

Agency in Contemporary Interactive Film

Forms of co-creative fan engagement in
Black Mirror: Bandersnatch

Annabel Luijckink
6003931

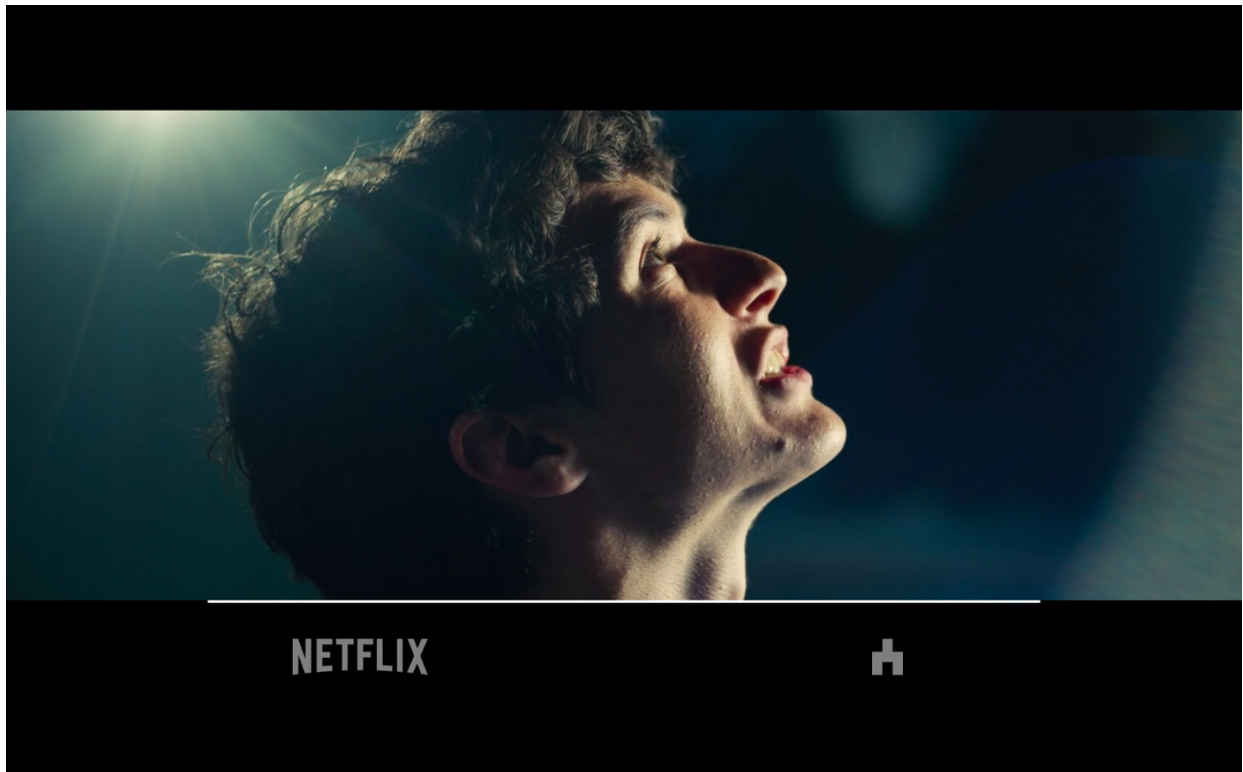
04-09-2020

Dr. Stefan Werning

Academic year 2019-2020

Term 4 (MC3V14001)

BA Media en Cultuur



Abstract

Streaming service *Netflix* launched the interactive film *Black Mirror: Bandersnatch* in 2018. The film is a much-discussed production on *Reddit* where fans assemble to engage with the film and demonstrate agency through co-created content such as maps, theories, and game engines. This thesis analyses how engagement is established through a textual and a nethnographic analysis. During the nethnographic analysis are only unobtrusive methods used. The focus lays on intertextual references, Easter eggs, and filling in gaps to construct and understand multiple story lines which are questioning reality. These textual and technological features in *Bandersnatch* trigger co-creation, in combination with the theme of a mind-game film. The mind-game is the foundation of narrative complexity of the interactive digital narrative. Fans are triggered by the psychological science-fiction theme to construct maps to give closure to the narrative and create other extensions on the story line to fill in gaps and engage. Various studies show that fans take those features to co-create their own content with an archival function. This is an important fulfilment on the existence of archontic production. Creating an archive usually belongs to museums, libraries, and institutions, but since the digital age is everyone able to contribute. Archontic production shows that in the digital era fans can create their own archive. The thesis focuses on the adult-only interactive digital film from a fan's perspective and creates an outlook to stimulate a research on the producer's opinion on archontic production and agency. Throughout the film, reality and self-control is questioned by both protagonist and antagonist, as by the viewer him or herself.

Key words: Agency, archontic production, *Bandersnatch*, engagement, ethnodramaturgy, interactive digital narratives, mind-game film, nethnography

Table of contents

ABSTRACT.....	2
INTRODUCTION.....	4
RESEARCH QUESTION.....	5
ACADEMIC RELEVANCE.....	6
BANDERSNATCH AND THE BLACK MIRROR FRANCHISE	6
FAN STUDIES, TEXTUAL POACHING AND ETHNODRAMATURGY	6
NARRATIVE ASPECTS OF INTERACTIVE FILM	7
THEORETICAL FRAMEWORK.....	7
LITERATURE ON THE USER EXPERIENCE OF THE BLACK MIRROR FRANCHISE AND BANDERSNATCH	8
NARRATOLOGICAL LITERATURE.....	8
LITERATURE ON THE BEHAVIOUR OF FANS	10
METHOD	11
ANALYSIS	12
TEXTUAL ANALYSIS	12
<i>Interactive digital narratives</i>	12
<i>Narratological features</i>	13
<i>Bandersnatch, an interactive mind-game film</i>	15
NETHNOGRAPHIC ANALYSIS	16
<i>Ethnodramaturgy through re-enacting content</i>	16
<i>Narrative complexity of the interactive digital film</i>	18
CONCLUSION	20
OUTLOOK AND LIMITATIONS.....	21
REFERENCES	21
LIST OF ILLUSTRATIONS	23

Introduction

The first interactive film, *Kinoautomat*, was released in 1967. The film was divided into parts where the film would stop, and a moderator would let the audience vote which scene would be next.¹ When the first interactivity was integrated in digital media in the beginning of the 1980's, it mostly consisted more of game elements than cinematographic elements. Seen in, for example, *Dragon's Lair*.² *Dragon's Lair* is an arcade game which makes you react through buttons which leads to the next animation. The game was at that time considered an interactive animation film. Since then, most of the interactive films used to be 'walk-through' video games instead of an actual film. In the end of December 2018, *Netflix*' *Black Mirror* launched between their seasons an interactive film named *Black Mirror: Bandersnatch*.³ The psychological science-fiction themed film takes place in the year 1984. It has 150 minutes of footage divided into 250 segments which leads to nine 'main' endings but leaves many more ways to 'walk through' the film.

The film can be considered as a new phase since before fans were not able to co-create. At the time material and technology were not available e.g. technology had not yet developed as much that people could easily design games at home. The chronology of content motivates fans to figure out the timeline of the story, since *Bandersnatch* plays with different times and spaces. A major difference between *Bandersnatch* as an interactive film and a walk-through game is the platform on which it is watched and the cinematographic style. This means that instead of a game engine, a streaming service is used where cinematographic features become an overtone which overrule game mechanics. The transition is based on technological features.

This thesis analyses how agency in contemporary interactive film is shown through fan co-creation and ethnodramaturgy. Agency means acting or intervening to produce an effect, on in this case, contemporary interactive film. An ethnodramaturg is someone who digs into detailed parts of a fictive world for study and connects those details to create a new understanding, a new story line.⁴ Besides these new stories, ethnodramaturgy is used to make sense of ethnographic social drama e.g. discussions on *Reddit*. Through a textual and a netnographic analysis, the features behind *Bandersnatch*' producers and fans will be analysed on how fandom manifests itself in the case of new interactive film to extent the narrative in relation to reality.

