they don't burst forward in a straight line, or how they strike unpredictably. Lightning bolts are made in strong electromagnetic fields where "photons and electrons engage in a quantum exploration of multiple temporalities and polymorphous/polyamorous couplings — the dance of indeterminacy" (Barad, 2015, p. 409).

What we are witnessing according to Barad (2015) is an exploration of discontinuous different possible ways in which a lightning bolt will become—before any part of the lightning bolt is made manifest – “as if the electrons are trying out different paths, feeling out this desiring field, exploring entanglements of yearning, before any discharge to the ground takes place” (Barad, 2015, p. 408).

Future-making in the light of lightning is not a random or uncertain practice. Sparks of lightning actually occur within the indeterminate-yet-to-come. What this imply is that measurements/findings in given experiments are “not values of properties that belong to an observation-independent object, nor are they purely artifactual values created by the act of measurement” (Barad, 1998, p. 96).

To continue our discussion we will exemplify by something (at least for us) more tangible than electrons and lightning. At the same time we do not want to discuss extensive complex phenomena as they entail too many entanglements to frame within a paper like this.

Let us introduce an experimental lightning dice game in which players compete in materializing an anticipated lightning bolt. The game exemplifies how anticipation and measuring are future-making practices resolving indeterminacy in different ways. Among other things, this shows that yielded dice results are not revelations of pre-existing values, but rather that the game creates the values. Furthermore the game shows how multiple dice creates specific diffraction patterns. Particular exclusions/marginalizations are thus made.

Anticipation is thus not a means of prediction but rather embodied in practices reverberating specific entangled phenomena. In the full paper, agential realism, the ex-

perimental game and our design approach re-verb is more thoroughly discussed and detailed.

### Defining the dice apparatus



This dice apparatus consists of one dice (D6) and a table. A D6 dice is cubical with 1-6 dots on each side and even weight distribution. The same number of dots can't be on more than one side and the sum of dots on two opposite sides is always 7. The table can be of any kind but must have a solid enough tabletop to hold the dice flat on one side. It will thus make the apparatus more manageable if the tabletop is smooth and level.

The apparatus yields a result if the dice is thrown and lands with one side flat on the table. If anything else happens, the dice is thrown again until a result is yielded. The result yielded is the number of dots on the side of the dice which is opposite to that which is flat onto the tabletop. The apparatus in the photo has yielded a result of 3.

If we change the measuring agency by introducing another temporality, recording yielded results a 100 times and then employing a statistical average on those values, we get another result. Although the s  $\bar{x} = \frac{1}{n} \sum x_i$  thus iteratively reconfigures yielded results, the new measuring agency  $\bar{x}$  single recurring result, a value of 3 (sample average, Figure 1).

Figure 1. Formula for sample average.

### Anticipation in a game of lightning dice

Let's take this a little bit further by introducing a game of lightning dice. The rules of the game i simple. Six players compete in becoming the last contestant not struck by lightning. Each player is in some random manner given a number between 1-6. Players must have unique numbers, i.e. all six number will be distributed among the players. Using the dice apparatus previously described a player is considered to be struck by lightning when the corresponding result (number) is yielded. The last player to not have been struck by lightning is the winner of the game.

If one was to play this game a couple of times it will become obvious that it is hard to become "good" at it. The indeterminacy of the dice apparatus will make prediction of yielded results impossible. It will also become quite clear that this game is not fun, but that is beyond the scope of this paper.

Let's now ponder on what would happen if we too hastily change our game in another way. If we are to play the game but realize that we are more than 6 players. At first

sight another dice would solve the problem with up to 11 players by using the sum of the yielded results. But introducing another die to the game makes it different. There comes into play a diffraction pattern that inside this specific game phenomena makes the number 7 unfavorable and the numbers 2 and 12 the most favorable in the game. This focuses on patterns of values while excluding specific values.

The reason for introducing these changes to the game is to highlight the perilous act of trying to generalise or transferring “knowledge” from one phenomena to another. There is of course nothing in the dice apparatus that suggest or entail an inclination to yield results of the value 3 or 7, and on the other hand the effects of the newly constructed apparatus would not be possible without the entanglement with the previous.

