

The “I” in Interactive Digital Narrative:

An analysis of limited user agency in the interactive Netflix movie Kimmy vs. the Reverend

Jessica Panopoulou (3664031)

MA. New Media and Digital Culture

Supervisor: Dr. Anne Kustritz

ABSTRACT:

Over the years, games and movies have merged more into hybrid forms of media. An example of such a hybrid form is interactive digital narrative, which is a specific form of narrative in a digital medium that allows user to participate and to influence the narrative. While interactive digital narratives should enable full and unrestricted user agency, this seems impossible because of the technical limitations that are afforded by the medium. Beside this afforded limitation, user agency should also be limited or in moderation in order to create a pleasurable experience for the user. This research tends to find ways of creative limited agency in interactive digital narratives and specifically in the interactive Netflix movie *Kimmy vs. the Reverend* that may offer a playful alternative to the tension between full and limited agency. By using the walkthrough method to analyse the forms of user agency in the movie and comparing them to the discussion about limited and unlimited user agency in interactive digital narratives, this research identifies different forms of user agency in the movie. Besides the limited agency that is narrative related, the movie also contains non-narrative related agency. The analysis of the movie is concluded with the finding of Easter eggs, which is derived from the field of video games, as a creative new hybrid form of limited user agency in interactive movies.

Keywords: Interactive digital narrative, user agency, interactive movies, Netflix

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1. Introduction

“What the hell? Raggedy Ann gets a happy ending, but everyone hates her young, hot Gen-Z friend? Uh-nuh. Start over.” This is one of the four official and complete endings of the interactive movie *Kimmy vs. the Reverend* as in that it follows a complete telling of the movie’s major plot points;¹ yet it is also one of the three non-optimal complete endings wherein one of the movie characters requests the viewer to watch the movie again with different choices in order to reach the only complete ending marked by the film as “winning”. On May the 12th of 2020, Netflix released this interactive episode as part of a Netflix series called *Unbreakable Kimmy Schmidt*.² The interactive movie uses interactive digital narrative (IDN) to enable interaction with the viewers. This is a specific form of narrative in a digital medium which allows user to participate in the experience and to influence the course of the narrative.³ This form of user participation in interactive digital narratives brings a contradiction to light. While these interactive digital narratives should theoretically enable full unlimited agency, this also seems impossible due to the limitations of the affordances of the medium as computers must be pre-programmed. This is similar to the debate known in video game literature as narratology versus ludology. Espen Aarseth states in this debate that “a game which allows great player freedom in creating or modifying objects will at the same time not be able to afford strong narrative control”, where the tension between expanded user agency and limited user agency can be seen as ludology versus narratology.⁴ Marie-Laure Ryan connects this tension between narratology and ludology to interactive narrative by arguing that too many choices in interactive narrative are more likely to lead to confusion and frustration than to feelings of freedom and empowerment for the user.⁵ According to Ryan, user agency should therefore be limited through either programmed periods of user control and system control or through limitations of user choices in the case of constant interactivity.⁶ This tension between limitation of user agency and user experience is also backed up by Noam Knoller, who states that narratives may require limited user choice in order to create a satisfying experience.⁷ The tension between full and limited agency thus

¹ Tina Fey and Robert Carlock, program creators, 2020, *Unbreakable Kimmy Schmidt: Kimmy vs. the Reverend*, aired May 12, 2020 on Netflix.

² Tina Fey and Robert Carlock, program creators, 2015, *Unbreakable Kimmy Schmidt*, aired March 6, 2015 on Netflix.

³ Christian Roth and Hartmut Koenitz, “Bandersnatch, Yea or Nay? Reception and User Experience of an Interactive Digital Narrative Video,” *TVX/19: Proceedings of the 2019 ACM International Conference on Interactive Experiences for TV and Online Video* (2019): 249.

⁴ Espen Aarseth, “A Narrative Theory of Games,” *Proceedings of the International Conference on the Foundation of Digital Games (FDG’12)* (2012): 132.

⁵ Marie-Laure Ryan, “Avatars of Story,” *Electronic Mediations* 17 (2006), 123.

⁶ Ryan, “Avatars of Story,” 123.

⁷ Noam Knoller, “Agency and the Art of Interactive Digital Storytelling,” *Lecture Notes in Computer Science* 6432 (2010): 267.

asks for a new creative approach to enable a form of agency that could still possibly provide a pleasurable experience for the user.

While the tension described so far has mainly been about videogames, Janet Murray argues that there have been games who have led to a shift from commercial video games to a new media form, like the narrative-driven puzzle game *Myst*.⁸ This shift has among other things occurred in the field of movies. According to the authors Mirjam Vosmeer and Ben Schouten nowadays videogames and movies have come to a point where they almost seem to merge.⁹ Video game technologies that were developed to improve the experience of gameplay are being used to expand cinema and cinema audience's possibilities.¹⁰ The authors also state that this combined new form of media asks for a new mode of "lean in" engagement of its users that should be a combination of the passively "lean-back" engagement in cinema and the actively "lean forward" engagement in videogames.¹¹ The need for a new form is also argued by Michalis Kokonis. He stresses that video games are emerging in a intermedial context as a new hybrid form.¹² Interactive digital narrative in movies is an example of such a new hybrid form. The emergence of games and movies in the form of interactive storytelling in movies is as old as for example the *Kinoautomat – One man and his house*.¹³ This was an interactive film that was featured at the 1967 International and Universal Exposition.¹⁴ During the film, the audience could vote at specific moments with buttons on their armchair to influence the storyline by voting for one out of two possible storylines.¹⁵ After every viewer voted with their buttons on their armchair, the votes would be visible on the screen and the movie would resume according to the majority of the votes. Nico Carpentier argues that the affordances of the film technology influenced the amount of possible participation for the audience.¹⁶ The term affordances was first coined by James Gibson as the possible relationships between the world and an actor, as in what the environments offers the actor which can be a human or an animal.¹⁷ In terms of

⁸ Janet Murray, "Research into Interactive Digital Narrative: A Kaleidoscopic View," *Lecture Notes in Computer Science* 11318 (2018): 5.