¹ Radúz Činčera, *Kinoautomat*, Ladislav Kalas, 1967, <http://www.kinoautomat.cz/index.htm?lang=gbr>.

² Sega Enterprises, *Astron Belt*, Japan: Sega, Bally Midway, 1983, <https://www.arcade-history.com/?n=astron-belt&page=detail&id=133>.

³ Charlie Brooker and David Slade, *Black Mirror: Bandersnatch*, United Kingdom: Netflix, 2018.

⁴ Jen Gunnels and Carrie J. Cole, "Culturally Mapping Universes: Fan Production as Ethnographic Fragments," in *Transformative Works and Cultures*, 2010, <https://doi.org/10.3983/twc.2011.0241>.

Research question

The research question: "How do fans engage with the contemporary interactive film *Black Mirror: Bandersnatch* through co-creation?" will be answered through three sub questions which are formulated to narrow down on the fans, agency, narrative and intertextuality.

The first sub question: "How does *Bandersnatch* afford space for fan agency and co-creation through intertextuality and continuity?" focuses on intertextual references, Easter eggs and gaps which enact continuity in order to demonstrate agency. Some fans make maps to figure out how all choices of the film influence each other. The maps are used by fans to understand the textual references rather than being an extension of the story. Watching an interactive film differs from regular film and brings different agency among due to involvement. Formerly, interactive films used to be physical public events like *Kinoautomat*. The cinematographic features in *Bandersnatch* are designed to be replayed. Furthermore, these and other features of the film can be seen as motifs for fans to play and engage with, which will be explained in the textual analysis.

The second sub question is: "How do fans create their own content based on gathering intertextual references?" It is important to understand that scenes can be re-watched, this means that a viewer has time and space to look for references, Easter eggs and gaps in the narrative. The concept of the mind-game film will be introduced here for a further understanding why viewers get engaged with the film. *Black Mirror* is known for its layering in narrativity and this activates co-creation to understand the film's narrative e.g. simply watching the content is not enough to understand the meaning.

The third sub question: "How is immersion and empathizing with the characters done through ethnodramaturgy?" Focuses on archontic production via ethnodramaturgy. A sample of a game engine will be analysed which is inspired by *Bandersnatch* as the interactive film but also as *Bandersnatch* portrayed as the game in the film. It is important to understand that fans try to empathize with the film's characters by co-creating.⁵

The method used for the research is a nethnographic analysis supported by a textual analysis to identify how the film itself encourages co-creation. This method is used because it suits the research the most. The material used for the analysis is the film *Bandersnatch* and co-created content found on the *Reddit* page of *Bandersnatch*.

⁵ Henry Jenkins, "Textual Poachers, Twenty Years Later," in *Textual Poachers: Television Fans and Participatory Culture*, 2013, 10-49.

Academic Relevance

This thesis plans to contribute to the discourses on ethnodramaturgy in fandom and interactive digital narratives. It aims to connect discourses in the new format of interactive digital film on streaming services.

***Bandersnatch* and the *Black Mirror* franchise**

Several articles have been written on *Bandersnatch*. A film review by Nada Elnahla focuses on product placement and data mining through *Netflix*.⁶ This film review is about how *Netflix* exploits their powers to increase incomes through their films and series. Lobke Kolhoff and Frank Nack have researched through a survey how viewers experience decision-making while watching the film.⁷ None of these articles focus primarily on the fan engagement and co-creation. Kolhoff and Nack take a general look towards user experience, but there might be further elaboration possible. Chris Lay focuses in his article on the narrative, but mainly doubts the story instead of connecting features such as intertextual references.⁸ Only the philosophical theme they discuss returns in this analysis. This literature study emphasizes on the academic gaps on the discourses concerning interactive film.

Fan studies, textual poaching and ethnodramaturgy

Henry Jenkins' work on fandom has great value for this research. His text on textual poachers complements on how fans try to extend the narrative.⁹ Though, Jenkin's poaching differs from the ethnodramaturgy by Jen Gunnels and Carrie Cole.¹⁰ Gunnels and Cole rather describe the position of fans than the work of the fans. However, the research focuses on how fans behave when they want to fill in gaps on meaning and storyline. Jenkins' work mainly focuses on co-creation which only expands content instead of filling in unanswered textuality. His work on television fandom has shown to be different from the fandom nowadays in forms of new media where fans possess more technology to practise their fandom. Though, his theory on drillability and continuity still fits the textual analysis. The structure of interactive digital media expects

⁶ Nada Elnahla, "Black Mirror: Bandersnatch and How Netflix Manipulates Us, the New Gods," in *Consumption Markets and Culture*, 2019, <https://doi.org/10.1080/10253866.2019.1653288>.

⁷ Lobke Kolhoff and Frank Nack, "How Relevant Is Your Choice?" in *Interactive Storytelling*, 13, Lecture Notes in Computer Science, Amsterdam: Springer International Publishing, 2019, https://link.springer.com/content/pdf/10.1007%2F978-3-030-33894-7_9.pdf.

⁸ Chris Lay and David Kyle Johnson, "Bandersnatch," in *Black Mirror and Philosophy*, 2019, <https://doi.org/10.1002/9781119578291.ch20>.

⁹ Jenkins, "Textual Poachers, Twenty Years Later."

¹⁰ Gunnels and Cole, "Culturally Mapping Universes: Fan Production as Ethnographic Fragments."

fans to have different skills such as being able to unfold complex narratives. A different kind of a fandom originates here which normally focuses on extending a story instead of *Bandersnatch*, where the story is actively re-enacted.¹¹ This research elaborates on Jenkins' earlier work. An example of this kind of fandom is the thread on *Reddit* r/AccidentalWhitebear where redditors post whenever they find the logo of the series. Image 1 shows an example of *I Know What You Did Last Summer* where an Easter egg of *Black Mirror* was found. Fans create their own space to 'store' their work and findings. We call this archontic production, which will be discussed later on.

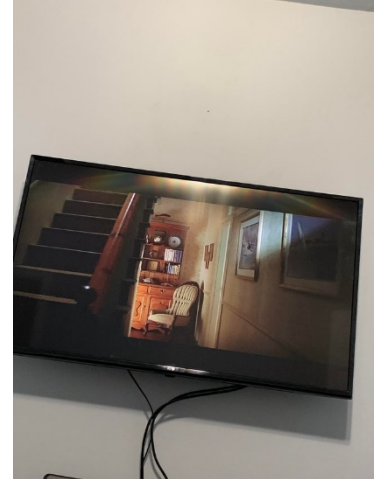


Image 1 A scene from *I Know What You Did Last Summer*

Narrative aspects of interactive film

Ben Shaul Nitzan focuses in his debate on interactive cinema without computer-based features.¹² In contrary, he introduces Kinder who has his focus on game engines as a tool to create interactive narratives. Nevertheless, the playfulness of the game tool creates more of like a walk-through game instead of a hyper-narrative interactive film. Nitzan also integrates in his research Henry Jenkins' focus on poaching fans. Fans interact with the narrative by expanding storylines or creating new ones.¹³ However, this analysis on *Bandersnatch* focuses on how the narrative can be changed in a different way. Viewers have the opportunity to replay scenes in order to change the narrative, though they can end up in a loop because the film does not forget earlier choices. The way narrativity is exploited in *Bandersnatch* is an extension on the quality of Jenkins' textual poaching. It contains a new sense of quality of co-creating and re-enacting by fans.