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# (RE)FRAMING COMPUTER GAMES WITH(IN) AGENTIAL REALISM

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## Introduction

With this paper we will try to further understandings of games as emergent within the real and everyday life. This line of thought is not new and can historically briefly be summarized as understandings of playing (games) as modes of experience rather than distinct separate activities outside of everyday life. A thorough account of how play is and have been an intrinsic part of human cultural evolution was published in 1938 by Johan Huizinga. Huizinga argued to not short-circuit play from other everyday activities. By introducing *consecrated spots* exemplified by, among several other things, the famous *magic circle* he tried to put emphasis on how play is not something separate from the real or ordinary life but rather a temporary and highly ordered space differentiating and layering itself within everyday life (Huizinga, 1938).

Interestingly though, we still today find a lot of interpretations of Huizinga, claiming that he argued for the opposite. That he suggested to set aside play as an activity distinct from the real and everyday (ordinary) life. This setting aside is likewise common with respect to games. Thomas Malaby have made an eloquent argument in a paper (2007) addressing this issue. Malaby argues that games have been bound as artifacts within a subset of play, separating them from other activities within everyday life. Games have therefore been trapped in understandings as activities that are considered to be safe (consequence free), pleasurable (“fun” or normatively positive), and unserious<sup>1</sup> (non productive). Malaby suggests that games are better understood as socially constructed artifacts and that games are processual. He further argues that games can be opened for rethinking by rejecting play as a supercategory of activity for games.

On the one hand we accept Malaby’s argument to reject play as a supercategory. On the other hand we want to take further Malaby’s argumentation and not settle with his suggestion that games are socially constructed artifacts implying that “games are grounded in (and constituted by) human practice and are therefore in the process of becoming” (Malaby, 2007, p. 103). This echoes an anthropocentric viewpoint with

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<sup>1</sup> Malaby does not himself use the word “serious”. By referring to Stevens (1980) he exemplifies how play and by extension games are understood as separate from “work”-activities. We invite “serious” into the mix as a reference to another field of study that have been trying to bridge the gap between games and other activities such as work and education. However we think that by categorizing games as serious or not risk to further manifest games as something separate and play-bound.

a pre-made cartesian cause-effect-idiom. Agency is with this view bound to an active human agent in a predetermined subject-object relation. We agree that games are in processes of becoming, however we will argue that they (like other phenomena within everyday life) are not bound within a supercategory of human agency in their becoming.

For this reason we propose a (re)framing of (computer) games within the onto-epistemological framework *agential realism* proposed by Karen Barad (Barad, 1998, 2003, 2007). As Malaby, we aim to open up space for the study of games as emergent within the real and as part of everyday life. However we want to avoid the creation of dichotomies and predefined boundaries in agency, causality and subject-object relations.

What Barad propose is an ontology called *agential reality* and the ‘philosophy’ *agential realism* as both a new understanding of reality and an onto-epistemological framework. *Agential reality* aims for “an understanding of reality that takes account of both the exclusions upon which it depends and its openness to future reworkings” (Barad, 1998, p.104). *Agential realism* aims for “the goal of providing accurate descriptions of agential reality—that reality within which we intra-act and have our being—rather than some imagined and idealized human-independent reality” (Barad, 1998, p. 105). *Agential realism* is similar to, but not the same as, the differential ontology proposed by Deleuze in *Difference and repetition* (2004) which we also draw from in this text.

There are a few things that we want to highlight before we continue. One is that, although this text is an attempt to reframe games within *agential realism*, it should be read as an ongoing inquiry not as a final answer. As such we do not seek to undermine or falsify other accounts of games or to claim true interpretations of referenced text. Therefore we will follow Barad’s call to re-turn (to) the past, but “not by returning as in reflecting on or going back to a past that was, but re-turning as in turning it over and over again [...], diffracting anew, in the making of new temporalities (spacetime-matterings), new diffraction patterns” (Barad, 2014).

By re-turning (to) Huizinga’s notion of play we will try to make a difference by adding to the plethora of understandings of games. With this re-turn we not only want to reject play as a supercategory of actions for games. We also want to reject humans as a superobject of agency in processes of becoming, and “ordinary life” as a superobject to other phenomena in the real (e.g. games). Games can then be figured as (re)verberations within the real.

The computer games we have used in conjunction with the texts to explore this space are FromSoftware’s “Soul series” (FromSoftware, 2010, 2011, 2014, 2016). The games in the Soul series are often categorized as action role-playing games. They take place in what appears as a medieval setting on the verge of an apocalypse but with magical and other occult additions. Although the player gets to explore and defy different places and stories in each game there are several recurring storylines and characters amongst the games in the series. One could argue that the games and the series itself is figured

as an Nietzschean eternal return where “god is dead”<sup>2</sup>, and it’s unclear both to you (as the one playing) and to the characters you encounter on what is the meaning and what to believe in. Several characters in game are in fact figured as though they have given up or gone mad due to this recurrence or seemingly purposeless world. As is the case with many players, they too give up due to the series being famous as one of the most challenging games series produced.

