Game Essays as Critical Media and Research Praxis

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ABSTRACT
The emergence of software programs such as *Game Maker*, *Unity3D*, or *Twine* make it easier and faster to create games. As a result, game scholars and humanities-based theorists who study games have the ability to create games. Game prototyping and critical making is a vital yet understudied practice for digital humanities research. In this paper I explore authoring game essays as part of the scholarly research practice. I argue that these practices are a valuable addition to contemporary humanities research, as they result in the creation of critical media that question games and game culture and the reflexive and situated making practice demystifies the production process. On the one hand, many scholars in the digital humanities are keen to explore the potential of games as educational tools or instruments to collect data, as seen in the explosion of serious games. On the other, a much smaller section of researchers engage with game design as a critical reflexive practice, using critical theory to question, interpret, and deconstruct games as objects within cultural and historical contexts. Drawing from experiences of the *Utrecht Game Lab*, I engage with game essays as an object and essay creation as a creative critical practice.

Keywords
Digital Humanities, Game Criticism, Critical Theory, Game Essays, Game Design

INTRODUCTION
Since 2012, the *Italian G|A|M|E Journal* invites game designers of all ranks and backgrounds to send in games that provide a critical reflection on games, genre conventions, rules, or mechanics. Dubbed as the *Games on Games Project* it originates from the hypothesis that it is possible to develop a critique of digital games, their themes, and cultural context by using the language, mechanics and form of games. This led to a DiGRA panel discussion in 2013, where the editors of the journal questioned the form, content, and value of this approach for game criticism (Caruso et al. 2013). One important discussion point concerned the value of combining practice with theory, and the intertwining of playing, designing and critiquing.

Interestingly, digital humanists such as Johanna Drucker (2009) or David Berry (2014) pose similar questions humanities-based game research. Basing their criticism on theories that came into focus in deconstruction, critical theory, or postmodern theory, they share basic concerns about the practices and processes of interpretation and critical theory in the digital, debate formalism versus interpretation, and situate possible explorations in

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design-based research that combines the theoretical and the practical. Of course this is not a new phenomenon, as alternative forms of critical making are particularly pertinent in fields such as media or performance studies where audio-visual forms such as video essays are a common practice (Keathley 2011). These practices question how media scholarship and humanities research is transformed in the digital age. Conversely, tools such as *Flash* and more recently *Twine*, *Game Maker*, or *Unity3D* enables humanities scholars with limited programming skills to create digital games. This supports academic research to focus on the material practice of producing games, as well as providing a creative outlet to create games that provide a meta-reflection on games and play. More research is needed into the value and form of games as a form of game criticism. Currently, most research in this field is language-based, but games such as *Necessary Evil* (Gualeni et al. 2013) question game conventions and narrative structures by presenting an interactive audio-visual experiment. The *Games on Games Project* is a first step towards exploring how these game prototypes can be a form of criticism. It raises the need to conceptualize how this form and function finds its place in humanities research. To build on the Games on Games project, this article explores the extent to which Theodor Adorno's essay might provide a possible framework to frame these experiments as intellectual objects to think with. Furthermore, it zooms into function of design as augmenting knowledge production in humanities research.

Therefore, the main question guiding this exploration is: what is the form and value of critical game design practice? By answering this question, I aim to provide a next step towards integrating critical theory in game design practice. Revisiting Theodor Adorno's (1984) 'The essay as form', I argue game essays are an interactive audio-visual mode of playful knowledge production for game criticism. Then, drawing from my own experience, I focus on the performative and situated practice of critically engaging with game design.

THE GAME ESSAY AS FORM

Therefore the law of the innermost form of the essay is heresy. By transgressing the orthodoxy of thought, something becomes visible in the object which it is orthodoxy's secret purpose to keep invisible (Adorno 1984, 171)

My interpretation of the game essay is appropriated from Theodor Adorno, who borrows the aesthetic autonomy from art to critique the ideology of its objects. Adorno's work is rooted in the social criticism of the *Frankfurter Schule* on the prevalence of modern science's instrumental rationality and the culture industry. In this section, I draw on earlier experiments in media studies and the video essay. The video essay combines poetry, experimental film, and music in an audio-visual work that explores themes and questions film. Building on this research, the game essay could be positioned as a work that embodies game criticism by presenting it in an interactive audio-visual form that is complementary to the medium.