Theoretical framework

To understand what this research is about, theory on interactive narrativity and fandom is useful. For further knowledge on *Black Mirror*, reading *Black Mirror and Critical Media Theory* by Angela M. Cirucci and Barry Vacker or watch all episodes is recommended.¹⁴

¹¹ Abigail de Kosnik, *Rogue Archives Digital Cultural Memory and Media Fandom*, Cambridge, MA: The MIT Press, 2016: 98-99, <https://doi.org/10.7551/mitpress/10248.001.0001>.

¹² Ben Shaul Nitzan, "Hyper-Narrative Interactive Cinema: Problems and Solutions," in *Consciousness, literature & the arts*, Amsterdam: New York: Rodopi, 2008, <https://doi.org/10.1163/9789401206297>.

¹³ Jenkins, "Textual Poachers, Twenty Years Later."

¹⁴ Angela M. Cirucci and Barry Vacker, *Black Mirror and Critical Media Theory*, Rowman & Littlefield, 2018.

Literature on the user experience of the *Black Mirror* franchise and *Bandersnatch*

Hyper-narrative interactive cinema defines *Bandersnatch* as a new way of interactive storytelling.¹⁵ The definition shows *Bandersnatch* not only as an interactive film, it also defines the complex narrative of the film. Previous research on the viewers' opinion in *Bandersnatch* by Kolhoff and Nack elaborates this in their paper "How Relevant is Your Choice?" The research exists of interviews with fans and a textual analysis.¹⁶ The results of this research are helpful to understand fans and how they try to engage with interactive film. The survey answers give an indication on how viewers perceive agency through the ability of making choices. They also show how some viewers are not satisfied with the variety of choices offered at certain points along the narrative (e.g. sometimes you only have one choice). This is interesting because it motivates fans to design their own options via co-creation. Background on how viewers perceive agency is explained by Henry Jenkins who wrote *Textual Poachers, 20 Years Later* about old media and its fans.¹⁷ Jenkins states that co-creation is crucial for perceiving agency. His focus is mainly on old media where in this research targets on new media.

Agency is exemplifying and elaborating roles in media and fandom. It establishes the capability of fans performing as influencers in their environment, and in this case on *Reddit*. Susanne Eichner shapes the role of agency in digital media as the outlines of the different notions of perceiving media as a receptor and a way of appropriation.¹⁸ This means that digital media is a tool to create agency in fandom. These roles of agency are used by fans for identification. According to Eichner there is enough evidence for agency as a transmedia concept with an underlying and far-reaching way of experiencing media texts. Involvement is the general connector of media texts with psychological activities of the receiver with the original content creators. Agency is a concept of involvement that emerges in the interplay of fans and dispositions with analytical strategies and the mediality and textuality that activate these specific features.¹⁹ This incentivizes the viewer to engage with the interactive digital narrative of *Bandersnatch* and this can be a motivation to co-create.

Narratological literature

In this thesis the definition of a narrative by Edward Brannigan is used: "narrative is a way of organizing spatial and temporal data into a cause-effect chain of events with a beginning, middle and end."²⁰ In

¹⁵ Nitzan, "Hyper-Narrative Interactive Cinema: Problems and Solutions," 15.

¹⁶ Lobke and Nack, "How Relevant Is Your Choice?" 2019.

¹⁷ Jenkins, "Textual Poachers, Twenty Years Later," 2013.

¹⁸ Susanne Eichner, "Agency as a Mode of Involvement," in *Agency and Media Reception: Experiencing Video Games, Film, and Television*, Springer, 2014, <https://doi.org/10.1007/978-3-658-04673-6>.

¹⁹ Eichner, "Agency as a Mode of Involvement," 127-128.

²⁰ Nitzan, "Hyper-Narrative Interactive Cinema: Problems and Solutions," 16.

Bandersnatch, the narrative can be referred to as a puzzle which leads to the following definition of puzzlers. These are one specific type of fans who try to demonstrate agency by unfolding narratives. Puzzlers are viewers who engage with certain content to understand and create new meaning, a definition created during this research for a better designation. The definition is useful in relation Thomas Elsaesser's article who defines mind-game films as films that 'play with' the viewer. He frames the viewer as a 'puzzler' to define the role of the viewer.²¹ *Black Mirror* episodes' challenge viewers to play and puzzle with the content until they formulate a meaning of the episode. The producers never really release the full message of an episode to let the viewers free in how they conceive the content. This gives space for those puzzlers to re-create their own *Black Mirror* puzzle with their own thoughts on the message. It means that fan co-creation is a way to solve and extend the puzzle beyond watching the film itself. The concept of hyper-narrative interactive cinema, introduced by Nitzan, is a viewer experience where producers use computer-mediated facets to let users interact with moving audio-visual texts which are driven by cinematic strategies.²² The narrative of interactive film has multiple story lines and dimensions. This definition questions how and where the viewer demonstrates agency, which is an important discourse for this research.

Christian Roth and Hartmut Koenitz have written an article on Janet Murray's dimension which determines the user experience of an interactive digital narrative. Through twelve dimensions they explain what kind affordances an interactive digital narrative should have to demonstrate agency.²³ These dimensions are helpful to understand why viewers engage with film content. They discuss immersion as one of the most important features to trigger viewers. In the analysis, it is shown how immersion is used in *Bandersnatch* and how it connects the viewers to the story.

Bandersnatch is a trend of continuation of narrative complexity as presented by Jason Mittell in his text "Narrative Complexity in Contemporary American Television".²⁴ Mittell states that using streaming services and online discussion formats such as *Reddit*, encourages viewers to take an active role in consuming narratively complex content and helping it thrive by co-creating within the media industries and their fandom. By doing this people train themselves in decoding narratives. Mittell explains the concept of operational aesthetic, viewers are rather interested in how a character accomplished something than what will happen in the next scene.²⁵

²¹ Thomas Elsaesser, "The Mind-Game Film," in *Puzzle Films: Complex Storytelling in Contemporary Cinema*, 2009, <https://doi.org/10.1002/9781444305708.ch1>.

²² Nitzan, "Hyper-Narrative Interactive Cinema: Problems and Solutions," 7.

²³ Christian Roth and Hartmut Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," in *AltMM 2016 - Proceedings of the 1st International Workshop on Multimedia Alternate Realities, Co-Located with ACM Multimedia*, 2016, <https://doi.org/10.1145/2983298.2983302>.

²⁴ Jason Mittell, "Narrative Complexity in Contemporary American Television," in *The Velvet Light Trap*, 2006, <https://doi.org/10.1353/vlt.2006.0032>.

²⁵ Mittell, "Narrative Complexity in Contemporary American Television," 35.

Literature on the behaviour of fans

To understand the co-creation on *Bandersnatch*, one needs to understand fandom. *Bandersnatch* has many ways to be watched, which leads to fans mapping out the film to understand the consequences of their choices and how this influences the narrative. It is important to understand where this 'mapping' originates. We can see that this form of drillability, as described by Jenkins in "Principles of Transmedia", means that a narrative takes the imagination or interest of a fan sufficiently to encourage deep analysis into details and intertextuality in the story, in order to create agency.²⁶ Jenkins explains how fans 'poach' content of television shows. This theory will be translated to interactive film in order to construct the demonstrated agency of fans. Jenkins writes about how fans always have been engaging and co-creating content. The same counts for "Spoiling Survivor: The Anatomy of a Knowledge Community" by Jenkins which is about fans who are trying to gather information as a community.²⁷ This can be connected to Jenkins' drillability. With drillability, a narrative captures the fan's imagination and interest adequately to encourage deep investigation into the details. Fans expand contexts of narratives e.g. *The Matrix* franchise did; "The deeper you drill down," Jenkins notes about the franchise, "the more secrets emerge, all of which can seem at any moment to be the key to the film." This reference to *The Matrix* will be explained further in the analysis.