To situate ourselves in an extended transdisciplinary manner, besides our academic home in media technologies and technoscience studies, we have employed a Bartle test derived from Bartle’s paper *Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs* (Bartle, 1996). This is not a statement to the scientific value of the test, but readers and gamers may find it relevant for our references to games how we scored according to the test<sup>3</sup>:

- Anders - 73% explorer, 60% killer, 53% achiever, and 13% Socialiser
- Linus - 100% Explorer, 47% Achiever, 40% Socialiser, 13% Killer

Another important thing to note is that we use the concept of difference from Gilles Deleuze (2004). This means that difference is not used to denote opposition or separateness but as difference within. To Deleuze, differences made are what makes part of the world (e.g. ordinary life and games) intelligible, not as separate parts but as a temporally manifested difference within. Difference is thus not something compared between two (or more) distinct pre-existing entities, it is a matter of affirmation, not negation. Deleuze suggest that difference is what makes it possible to distinguish something, which require for that which it is distinguished from to be in relation. Thus Deleuze argues, we must say that “difference is made, or makes itself, as in the expression ‘make the difference’.” (Deleuze, 2004, p. 37).

Deleuze’s difference is similar to the quantum phenomena diffraction. Karen Barad uses diffraction to highlight how differences are made as opposed to displacements with reflection. Even though it is in part an optical metaphor used as an explanatory model, we want to make it clear that it is an onto-epistemological question being examined. (Barad, 2007). Reflection is a practice of displacement. The same is copied or displaced elsewhere. Reflexivity can thus be seen as a search for the “really real”. In this sense is close to the judeo-christian monotheistic heritage. Something is made in something’s image. Truth or being are tied to specific separate objects. Difference from this perspective is diluted, impure and less. Diffraction instead is a practice of interference. Diffraction does not copy or displace, “a diffraction pattern does not map where differences appear, but rather maps where the effects of differences appear” (Haraway, 1992, p. 300). Diffraction is thus a difference making within.

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2 In reference to The madman, aphorism 125, Book 3 in *The Gay Science* by Friedrich Nietzsche, and to the travels and speeches by Zarathustra in his seminal book *Thus Spoke Zarathustra: A Book for Everyone and No One*.

3 The test was accessed 2017-11-06 at <http://matthewbarr.co.uk/bartle/index.ph>

## Games made different

One way bring computer games into an affirmative view of difference is to regard them as mediums. By medium we here re-turn what Marshall McLuhan put in motion with his seminal book *Understanding Media: The Extensions of Man* (1964). McLuhan has had a huge impact on how media in general have been studied. McLuhan argued that a medium should not primarily be studied for the content that it supposedly delivers but for the way a medium extends human senses and what effects that has in society. Media technologies are then not studied solely as neutral channels for information transfer. The famous quote “the medium is the message” call on the need to regard the larger contexts in which media technologies emerge.

To McLuhan, games like other mediums are extensions of an individual or a group. Their effects are a “reconfiguring of the parts of the group or individual that are *not* so extended” (McLuhan, 1964, p. 263, author’s own emphasis). Games he continues, “has the power to impose its own assumptions by setting the human community into new relationships and postures” (ibid, p. 263). Games as mediums makes a difference to established norms and beings. Either as extensions (and thus also reductions) to capabilities of sensing and modes of experience, or as reconfigurations to relations and structures in communities.

McLuhan states that the content of one medium is always another medium (1964, p. 8). As an example he suggests that thought is the content of speech. Although we don’t think it will be fruitful to try to make a complete general categorisation of which medium is which content, there are some points to be made. The idea of an imaginary spiral with intertwined mediums is interesting because in the one end of the spiral we are bound to end up in ontological questions.

McLuhan presents several other cases on how media undoubtedly have brought about transformations in how we perceive and enable different possibilities to act in society. Although there are several troublesome differentiations in McLuhan’s analysis with respect to issues such as gender and ethnicity, we want to re-turn games as what McLuhan calls “make happen”-agents (McLuhan, 1964, p. 53). Focus is then on what games puts in motion and the complexity of the effects produced in society. This shift the primary epistemological question with respect to games from what a game is or what a game is about, to what a game does (puts in motion). An interesting but also sensitive question one could ask is whether a game should be considered violent with respect to its content and/or with respect to what it puts in motion?

