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THE MYTH OF PERSONALISATION

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How **NETFLIX** is shaping users' algorithmic identity

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Abstract

In this thesis the Personalised Recommendation System (PRS) of the online streaming platform Netflix has been analysed. By doing so, this thesis has analysed the role that Netflix plays in the debate around online personalised content. Within this thesis, the following research question has been answered: How and to what extent does the PRS embedded within Netflix and the discursive and social practice surrounding it shape users' algorithmic identity? This question has been answered by proposing a modified framework of the narrative identity theory by Ricoeur, namely algorithmic identity. This research argues that a new framework is needed because the algorithms within platforms now provide the medium that shapes identity. Therefore, the construction of algorithmic identities emerges in three stages where: users use the platform to create data (algorithmic₁), this data is being used by the platform to set the PRS algorithms in motion and deliver personalised content (algorithmic₂), and finally users can reflexively read and understand themselves through the identity prescribed upon them within their personal profile page (algorithmic₃). The method of Critical Discourse Analysis by Fairclough enabled this research to analyse the following aspects of the PRS of Netflix: (1) the Netflix interface, (2) articles and social media posts around the production and consumption of the PRS and (3) the social practice of online personalisation. It has been concluded that all three stages of algorithmic identity *can* take place within the interface of Netflix. However, algorithmic identity construction *does not fully* take place since within the final stage, algorithmic₃, the users of this research do not affiliate themselves with the personal profile reflected back to them by the Netflix interface. As a result, while algorithmic₁ and ₂ take place, algorithmic₃ enables users to reflect upon the true personalisation that is being withheld from them because they are being translated into individuals. Therefore, online personalisation as fully personalised is seen as a myth because there is a tension between the identity created by the algorithm and the identity of the users.

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Introduction

Our lives are becoming more and more datafied.¹ This datafication is the transformation of our lives into data that can be computed and causes data and algorithms to organise our worlds more and more. This datafication is useful within online platforms because while these platforms are used as services, they also envision our future based on our current activities within the platform. For instance, by using users' data, and with the help of algorithmic logic², platforms are able to create a personalised account.³ An example of this is the Netflix platform which offers a personal account with the help of a Personalised Recommendation System (PRS). According to Plummer, more than 80 percent of the content users watch on Netflix is discovered through this recommendation system.⁴ In the present, Netflix does not only recommend content but also uses a PRS to shape the preview images a user sees on their personalised page and to deliver different content at different viewing times.⁵ These personalised pages deliver different content and affordances per user. Because more than 278.52 million people use the Netflix platform,⁶ it is socially relevant to research Netflix and their PRS.

This research is placed within the debate of online personalisation. For instance, the premise that someone can receive personalised content (content actually based on themselves) is argued to not exist.⁷ Namely, Cheney-Lippold argues that these algorithms simply create collections that allow the users' data, but not the users' personal identity, to be categorised.⁸ These categorisations play a role in the shaping of identity online, because the output of the algorithm should speak for the individual but is merely focused on the categories of the system that a user fits into.⁹ These categories are based upon the so-called measurable type, which can be seen as a data template.¹⁰ These data templates are used to give users an identity which compares new data to existing datafied models. This makes it questionable whether the recommended content for you as a Netflix user is personalised at all, since a user gets recommendations based on which categories they belong to, but other users within the same categories get the same recommendations. This poses the question how these personalised recommendations can shape users' identity. This is analysed in this research by proposing a modification to the narrative identity theory by

¹ Puschmann, Cornelius and Julian Ausserhofer, "Social data APIs: Origin, types, issues," in *The Datafied Society: Studying Culture Through Data*, ed. Mirko Schäfer and Karin van Es (Amsterdam University Press, 2017), 153.

² John Cheney-Lippold, *We Are Data: Algorithms and the Making of Our Digital Selves* (New York, NY: NYU Press Ebook Edition, 2017), 12.

³ *Ibid.*, 47.