In "Culturally Mapping Universes: Fan Production as Ethnographic Fragments" the definition of ethnodramaturg is introduced in relation to fan co-creation.²⁸ In their text Gunnels and Cole state that "the fan enacts the ethnographer's in-betweenness".²⁹ This means that the work of a fan is the research material of the ethnographer. This co-created fan content can also be referred to as archontic production. Abigail de Kosnik introduced in her text *Rogue Archives* this term on archontic archiving by explaining how fan-created content is used to create an archive of a media text.³⁰ Originally institutions, libraries and museums would create archives on material, but since the digital-age people (i.e. fans) are capable of creating archives on their own. An example of such archive are the archived threads on *Reddit* where commenting is not allowed anymore, though the discussion keeps remained as some kind of online library.

²⁶ Henry Jenkins, "Principles of Transmedia," in *Transmedia Journalism*, accessed 20 March, 2020, <https://transmediajournalism.org/contexts/principles-of-transmedia/>.

²⁷ Henry Jenkins, "Spoiling Survivor: The Anatomy of a Knowledge Community," in *Convergence Culture: Where Old and New Media Collide*, 2009, <https://doi.org/10.1017/CBO9781107415324.004>.

²⁸ Gunnels and Cole, "Culturally Mapping Universes: Fan Production as Ethnographic Fragments."

²⁹ Gunnels and Cole, "Culturally Mapping Universes: Fan Production as Ethnographic Fragments."

³⁰ De Kosnik, *Rogue Archives Digital Cultural Memory and Media Fandom*, 98-99.

Method

This study uses a mixed method approach. The research starts with a textual analysis, a supporting method for the main method, to identify which textual aspects of *Bandersnatch* incentivize co-creation such as recurring logos and themes. *Bandersnatch* is watched several times to complete all main endings to obtain an undistorted view of the narrative for a fan of *Black Mirror*. The maps which are made by fans posted online helped finishing the film. How fans gather intertextual references helps the analysis to find the reasons of fans to co-create. Further used material exists of references in the film, threads, maps and game engines.

The second method is a nethnographic analysis. This approach is based on ethnographic research i.e. a qualitative method where researchers analyse and possibly interact with a research' participants in their real-life environment. Nethnography is the understanding of social interaction in modern digital communication spaces and is a specific set of analytical strategies related to data collection, research ethics, and representation (e.g. unobtrusive research methods).³¹ Unobtrusive methods mean that no person is directly approached for the research. In this case, the real-life environment is the online fan community on *Reddit*. Material used for nethnographic analysis contains "digital traces of naturally occurring public conversations recorded by contemporary communications networks", these are the *Reddit* posts that are used.³² However, also co-created artefacts are analysed as drivers for these conversations. Therefore, the focus lays on how a story is told through co-creation instead of what is told, and what this does to fans. The text by Christine Hine draws the attention to the online community on *Reddit*.³³

The samples exist of different *Reddit* posts which contain co-created content of fans. These posts contain maps, game engines and discussion. Also links to YouTube and GitHub are used to get into details within the analysis. Offline communities are not observed since the research needs to stay close to the digital framework. The media fans will be seen as co-creators of the fictional characters in the franchise. They are more than Jenkins' Poachers, they are active co-creators of their own fictional world.³⁴ For the textual analysis the sample exists of intertextual references, Easter eggs and a map of the narrative. This

³¹ Christine Hine, "Ethnographic Strategies for the Embedded, Embodied, Everyday Internet," in *Ethnography for the Internet: Embedded, Embodied and Everyday*, London: Bloomsbury Academic, 2015, 55-88, 2016, 55-88, <https://doi.org/10.5771/0257-9774-2016-1-262>.

³² Sarnou Dalal, "Reviewing the Role of Netnographic Research in Bridging the Gap between Youngsters and Adults," in *Global Journal of Archaeology & Anthropology*, 2019, 5 <https://doi.org/10.19080/gjaa.2019.07.555723>.

³³ Christine Hine, "The Internet in Ethnographies of the Everyday," in *Ethnography for the Internet: Embedded, Embodied and Everyday*, London: Bloomsbury Academic, 2015, 157-163, <https://doi.org/10.5771/0257-9774-2016-1-262>.

³⁴ Jenkins, "Textual Poachers, Twenty Years Later."

is a tool to further understand the textual features of the film. After this the game engine by redditor u/TheColinRitman is used to analyse further what engagement really means to fans.³⁵

Analysis

Before starting the analysis, the used material is summarized. This exist of the work by several redditors and the thread r/accidentalwhitebear. The material is built op from maps, discussions, shots from the film and a game engine and is used in combination with academic theory to analyse *Bandersnatch* and fan co-creation. Through the textual analysis some nethnographic research methods will be used e.g. using work of redditors to confirm findings of the textual analysis.

Textual analysis

Interactive digital narratives

Fans need a reason to co-create, a trigger to get involved with content and move them through fan activities. These triggers exist out of narratological and technological features and require participation. Interactive digital film needs participation through immersion which conducts a certain form of user experience. Susanne Eichner explains that viewers become influencers in the digital environment by their immersion. Christian Roth and Hartmut Koenitz have created a toolbox which helps to determine how satisfying the user experience of certain interactive digital content is. To define why fans allow themselves to get involved with *Bandersnatch*, the toolbox is applied on the film before analysing textual references. Immersion can mean letting an interactor transport into a different reality, in this case the viewer transports from his own reality into the reality of *Black Mirror*. However, immersion is also a technical quality of a virtual environment. They claim there are twelve different dimensions of user experience, based on the findings of Janet Murray, which all should apply to interactive digital narratives.³⁶ The three 'main' branches consisting of agency, immersion and transformation will be explained through the dimensions on the technical qualities of *Bandersnatch*. Agency focuses on the usability of an interactive digital narrative; this means how viewers can decide to change the narrative. In *Bandersnatch*, the viewer is given the illusion to be able to make choices. Though, sometimes the viewer has only one choice leaving out e.g. choices which are not even

³⁵ u/TheColinritman, "Bandersnatch Game Engine 1.0 Is Ready!" Reddit, 2019, https://www.reddit.com/r/Bandersnatch/comments/adbzs4/bandersnatch_game_engine_10_is_ready/.

³⁶ Roth and Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," 3-6.

offered. This leads to effectance, what is happening to the narrative of *Bandersnatch* and questioning who has the autonomy. The viewer has the idea to be in control at first, but this is slowly taken away while you start to see the loops and are confronted with *P.A.C.* (i.e. introduced in the next paragraph). Re-enacting the film via co-creation gives viewers a sense of autonomy. Following Eichner, involvement is the general connector between viewer and content. How well immersion functions within the interactive digital narrative depends on the flow and the sense of being present in the narrative. This presence is enclosed by giving the viewer the opportunity to pause and replay scenes. One could argue this would affect the immersion negatively. Nevertheless, due to the controlling theme it yet gives the viewer a sense of immersion by being in control of the characters. The dimension on how much a viewer can identify with the characters depends on the curiosity towards the characters of the story, which is quite subjective. How *Bandersnatch* builds the suspense increases the believability of the narrative. Narratologically-wise this depends on how eager the viewer is in 'playing' the film. As in *Bandersnatch*, viewers can get a sense of transformation by trying different actions. This transformation is based on eudaimonic appreciation which means that a viewer also enjoys the digital environment.³⁷ This can affect a viewer emotionally in a positive or negative way. The last dimension is enjoyment, which is about the entertaining factor of the interactive digital narrative and is thus subjective. The user experience of *Bandersnatch* depends on how much the viewer immerses himself within the interactive digital narrative. These twelve dimensions focus mainly on technical features of the film, though to fully understand why fans are willing to interact with a story, one needs to analyse narratological features.