Even though computer games and other digital media can be likened in some aspects, computer games are made different with respect to expectations and trust compared to other digital media. The digital agenda of the EU (2010) with its seven “pillars” is a clear-cut example of expectation on digital media.

*“[The] use of digital technologies [...] will provide Europeans with a better quality of life through, for example, better health care, safer and more efficient transport solutions, cleaner environment, new media opportunities and easier access to public services and cultural content” (European Commission, 2010)*

Whereas other media technologies are expected to make (human) life better and easier, digital games are often not. Games are supposed to be challenging and competitive. At the same time, computer games have a huge impact in our everyday lives. In a recent study 97 % of people between the ages of 18-25 play digital games (Bean, 2016). Computer games are also known for their ability to capture the attention of players, sometimes in such powerful ways that they have been studied as addictive in similar ways to drugs. As such powerful phenomena games have also been studied as a way to ‘escape’ reality (e.g. McGonigal, 2011). To McGonigal this boils down to the same intriguing question as Bernard Suits coined as the lusory attitude (2014) – or as McGonigal puts it, “Why on earth are so many people volunteering to tackle such completely unnecessary obstacles?” (2011, p. 27). Again, as Malaby already have argued (2007), this is made possible when games are bound under the supercategory activity of play. Games are thus limited to be recreational or entertaining, separating them from being real, serious or productive.

But how do these assumptions or expectations end up in games? Are they built into the game rules? Are they personal traits for some people but not others? Are they consciously designed into the mechanics, content, narrative or other parts of a game? We will argue that this escape is not a separation. It is difference made within that, which among other things, reconfigures for other media normatively non-positive attributes into positive additions to expectations and experiences of digital media.

### **Games as material-discursive practices**

From agential realism, computer games emerge not simply as (fun) entertainment or addiction, but as (re)verberations within society, culture and our understandings of the world in which we have our being.

To frame computer games we need to introduce concepts from agential realism and how they differ from other (traditional) realisms. We will focus on the concepts material-discursive practices, intra-action, agential cuts, and diffraction. Since these concepts are themselves co-constitutive we will try to explain them through each other and at the same time make connections to computer games. It is important to note that this article’s aim is not to be an in depth explanation of agential realism, for that we refer to Barad’s book *Meeting the Universe Halfway* (2007). As Barad points out, because agential realism is drawn out from a world of “quantum weirdness”, the concepts in themselves are highly counterintuitive at first sight (Barad 2007, pp. 81 & 83).

Agential realism makes a shift from uncertainty to indeterminacy. The future is not an uncertain place in time ready for our increasingly fine detailed predictions. If understood within agential reality, the future is indeterminate not uncertain. The future gets made through our more or less consciously active part in determining specific situated understandings of the real. What we perceive as a game is a determining of specific parts of reality. The game which we are part in shaping is “not an arbitrary construction of our choosing, [... it is] sedimented out of particular practices” (Barad, 1998, p. 102). This also means that the game is made “intelligible through certain practices and not others” (Barad, 1998, p. 105).

The main difference that agential realism introduces is that it recognises phenomena as the smallest ontological unit. This means that things in relation such as subjects and objects are not filled with meaning or inherent properties beforehand. The relata (that which is related) do not pre-exist / post-exist its relations. Subjects and objects become meaningful within phenomena and from intra-actions.

*Material-discursive practices are specific iterative enactments—agential intra-actions—through which matter is differentially engaged and articulated (in the emergence of boundaries and meanings), reconfiguring the material-discursive field of possibilities in the iterative dynamics of intra-activity that is agency. Intra-actions are causally constraining nondeterministic enactments through which matter-in-the-process-of-becoming is sedimented out and enfolded in further materializations. (Barad, 2003, author's own emphasis)*

Note specifically how Barad switch terminology from interaction to intra-action. Intra-action is a neology describing agentially separable components intra-acting within phenomena. This is in contrast to interaction that describes separate independent entities interacting. Intra-actions are thus what enact and make meaningful what emerge as a game, a gamer and how other subject-object relationships are (re)configured in practices of games. Put in other terms, a gamer or a game is not made meaningful without the practice of gameplay. Becoming game(r) is a reverberation of intra-actions within the phenomena of a game.