Rand Miller and Robyn Miller, *Myst*, Broderbund, Mac OS., 1993.

⁹ Mirjam Vosmeer and Ben Schouten, "Interactive Cinema: Engagement and Interaction," *Lecture Notes in Computer Science* 8832 (2014): 140.

¹⁰ Vosmeer and Schouten, "Interactive Cinema: Engagement and Interaction," 140.

¹¹ Vosmeer and Schouten, "Interactive Cinema: Engagement and Interaction," 146.

¹² Michalis Kokonis, "Intermediality between Games and Fiction: the "Ludology vs. Narratology" Debate in Computer Game Studies: A Response to Gonzalo Frasca," *Film and Media Studies* 9 (2014): 175.

¹³ Radúz Činčera, director, *Kinoautomat: One man and his house*, aired June 23, 1967, at the Czechoslovak Pavillion at Expo 67, Montreal, Canada.

¹⁴ Nico Carpentier, "Keyword – Technology," in *Media and Participation: A site of ideological-democratic struggle* (London: Intellect, 2011), 276.

¹⁵ Carpentier, "Keyword – Technology," 276.

¹⁶ Carpentier, "Keyword – Technology," 297.

¹⁷ James Gibson, "The Theory of Affordances," in *The Ecological Approach to Visual Perception: Classic Edition* (New York: Psychology Press, 2015), 119.

technology, affordances can be seen as all the possible actions that a system allows for the user.¹⁸ Because of the limited amount of projectors that could be used to change the narrative, there was a limited amount of choices for the viewers. The *Kinoautomat* movie also had one fixed beginning and one fixed ending as a result of the limitations of the affordances of the used media at the time. While the storyline between the beginning and the ending could be influenced by the viewers, the film would still end in the same way.¹⁹

Digital media like an online streaming platform such as Netflix have other affordances that enable more opportunities for an interactive narrative than an analogue movie like the *Kinoautomat*. In the *Kimmy vs. the Reverend* movie for example, the viewer can eventually reach one of four different endings. During the movie there are multiple points where the user has to make a decision that determines the storyline. The user then gets a few seconds to choose between two or three options. If the user doesn't make a decision in time, the movie chooses by itself and continues in that order. Every choice the viewer makes affects the narrative. Those choices can lead to one of the four different main endings or to one of the premature wrong endings that the movie registers as a failure. This happens when not all the plot points of the movie have been reached, effectively ending the movie too soon. These premature endings can occur from the third choice moment in the movie on until the last choice moment in the movie. During such an ending, a movie character will tell the viewer that the ending does not feel right and that a wrong decision was made. The viewer then gets a second chance as he or she is referred back to the last moment where the viewer had to choose between the storylines. Besides these choices related to the narrative, the user can also unlock extra scenes and movie material that don't affect the narrative.

The *Kimmy vs. the Reverend* movie is not the first interactive movie that appeared on Netflix. Along with several other movies and episodes that focused on children there are a few movies that focus on adults, like *Bandersnatch* and *Animals on the Loose: a You vs. Wild Movie*.²⁰ The *Bandersnatch* movie has been researched by Christian Roth and Hartmut Koenitz and their findings will be more fully explained in the theoretical framework. In short, they found that the movie has limited user agency and conclude their research with the argument that agency should be limited. According to the authors full agency does not seem possible with the current Netflix technology and further research is crucial to find strategies that use the somewhat limited agency of this technology to its best.²¹ So while you would expect a digital media platform like Netflix to enable more interactivity for the user than a movie like *Kinoautomat* in a cinema, the agency that a movie like

¹⁸ Donald Norman, *The Design of Everyday Things* (New York: Basic Books, 2002).

¹⁹ Carpentier, "Keyword – Technology," 289.

²⁰ David Slade, director, 2018, *Black Mirror: Bandersnatch*, aired December 28, 2018, on Netflix.

Bear, Grylls, cast, 2021, *Animals on the Loose: A You vs. Wild Movie*, aired February 16, 2021, on Netflix.

²¹ Roth and Koenitz, "Bandersnatch, Yea or Nay?", 253.

Bandersnatch or *Kimmy vs. the Reverend* provides is still limited in other ways, for example with the timeframe for the user's decisions. In contrast to *Kinoautomat* the user can reach multiple endings, but complete freedom for the user is not possible, as the user still has to choose between two or three options that are pre-recorded. This poses a contradiction between the statement that interactive digital narrative should enable as much agency as possible in order to reach a pleasurable experience and the statement that agency should not and could not be fully present in an interactive digital narrative. While taking the limitations of the technology regarding full agency into consideration, it seems relevant to research how agency is constructed for the user under the constraints of the technology that could still enable a potentially pleasurable interactive experience of the narrative. This poses the following question: How may the movie *Kimmy vs. the Reverend* enable a form of limited agency that offers playful alternatives to the tension between limited and full interactivity?

I will argue that the movie uses creative non-narrative related ways to possibly encourage playful interactivity for the users. First I will focus on the arguments of the authors Michael Mateas, Joshua Tanenbaum and Karen Tanenbaum who argue that user agency should be unlimited and full. Second I will address the arguments that are made by Christian Roth, Hartmut Koenitz and Noam Knoller who state that user agency is limited by affordances and should be limited or in moderation in order to achieve a pleasurable experience for the user. At last, I will focus on the theories that combine interactive digital narratives in movies and in games in order to address a possible solution for the limited and moderate agency in the *Kimmy vs. the Reverend* movie. After this theoretical explanation, I will describe how I will analyse the *Kimmy vs. the Reverend* movie by using the walkthrough method to relate my main findings to the earlier explained theory about interactive digital narrative and (limited) agency. These main findings will then be explained in the analysis of the *Kimmy vs. the Reverend* movie by focusing on the endings of the movie including the four official complete endings, the wrong premature endings, and the extra content that can be unlocked through (a series of) specific user actions. I will then relate these aspects of the movie to the theory that has been explained in the theoretical framework about interactive digital narrative and limited user agency. This results in a comparison with Easter eggs in games, as *Kimmy vs. the Reverend* uses aspects of this concept in order to create a creative form of limited agency for the users. After this analysis I conclude that the *Kimmy vs. the Reverend* movie can be seen as a hybrid form of interactive digital narrative and games and that further research should focus on other interactive movies that also try to engage limited user agency in creative ways or research that focuses more on user experience.