⁴ Libby Plummer, "This is how Netflix's top-secret recommendation system works," *WIRED*, August 22, 2017, <https://www.wired.co.uk/article/how-do-netflixs-algorithms-work-machine-learning-helps-to-predict-what-viewers-will-like>.

⁵ Matt Burgess, "This is how Netflix's secret recommendation system works," *WIRED*, August 18, 2018, <https://www.wired.co.uk/article/netflix-data-personalisation-watching>.

⁶ Kamila Rivero, "How Many People Use Netflix," *Showbiz Cheatsheet*, February 8, 2019, <https://www.cheatsheet.com/entertainment/how-many-people-use-netflix.html/>

⁷ Cheney-Lippold, *We Are Data*, 47.

⁸ *Ibid.*

⁹ *Ibid.*, 9.

¹⁰ *Ibid.*, 30.

Ricoeur¹¹ because instead of stories, the algorithms within platforms now provide the medium that shapes identity. Therefore, the construction of algorithmic identities emerges in three stages where: users use the platform to create data (algorithmic₁), this data is being used by the platform to set the PRS algorithm in motion and deliver personalised content (algorithmic₂), and finally users can reflexively read and understand themselves through the identity prescribed upon them within their personal profile page (algorithmic₃). This identity theory is further explained in the theoretical framework.

This thesis analyses the role that the Netflix platform plays in this debate around personalised content. However, it is important to realise that these algorithms are black-boxes,¹² thus making it difficult to research them. Nevertheless, Kitchin encourages researchers to think critically about and research algorithms¹³ therefore posing the academic relevance of this research. This is done in this research by using a Critical Discourse Analysis (CDA) using Fairclough's framework.¹⁴ This research answers the following question:

- How and to what extent does the PRS embedded within Netflix and the discursive and social practice surrounding it shape users' algorithmic identity?

To be able to answer this question, the following sub-questions are asked:

- 1) What are the affordances within the interface of Netflix in relation to personalised content?
- 2) How is the discourse surrounding the production and consumption of the PRS of Netflix shaped?
- 3) How can the PRS of Netflix be placed within the social practice of online personalisations?

The research is carried out with the help of a CDA which is used to analyse the following in this thesis: (1) the interface of Netflix, (2) articles and social media posts around the production and consumption of the PRS and (3) the social practice of online personalisation.

This research has the following outline: chapter one describes what algorithms are and what role they play in relation to our identity and chapter two elaborates upon the methodology used within this research. In chapter three the Netflix interface is analysed, in chapter four the discourse around the production and consumption of the PRS is analysed and in chapter five a reflection upon the socio-cultural aspect is given. Finally, in chapter six the conclusion of the research is stated and additional limitations and future research recommendations are given.

¹¹ Valerie Frissen, Sybille Lammes, Michiel de Lange, Jos de Mul and Joost Raessens, "Homo ludens 2.0: play, media, and identity." in *Playful identities: the ludification of digital media cultures* (Amsterdam University Press, 2012), 32.

¹² Langdon Winner, "Upon opening the black box and finding it empty: Social constructivism and the philosophy of technology," *Science, Technology, & Human Values* 18, no. 3 (1993): 365.

¹³ Rob Kitchin, "Thinking critically about and researching algorithms." *Information, Communication & Society* 20, no. 1 (2017).

¹⁴ Norman Fairclough, *Discourse and social change* (Vol. 10. Cambridge: Polity press, 1992); Norman Fairclough, *Language and power* (Pearson Education, 2001).

1. Theoretical Framework

Within this chapter, the term algorithmic identity is further established upon. In section 1.1 the term algorithms is defined and in section 1.2 the term identity is explained which eventually leads to the theory of narrative identity in section 1.2.1 and the theory of algorithmic identity in section 1.2.2.