Barad emphasizes the fact that agential realism is not an attempt to render obsolete notions of causality and objectivity, but to shift them inside particular phenomena. Instead of cartesian cuts, which delineates an exteriority to secure objectivity, an agential cut “delineates the “measuring agency” from the “measured object” [as] “parts” of a particular entangled state” (Barad, 2007, p. 351, the author's own internal quotation marks). The same applies to causality where the effect (observing agency) is agentially made separate from the cause (observed object).

Barad thus adds to understandings of difference in that it is “formed through intra-activity, in the making of ‘this’ and ‘that’ within the phenomenon that is constituted in their inseparability” (2014). What this implies is that subjectivity and objectivity are not opposed to one another, objectivity is not not-subjectivity. Barad says that this is what Niels Bohr tried to tell us, and the key to understand that this is a radical reworking of the cause-effect-idiom is that “identity is not essence, fixity or givenness, but a contingent iterative performativity” (Barad, 2014).

As an example. When playing a console based computer game, sitting in front of a living room TV, both the player as a human, the controller, the TV, the armchair, etc. become enacted as part of a playing subject. We may even include parts within the digital game world like the avatar to the playing subject. However, if the batteries run low in the controller the situation will be reconfigured and the controller will become an object of observation to the playing subject. Likewise, the avatar will become an object of observation if for some reason it behaves in a way not expected by the playing subject or does/says something not acceptable to the playing subject (e.g. in a cutscene or similar). These kind of reconfigurations are examples of material-discursive practices in which intra-actions make cuts that differentiates between different subject-object relations. The cuts made are agential cuts which differ from cartesian cuts.

Since phenomena are not either independent “objects” but are agentially made separate by intra-actions, becoming game(r) or the practices of games are not done in isolation from other phenomena in reality (other everyday ongoing). This is what unfold when returning to Huizinga notion of play. In our interpretation, the much (mis) quoted magic circle is neither a way to make play, or by extension games, as something set apart, nor a way to subset games under the superobject of the ordinary. It is rather one example among others to highlight how meaning is made different depending on the intra-actions enacting different agential cuts within everyday life. Reality is the same but will reverberate differently. Ordinary life is not a superobject to anything, it is itself a temporally manifested phenomena in constant reconfiguration. Reality will be made intelligible under specific practices as ordinary life and at others as a game. Within agential realism, play and by extension games confer meaning to actions. But it is not only meaning that is enacted. The agential cuts also enact agency constraining meaning-making and limiting meaningful actions as well as subject-object relations.

### **Material-discursive practices in the Soul series**

The games in the Soul series are interesting examples of Deleuze’s affirmative difference and Barad’s material-discursive practices. The games are difficult to categorize into specific game genres or to ascribe certain typical game characteristics. If we ask ourselves if Dark Souls 2 is a multiplayer game we wouldn’t be able to say yes or no. The answer must be “yes and no”, or “it depends”. The game is not a typical multiplayer game where several players share a common game world or parts of a common game world. It is at first sight a typical single player game in which you have your own game world and playing the game affects your game world<sup>4</sup> and not others.

But after playing the game a while you realize that other players get to have agency in your game world. The first obvious discovery of this are messages left in the game world by either by the developers or other players. These come in two variants one constructed of predefined words strung together warning you of upcoming dangers or pointing out interesting opportunities. However most players soon discover that like most things in the Souls games these messages are not categorically trustworthy in that they can and are used by other players to lure the player to an untimely demise often involving a cliff. Which leads to the other kind of message that is a blood stain that when activated with shows a player’s final moments before dying. The second discovery is when you notice that you can summon other players to your game world for help, and that other players by their own will can invade your game world to kill you.

For new player to the game series there are also situations where it seems like you have been invaded by another player but it is actually a computer controlled character or non-player character (npc<sup>5</sup>) invading your game world. This becomes clear first after

<sup>4</sup> We make a cut delineating what we call one’s own and other’s game world, although we realize that this cut is also open for reconfiguration and can be questioned in terms of different player experiences and different play situations.

<sup>5</sup> From here on we will refer to these kind of characters as npc’s (Non Player Characters) as they are controlled by the computer.



repeating the same parts of the game to find the same character invading at the same place and time using the same movement pattern. Though, the temporal interference in the current ongoing gameplay is just like being invaded by another player.