2. Interactive digital narrative in movies and games

As explained before, there are two sides to the discussion about interactive digital narrative and user agency. On the one hand there are authors like Michael Mateas and Janet Murray who argue that user agency should be full and unlimited.²² On the other hand there are authors like Joshua Tanenbaum, Karen Tanenbaum, Christian Roth and Hartmut Koenitz who argue that user agency is not only limited in interactive digital narrative due to affordance limitations but that it should also be limited when given the choice.²³ In order to still enable a possible pleasurable and motivational interactive experience for the user, it is necessary to analyse which forms of limited agency are possible as a solution for that tension. While most research articles and studies discuss this form of restricted agency in theory, it seems that the practice of it still needs some research as most theoretical solutions have not yet been implemented in an existing interactive digital narrative. By researching the restricted agency in the *Kimmy vs. the Reverend* movie within the context of agency as proposed by the authors mentioned before, this study discusses how the movie produces an interactive experience with creative solutions for restricted agency. Some of these solutions that are used in the *Kimmy vs. the Reverend* movie are more common in the field of game studies. In order to understand these theoretical concepts and frameworks, I will start with the authors that focus on unrestricted or full agency, who are followed by the authors who oppose that idea and focus on agency as restricted or limited. Finally, I will focus on interactive digital narratives in game studies, so that I can discuss this theoretical framework in combination with my findings in the analysis of the *Kimmy vs. the Reverend* movie.

2.1. The tension between full agency and limited agency

As stated before, Michael Mateas, Janet Murray, Christian Roth and Hartmut Koenitz argue that user agency in interactive digital narrative is key for a successful user experience.²⁴ Michael Mateas for example, states that agency is essential for an interactive dramatic experience. He states that the dramatic experience “should be structured in such a way as to maximise the player’s sense of agency within the story.”²⁵ This maximised sense of agency is in accordance with contemporary game design, where according to Joshua and Karen Tanenbaum agency often is interpreted as granting

²² Michael Mateas, “A preliminary poetics for interactive drama and games,” *Digital Creativity* 12, no. 3 (2001); Murray, “Research into Interactive Digital Narrative.”

²³ Christian Roth and Hartmut Koenitz, “Evaluating the User Experience of Interactive Digital Narrative,” *AltMM/16: Proceedings of the 1st International Workshop on Multimedia Alternate Realities* (2016); Joshua Tanenbaum and Karen Tanenbaum, “Improvisation and Performance as Models for Interacting with Stories,” *Lecture Notes in Computer Science* 5334 (2008): 250– 263.

²⁴ Mateas, “A preliminary poetics for interactive drama and games”; Janet Murray, *Hamlet on the Holodeck: the Future of Narrative in Cyberspace* (New York: The Free Press, 1997); Murray, “Research into Interactive Digital Narrative,”; Roth and Koenitz, “Evaluating the User Experience of Interactive Digital Narrative.”

²⁵ Mateas, “A preliminary poetics for interactive drama and games,” 148.

users the power to act without limitation or restriction.²⁶ They refer to this form of agency as unrestricted or true agency and state that interactive narrative research is necessary in order to “facilitate this true agency in a computational narrative environment, without sacrificing narrative coherence or quality.”²⁷ While these authors argue that true agency should be the ultimate goal, they also argue that there should be some sort of balance in order to maintain narrative coherence or quality. This balance is also discussed by Michael Mateas. He argues that agency can be achieved “when there is a balance between the material and formal constraints.”²⁸ The material constraints afford action from the levels of spectacle to thought while the formal causation from the levels of plot to character helps the player understand what to do and therefore afford motivation. Mateas calls this motivation dramatic probability.²⁹ He then continues to say that the formal constraints or affordances need to motivate actions through dramatic probability in the plot and to be in balance with the material constraints or affordances that are enabled by spectacle, pattern, language and thought.³⁰ This balance is in accordance with the balance that Joshua and Karen Tanenbaum mentioned, in order to maintain narrative coherence or quality. While these authors state that agency should be full and true, they also argue that there needs to be a balance to maintain coherence and quality. In order to achieve such a balance, there are authors who approach agency from the opposite side of unrestricted or true agency, referring to it as limited agency.

Noam Knoller is one of the authors who discusses this notion of limited agency. He states that agency in interactive digital storytelling is always restricted and limited by the design of the system.³¹ He continues to say that true agency should be seen as a myth and that restricted agency should not be seen as a shortcoming. According to Knoller, agency in interactive digital storytelling was always restricted by the process of simulation and dramatization first, and second by additional constraints, sometimes by authors.³² He states that some users do not require true agency as a requirement for pleasure as they expect and even enjoy authorial constraints and challenges, thus arguing for a limited form of agency.³³ While Knoller argues that this notion of limited agency can be apparent and accepted by the user, Joshua and Karen Tanenbaum argue that the user should nonetheless still have the illusion of expanded agency.³⁴ Like Knoller though, the authors share the approach to limited agency and provide an example of how this limited agency could look like. They

²⁶ Tanenbaum, “Improvisation and Performance as Models for Interacting with Stories,” 251.

²⁷ Tanenbaum, “Improvisation and Performance as Models for Interacting with Stories,” 251.

²⁸ Mateas, “A preliminary poetics for interactive drama and games,” 145.

²⁹ Mateas, “A preliminary poetics for interactive drama and games,” 141.

³⁰ Mateas, “A preliminary poetics for interactive drama and games,” 145.

³¹ Knoller, “Agency and the Art of Interactive Digital Storytelling,” 266.

³² Knoller, “Agency and the Art of Interactive Digital Storytelling,” 266.

³³ Knoller, “Agency and the Art of Interactive Digital Storytelling,” 266.