Narratological features

Narratological features are references within the film which are present to influence the narrative. These features challenge a viewer to understand a story or perhaps look for new meaning. The psychological theme of freedom used in *Bandersnatch* is not brand new in interactive storytelling since it is also used e.g. for the walk-through game *The Stanley Parable* which has quite a few familiar features shared with *Bandersnatch*. For example, the narrator claims that the protagonist is controlled by someone else.³⁸ In *Bandersnatch* this is suggested by a similar reference to *P.A.C.*, which means 'program and control'. Nevertheless, differing

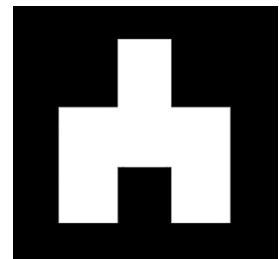


Image 2 Iconic White Bear Logo

from *The Stanley Parable* we are going to look at cinematographic features of the narrative. *P.A.C.* is also an inspiration of looking at the construction of the narrative. While looping through the game, it remembers your choices and those choices influence the narrative. Construed that while watching, you will never be

³⁷ Roth and Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," 5-6.

³⁸ Galactic Cafe, *The Stanley Parable*, Galactic Cafe, 2013.

really brought back to the original beginning. This gives the idea of never being able to re-do something, just like in real life the past cannot be changed. Wherever *Bandersnatch* often tries to delusional you from reality, at this point it tries to connect with the viewer. The iconic image, which is originally the 'White Bear Logo', refers to infinitude. The logo is a form of continuity as a textual reference. Throughout the film, the antagonist Colin Ritman expresses the world as an ongoing flow which exists of multiple timelines. He claims that whenever he dies, he will live on in another timeline. In fact, this also happens while the film loops after certain choices.

The first sub question: "how does *Bandersnatch* afford space for agency by co-creating on the behalf of fans" focuses on the film as a text. The text affords fan co-creation such as maps or games in order to create agency. Analysing the narratological features of the film, there seems to be a theory on how the concept of infinitude is used in intertextual references. This theory is based on a mathematic theory on the so-called Hilbert's Curve which seems to occur in logos, narrative and structure.

The Hilbert's Curve is a continuous fractal space-filling curve and can infinitely keep expanding and is connected to a visualization of sound in a matrix-type of environment.³⁹ The most evident appearance of the curve is the logo of *P.A.C.* portrayed in the film. The logo is the beginning of a Hilbert's Curve portrayed in a four squared pixel simulation. This figure keeps repeating throughout the film and can be linked to the infinite world the protagonist is living in. In discussions on *Reddit* e.g. by u/Drwomla and u/paxnf, redditors are convinced by the fact that *Bandersnatch* is based on infinity, the most important feature of the Hilbert's Curve.⁴⁰

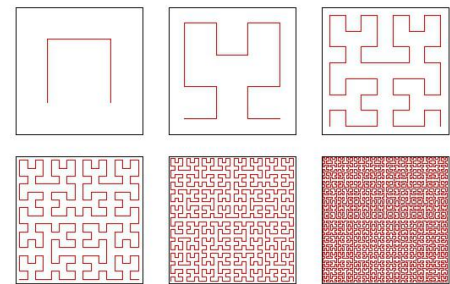


Image 2 Hilbert's curve

The Hilbert's Curve also appears in the structure of *Bandersnatch*, shown in the map of redditor u/SophieBulsara who created a map with the curve.⁴¹ Through its looping it shows an infinite storyline. In an earlier episode, called *White Bear*, the structure of the episode was quite the same due to the repeating and looping effect. This started the threat *r/accidentalwhitebear* on *Reddit* where redditors comment whenever they find the logo somewhere in order to prove that the infinite logo and structure keeps coming back everywhere.⁴² This logo is a form of continuity. Henry Jenkins describes this as the following:

³⁹ Arthur R. Butz, "Convergence with Hilbert's Space Filling Curve," in *Journal of Computer and System Sciences*, 1969, [https://doi.org/10.1016/S0022-0000\(69\)80010-3](https://doi.org/10.1016/S0022-0000(69)80010-3).

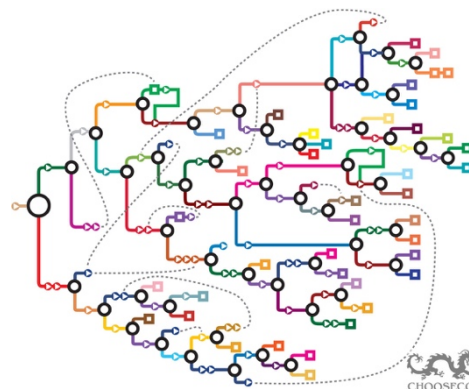
⁴⁰ u/Drwomla, "Bandersnatch Analysis", *Reddit*, 2019, https://www.reddit.com/r/blackmirror/comments/aewn9g/bandersnatch_analysis/.

⁴¹ u/SophieBulsara, "Mapping 'BanderSnatch' Outcomes in a Megathread?" *Reddit*, 2018, https://www.reddit.com/r/blackmirror/comments/a9q3qj/mapping_bandersnatch_outcomes_in_a_megathread/.

⁴² *r/accidentalwhitebear*, "White Bear Is Everywhere," *Reddit*, accessed 11 May 2020, <https://www.reddit.com/r/accidentalwhitebear/>.

"continuity is the consistency and the credibility of the universes created."⁴³ The recurring logo incentivizes co-creation and gives fans a reason to take on a different perspective of the film.

In the narrative, the same continuity is shown. The antagonist Colin Ritman keeps explaining to the protagonist Stefan Butler how life exist out of several timelines and how you can always start over. This storyline points us towards the concept of infinity. The narrative focuses on parallelism of realities which control the characters. The protagonist gets caught up in the fact that there is no reality where he is in control of himself. At this point, the film tries to make the viewer let go of their own reality by discomforting the viewer. This delusional



effect of the film can be supported by the concept of Thomas *Image 3 Maps of u/SophieBulsara* Elsaesser which will be discussed in the next paragraph.⁴⁴ The space created for agency is clearly moved by the recurring concept of an infinite reality which occupies different narratological features.

***Bandersnatch*, an interactive mind-game film**

Bandersnatch is a film which challenges the mind in several ways and is therefore called a mind-game film. The film has a psychological drive which has an impact on the viewer's engagement. Elsaesser uses the definition of mind-game film to categorize a specific genre. He splits the characteristics of the genre in two definitions which can be applied on *Bandersnatch*. The first one is towards the protagonist of the film who is delusional and psychotic. Sometimes because of the events in his or her life, consistently because of mental illness. The protagonist Stefan Butler moves in a world where he doubts reality or even finds himself living in an infinite world. He realizes that he is no surer about what is true in his mind. The sequences with the psychedelic drugs and the murder on his dad refer to his psychotic state of mind. This form of productive pathology is a condition of the mind regarding the characters which are disclosed throughout the film. The reason viewers feel connected is supported by the argument of Elsaesser on his second definition. This definition involves the viewer, who is tricked into believing in immoral intentions of the characters. Mind-game films imply and implicate viewers in a different way than the classical theories of identification, alignment and engagement. Because default values of human interaction do not exist anymore. The film can question and suspend both the inner and outer framing of the narrative. This means that the viewer finds himself in a mind-game in which he needs to puzzle his way through the narrative in order to find what's true about his own reality. *Bandersnatch* can give a viewer the doubt of his own presence in this

⁴³ Jenkins, "Principles of Transmedia."

⁴⁴ Elsaesser, "The Mind-Game Film," 17-18.

world. This includes single or multiple diegesis and unreliable narration, which can refer to productive pathologies. As a viewer you analyse the mental health of the characters. This complex narrativity is a puzzle element consisting of missing or unclaimed point-of-view shots, episodic or multi-stranded narratives, embedded story-within-story and film-within-film narratives, and frame-tales that reverse what is inside the frame.⁴⁵ To reconstruct all this information into an overall view, the crowd on *Reddit* functions as a source of gathering intertextual references, Easter eggs and hidden layers of the film. The narrative has an embedded story-within-story as listed above.