It gets even more complex since certain requirements need to be fulfilled to enable summoning or invasion of other players. The following list exemplifies requirements for Dark Souls 2:

- If you haven't been killed since starting the game you can summon players and other players can invade your game world.
- That you are in a game zone that permits summoning / invasions (most of the game)
- If you use a specific in-game item (Human effigy) after you have been killed you can summon players and other players can invade your game world.
- If you manage to complete specific challenges in your game world you can get items that allow you to invade other players game worlds in different ways
- A working Internet connection

To add on this, after completing specific parts in the game players can choose to join different covenants. Some covenants are focused on invading other players to kill or hinder the invaded player. Other covenants are focused on helping players complete challenges in the game by allowing themselves to be summoned. Experienced players can in fact choose to spend most of their time invading or being summoned to other players game worlds instead of spending time in their own game world.

Thus, if this is a multiplayer game or not is indeterminate, being determined only temporally in specific situations. It's not either meaningful to say that the game as an object has built in multiplayer properties, since it would be possible to play the game without an multiplayer experience (even without an Internet connection for that matter). The agential cuts enacting subject-object relations and agency will make the differences — it's material-discursive practices. Material as the game pose different requirements, limitations and possibilities for multiplayer action, and discursive as experiences of playing a multiplayer game depends on player choice in how the game is played, or on how a player perceives a gameplay situation.

From a design perspective we can learn something interesting from this. If the concept of multiplayer is freed from a supercategory of human agency, what is designed as multiplayer may have a larger space to act within. As we have already seen with the previous example from Dark Souls 2, what is designed to act as another player can be a npc. We want to point to two more intricate examples where the concept of multiplayer is made different in an affirmative way, or put otherwise where the design space for multiplayer experiences is extended.

The first example is from Dark Souls 3. In one part of the game one can choose to be summoned to help another player. However, when you are summoned to the player's game world it turns out you have been summoned to help a npc player fend off yet another npc player invading that game world. When played this seems and works as a multiplayer experience, but no other (human) player is involved. This example shows

how the designed infrastructure (mechanics) to enable multiplayer experiences is not binding agency exclusively to humans. The same kind of twist on world agency is found in the Knight Lautrec questline present in Dark Souls.

The other example, present in both Dark Souls 3 and Demon's souls<sup>6</sup>, is when a player have to fight one of the boss encounters. Both encounters is presented like other boss encounters starting of with a cutscene introducing the boss. Altho these encounters have the theme of summoning. However, as players progresses past the encounter they can obtain in-game artifacts enabling them to be summoned and become the boss in the above mentioned encounter in another player's game world. That is, many players encountering this boss may not even be aware of the fact that they are involved in a multiplayer experience. This was the probably the case to a greater extent in Demon's souls where the mechanic was novel and "let's play videos" were not yet a thing. The agency for multiplayer experiences in this case, although two acting parts are required, does not have to involve an aware human subject in the one part.

## Conclusions

"Is this a game to you?", one might ask in an attempt to render your actions or thoughts as something unserious or non productive. This premade perception of games is made possible by binding games under the supercategory of play, setting it aside from the real and subsetting it under a superobject of the ordinary.

Agential realism provides an onto-epistemological foundation for how games are emergent within the real and everyday life. As emergent within the real, games are (re) verberations. In the one sense games verberate specific transformations in experiences of our doings. In the other sense games reverberate specific manifestations and understandings of the real. A game as well as ordinary life are likewise real, a game is not a subobject to ordinary life. Our everyday practices and our specific ideological and political orientations in society will be part in enacting what emerge as game and what emerge as ordinary.

With this view it becomes explicit that many of our everyday doings and what these put in motion to some extent are the same, although they make emerge very different experiences. One example that probably can be witnessed near pre-schools all over the world is the transformation of "leaving a child at pre-school" into "racing with a child to see who gets to pre-school first". The underlying doings are much the same, the child will be left at pre-school, but the experiences for both parent and child are different. The experience is verberated by the game, however this very simple game will still reverberate the political ideal in society calling for the parent to leave the child at pre-school to be able to go to work.

The main point to make of all this is not that anything can be a game or a game can be everything. What is more important is how a rethinking of games can influence how

<sup>6</sup> In Demon's souls this is the Old Monk encounter and in Dark Souls 3 Halflight, Spear of the Church.

games are analyzed, designed and produced. If the main question analysing games are shifted from what a game is or what a game is about, focus can be put on how did this emerge as a game and what does it put in motion. Games then can be figured without being pre-bound under specific categories or objects, they need not be normatively safe, pleasurable, and unserious. As such we believe that ethical considerations can be broadened. Furthermore, our short discussion on how multiplayer experiences are enacted in the Soul series shows how avoiding dichotomies and predefined structures in agency and subject-object relations can enable a larger space for design.