Adorno and the Essay

Adorno's views on science and art are part of the social theory developed by himself and Max Horkheimer in the *Dialectic of Enlightenment* (Horkheimer & Adorno 2002 [1944]), written in the US in a time of exile. The authors asked themselves how it was possible that modern science and the consumer industry advocated progress and promised to liberate people from illness and ignorance and mind-numbing labor, while at the same time allow fascism, genocide, and weapons of mass destruction to be developed? Their answer was that reason has become irrational. Conversely, the game essay is a work that

uses its form to ask questions about its own nature, specific elements, or relation to the culture industry.

In 'The essay as form' (Adorno 1984 [1958]) Adorno starts by demarcating his perspectives on the natural sciences and art. The *kosmos noetikos* (intelligible world) is divided into science and art. For Adorno, the humanities or *Geisteswissenschaft*, concerns the study of culture, as it studies culture and cultural artifacts from within. The natural science, what Adorno calls "organized science," is the science of proven fact and knowledge, and is criticized for its instrumental rationalism:

The essay does not obey the rules of the game of organized science and theory that, following Spinoza's principle, the order of things is identical with that of ideas. Since the airtight order of concepts is not identical with existence, the essay does not strive for closed, deductive or inductive, construction (Adorno 1984, 159)

Important to note is that the essay is not an artwork. Rather, it is in-between rational thought and an aesthetic object. 'Instead of achieving something scientifically, or creating something artistically, the effort of the essay reflects a childlike freedom that catches fire, without scruple, on what others have already done' (ibid. 152). Adorno draws attention to the way in which the aesthetic form is something that cannot be rationalized. It rejects the rules of organization and categorization, since it does not strive for closed deductive or inductive construction (158). The essay has aesthetic autonomy to transform, free itself from rules of engagement, or scientific norm. This is an important aspect of Adorno's essay, as he proposes an anti-method, which, as I will illustrate later, does not bend to the logic of scientific method. The essay is in-between rational thought an aesthetic object, which can classify it as an oddity, but it purposefully accepts this brand. Borrowing aesthetic autonomy from art, it sets itself apart by incorporating criticism as an interpretative framework.

The essay is both more open and more closed than traditional thought would like (ibid. 165). It is more open-ended by exclusion of the systemic, and refrains from positioning itself in fixed philosophical common places. Conversely, the essay is more closed in the sense that it emphasizes presentation. Presentation in this sense relates to the aesthetic form, however it separates it from art in its theoretical aspects. The essay is inescapably related to theory, namely critical theory and interpretation. As Adorno beautifully phrases: '[n]othing can be interpreted out of a work without at the same time being interpreted into it' (ibid.). The text becomes a work on its own, inviting its reader to think, wonder, and reflect. This resembles the approach of contemporary humanities scholars such as Mieke Bal, who conceptualizes such a work as a theoretical object. A theoretical object is not a case study, but a perspective of an object as a thing that produces questions on theory and boundaries between concepts, which obliges the reader to reflect on the theory that is made visible (Bal 2002). Using the essay as an object, but also as a process to think with creates a dialogue between the work and the user. The essay as form becomes a thing that invites questioning, but also asks questions of theory; it becomes an object to think with.

Methodologically, the essay embodies a criticism on the emphasis on method in modern science as a social critique on Kant's perspective on Enlightenment and rationalism. For Kant, Enlightenment liberates from authority, since human reason is capable of answering all questions that the authority, such as priests, previously only had access to. Knowledge equals power as the light of Enlightenment leads to rationality with which we

understand the world. Adorno and Horkheimer contest Kant and the positivity of Enlightenment, which is materialized in scientific method. The scientific method that the authors refer to is the model of scientific reasoning as the only plausible way to explain phenomenon. It is here where the essay comes in play, as a product that counters ideas of rationalism and organized science.

Adorno refrains from formalizing a framework to define the form or method of producing an essay. Instead, the emphasis is on play:

> *Luck and play are essential to the essay. It does not begin with Adam and Eve but with what it wants to discuss; it says what is at issue and stops where it feels itself complete -not where nothing is left to say* (Adorno 1984, 152).

He proposes something of an anti-method by openly stating that the essay does not follow scientific method. Adorno considers the essay as a protest against the four rules of modern Western science and its theory, specifically as defined in Descartes *Discourse and Method*. First, the essay defies the rule of accepting only that which is indubitable as true. Second, the essay resists the tenet that every question needs to be broken down into manageable parts. Instead, the essay aims to show the complexity of the phenomenon, not structure it according to the logic of order. The third rule of modern science is to begin with the simplest issues and ascend to the more complex and rearrange them so that a truth can be deduced. The fourth rule is to review frequently enough to retain the whole argument at once. Following this logic, the process of creating an essay is *not* something that can be formalized. Instead, what Adorno emphasizes is the iterative exploration of producing an essay.