³⁴ Tanenbaum, “Improvisation and Performance as Models for Interacting with Stories,” 252.

state that the actions of users are restricted to the possibilities that the authors and programmers have created, meaning that agency is limited.³⁵ Joshua and Karen Tanenbaum pose a solution for the assumption that users are willing to sacrifice narrative coherence in order to reach unrestricted agency. According to the authors, interactive digital narratives should attempt to preserve the illusion of free will for the users while they limit the player's agency in a creative way. As a solution, the Tanenbaum's introduce the notion of the interactor as performer.³⁶ As a performer, each participant in the narrative has a responsibility to accept the dramatic offers that are given and each participant is equally responsible for the narrative. This approach asks for an equal relationship between the author and the user where the author must design the system in such a way that it can cooperate with the user.³⁷ Agency is then reframed as "a shared property of all participants in an interactive drama."³⁸ This approach to agency seems to be one of the creative solutions to maintain user motivation and participation with limited user agency.

However, although the Tanenbaum's solution is promising theoretically, the authors do not explain how this role of performer should be realised in a digital narrative that is not completely open to improvisation because of the limited affordances. In order to understand how limited agency can be realised in an interactive digital narrative, it is necessary to look at existing research that covers this concept. One of these relevant researches is the research concerning the *Bandersnatch* movie by Christian Roth and Hartmut Koenitz.³⁹ In 2018 Netflix released *Bandersnatch* as an interactive stand-alone episode of *Black Mirror*. Christian Roth and Hartmut Koenitz have analysed the interactive digital narrative of *Bandersnatch* and came to the conclusion that user agency is a key concept for the enjoyment of interactive digital narrative.⁴⁰ However, in the case of *Bandersnatch* Roth and Koenitz found that the narrative of the movie is all about not having control. While the movie grants the user some agency, most of it is limited. For example, when the user gets to make a choice depending on the narrative, it is a binary choice that is also time limited. If the user does not choose before the time runs out, the movie continues on its own, just like in the *Kimmy vs. the Reverend* movie.⁴¹ The authors conclude that full agency does not seem possible with the current Netflix technology and that further research is crucial to find strategies that use the somewhat limited agency of this technology to its best.⁴² In order to create a better fitting framework about limited agency, the authors introduce the term "effectance" which is the effect of a chosen action and how

³⁵ Tanenbaum, "Improvisation and Performance as Models for Interacting with Stories," 252.

³⁶ Tanenbaum, "Improvisation and Performance as Models for Interacting with Stories," 253.

³⁷ Tanenbaum, "Improvisation and Performance as Models for Interacting with Stories," 261.

³⁸ Tanenbaum, "Improvisation and Performance as Models for Interacting with Stories," 262.

³⁹ Roth and Koenitz, "Bandersnatch, Yea or Nay?", 253.

⁴⁰ Roth and Koenitz, "Bandersnatch, Yea or Nay?", 253.

⁴¹ Roth and Koenitz, "Bandersnatch, Yea or Nay?", 253.

⁴² Roth and Koenitz, "Bandersnatch, Yea or Nay?", 253.

influential that is for the progression of the narrative.⁴³ They state that effectance should be in moderation in order to avoid boredom and demotivation for the challenge of the user. According to the authors, this concept of effectance is closely related to Janet Murray's term of "dramatic agency". Janet Murray explains this term as the experience of agency within a procedural and participatory environment that makes use of compelling story elements.⁴⁴ She states that dramatic agency is not related to the ability of the user to change the narrative.⁴⁵ As most narrative related agency in movies is limited, possibly causing the user to feel out of control like in the research from Roth and Koenitz, this non-narrative related form of limited agency seems like the perfect solution for the tension between full and limited agency in games. However, dramatic agency is not related to the ability of the user to change the narrative but it takes place within the fixed narrative. Therefore it is not a different creative form of limited agency as proposed by Roth and Koenitz and further research for such a form seems necessary.⁴⁶

2.2. Game elements in movies

In their attempt to create a better theoretical framework for the analysis of user experience in interactive digital narratives, Roth and Koenitz also focus on the concept of experience. They argue that the experiences in interactive digital narrative applications are derived from interactive entertainment media like games.⁴⁷ These interactive digital applications combine experiences from narratives, games and role-playing like curiosity and suspense, challenge and control, and the experience of make-belief which can form a pleasurable experience altogether.⁴⁸ Focusing on the experience of curiosity, game elements like Easter eggs seem relevant. For example, the *Kimmy vs. the Reverend* movie contains certain exclusive scenes, songs or other content that can be unlocked through a series of user choices or a specific order of user actions. This exclusive content that can be unlocked through user agency can be seen as a form of Easter eggs. According to Jonathan Weiner, Darryl Griffiths and Stuart Cunningham the term is derived from the traditional Easter egg-hunt and refers to a message or component that is hidden and concealed.⁴⁹ This hidden content can be revealed through a special or unusual action within the software and usually contains developed credits or jokes.⁵⁰ The authors also state that the unlocking of this hidden content can provides the

⁴³ Roth and Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," 33.

⁴⁴ Murray, "Research into Interactive Digital Narrative," 10.

⁴⁵ Murray, "Research into Interactive Digital Narrative," 10.

⁴⁶ Roth and Koenitz, "Bandersnatch, Yea or Nay?" 254.

⁴⁷ Roth and Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," 35.

⁴⁸ Roth and Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," 35.

⁴⁹ Jonathan Weiner, Darryl Griffiths and Stuart Cunningham, "Easter Eggs: Hidden Tracks and Messages in Musical Mediums," *International Computer Music Conference Proceedings* (2014): 140.

⁵⁰ Weiner et al., "Easter Eggs," 141.

user joy by searching for the eggs or unexpectedly finding them and experiencing the surprise when found.⁵¹ This experience of discovery and surprise seems in accordance with the experience of curiosity as described by Roth and Koenitz. Weiner et al. also provide a distinction between two forms of Easter eggs. One is humoristic yet unrelated to the main application while the other corresponds thematically and contributes to the main application.⁵² According to another author, Zdenko Mago, the Easter eggs can also be a means to reward users who do not only try to win the game but also try to uncover everything that the game has to offer.⁵³ This notion of reward together with the notion of joy seems relevant for the introduction of game elements like Easter eggs as a solution for the existing tension between full and limited agency in interactive movies.