1.1 Algorithms

The datafication of life causes the continuous use of data by platforms so they can embed it within an algorithm for further use.¹⁵ The PRS of Netflix is an example of this. An algorithm can be defined as a “computational procedure that takes some value, or set of values, as input and produces some value, or set of values, as output”.¹⁶ However, it is important to keep in mind that algorithms are not absolute, with the addition of new data the input as well as the output of an algorithm can change.¹⁷

Personalisation algorithms are based upon measurable types: so-called data templates.¹⁸ These measurable types can be seen as classifications that become analytical models which are used in profiling users.¹⁹ These measurable types are based upon the concept of the “ideal type” which is used by Goffman to construct the coherence between “setting, appearance, and manner”.²⁰ This coherence represents an ideal type which can be seen as the social norm for appropriate behaviour within a specific situation and can be used to discipline people.²¹ For example, these measurable types are used to give users an identity which compares new data to existing datafied models. This means that users are compared to existing data and categories, therefore the users’ data has to fit into these templates in order for the system to work.

The way the concept of the ideal types is embedded within these measurable types can be explained by focusing on the categorisations. For example, a user has to fit into a specific category in order for the system to work. However, this brings to question what happens when the user does not identify with the options the system affords them. Such measurable types therefore create an ideal type, since users that do not fit into the categorisations will not get the desired output of the system. Namely, the presence of certain categories but not others argues that these algorithms have norms embedded into them that make it possible to discipline people. For example, a user gets promoted drama content, but not violence content even though the user likes both. Accordingly, it can be assumed that the ideal type of the system is someone who watches drama content. Consequently, it is argued that these measurable types are often models of datafied objects which determine who someone can and cannot be²² which consists in

¹⁵ Cheney-Lippold, *We Are Data*, 121.

¹⁶ Thomas Cormen, Charles Leieron, Ronald Rivest and Clifford Stein, *Introduction to Algorithms* (MIT Press, 2009), 5.

¹⁷ Yiannis Moschovakis, "What is an algorithm?" in *Mathematics unlimited—2001 and beyond* (Springer, Berlin, Heidelberg, 2001), 13.

¹⁸ Cheney-Lippold, *We Are Data*, 30.

¹⁹ Ibid.

²⁰ Erving Goffman, *The presentation of self in everyday life* (University of Edinburgh: Social Sciences Research Centre, 1956), 16.

²¹ Cheney-Lippold, *We Are Data*, 32.

²² Ibid., 30.

trying to get people, movements, and actions to conform to a model.²³ This disciplining of the user creates a personal profile which promotes certain content but hides other content. Therefore, these algorithms play a major role by having the ability to shift agency to the machine, the ability of the machine to make the decisions for us, and the ability of the machine to predict content for us.²⁴

1.1.1 Human and Machine Agency

The questions around agency are complex, but the notion of an algorithm is often assumed to carry some form of agentic power.²⁵ It is often this power to make decisions without (or with little) human intervention that questions human and machine agency. To make the data useful for a computer means that categories need to be “transcoded” into elements which a computer can understand, such as film and series taste.²⁶ This transforms the realities of people’s lives into the objective language of numbers for a computer to understand which causes a users’ data to either fit into a measurable-type category or not.²⁷ When looking back upon the previous example, a user cannot like both drama and violence if this does not fit into the available measurable-type categories. As a result of this, “the contours of life’s fibers are shaved off by the geometric cuts of algorithmic interpretation - the world’s measurable types can never completely represent the topography of life’s true implicit forms”.²⁸ This makes individuals into “dividuals”, where data and algorithms are used to regulate.²⁹ As dividuals, the gathered data about a user is used to explain the identity of that user.³⁰ Therefore, what dividualities say is how users are seen. This can switch from data point to data point when using different platforms or watching different content, moving from being identified as a female to a male by simply clicking a different page or liking a different film. Therefore, these measurable types are changing all the time with the ability of near real-time statistics.³¹ This closely correlates to the usage of the Netflix platform, since based on different viewing times users get different content recommended to them.³²

1.1.2 The Role of Algorithms in Decision-Making

How these algorithms are made and how they decide their input and shape their output is often unknown and is called a black-box.³³ The term black-box explains a device or system that is described in terms of its inputs and outputs in which it is difficult to understand what goes on inside.³⁴ Consequently, we are living in a “black box society” where algorithms not only affect how we are understood, but also how we

²³ Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France 1977–1978* (New York: Picador, 2009), 57.