Towards a Definition of Game Essays

Considering the dialectic relationship of the essay, its appropriation in film and media studies, and its formation in game studies, I broadly define game essays as interactive audio-visual works that embody and question games and play. Finding its roots in critical theory, it aims at celebrating the complexity of games and play. As an audio-visual form, the game essay builds on film and video essays produced in media and culture studies, where the medium is used by scholars to explore narrative themes, elements, or the culture industry of media. Another example of transferring text-based concepts to games is Bogost's game poetry. Bogost transferred the poetry style of imagism to a game form in *A Slow Year* (2010), a collection of four mini games, representing each season.

As mentioned earlier, the essay is not a new phenomenon, and it has taken on many different shapes and (media) forms. The video essay, or film essay, has a longstanding tradition in film studies. Since the 1920s, film scholars have experimented with film aesthetics and meaning. Think for instance of the work by Godard, Eisenstein, or Kuleshov that explored the vocabulary of meaning making process in film by testing the medium's possibilities. By experimenting with editing, Kuleshov and his team created several essays that explored different montage techniques. For instance, the effect of editing images after a similar neutral facial expression to explore the difference in meaning-making. The viewer sees an actor staring to something off-screen, and the scene is intercut with different images, making the gaze appear hungry, lusting or mourning (Prince and Hensley 1992). The emergence of technologies such as the DVD, or later on digital technologies, made it easier to analyze films, and according to film scholars such as Laura Mulvey to reinvent textual analysis by using techniques such as freeze frame, scan, and slow motion (Keathley 2011, 176).

While film studies scholars predominantly use written language to express and produce knowledge on the medium, the incorporation of images, materialized in moving images and sounds, drew attention to the way in which these works are a language all on itself (ibid. 190). They are analytical experiments, where meaning, style, representation, critical thought is brought together in an audiovisual product that is hard to define. Others have defined the video essay as a 'brainy, bratty, mixed breed love child of poetry, creative nonfiction, art house indies, documentary, and experimental media art. It is an ascendant incarnation of Adorno's heresy, and the moment has never been better for it' (Freeman 2012). Freeman refers to a provocative sentence in Adorno's 'The essay as form'.

Another example can be drawn from scholars such as Trinh T. Min-ha, who combines research and practice through the production of film and video essays. In her video essay *Reassemblage* (1984), Trinh deals with the complexity and conventions of documentary film. Although it is attributed as an anthropological discourse on culture, its array of themes, stories and experimental cinematographic techniques make it difficult to comprehend. As voiced by gender scholar Domitilla Olivieri (2012, 101) *'Reassemblage* is a film about the complexities and pitfalls of filmmaking, about the problems at stake with observing and representing the Other, about the claims of truth and objectivity embedded in certain anthropological approaches, about how power is implicated in the processes of knowledge production, and about how subjectivity is interpellated in such processes'. Assembling and re-arranging audio-fragments, images, video, and narration, the video essay is an interrogation for both the producer and viewer.

The challenge, for media studies scholars studying games, is to produce knowledge that situates the researcher by 'borrowing the explanatory authority of one, and the poetical power of another '(Keathley 2011, 190). Keathley illustrates that digital technologies enable the construction of audio-visual essays that move critical discussion into a new presentational context. The question that remains is, how does one go about creating these game essays? Illustrating the value of prototypes and experimenting, Werning (Forthcoming) proposes several principles:

- … vignettes, not 'complete' games;
- … built on existing media and cultural studies research;
- … intended to test hypotheses and challenge user preconceptions;
- … easily modifiable and remixable;
- … an on-going process (i.e. they constitute a 'dialogue' with the enabling technologies as cognitive tools);
- … usually abstract in terms of audio-visual detail and semantics;
- … published in a way that affords discussion and multiplicity (i.e. not pre-emptive consensus), and;
- … utilizing analytics for non-commercial purposes.

The focus of game essays as experiments, rather than complete games, is inspired by film studies.