3. Methodology

I will use the walkthrough method to analyse how the interactive movie *Kimmy vs. the Reverend* uses user agency in a creative way as a solution for the tension between full and limited interactivity. Ben Light, Jean Burgess and Stefanie Duguay describe the walkthrough method as a way to engage directly with the interface of an application.⁵⁴ In the case of *Kimmy vs. the Reverend* the movie and the Netflix platform together can be seen as the application. Light et al. state that it is necessary to examine the technological mechanisms of the platform and the cultural references that are present in the movie in order to understand how a system is guiding the viewers through the movie and shaping their movie experience.⁵⁵ In accordance with the walkthrough method as described by Light et al., the researcher has to use the application in a way that will mimic everyday use. This is done by a step-by-step observation and documentation of the application that make it possible to focus on the actions and interactions that are part of normal app use. This focus enables the researcher to slow those actions and interactions down and it results in a step-by-step narrative of use which can make the usually implicit interaction with a digital media object explicit and therefore approachable for critical analysis.⁵⁶

In the case of *Kimmy vs. the Reverend* I will log into Netflix with my account and I will view the movie while considering all the technological aspects that make it possible to view the movie and change the storyline. I will thereby focus on the technological aspects of the movie, like the frame in which the viewer can make a choice, and the scenes in which the viewer is told that it is the wrong

⁵¹ Weinel et al., "Easter Eggs," 141.

⁵² Weinel et al., "Easter Eggs," 141.

⁵³ Zdenko Mago, "Easter Eggs in Digital Games as a Form of Textual Transcendence (Case Study)," *Acta Ludologica* 2, no. 2 (2019): 49.

⁵⁴ Ben Light, Jean Burgess and Stefanie Duguay, "The walkthrough method: An approach to the study of apps," *New Media & Society* 20, no. 3 (2018): 882.

⁵⁵ Light et al., "The walkthrough method," 882.

⁵⁶ Light et al., "The walkthrough method," 882-885.

ending, followed by how the movie continues after such a scene. The walkthrough method makes it possible to analyse the affordances of the digital media technology at multiple levels of scale because of the step-by-step observation. According to Light et al. this method allows the researcher to imagine the range of affordances that the user may perceive by taking the material structures of the application into account as the researcher places oneself in the user's position.⁵⁷

It will also be necessary to focus on the cultural references in the movie, as most decisions that the viewer makes and that the movie registers as a right decision are not based on general right or wrong decisions that are related to norms and values, but on whether the decision would be in accordance with the character of Kimmy Schmidt. In order to understand these decisions and the connotation of right and wrong, it is also necessary to take the Netflix series *Unbreakable Kimmy Schmidt* into account. For example, the first choice that the viewer of *Kimmy vs. the Reverend* can make is which dress Kimmy will wear on her wedding, a fancy or a fun one. If the viewer knows Kimmy's character based on the tv series, the viewer knows to choose the fun one that is in compliance with Kimmy's character in the series. Light et al. argue that this focus on the sociocultural references is necessary for a walkthrough in order to use what they call the 'methods of the medium'.⁵⁸ This refers to the study of society and culture by analysing the functions and everyday practices of digital media technologies who in their turn remediate and shape sociocultural phenomena.⁵⁹ Recognition of this relation between technologies and culture is part of the walkthrough method as the researcher tries to find and analyse the cultural values that are embedded in the features of an application and takes into account how these features frame certain values.⁶⁰

The results of the walkthrough will be discussed in relation to the framework of interactive digital narrative and user agency as explained in the previous chapter. The step-by-step observation and documentation that will be used in accordance with the walkthrough method will enable a closer look at the limited user agency aspects of the movie and the relation between the viewer of the movie and the technological and cultural aspects of the movie. For example, I will focus on how the agency is limited because of the affordances of the medium and how limited agency seems to preserve the illusion of free will while limited in a creative way, as described in the theoretical framework. I will also focus on the aspects of the movie that are closely related to games, like Easter eggs.

⁵⁷ Light et al., "The walkthrough method," 886.

⁵⁸ Light et al., "The walkthrough method," 885.

⁵⁹ Light et al., "The walkthrough method," 885.

⁶⁰ Light et al., "The walkthrough method," 887.

Textual analysis would not be sufficient for this research. While this research method could enable a narrative analysis of the movie, the focus of this analysis lies on both the instantiated narratives and the afforded limited agency and not so much on the interpretation of the narrative.⁶¹ Furthermore the chosen research method will not discuss the user experience of the *Kimmy vs. the Reverend* movie. The walkthrough method only enables the researcher to take a user's position to conduct a critical analysis of the technological and cultural aspects of the medium, but not of the experience of users in general. In order to analyse the user experience it would be necessary to conduct interviews or to collect questionnaires regarding the user experience of viewers of the movie. For this research, I have chosen to focus more on the possibilities of Netflix's movie *Kimmy vs. the Reverend* in relation to user agency and not to user experience. This distinction is necessary to determine how the movie tries to shape limited user agency in ways that differ from earlier movies like *Bandersnatch*, as that movie was received as not enabling control at all according to Christian Roth and Hartmut Koenitz.⁶²

4. Case study: *Kimmy vs. the Reverend*

This analysis will compare the findings of the walkthrough with the theory that Hartmut Koenitz and Janet Murray have framed about interactive digital narrative and agency to research if the existing theory on interactive digital narrative is still valid for newly released interactive content. This reflection of the framed theory on the *Kimmy* movie will then be used to discuss the extra interactive components of the movie in relation to limited afforded agency. The contradiction between trying to achieve absolute user agency and the limitations that are posed by the affordances of the medium ask for new and creative ways to create a balance between user agency and the limitations of the medium. As this field is still developing, it is relevant to analyse new interactive digital narratives and how those narratives try to create that balance. This analysis will show how an interactive digital narrative in a movie could use several creative tactics like game related aspects to create a form of agency that is limited but could possibly still motivates users to participate in the movie. In order to discuss these creative tactics, I will first focus on the limited agency in the movie that is common for this genre and in accordance with the *Bandersnatch* movie as discussed by Christian Roth and Hartmut Koenitz. For example, I will focus on the decision making process that allows the user to affect the structure of the narrative towards endings that are predetermined by the movie as wrong or right endings. Then I will focus on the user agency aspects of the movie that differ from *Bandersnatch* and that try to motivate the user in a different way than is common for interactive digital narrative in movies so far, like the example of Easter eggs.