The *P.A.C.* logo is often connected to maps in textual features. On *Reddit*, several discussions ongoing to see mapping in the structure of the film.

The back of Stefan's house shows a dead end of a branch of a map (e.g. u/SophieBulsara's map). Choosing left killing and burying dad, choosing right going back inside and continue the film. These puzzle elements keep reoccurring via complex narrativity and activates the viewer. One can argue



Image 4 The back of Stefan's house

that the shape of the windows and the growth of the wall plants are no coincidence and are important for the narrative.

In the narrative the story of Jerome F. Davies is embedded in the story of Stefan Butler, which is embedded in the story of Pearl Ritman. This is an example of complex multiple diegesis in mind-game films.⁴⁶ In the narrative, the character of Pearl Ritman, the daughter of Colin Ritman starts recreating the game of Stefan Butler. One of the reasons she mentions, is that she wants to identify herself with the story and the fact that she is intrigued by the history between her father, Butler and the book of Davies. In fact, her fictional character is an example of fan agency through co-creation and gives us the answer to the first sub question. In the nethnographic analysis will be discussed how non-fictional fans do the same as Pearl.

Nethnographic analysis

Ethnodramaturgy through re-enacting content

The textual analysis on the film has shown how *Bandersnatch* affords space for fan agency and co-creation via its narratological features. For the nethnographic analysis, a game engine is used based on the

⁴⁵ Elsaesser, "The Mind-Game Film," 19-22.

⁴⁶ Elsaesser, "The Mind-Game Film," 19-20.

intertextual references of *Bandersnatch* both as the interactive film, as the choose-your-own-adventure book adapted as a game in the film.⁴⁷ The question will be answered on how fans create their own content based on gathering intertextual references via the sample of the game engine. The game engine is a mix between the narrative of the story and the game which the protagonist Stefan Butler is creating in the film.

This is an example explained by Gunnels and Cole, on how fans try to understand the characters, instead of looking at the narrative through technology.⁴⁸ They introduce the concept of ethnodramaturgy. An ethnodramaturg is a transmedia fan that works within a fictive world such as the *Bandersnatch*' universe to analyse and create dramatic narratives based within the universe. To describe the *Bandersnatch*' universe, it is compared to the metaphor of a matrix universe. This

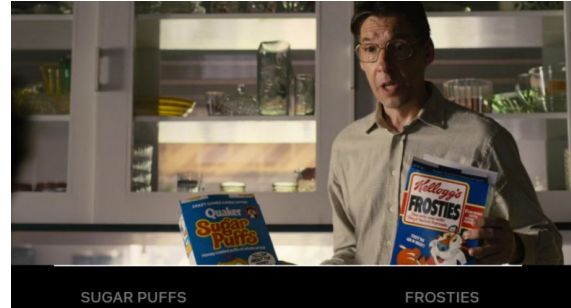


Image 4 Shot of *Bandersnatch* which appears in the game engine

matrix refers to a computer-simulated world which occupies multiple timelines at the same time where people are controlled (e.g. the textual reference of *P.A.C.*). This is a reference to the metaphor of the storyline and world of the film *The Matrix* by Warner Bros Pictures.⁴⁹

The game engine is an example of this. Performatively, the fan is an ethnodramaturg who enacts the in-betweenness.⁵⁰ This in-betweenness can be explained as liminality. Liminality is a form of ambiguity where a researcher is separated from his own culture, but not incorporated in the host culture.⁵¹ This creates in the case of *Bandersnatch* a matrix-kind of world. The ethnodramaturg is not of the matrix' reality and yet not not of the matrix' reality he explores and attempts to explain, this space can be referred to as the liminal stage. This means the subject is at the same time observed and created through the use of ethnographic features. The fragments are visualized independently of the original source. Fan co-created media are types of ethnographic fragments. Ethnodramaturgs explore explicit fragments to analyse and create new narratives. Gunnels and Cole point us towards the fact that these ethnodramaturgs are not specifically trying to change the narrative with their own subjectiveness, they rather expand nodes of the story line and the fictive world. The position of the ethnodramaturg is also portrayed by the redditor of the game engine post who refers to himself on *Reddit* as u/TheColinRitman, which refers to the antagonist of *Bandersnatch* and is actually a game developer in the film.⁵² u/TheColinRitman is an example of how fans playfully re-

⁴⁷u/TheColinRitman, "Bandersnatch Game Engine," Herokuapp, 2019, <http://bandersnatch-engine.herokuapp.com/?universe=ad7cbr>.

⁴⁸ Gunnels and Cole, "Culturally Mapping Universes: Fan Production as Ethnographic Fragments."

⁴⁹ Wachowski, Lily, and Lana Wachowski. *The Matrix*. Warner Bros Pictures, 1999.

⁵⁰ Gunnels and Cole, "Culturally Mapping Universes: Fan Production as Ethnographic Fragments."

⁵¹ Jeffrey A. Sluka and Antonius C.G.M. Robben, "Fieldwork in Cultural Anthropology: An Introduction", in *Ethnographic Fieldwork: An Anthropological Reader*, 2007, 76.

⁵²u/TheColinritman, "Bandersnatch Game Engine 1.0 Is Ready!"

plot closure within every episode. This is a part of the operational aesthetic, where fans rather want to know how a character accomplished something, than knowing what events are coming up.⁵⁹ The narrative complexity has the affordances to give overall closure in multiple episodes of seasons. *Black Mirror* is known for its open ending in most episodes but does not give an overall closure on all episodes either. Yet, the continuity of the theme connects all episodes. Referring to Elsaessers mind-game films, viewers need to enclose the overall message themselves. This is also a reason why fans are poaching so much.⁶⁰

The game engine by u/TheColinRitman is an example of archontic production. "Archontic production is a crowd sourced multiplication of the contents of an archive."⁶¹ Ethnodramaturgs create their own archive by co-creation, where before, an archive was built of the originally produced content by the original producers. Creating an archive is a cognitive workout since ethnodramaturgs are creating new content. The game engine is a link to a website where you can click through screens which consists of shots of the film and images from Stefan Butler's game. These shots are combined into a new storyline. Through a similar technical apparatus Stefan is using, this fan is trying to co-create an extension of the story. U/TheColinRitman is trying to create its own archive on *Bandersnatch* together with other redditors. This game engine is a piece of the same kind of archontic content as the fictional character of Pearl Ritman produces. The material of the original source is used to co-create new content. To investigate this further, we have to take look at why interactive digital narratives and its user experience as described by Roth are outstanding for fan co-creation.⁶² Besides co-creating, also collecting such as the *White Bear* logo is archontic production.

Another game which is an addition to the archive of *Bandersnatch* is a *Bandersnatch*-inspired game on *YouTube* with a virtual choose-your-own-adventure puzzle made by the redditor u/AkrosTragos.⁶³ Via *YouTube* you can 'play' the game through links in the description. Also, via other social media outlets hints are given to complete the game. Though this game is not based on the *Bandersnatch* story, the set-up is an example of how ethnodramaturgs are inspired by the film to create their own archontic production.

The third sub question "how is immersion and empathizing with the characters done through ethnodramaturgy?" can now be answered through the nethnographic analysis. Fans behaving as ethnodramaturg act as the characters or as someone who could fit in the narrative. They do not immerse themselves into *Bandersnatch* itself but into the idea of the world. The narrative complexity gives ethnodramaturgs freedom to re-enact with the story line in their own way.

⁵⁹ Mittell, "Narrative Complexity in Contemporary American Television," 35.

⁶⁰ Jenkins, "Textual Poachers, Twenty Years Later."

⁶¹ De Kosnik, *Rogue Archives Digital Cultural Memory and Media Fandom*, 285.

⁶² Roth and Koenitz, "Evaluating the User Experience of Interactive Digital Narrative," 3-6.