Game essays as reflexive experiences

One example of an experiment which combines the essayistic style and criticism sketched out by Adorno is *Necessary Evil* (Gualeni et al. 2013). For the 2013 DiGRA conference

in Atlanta, Gualeni made a video essay, where he discusses his motivation and theoretical foundation of creating this critical game. The game is designed for a player experience that questions the player-centric function of games. As Gualeni (2013) explains, the world that monsters inhabit in the game is not built for them, but for the player. Games, as many interactive experiences, are made with a particular player experience in mind. Understanding the game from a software studies perspective, he elaborates that the game is developed around the possibility for the player to perceive and interact with it. Only that which the player sees on the screen exists, the rest is non-existent. Everything outside that the view of the camera is not rendered, a technique called hidden surface removal, or occlusion colling. The design of levels follows a similar logic, as only the level on which the player is playing the game, exists at that particular moment. The rest are merely potential levels, which are actualized when the player accesses, or reaches, this level (Gualeni 2013).

The visual cues, such as the energy level, amount of coins, or carpet placed in the room provides feedback that is intentionally not intended for the player, but for the NPC, which in this case is the main character of the game. The game ends when either the hero slays the evil minion - which means that the player effectively loses the game - or when player slays the hero. In this example, the game is a self-reflexive experience, intended to make the player think critically about his/her own central role in the game. Just as Trinh's video essay, Gualeni questions what makes a game a game by creating a thought-experiment by creating a game that visualizes what is not materialized in a formal game, but can only be imagined. Initializing the game, the player is shown the code of the game. What Gualeni illustrates in this experiment, is that a game can be a critical self-reflexive experience for the player.

The game experiments and asks ontological and ideological questions about itself through the use of several counterstrategies (Galloway 2006), which problematize certain aspects of the game. First, the game appropriates Galloway's counterstrategy of transparency versus foregrounding. This technique, appropriated by Galloway from Peter Wollen's framework on counter cinema, is also used in film essays to visualize the practice of film making which is hidden from the viewer. Examples are the showing of microphones, lights, or the director. In a similar manner, when the game starts, programming language narrates the players position in the game, as the minion is present when all the game objects, such as the crates, are "loaded" into the game level. The game's objective is a 'technically brutal awakening in the room', to make the player feel 'this world is not for me' (Gualeni 2013). This is accomplished through visualizing the code, which is usually invisible for the player. Second, the game creates conditions of *estrangement*. Again, reading Wollen through Galloway (Galloway 2006, 110), *identification versus estrangement* is one strategy that experiments with emotional involvement of one character, versus creating conditions that leave the player feeling unfulfilled. Instead of being center-stage, the player plays a secondary role in comparison to the game's hero. It builds on the designers' curiosity of what happens to the enemy when it is not in the game, the player plays a generic evil minion, instead of the stereotypical (white male) hero. Interestingly, the game is designed around the hero, not the evil minion. Practically, this means that the player as evil minion has little agency, and player actions do not result in in-game consequences. In fact, as a minion, you cannot leave the room, break the crates, or loot the treasure chest, leaving the player feel unfulfilled and bored. Lastly, these visual and narrative cues combined with the limited gameplay creates an *unpleasant* player experience. By doing so, *Necessary Evil* questions the idealistic structure of games and player-centrism in games. The theoretical backdrop of this game is the ontological

hypothesis that a game is only a game if a player plays the game (Gualeni 2013). Making these conventions explicit, it simultaneously asks questions of game theory, and what makes a game a game, while making the player reflect on their own experience.

By focusing on producing games, the focus is on producing a product with a begin, middle, and end. As scholar Stefan Werning (2016) argues, by creating experiments, rather than complete games, it is possible to explore the notion of game-making by experimenting. Creating experiments provide more aesthetic autonomy for the researcher since delivering a product is not a particular focus. Experimentation forces the researcher to think about game objects, genre conventions, narrative, design practices, however, as Adorno vocalized earlier, what results is something that is classified among the oddities. Which is done in the example of *Necessary Evil*. Although it is not my intention to classify the game as odd, the player is left to wonder whether he is playing at all, and that is precisely the point of the game. Although it is essayistic games like these that are very valuable to play, the process of creation is equally, if not more important in understanding games. Therefore, in discussing the game essay as form, we must focus on its formation as well.

GAME ESSAYS AND RESEARCH PRAXIS

In the previous section I addressed the possible form of a game essay by discussing how experiments such as *Necessary Evil* pose questions about genre conventions, game elements and player position. In this section I want to focus on the value of its process. Emphasizing a "thinking through making" approach, I position this type of game research within the digital humanities. It highlights the need for researchers to get their hands dirty and use the design tools available to them as it helps to understand and demystify the design process, and allows the researcher to critically reflect on the politics of creating a game-experience. To accomplish this, I reflect on my own experience in designing several iterations of a game using *Unity3D* as a game engine.