⁶¹ Alan McKee, *Textual Analysis: A Beginner's Guide* (London: Sage, 2003).

⁶² Roth and Koenitz, "Bandersnatch, Yea or Nay?"

Hartmut Koenitz has created a model for interactive digital narratives and argues that an interactive digital narrative consist of the three components of system, process and product.⁶³ After completing the walkthrough of the *Kimmy vs. the Reverend* movie, the Netflix platform on several digital (mobile) devices can be seen as the system, with the interaction between the user and the story through decision making as the process and one of the many possible instantiated narratives as the product. Although there is a great amount of possible instantiated narratives the story only has four endings that the movie registers as an official ending. While the structure of the narrative towards these ending can differ, there are only four possible end scenes where the movie registers that the user has reached the end. These endings differ on two important points, namely whether Kimmy is wearing the fun dress or the fancy dress and whether Titus did show up for his movie shot or not (see appendix, endings are referred to with yes/no and variations to the 'yes' and 'no'). The four possible official endings are then variations of those two conditions. Yet, three of the four official endings do not register as a real winning end. Instead, the user gets a hint during the end scene in which one of the movie characters encourages the user to try again in order to achieve the real winning end that is characterised by the "you won!" slogan. This encouragement to re-do the movie is for example done by Kimmy who says "I wish I wore the fun dress," - thus encouraging the user to try a different narrative where he or she chooses the fun dress during the first choice moment of the movie.

The fact that some choice moments in the movie really influence the narrative and ending of the movie can be seen as a form of Janet Murray's dramatic agency, as the user experiences agency within a procedural and participatory environment that uses compelling story elements.⁶⁴ Murray also states that the user has to be motivated by the storyworld to anticipate the result of specific actions and choices and that these actions and choices need to be consistent with the moral physics of the story world. This is the case with the choice between the fun and the fancy dress. For users who are already familiar with *The Unbreakable Kimmy Schmidt* series on Netflix this choice is easy, as fun is consistent with Kimmy's preferences in clothes and general in life. This choice is limited to the characterization of the main character, namely Kimmy Schmidt, and does not have a great impact on the narrative itself. The choice if Titus will make it to his movie shoot or not has much more impact on the narrative. When Titus misses his movie shoot Jacqueline confesses that she has been lying in order to stall the filming, which results in the whole male part of the film crew distrusting women and they start to sexually assault the women in the film crew. This choice does not seem correct according to the morality of Kimmy Schmidt's character and also not according to general morality.

⁶³ Hartmut Koenitz, "Towards a Theoretical Framework for Interactive Digital Narrative," *Lecture Notes in Computer Science* 6432 (2010).

⁶⁴ Murray, "Research into Interactive Digital Narrative," 10-11.

Because of these bad choices, the user can reach two of the three wrong complete endings where a random woman is angry at Jacqueline at the wedding because of the women's violation. Also, Titus loses his voice and is no longer able to sing because of the amount of dirt he has eaten when he eats the forest banquet instead of making it to the movie shoot. The two different wrong endings that are related to these incident only differ on the fact that Kimmy Schmidt is whether wearing the fun or the fancy dress -where the fancy dress also results in her saying "I wish I wore the fun dress". The consequences that are related to Titus and Jacqueline are more about common moral principles than about characterization although you could argue that Titus losing his voice can be both a characteristic and principle aspect. The two moments where the user has to choose between the fun or the fancy dress and whether Titus makes it to the movie shoot or not can be seen as a form of dramatic agency.

However, all the other choice moments in the movie are an example of limited user agency as they all either lead to a wrong ending or to the next choice moment in the movie. While the narrative does change according to the choices the user makes, the choice moments themselves stay the same in both order as in content (see appendix). The narrative following directly after the choice moment differs accordingly to the choice but the parts of the narrative in between the choice moments will always be the same. For example, if the user chooses that Lillian will do the karaoke instead of Cyndee (see appendix, choice moment 8), the story will develop according to that choice thus resulting in Lillian doing the karaoke instead of Cyndee but the main male character, Prince Frederick, will kiss Lillian and the next choice moment will still follow in exactly the same way, no matter if the user chooses for Lillian or Cyndee performing the karaoke.

There are a few exceptions. For example, if the user chooses that Titus takes a nap instead of going to the gym, he or she will receive an extra choice moment where the user has to choose between if Titus wakes up or continues sleeping (see appendix, choice moment 2.a) before reaching the same choice moment as when the user would have chosen that Titus went to the gym (see appendix, choice moment 3). This offers the user a different form of agency, as the choice moment is dependent on the previous choice. If the user chooses that Titus goes to the gym, he or she will not reach the extra choice moment of Titus waking up or continuing to sleep. Another similar choice moment is when the user has to decide if Jacqueline will make up an excuse because of the script or because of the costume (see appendix, choice moment 10). Depending on that choice, the user will receive a different choice later on in the movie, when the user has to choose between manipulation or getting mad if he or she chose costume or between thinking about happy things or physical violence if he or she chose script and a different course of the narrative depending on the choice for script or costume (see appendix, choice moment 13 and 16). This form of interactivity enables the

user to follow a version of the narrative where all the major movie plots are reached but the user also has the possibility to experience different choice moments.