In our continuing studies we want to dig deeper into different games and design of games to see if the diffraction patterns that emerge adds to the understanding of games as (re)verberations. In parallel with this paper we are working on a design framework, ReVerb, which approach games from this perspective. The name ReVerb is inspired by the acoustic term reverb — how sound is affected by a specific space and vice versa the simulation of a specific space through sound. Embedded in term ReVerb is a focus on verbs as the anticipated doings for specific practices, while “re” points to the temporally situated enactments, reverberating specific understandings of, as well as ideological and political orientations in society.

## Games

*Demon's Souls*. FromSoftware/Altus, Play Station 3, 2009.

*Dark Souls*. FromSoftware/Namco Bandai Games, Play Station 3, 2011.

*Dark Souls 2*. FromSoftware/Namco Bandai Games, Play Station 3, 2014.

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## EPILOGUE

### Pro-(epi)-logue

In order to discuss generalities while keeping some semblance of coherency with the rest of the thesis, I will refer to 'Things'. Not a thing as an isolated physical object, but as Bruno Latour's etymological challenge to the modern guise of the thing, wherein Latour brings attention to the pre-Christian northern Germanic language heritage. A Thing was a gathering, a place, or a time and rules of conduct for dealing with public matters of concern (Weibel and Latour 2005). For ease of reading, this connotation to Thing will be spelled with an uppercase T henceforth. Thing allows me to discuss digital games, digitisation, technoscience, and media-technology as a rhizome rather than a narrowing specialisation

### A reflection on techno-scientific media-technological research and the rabbit hole of onto-ethico-epistemology

*...as the adjectives 'natural' and 'social' designate representations of collectives that are neither natural nor social in themselves, so the words 'local' and 'global' offer points of view on networks that are by nature neither local nor global... What I have called modern exoticism consists in taking these two pairs of oppositions as what defines our world and what would set us apart from all others.*  
(Latour 1993, 122)

For me technoscience is a transdisciplinary approach to Thing's intrinsic opposition of being defined, contained and locked down. I perceive technoscience as relying on passion coupled with extensive knowledge for a Thing in order to fuel a deep critique still originating in care. The critique aims to promote difference within the Thing, rather than judging from a safe distance. In order to achieve the critique from within, ontological, epistemological and ethical reconfigurations must be employed to some extent. Furthermore, as ontology, epistemology and ethics are inseparable from one another in a technoscientific perspective, it is not possible to affect one aspect without affecting the others.

The trouble is, once you go down the route of ontological questioning, the rabbit hole can always go deeper. The worth of such an endeavour is hard to determine, since in most cases the nature of ontology in itself renders guesswork on outcome and time consumption vague at best. Trying to uphold a multiplicity of perspectives demands a forward and retrospective movement simultaneously, in order to not just delineate understandings from a rear-view mirror. I would say ontological research requires a mode of in tune lostness, if there can be such a thing. The core, if not salvation, of ontological endeavours is focus on a Thing's doing. By this line of flight, Thing's doing needs to be an integral part of the inseparability in otology-ethics-epistemology, in order to not just become dense academic nonsense.

If 'doing' is integral for a technoscientific approach, what is the thesis 'doing' relying so heavily on theory? My answer is that this thesis is a hypothetical necessity, as proposed by Aristotle, meaning that even if something is not an obvious part of the virtuous and rational doing for its own sake, it is something that must be done in order to enable further action. Strangely enough, for me this means taking a juxtaposition from being a part of making digital games and other content in order to map out patterns of diffractive approaches already in place. Sharing within the context I wish to affect requires me to be apart from the doing, since the goal reaches further than my own understanding. The connections made in this thesis were present all along. However they were implicit as well as intrinsic, subsumed in the process of doing and therefore trapped.

Awareness of this need to chart and plot have been gradual. Many of the questions which have surfaced in the papers have arisen from a demand of further explanations concerning relevance and connectivity. These questions not only required me to slow down, but also to do a double take of what is really being measured inside as well as outside, of my own highly situated context. The questions required me to involve cartography instead of normal production.