A critical perspective from the digital humanities

The process of designing is a dialogue between the the tools and its user. It is here where game essays differ from political games or art games. First, by contrast, game essays are designed by humanities scholars who study games, and may not necessarily consider themselves designers. Second, the context of designing is research-centric, not necessarily player-centric. Considering game essays are experiments, rather than fully fleshed out products, they are more useful as hermeneutic instruments to understand games, than as rhetorical objects with a persuasive message. My perspective herein is aligned with digital humanities scholars such as Johanna Drucker or David Berry, who question the role of the *digital* in contemporary humanities practice, and propose to focus on practices of making as a subjective, situated, and embodied form of knowledge production, and producing interactive works that evokes questions on its medium and form. At the core of what is now called digital humanities is incorporating or designing computational objects that enrich humanities research. As digital humanist Johanna Drucker (2009) explains, the widespread acknowledgement of digital technologies in the humanities struck many with a sense of awe, and some with a slight sense of panic. On the one hand digital methods and tools opened up new research methods. Enchanted by new ways of visualizing information, scholars use software visualization tools as part of humanities research. This side of digital humanities research disambiguates 'knowledge representation so that it operates within the codes of computational processing' (Drucker 2009, 5). This expression of the digital humanities uses software as an instrument to enrich existing cultural research. Think for instance, of historians using data visualization

tools to search digitized texts for patterns or clusters. To bring this discussion closer to home, something similar can be said of using digital games as tools. One recent example is the *Metadata Game*, which uses crowdsourcing to enrich cultural artifacts with metadata (Flanagan et al. 2013). On the other hand, counter-voices from the margins started to question what gets lost in the formal expression of computational logic. It emphasizes that using digital tools such as game engines are not innoscent objects. 'They are a powerful change agent setting the terms of a cultural shift' (Drucker 2009, 5). To simplify, while one side of the digital humanities uses software tools to augment humanities research, the other uses humanities tools such as critical theory to question the role of software and the larger cultural issues at stake. To know how gameplay shapes player experience, a researcher needs to engage with the tools that created the game.

Play and open-ended design

The attention to the skills of the researcher brings us to the second defining feature of the game essay, which is that game essays are *research-centric*, which means they are not necessarily player-centric. This goes against the grain of most books on game design, which states that games are designed for a specific player experience (e.g, Schell 2010). This focus on research opens up the possibility for open-ended exploration. With a focus on research, it is an exploration and inquiry into both the design process, and questioning game rules, mechanics, or conventions. Critical making is just as much as about the design process as it is about the object. It is about experimentation, and although in later stages of the process a specific player experience may emerge, it may also not. This depends on the form of the game essay. In fact, some essays may not be playable at all. In the case of the *Games on Games Project*, the products are finished products or at least playable prototypes. But as I will illustrate in the case study below, prototypes are valuable for understanding games.

As illustrated in a recent survey on game scholarship, academic research on games and play is dispersed and transcends many disciplines, with each their own traditions (Mäyrä, et al. 2013). This multitude of perspectives within each discipline raises the need for scholars to situate their own academic background in relation to how they approach game research. It was Espen Aarseth (2003) who argued that we must play games in order to study them. Building on this view, I argue that in order to understand the meaning of game design we must play with designing. Therefore, in this section I share my personal experience with creating a game essay. At the time of writing the essay is still a work in process, although one principle of a game essay is that they are vignettes, which allows for this work to be in a permanent beta phase. Nonetheless, below I will share some insights into the value of creating an essay by playing with game design using game engines.

This project is part of the *Utrecht Game Lab*, which aimed to deconstruct and analyze the popular Atari game *Asteroids* (1979). My first objective was to experiment with several iterations of gameplay. One of my primary goals was to explore the potential of working with *Unity3D* and remixing a simple game that was easily modifiable so I could produce several experiments. In the original version of the popular arcade game, the game is set in space, and the player controls a spaceship, which is assaulted by asteroids and flying saucers. The gameplay is fairly straightforward as the objective is to smash asteroids and the occasional saucer by shooting them, while avoiding collisions and counter-fire. A second goal for this experiment was to experiment with translating ethnographic data in a game form. To achieve this, I collaborated with a group of students from the master *Conflict Studies and Human Rights* from Utrecht University and conducted a small

exploratory ethnographic study on a nationalist group in the Netherlands. Using participant observation as a method, I was present at a Pegida demonstration, held in Rotterdam in November 2015. Pegida, a German abbreviation for *Patriotic Europeans Against the Islamisation of the Occident*, is a Germany-based extreme right-winged political movement also active in the Netherlands. The objective of this small study was not to conduct an in-depth analysis of this Pegida demonstration, although the students with which I collaborated conducted this study as part of their own research. Rather, for me, it was a thought experiment on how I could incorporate this experience into several prototypes. I had no particular set outcome, player experience, or a particular vision for what I wanted to create. This emerged later on in the project.