⁶³ u/AkrosTragos, "We have created a Bandersnatch-inspired YouTube virtual Choose Your Adventure puzzle, It is relatively shorter, but if you complete, DM us and we will discuss your rankings to other players, Stay curious." Reddit, 2020,

https://www.reddit.com/r/Bandersnatch/comments/gpia7/we_have_created_a_bandersnatchinspired_youtube/.

MTV released an interview with the producers of *Bandersnatch* in 2019, who state that they do not know which scenes are cut. This gives ethnodramaturgs more fuel to re-enact the story in ways that fit these scenes.⁶⁴ Causing redditors to actively participate in discussions on *Bandersnatch* even two years after the release. Through this nethnographic analysis it is shown that even after time of the release date, the *Black Mirror* franchise is still trying to keep a certain loop of empathizing and immersion going. By doing this, they keep giving fans a reason to co-create and by that keep complementing the archontic archive of *Bandersnatch*.

Conclusion

The textual analysis of this study shows that in order to understand why fans engage so much with *Bandersnatch*, one needs to know what kind of narrative features are used. This thesis analyses the intertextual reference of an iconic image along with several narratological features to understand why fans engage with contemporary interactive film. These features show to have a psychological element, known from mind-game films. These features and so-called dimensions contribute to the user experience of *Bandersnatch*. The interactive film triggers viewers to act as puzzlers to find meaning and fill in gaps on the narrative. In the nethnographic analysis is shown that these triggers encourage fans to produce co-creations of the narrative. Maps of the narrative are used to get an overview on the complex narrative while game engines are created to extent the story line. The research question: "How do fans engage with the contemporary interactive film *Black Mirror: Bandersnatch* through co-creation?" answers that fans are challenged by the interactive digital narrative of the film. The multiple complex story lines stimulate fans to puzzle with different features to create meaning and demonstrate agency. They are challenged via cognitive workouts to re-enact the story and create an archive on the film. These archives are produced by fans behaving as ethnodramaturgs which place themselves in a liminal stage, they place themselves outside their own world, but do not fully enter the *Bandersnatch* universe. Fan co-created content on *Reddit* triggers other ethnodramaturgs to fill in gaps on existing ones. Together an archive consisting of meaning and theories is built by fans to engage with *Bandersnatch* and demonstrate their agency.

⁶⁴ MTV International, "Black Mirror: Bandersnatch Deleted Death Scenes Revealed | MTV Movies," YouTube, 2019, <https://www.youtube.com/watch?v=72JSgDuLrCo>.

Outlook and limitations

Interactive shows are more becoming a part of the *Netflix* experience, but there is still nothing similar like *Bandersnatch*.⁶⁵ This means that for now *Bandersnatch* will remain the only adult interactive film on *Netflix*. Though, there is an interactive series named *You Vs. Wild* hosted by Bear Grylls, but this show meets *Bandersnatch* nowhere in its intertextuality or controversialness.⁶⁶ This means that further research on interactive digital film will be limited due to the lack of new material.

This thesis was limited by its form of analysis being nethnographic instead of ethnographic. Via interviews the findings could be more accurate. Following up on this research could consist of a research with an interview with fans, ethnodramaturgs or even the producers of *Black Mirror*. The reason for excluding the interview tool in this research was the incapability to make conclusive claims about motivations. In an upcoming research it might be interesting to interview redditors such as u/TheColinRitman. His game engine has been an addition to the archive of *Bandersnatch*. Also looking at the technical perspective or the producer's experience of the fans make co-creations on their production can make great research on interactive digital film. This might also trigger streaming services as *Netflix* to create more interactive digital films aimed for adults.

Hopefully in the future *Netflix* surprises us with many more interactive digital films similar to *Bandersnatch* since it is a challenging form of media which keeps fans curious and active. Great co-created work has been delivered by ethnodramaturgs and more work can be enjoyed in the future.

References

- Brooker, Charlie and David Slade. *Black Mirror: Bandersnatch*. United Kingdom: Netflix, 2018.
- Butz, Arthur R. "Convergence with Hilbert's Space Filling Curve." In *Journal of Computer and System Sciences*, 1969. [https://doi.org/10.1016/S0022-0000\(69\)80010-3](https://doi.org/10.1016/S0022-0000(69)80010-3).
- Carlock, Robert and Tina Fey, eds. *Unbreakable Kimmy Schmidt: Kimmy Vs The Reverend*. Netflix, 2020. <https://www.netflix.com/search?q=the+unbreakable&jbv=81131714>.
- Činčera, Radúz. *Kinoautomat*. Ladislav Kalas, 1967. <http://www.kinoautomat.cz/index.htm?lang=gbr>.
- Cirucci, Angela M. and Barry Vacker. *Black Mirror and Critical Media Theory*. Rowman & Littlefield, 2018.
- Dalal, Sarnou. "Reviewing the Role of Netnographic Research in Bridging the Gap between Youngsters and Adults." In *Global Journal of Archaeology & Anthropology*, 2019. 5. <https://doi.org/10.19080/gjaa.2019.07.555723>.
- De Kosnik, Abigail. *Rogue Archives Digital Cultural Memory and Media Fandom*. Cambridge, MA: The MIT Press, 2016. 98-99. <https://doi.org/10.7551/mitpress/10248.001.0001>.
- Eichner, Susanne. "Agency as a Mode of Involvement." In *Agency and Media Reception: Experiencing Video Games, Film, and Television*. Springer, 2014. <https://doi.org/10.1007/978-3-658-04673-6>.

⁶⁵ Kasey Moore, "Upcoming Interactive Titles Coming to Netflix," *What's On Netflix*, 2019, <https://www.whats-on-netflix.com/coming-soon/upcoming-interactive-titles-coming-to-netflix/>.

⁶⁶ Bear Grylls and Rob Buchta, and Delbert Shoopman, "You vs. Wild," Netflix, 2019, <https://www.netflix.com/search?q=you+vs+wild&jbv=80227574>.