In addition to these forms of limited agency and choice moments that are predetermined, the *Kimmy vs. the Reverend* movie also engages users through a form of interactive play. This appears through “wrong” choices that have no relationship to narrative causality. For example, the movie contains ten endings beside the four official endings where the movie tells the user that he or she has reached a “wrong “ ending through a short commentary by one of the movie characters. The user is then redirected to the previous choice moment where he or she can choose a different narrative course. These wrong endings can also lead to some extra movie content that needs to be unlocked through (a series of) actions by the user. For example, during one choice moment in the movie the user has to choose if Kimmy and Titus will wait for the Uber driver or if they will walk to the town (see appendix, choice moment 9). After choosing “wait for Uber driver” the user receives one of the wrong ending movie clips where the movie shows the skeletons of Kimmy and Titus as they’ve died while waiting for the Uber driver. When the user is redirected to the same choice moment and he or she chooses “wait for Uber driver” again, the user is treated to some extra movie content as the movie does not only show the skeletons of Kimmy and Titus but the scene of the wrong ending is extended with a movie shot of a huge robot army that is taking over the world. Another example is the last choice moment in the movie, where Kimmy can either save the reverend or kill him in three different ways by kicking him, shooting him, or blowing him up (see appendix, choice moment 18). If the user chooses all three ways of killing the reverend by kicking him first, shooting him after the user is redirected to the same choice moment and blowing him up after the user is again redirected to the same choice moment, the user will be treated with an extra wrong ending scene of the reverend in hell. The extra content in the form of extra wrong endings can also be seen as a form of dramatic agency, as the user experiences agency through participation and engagement. Murray states that dramatic agency is unrelated to the participator’s ability to change the narrative, which is compatible with the unlocking of these extra movie contents.

However, Murray says that this inability is related to a fixed narrative, as the participator can still experience anticipation and pleasure in a choice that navigates them from one point to another in the narrative. The extra movie content that can be unlocked is not really part of the narrative. For example, another extra movie content that can be unlocked is a series of bloopers and alternate movie lines, that can be unlocked through a specific series of actions when calling the mole women. Another example is the theme song of the movie. When the theme song begins, the user has the choice to skip the theme song or to listen to the full theme song. The decision to skip the theme song however results in the singer of the theme song reacting disappointed towards the user and the theme song being extended to a longer version as a punishment for the user (see appendix, choice

moment 6). This extra movie content can be seen as examples of Easter eggs, as described in the theoretical framework, as they are hidden and need to be unlocked through (a) specific (series of) user actions. In accordance with the distinction made by Jonathan Weiner, Darryl Griffiths and Stuart Cunningham, some content appears to be humoristic but unrelated to the structure of the narrative, while other content corresponds thematically and contributes to the main narrative.⁶⁵ For example, the bloopers can be seen as an example of the humoristic type of Easter egg, but the ending with the robots who have taken over the world can be seen as an example of the other type.

This shows that the *Kimmy vs. the Reverend* movie contains creative ways to engage the user in the narrative and enable user agency within the restrictions and the limitations that the technology affords as that this particular approach has not yet been adequately described within the theory of movies and interactive digital narrative. Theory on interactive digital narrative in movies so far has focused more on the aspect of user agency that influences the narrative or on dramatic agency that does not influence the narrative but is still part of the narrative. The form of agency that has been described in the *Kimmy vs. the Reverend* movie is neither of those two forms of agency. Thus, these so called *Easter eggs* add a playful aspect to the user agency that is not really related to the structure of the narrative. They can be seen more as a form of agency that is used in games, where users can interact with the storyworld without influencing the narrative. These findings show that the movie *Kimmy vs. the Reverend* can be seen as a hybrid form of interactive digital narrative in movies and game elements because of how the movies uses creative ways to engage the users in the narrative and the decision making process.

5. Conclusion

The goal of this research was to analyse how the movie *Kimmy vs. the Reverend* could enable other creative forms of user agency as a solution to the tension between unlimited and limited user agency. This form of user agency should be limited or in moderation but should still possibly motivate users to participate in the interactive movie by using for example game elements. After a brief introduction to the subject and the introduction of the main question in this research, I discussed the various approaches to interactive digital narrative and in particular to user agency. First I focused on the arguments of Michael Mateas, Joshua Tanenbaum and Karen Tanenbaum who argued that user agency should be unlimited and full. Second I focused on the arguments that were made by Christian Roth, Hartmut Koenitz and Noam Knoller who stated that user agency is limited by the affordances of the medium and that user agency should be limited or in moderation in order to possibly achieve a pleasurable experience for the user. At last, I explained a theory that combines

⁶⁵ Weinel et al., "Easter Eggs," 141.

interactive digital narratives in movies and in games to address a possible solution for the limited and moderate agency in the *Kimmy vs. the Reverend* movie. Hereafter, I described the method I wanted to use in order to analyse the *Kimmy vs. the Reverend* movie by using the walkthrough method to relate my main findings to the earlier explained theory about interactive digital narrative and (limited) agency. These main findings were then explained in the analysis of the *Kimmy vs. the Reverend* movie. First I found that the main four complete endings of the movie could be seen as dramatic agency, as explained by Janet Murray. Then I focused on some specific choice moments in the movie that really influenced the narrative of the movie and after which followed another specific choice moment, that differed depending on the earlier choice. That was an example of the limited user agency in the movie, as these moments were fixed and limited in time and because the narrative would continue to the next fixed choice moment, no matter what the user would choose. Next to these choice moments, there were also different wrong endings that were not narratively related to the movie and extra movie content that could be unlocked through a series of specific user actions. These endings seem to be a form of dramatic agency but on the other hand also differ from it because they're unrelated to the narrative in a different way than is usually the case with dramatic agency. Namely, these moments of dramatic agency are usually unrelated to the ability of the user to change the narrative, but are still part of a fixed narrative. However in this case, these "wrong" endings are not part of the main narrative that leads to one of the four complete official endings but they are more loosely part of the storyworld. The extra movie content was also not part of the main narrative but could be considered as extra hidden content that was merely humorous and surprising, like the bloopers of the movie. I then argued that these two last aspects of the movie could be seen as a hybrid form of user agency between user agency in interactive digital narratives in movies and in games, by focusing on the concept of Easter eggs in games.