One of the principles mentioned in the previous chapter is the on-going process that creates a dialogue between the designer and the tool. Game engines such as *Unity3D* are used by many developers to create their games. The widespread availability of information and tutorials on how to create games using Unity lowers the threshold to experiment with game design. As such, they could be possible tools for creating game essays. Since a basic version of the program is freely available, the next generation humanities scholars can potentially experiment with the creation of prototypes or games in game jams, or in the comfort of their own home. However, digital literacy in knowing how to use these tools does not necessarily mean that you know how to create good games. The process of learning the new visual language of the interface and the textual language of C# is very iterative. In setting up a scene, creating game objects or adding behaviors to the objects, I regularly stumbled upon errors or faults in my code. However, it is through the act of failure, that you start learning the logic of object oriented programming, which leads to the creation of alterative solutions to problems, which in turn, informed my perspective of framing the game event. After setting up the scene in Unity and placing game objects in the environment, I wanted to add behaviors. For one of the behaviors I needed to create a script to have a game object rotate around a game object. This was vital in order to have the police as non-playable characters (NPC) rotate around the press in the first prototype. Since the Unity interface is very visual, it is easy to add components to game objects. In the process of creating the first prototype, I started to play around with different assets, changing textures of the game objects and adding sound effects to the actions. This process eventually led to unexpected experimentation.

Experimenting in this manner is less formal than game design. It resembles play as defined by Roger Caillois (2001), in sense that this activity can be seen as an informal, open-ended, free-form exploration of ideas and hypothesis testing. In this process, the idea emerged to play with integrating audio interviews as artifacts of their own, independent of gameplay. This led me to experiment with the idea of the war spectacle, and how I could counter the desire to come as close to the actuality of war as possible.[1] Although it is out of the scope of this article to address the entire theoretical framing of my exploration, the strategy I chose as a basis to work with builds on Galloway's conceptualization of *representational modeling versus visual artifacts* (2006, 125). In games, and war games in particular, conventional game aesthetics are based on the visual principle of *representational modeling*. As Galloway explains, 'a well-designed game has a high level of representational fidelity: objects in the game may be entirely imaginary and have no real-world referent, but they must always be cohesive and represented as objects with an actual relationship to gameplay (ibid. 118). In other words, the game objects must relate to the game in such a way that relates to the gameplay, and makes sense to the player. Extending this visual principle to the aesthetic experience of audio, the player expects certain sounds to relate to the actions. One example relating to

Asteroids is the sound of the spaceship firing and hitting one of the asteroids. Contrarily, *visual artifacts* have the opposite effect representational modeling, and tend to highlight the misplaced, broken, or mistaken. I incorporated this strategy in two ways. First, integrating the entire interview as a kind of "background" music, I attempted to take quite literally, the desire to come as close as possible to the experience of conflict. Second, I recorded snippets of my own narration, which were asynchronously played when the player shoots a quote, purposefully incorporating glitches into the gameplay. Through embodied, situated experience, this practice created valuable knowledge on several levels.

Drawing from this experience, I enriched my vocabulary by understanding things in the game world as game objects, with certain properties, which may or may not collide depending on the settings. In a way, it enables the researcher to see beyond that what he sees when playing the game, and enables to distinguish between objects in the game world. It allows for an understanding how modifiable camera position, light, and sound are, and how games created with game engines such as Unity are composed of components with certain behaviors. Second, this reflection led to an experiential understanding of conflict in games. The nature of framing and stereotyping related closely to the discussion on whether or not the outcome of the prototype should be winning. In other words, what constitutes as conflict in games, and when is the player *in* conflict. If you take away the winning conditions and the visual information, is the game still a game, is it a simulation, or is it open-ended play? This led to different ideas on constructing variations of prototypes with different visual information and winning conditions. One prototype did not rely on quantifiable outcomes and had no visual information on the progress and status of the player. In another variant, the game was impossible to win. This led to a discussion on the distribution of power and player agency in contemporary digital games. In a way, this resonates with one of the lessons drawn from *Necessary Evil*, where the game object representing the Enemy is always positioned as a weaker other, without ample weaponry or a rich backstory. By reassembling game mechanics, and changing winning conditions to the extent that they become "unbalanced", or without winning conditions, then interesting questions start to appear about conventions and elements that might not be visible otherwise. It illustrates, how certain values are present in digital games (Flanagan, Howe, Nissenbaum 2008), but by deconstructing the design process, the researcher is able to flesh out and distinguish between specific values of game engines, software language, and design decisions.