### **A tentative primer for applied studies within a rhizomatic network connecting digital games, digitisation, technoscience, and media-technology aiming for ethical production**

I posit that digitisation is the recently exclusive inseparable pre-phase to measuring and deciding, where separation, and therefore signifying values, enable categorisation into separate objects to be determined. Digitisation, explored in more depth in the first paper, is a process of converting, or in the discourse of the thesis reconfiguration, into discrete numbers i.e. digits, resulting in a digital image for an object, and digital form, for the signal.

Usually, the use of digitalisation or digitisation in modern language refers to the conversion of an analogue understanding into a binary digital understanding, rendering the source material readable for computers. This grants Haraway's argument for feminist technoscience as a critique of the binary categorisation of systems a new depth (Haraway 1991). Binary categorisation systems such as man/woman, human/non-human, and nature/culture move from being normalised epistemologically perceived truths, into ontological truths inside a computerised system. Code can of course be rewritten. But given the rigidity these digital systems have displayed in an analogous context, digital systems in a digital context are critical. Onto-epistemological dimensions in the latter context must be considered and acknowledged with even greater care prior to production, due to the added rigidity of being reality producing.

Digital games have as part of their development and being, relied on production and design that try to capture the aesthetics of certain occurrences, states, or events into systems consisting of discrete states and rules. Computers have, until quantum computing was developed, the prerequisite of a binary ontology making it, to my know-

ledge, the first true binary reality available. This reality has a real ontologically sound positivist epistemology, that governs code, interactions, and rules in the form of a binary discrete 'on or off'. Consequently, this means that in computer software there is a means for binary systems to (re-)produce without active human involvement. Granting the digitising process the ability to make something rational while simultaneously indexing it, means relentlessly applying a stickiness to categorisations that have not existed before. Here follows highlights the computer format bring, in the form of a list without any intentional order:

- hierarchy is real and pre-defined
- only attributes included in code is available
- the Thing is immaterial
- signifiers are real and pre-defined
- interaction possibilities are predefined
- values are incremental
- increments are predefined

I want to interweave the rational activity that Aristotle describes, Haraway's inevitable worlding, Deleuze's affirmative difference and Barad's described inability to exist before the relationship to digitisation. This posits digitisation as the practice of making sense rather than sensing a world, applying weight to the fact that the human way of perception is not equitable with being. Aristotle, Van Gennep, Turner, and Haraway reveal differences between the easier aspect of refining measurements in pre-categorised systems, and the more difficult aspect being accountable for the simultaneous (re-)production of initial categorising cuts.

What I argue is that it is no longer possible to posit alternatives to binary categorisation systems as a solution to the problems and inequalities which they create. The issue of binary categorisation systems becomes issues of how to handle the rigidity within these systems. Agential realism seems to contain one way to resolve the issue of rigidity, by allowing only temporary determination, and thus categorisation. Agential realism, approached in depth within the second and third paper, however simultaneously add the aspect and possible issue of mutual exclusivity. A light-hearted examination of an ontological cut as a fluent process can be found in Bergström's book 'How far does Alfie reach?' (2002)

This agential realist approach means that one way of resolving problematic binary categorisations is dependent on different signifiers for categorisation. This is important in order to not just (re-)produce the original problem over and over again while excluding different prolific categorisations in the same move. I argue that this is extremely difficult and demands practice.

*(E)thicists busy with those two opposite but symmetrical tasks: defending the purity of science and rationality from the polluting influence of passions and interests; defending the unique values and rights of human subjects against the domination of scientific and technical objectivity?*

(Latour 1993, 124)



Approaching the thesis aim, what is, should, or could digital game ethics do? There are two approaches that I wish to highlight, excluding the visually originated ethics already in place.

One approach is an ontologically recursive model that concerns gameplay. Role playing games and pre-game character creation is a prime example. More often than not, gender, race, and appearance which have little to no impact on gameplay, prelude the choices that have gameplay implications. My guess is that this phenomenon stems from the fact that game developers, and or players, unconsciously recognise gender and visual appearance as the main signifiers for a person. This results in this approach being similar to design fiction in that games would benefit from more finesse and accountability for the Things they digitise, not just mindlessly regurgitate signifying values.

The second approach is that the media making up the content of digital games are rites of passage. This follows McLuhan's line of flight that one media's content is another media's content. I argue that many digital games pander to idealised and highly transparent ways of existing, while avoiding accountability on account of a narrow and belittling view of digital games, from both society at large and developers. Allowing McLuhan's wider connotation to media creates openings for far more complex content and meaning for digital games, while at the same time avoiding the trap of games only being a remediation of stories, books, film, and analogue games.

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