This analysis was relevant in order to research how interactive digital narratives could create user agency that is limited but that uses creative new ways to encourage engagement with aspects that are not related to the narrative in contrary to dramatic agency. The need for a new creative approach to user agency in interactive digital narrative was a result of the tension between unlimited and limited user agency. This tension that is related to the narratology versus ludology debate in video game studies, as discussed in the introduction, was so far merely discussed in a theoretical manner but had barely been researched in existing interactive digital narratives in movies. One of the few researches that focused on an existing interactive digital narrative in movies was Hartmut Koenitz and Christian Roth's analysis of the *Bandersnatch* movie. They concluded their analysis with the recommendation to focus on creative non-narrative related forms of user agency as a way to balance the tension between unlimited and limited user agency. This study proves that these creative non-narrative related forms of user agency already exist in current interactive digital narratives in

movies. The *Kimmy vs. the Reverend* movie for example uses game elements like Easter eggs for user agency, which for example can be used to introduce or increase feelings of humour, surprise and discovery for the user. It shows that games and movies are still closely related in the context of interactive digital narrative and that they can borrow elements from each other to enable a form of user agency that is balanced in the way that it is not unlimited and not entirely limited but moderated. Interactive digital narratives in movies already have a few elements that can be related to games. For example, one could argue that the moment of decision making for the users in *Kimmy vs. the Reverend* is closely related to dialogue choices in videogames and that the fixed pieces of narrative in between these moments of decision making are another form of game elements, like cut scenes. These scenes in videogames are necessary for the development of the narrative, as the players are forced to watch these cut scenes without the possibility to do anything while the game steers the player in the needed direction. In movies like *Kimmy vs. the Reverend* that is also the case, as these fixed pieces of narrative are crucial to reach the next decision making moment. In order to create a fitting theoretical framework that can be used for the analysis and discussion of interactive digital narrative in movies, this research shows that it is useful to combine and use elements of other research fields, like game studies. This framework can be used to understand user agency and user experience in interactive movies and how these movies can create a possibly pleasurable interactive user experience, without limiting the user in a way that he or she barely experiences interactivity or without granting the user so much agency that the user can not produce a comprehensive narrative and could possibly experience a feeling of being lost because of all the possibilities and choices.

Beside the relation to videogames, the analysis of the *Kimmy vs. the Reverend* movie also provides new insights in the field of interactive digital narratives in movies nowadays, and more explicitly in movies on streaming platforms like Netflix. These streaming services have different affordances and thus different forms of user agency than for example movies in cinema or on DVD's. As streaming services like Netflix are connected to the Internet and exists in both browsers and application, they can be accessed through a variety of mediums like smart televisions, smartphones, laptops and tablets. That makes it easier to implement user agency in the movie, as these devices are very user friendly and easy to interact with in comparison to a cinema or a DVD on a television screen. This can be relevant for the analysis of interactive digital narratives in relation to affordances.

While this field is new and still in development, it is relevant to keep analysing new interactive digital content in order to establish a clear theoretical framework. Future research should focus more on similar movies that use creative and hybrid ways between multiple research fields such as movies and games. Research could also focus more on other aspects of interactive digital narrative. For example, how user experience is related to these new forms of user agency, by using questionnaires, interviews or an ethnographic approach. This can be relevant for the relation

between limited user agency and user experience to determine for example if users experience the limitations of agency as annoying or if they still find the experience pleasurable. Also, future research could focus on how creative forms of limited agency like the Easter eggs in the *Kimmy vs. the Reverend* movie would be received by users. It could for example be relevant to research if these small pauses in the narrative related decision making has consequences for the overall narrative coherence experience of the users and if users experience these pauses as disturbing or as a pleasurable surprise.

6. Appendix: Storymap *Kimmy vs. the Reverend*

The choice moments in the move are referred to with the numbers 1 to 19. Every wrong ending, Easter egg or reloop results in looping back to the same choice moment.

1 Fun dress / Fancy dress	2 Titus to the gym / Titus nap ↓ 2.a Titus wakes up / Titus continues sleeping	3 Read book / Plan wedding / Make out ↓ Wrong ending 1 ↓ Wrong ending 2	4 Call Cyndee / Call Gretchen → reloop / Call Donna Maria ↓ Wrong ending 1 ↓ Voicemail + Easter egg	5 Take Titus / Take Jacqueline ↓ Wrong ending
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6 Full theme song / Skip theme song ↓ Easter egg: extended version	7 Get to the point / Be sociable ↓ Wrong ending	8 Lillian karaoke / Cyndee karaoke	9 Walk to town / Wait for Uber ↓ Wrong ending 1 ↓ Wrong ending 2	10 Script / Costume
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<p>11 Titus knows the song</p> <p>/</p> <p>Titus thinks he knows the song</p> <p>↓</p> <p>Wrong ending</p>	<p>12 Secret plan</p> <p>/</p> <p>Karate</p>	<p>13 Get Mad or Manipulation</p> <p>/ (depends on 10: script or costume)</p> <p>Think of happy things or Physical violence</p>	<p>14 Watch baby</p> <p>/</p> <p>Follow reverend</p> <p>↓</p> <p>Wrong ending</p>	<p>15 Read book at 3</p> <p>/</p> <p>Didn't read book at 3</p> <p>↓</p> <p>15.a Wrong ending:</p> <p>Read / Read the to baby the baby</p> <p>↓</p> <p>Wrong ending</p>
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<p>16 Ask how her year was</p> <p>/ (Chose script at 10)</p> <p>No thanks</p> <p>/</p> <p>Chose costume at 10</p>	<p>17 Forest banquet</p> <p>/</p> <p>Follow Kimmy</p>	<p>18 Spare reverend</p> <p>/</p> <p>Kick reverend Wrong ending 1</p> <p>/</p> <p>Shoot reverend Wrong ending 1</p> <p>/</p> <p>Blow up reverend</p> <p>↓</p> <p>Wrong ending 1</p> <p>↓</p> <p>Wrong ending 2 + Easter egg</p>	<p>19 Ending 1: Yes / Yes</p> <p>/</p> <p>Ending 2: Yes / No</p> <p>/</p> <p>Ending 3: No / Yes</p> <p>/</p> <p>Ending 4: No / No</p>
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