Essays and playful knowledge production

Zooming into the process of designing I aimed to illustrate how learning to program and create digital games is a vital practice for understanding games. In this final section I will zoom out and reflect on the game essay as a playful form of knowledge production. Playing with technology creates informal knowledge about its design, affordances and possible uses.

As other researchers have noted, playing with software programs generates experiential knowledge. We play with software to learn programming skills (Resnick and Rosenbaum 2013), or to understand how hardware works (de Smale 2014). The first form of playful knowledge production is about the content itself since the game essay is research-centric, the design process generated questions regarding scientific responsibility and research ethic of the designer. In a written, text-based essay, the writer is faced with different challenges as with a game is dependent on game objects, behaviors of these objects, and the conditions of their interactions with the player. For example, it forced a reflection on

the relationship between framing the Pegida event and question how the actors could be staged as players, or how to present the audio recordings. Early on in the prototyping phase, the determination of which actor would be played by the player forced me as designer, to think about the role of all actors, and who would be perceived as the "enemy" and as the "hero." This moral dilemma raised the need to study the event and its actors, how they are framed in the media, and the difference between a personal opinion and research attitude. 'The morality of computer games lies not only in *what* they tell, but also in *how* it is told [authors own emphasis]' (Sicart 2005). As digital humanist David Berry (2014) explains, the challenge for critical theory in the digital age is what Theodor Adorno conceptualized as *identity thinking*, a form of thought prevailing in (computational) scientific rationalities and practices. Identity thinking is a mode of thinking that aims to subsume all particular objects under generalized concepts, resulting in the dissolution of the particular in the universal. Translating this thinking to the contemporary digital age, identity thinking for Berry materializes in framing or translating reality within computational categories, using computational methods. As a result, things that do not fall within these categories get ignored or lost in translation. The danger of this style of thought is that it moves towards new forms of control and limited *instrumental rationality* (ibid. 12-3). Getting your hands dirty brings the researcher generates experiential knowledge that designing *is* framing.

The second form of knowledge production is not only instrumental, in the sense that it helps researchers to learn how to design games. In addition to these interactions, you learn about political economy of game design tools and how these values are embedded in its design. In learning to produce games, researchers learn for instance, how game engines afford specific use. Here, I draw on Gibson's (1986) interpretation of affordances as relational between animal/environment, rather than Norman's (1999) interpretation of affordances. The visual interface of Unity is made to experiment with. The designer, with little knowledge on programming and design, is able to construct a game level by dragging components into the game object and using sliders to adapt the intensity of one such component. The fact that this engine's environment allows alterations to a game's design can be viewed and played instantly in play mode allows for quick iterations and for rapid prototyping. The ability to view and test your ideas instantly in play mode allows much room for experimentation. On the other side however, a critical perspective is needed to ask questions such as: how does Unity profit off this model? What do they stand to gain and what are the politics around it? It was beyond the scope of this paper to analyze the game engine's values, but further humanities research could analyze what values are embedded within the affordances of game engines.

This engagement of the design process as an active meaning-making process focuses on embodied and situated knowledge. As mentioned earlier, Adorno stresses the importance of this type of knowledge. It is part of a longstanding discussion on the value and differentiation of knowledge, and concerns the relation between subjective knowledge, which is situated and partial, and objective knowledge, which is transcendent and totalizing (Adorno 1984, 129). The essay focuses on the fragmentary in relation to the object. Its aim is to illustrate complexity by unraveling the many threads, which are interwoven with each other. '[T]he desire of the essay is not to seek and filter the eternal out of the transitory; it wants, rather, to make the transitory eternal' (ibid. 159). The desire for the essay is to focus on knowledge through experience, *a posteriori*, rather than objective knowledge *a priori*, as in formalist understandings.