- Elnahla, Nada. "Black Mirror: Bandersnatch and How Netflix Manipulates Us, the New Gods." In *Consumption Markets and Culture*, 2019. <https://doi.org/10.1080/10253866.2019.1653288>.
- Elsaesser, Thomas. "The Mind-Game Film." In *Puzzle Films: Complex Storytelling in Contemporary Cinema*, 2009. <https://doi.org/10.1002/9781444305708.ch1>.
- Galactic Cafe. *The Stanley Parable*. Galactic Cafe, 2013.
- Grylls, Bear and Rob Buchta, and Delbert Shoopman. "You vs. Wild." Netflix, 2019. <https://www.netflix.com/search?q=you+vs+wild&jbv=80227574>.
- Gunnels, Jen and Carrie J. Cole. "Culturally Mapping Universes: Fan Production as Ethnographic Fragments." In *Transformative Works and Cultures*, 2010. <https://doi.org/10.3983/twc.2011.0241>.
- Herring, Richard. "RHLSTP 268 - Charlie Brooker." acast, 2020. <https://play.acast.com/s/rhlstp/rhlstp268-charliebrooker>.
- Hine, Christine. "Ethnographic Strategies for the Embedded, Embodied, Everyday Internet." In *Ethnography for the Internet: Embedded, Embodied and Everyday*, London: Bloomsbury Academic, 2015. 55-88. <https://doi.org/10.5771/0257-9774-2016-1-262>.
- Hine, Christine. "The Internet in Ethnographies of the Everyday." In *Ethnography for the Internet: Embedded, Embodied and Everyday*. London: Bloomsbury Academic, 2015. 157-163. <https://doi.org/10.5771/0257-9774-2016-1-262>.
- Jenkins, Henry. "Principles of Transmedia," In *Transmedia Journalism*. Accessed 20 March, 2020. <https://transmediajournalism.org/contexts/principles-of-transmedia/>.
- Jenkins, Henry. "Spoiling Survivor: The Anatomy of a Knowledge Community." In *Convergence Culture: Where Old and New Media Collide*, 2009. <https://doi.org/10.1017/CBO9781107415324.004>.
- Jenkins, Henry. "Textual Poachers, Twenty Years Later." In *Textual Poachers: Television Fans and Participatory Culture*, 2013.
- Joric. 'Bandersnatch'. Github, 2019. <https://github.com/joric/bandersnatch>.
- Kolhoff, Lobke and Frank Nack. "How Relevant Is Your Choice?" In *Interactive Storytelling*. 13. Lecture Notes in Computer Science. Amsterdam: Springer International Publishing, 2019. https://link.springer.com/content/pdf/10.1007%2F978-3-030-33894-7_9.pdf.
- Lay, Chris and David Kyle Johnson. "Bandersnatch." in *Black Mirror and Philosophy*, 2019. <https://doi.org/10.1002/9781119578291.ch20>.
- Mittell, Jason. "Narrative Complexity in Contemporary American Television." In *The Velvet Light Trap*, 2006. <https://doi.org/10.1353/vlt.2006.0032>.
- Moore, Kasey. "Upcoming Interactive Titles Coming to Netflix." *What's On Netflix*, 2019. <https://www.whats-on-netflix.com/coming-soon/upcoming-interactive-titles-coming-to-netflix/>.
- MTV International. "Black Mirror: Bandersnatch Deleted Death Scenes Revealed | MTV Movies." YouTube, 2019. <https://www.youtube.com/watch?v=72JSgDuLrCo>.
- Nitzan, Ben Shaul. "Hyper-Narrative Interactive Cinema: Problems and Solutions." In *Consciousness, literature & the arts*, Amsterdam: New York: Rodopi, 2008. <https://doi.org/10.1163/9789401206297>.
- Orwell, George. 1984. 1st ed. United Kingdom: Secker & Warburg, 1949.
- r/accidentalwhitebear. "White Bear Is Everywhere." Reddit. Accessed 11 May, 2020. <https://www.reddit.com/r/accidentalwhitebear/>.
- Roth, Christian and Hartmut Koenitz. "Evaluating the User Experience of Interactive Digital Narrative." In *AltMM 2016 - Proceedings of the 1st International Workshop on Multimedia Alternate Realities*, Co Located with ACM Multimedia, 2016. <https://doi.org/10.1145/2983298.2983302>.
- Sega Enterprises. *Astron Belt*. Japan: Sega, Bally Midway, 1983. <https://www.arcade-history.com/?n=astron-belt&page=detail&id=133>.
- Sluka, Jeffrey A., and Antonius C.G.M. Robben. 'Fieldwork in Cultural Anthropology: An Introduction'. In *Ethnographic Fieldwork: An Anthropological Reader*, 2007, 76.
- StefanButler1984. "Bandersnatch-Engine." Github, 2019. <https://github.com/StefanButler1984/bandersnatch-engine>.
- Surowiecki, James. *The wisdom of crowds: Why the many are smarter than the few and how collective wisdom shapes business, economies, societies, and nations*. New York: Anchor Books, 2005.
- u/AkrosTragos. "We have created a Bandersnatch-inspired YouTube virtual Choose Your Adventure puzzle. It is relatively shorter, but if you complete, DM us and we will discuss your rankings to other players." Stay curious." Reddit, 2020.

https://www.reddit.com/r/Bandersnatch/comments/gpia7/we_have_created_a_bandersnatchinspired_youtube/.

u/alpine-. "Almost 4 Hours after Release and I Think I Have Mapped Bandersnatch. Throw Tea over Computer." Reddit, 2018. https://www.reddit.com/r/blackmirror/comments/aa9oym/almost_4_hours_after_release_and_i_think_i_have/.

u/Berat_Ahmetah. "Better Version Of The Bandersnatch Timeline Map (To Help Those Pirating It)." Reddit, 2019. https://www.reddit.com/r/Piracy/comments/abap4g/better_version_of_the_bandersnatch_timeline_map/.

u/conzeit. "┐┌ wants. We have forsaken ┐┌." Reddit, 2019. https://www.reddit.com/r/blackmirror/comments/acdvt2/wants_we_have_forsaken/.

u/danish-laederlap. "I'm writing my master thesis on Bandersnatch and I need help with a branch." Reddit, 2020. https://www.reddit.com/r/Bandersnatch/comments/g7qmzs/im_writing_my_master_thesis_on_bandersnatch_and_i/.

u/Dwrowla. "Bandersnatch Analysis", Reddit, 2019. https://www.reddit.com/r/blackmirror/comments/aewn9g/bandersnatch_analysis/.

u/FapForTrapsIsNotGay. "Alternative Bandersnatch Map". Reddit, 2018. https://www.reddit.com/r/blackmirror/comments/aavkce/alternative_bandersnatch_map/.

u/Guteren. "Master List of Episode Connections / Easter Eggs". Reddit, 2018. https://www.reddit.com/r/blackmirror/comments/aa8hxc/master_list_of_episode_connections_easter_eggs/.

u/JG5TON3. "In Black Mirror's "Bandersnatch", the house resembles the black mirror logo and the episode's symbol for diverging timelines." Reddit, 2019. https://www.reddit.com/r/TVDetails/comments/aahlry/in_black_mirrors_bandersnatch_the_house_resembles/.

u/paxnf. "It's all real". Reddit, 2019. https://www.reddit.com/r/Bandersnatch/comments/akarkr/its_all_real/.

u/ReTroodo. "Bandersnatch Symbol/Mapping as Hilbert's Curve." Reddit, 2020. https://www.reddit.com/r/blackmirror/comments/e7x7kq/bandersnatch_symbolmapping_as_hilberts_curve/.

u/SophieBulsara. "Mapping "BanderSnatch" Outcomes in a Megathread?" Reddit, 2018. https://www.reddit.com/r/blackmirror/comments/a9q3qj/mapping_bandersnatch_outcomes_in_a_megathread/.

u/TheColinRitman. "Bandersnatch Game Engine." Herokuapp, 2019. <http://bandersnatch-engine.herokuapp.com/?universe=ad7cbr>.

u/TheColinritman. "Bandersnatch Game Engine 1.0 Is Ready!" Reddit, 2019. https://www.reddit.com/r/Bandersnatch/comments/adbzs4/bandersnatch_game_engine_10_is_ready/.

u/thehumbmaster. "The house in Bandersnatch isn't only the Black Mirror logo but it represents a "Choose Your Own Adventure" map as well, with one direction being a lush and thriving option, while the other is a decrepit, broken-down option. Showing how your choices effect your future." Reddit, 2019.

Wachowski, Lily, and Lana Wachowski. The Matrix. Warner Bros Pictures, 1999.

List of Illustrations

Image 1. Retrieved on 20th, March, 2020. <https://i.redd.it/udl2q9y7hf821.png>.

Image 2. Retrieved on 20th, March, 2020. <https://i.redd.it/a3v0c4vrbg341.jpg>.

Image 3. Retrieved on 7th May, 2020.

https://assets.atlasobscura.com/article_images/lg/42873/image.jpg.

Image 4. Retrieved on 7th July, 2020.

<https://preview.redd.it/hc0sto0005721.png?width=960&crop=smart&auto=webp&s=d8a36d446a4b3cf3e5671159dc0c3bb21504c875>.

Image 5. retrieves on 7th May, 2020.

<https://1ld3bn3pj7u818mrpr3kmfig-wpengine.netdna-ssl.com/wp-content/uploads/2019/01/Netflix-Bandersnatch-Cereal-choice-1024x629.jpg>.

Image 6. Retrieved on 10th July, 2020.

https://miro.medium.com/max/2090/1*qzyt9GsHZ9kTrsUu6BndrQ.png.