To give another example within the realm of games, it a critique towards studying only formal game characteristics and generalized design elements. Like in the digital humanities, the move towards systems thinking has received much criticism from game and play scholars, who claim that formalist accounts of games instrumentalize play (Sicart 2011). Scholar Miguel Sicart embeds his criticism on proceduralism within critical theory, in particular within the concept of instrumental rationality. Sicart's criticism on proceduralist accounts of games is that meaning is embedded within the game prior to the activity. Proceduralism enforces instrumental play, which eliminates the player as an active configurator of meaning. This *a priori* understanding of knowledge is based on instrumental rationalism. In a similar manner, a formalist account of game design eliminates the elements of play that are seen in the process of designing.

Focusing on *a posteriori* knowledge instead illuminates what the situated experience of play means in the context of knowledge production. It forces the researcher to *situate* his/her own research and design experience. This type of embodied knowledge complements traditional knowledge gained on reading theory on discourse and framing conflict, and is conceptualized by scholars such as Donna Haraway (1988) as situated knowledge. It highlights the importance of partial and subjective experience, and how it relates to the meaning-making process. The author is simultaneously studying the practice, which draws attention to the hand that creates the game essay. This resonates with the work of game scholars such as Annika Waern and Jon Back (2015), who argue that one way to understand games is to experiment with their design. Waern and Back distinguish between formal experiments as done in computer science, to get answers to descriptive questions or work towards solutions, and evocative design experiments that support open design explorations (ibid. 348). The authors stress the playful nature of the design process, which tends to be open-ended. In iterating different prototypes, it is the messiness of trying out different mechanics, the value of failure, and stumbling upon a solution.

In sum, the game essay is an interactive audio-visual work that uses its form to ask questions about its own nature, specific elements, or its relation to the game industry. Rather than a complete game, it can be seen as vignettes that are remixable in a continuous dialectic process to question and challenge existing preconceptions on game elements, genres, and to experiment with new interpretations. As a critique, the game essay builds on critical theory and Theodor Adorno's perspective of the essay as an autonomous work that proposes the essay as an anti-method against instrumental rationality. As a process, it is valuable since it embodies a 'thinking through making' approach that allows the researcher to reflect on its content and the implications of using specific design tools with specific affordances. Rejecting rationalized design frameworks and embracing the explorative open-ended nature of experimentation illustrates the playful aspect of this form of knowledge production. Playful knowledge production focuses on creativity, situatedness, and emphasizing the value of embodied practice.

CONCLUSION

This article has been an exploration of the way in which game essays as form and practice are valuable scholarly research in the digital humanities. I broadly defined game essays an interactive audio-visual work that embodies and questions games and play. My interpretation of the essay is appropriated from Theodor Adorno, who considers the essay a form of heresy, borrowing the aesthetic autonomy from art to critique the ideology of its objects. Adorno's work is rooted in the social criticism of the *Frankfurter Schule* on the prevalence of modern science's instrumental rationality. As an interactive audio-visual

form, the game essay builds on film and video essays produced in media and culture studies, where the medium is used by scholars to explore narrative themes, elements, or the culture industry of media. One example is the game *Necessary Evil* (2013), which explores the ontological hypothesis that a game is only a game when it is played, and investigates the player-centric narrative structure of a game. Appropriating counter-strategies such as: creating an *unpleasant* player experience; *estrangement* with the game's main character; and foregrounding the game's programming language, *Necessary Evil* (2013) questions player-centrism and the stereotype of the (white) male hero in games by making these game conventions explicit. Further research is needed to examine how to successfully produce game essays, prototypes, or experiments that produce game criticism in a form that is taken seriously by humanities game researchers. Potentially, game essays could be a fruitful method of assessment, although further research is needed in this area. This implies the need to create scholarly environments and peer reviewed platforms to stimulate and publish such work. For example, journals such as the *European Journal of Media Studies* provide a platform to present video essays. Hopefully in the near future, these extend to game essays as well.

The iterative open-ended and situated practice is a counter practice and anti-method for game design. As justly raised by game scholar Sebastian Deterding (2015, 26), the 'celebration of games and play as sites of transformation, subversion, autonomy, or empowerment is no less instrumentalizing - it simply instrumentalizes for progressive purposes'. Indeed, it seems that different political perspectives and epistemological views manifest in different ideologies on games, which strengthens the need to situate an academic's personal perspective on games. Game design for a humanities scholar can be form of critical making that celebrates playful knowledge production. Concluding, I argue this type of critical making augments traditional humanities scholarship by situated knowledge through a playful engagement with the design process. Such is the turn of *ludic a posteriori* knowledge.

ENDNOTES

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