²⁴ David Beer, "The social power of algorithms," *Information, Communication & Society* 20:1 (2017).

²⁵ *Ibid.*, 5.

²⁶ Lev Manovich, *The Language of New Media* (Cambridge, Mass: MIT Press, 2002), 64; Neta Alexander, "Catered to Your Future Self: Netflix’s ‘Predictive Personalization’ and the Mathematization of Taste," in *The Netflix Effect: Technology and Entertainment in the 21st Century*, ed. Daniel Smith-Rowsey (New York: Bloomsbury Academic, 2016): 83.

²⁷ Cheney-Lippold, *We Are Data*, 30.

²⁸ *Ibid.*, 95.

²⁹ Gilles Deleuze, "Postscript on the Societies of Control," *October* 59 (1992): 5.

³⁰ Cheney-Lippold, *We Are Data*, 20.

³¹ *Ibid.*, 20, 21, 48.

³² Burgess, "How Netflix’s Recommendation System Works."

³³ Winner, "Upon opening the black box," 365.

³⁴ *Ibid.*

understand.³⁵ Therefore, knowing what goes on in these black boxes is important, since Kitchin argues that the algorithms that people come across in their daily lives can (re)shape how they perform tasks or the services they receive.³⁶ For instance, nowadays it is difficult to distinguish between our own choices and the choices that the algorithm is making on our behalf.³⁷ As a result of this, algorithms play an increasingly important role in selecting what information is considered most relevant to us.³⁸

Within the measurable types, categories are used which assume that “similarity breeds connection”.³⁹ This concerns the way that algorithms might narrow down or close off external influences, “leaving people continually exposed to the same”.⁴⁰ This is related to a social phenomenon called “homophily” which is seen as the tendency for friendships to form between those who are alike.⁴¹ This homophily has become a rule for algorithms within shaping social interactions online and is used to guide users to content and ideas that people similar to themselves have also liked. For instance, if you like *this* film within Netflix and their algorithm knows that others who liked that film have also liked *these* films, you get that recommendation. However, this produces a social world in which identities and positions are reinforced and concentrated rather than challenged or hybridised.⁴² In addition to this, the algorithm can be re-coded to render certain things less visible.⁴³ For instance, this is present within the limitation of Netflix content based on the country in which the user is watching but also with how Netflix recommends some content but does not show other content that a user might be interested in. This greatly influences not only the decisions users make but also which choices are available to them.

1.1.3 Algorithmic Prediction

The predictions of algorithmic systems can therefore feed into people’s lives and shape what they know, who they know, what they discover and what they experience.⁴⁴ Within Netflix, algorithms are used to sort, order and predict.⁴⁵ Based on algorithmic data content is being put in recommendation rows which sort and order content and have as a goal to predict what content the user is going to watch next.⁴⁶ It is argued that the usage of predictive models based on past data (“programmable visions”) tends to reproduce and reinforce assessments and decisions that were made in the past.⁴⁷ For this reason, this type of categorisation delimits possibilities and is seen as disciplining its users. Such a predictive recommendation system can be seen as a medium of power⁴⁸ since the algorithms decide what a user can

³⁵ Frank Pasquale, *The black box society* (Harvard University Press, 2015), 77.

³⁶ Kitchin, “Thinking critically about and researching algorithms,” 16.

³⁷ Alexander, “Catered to Your Future Self,” 85.

³⁸ Tarleton Gillespie, “The Relevance of Algorithms,” *Culture Digitally*, November 26, 2012, <http://culturedigitally.org/2012/11/the-relevance-of-algorithms/>.

³⁹ Laura Kurgan, Dare Brawley, Brian House, Jia Zhang and Wendy Hui Kyong Chun, “Homophily: The Urban History of an Algorithm,” *e-flux.com*, 2019.

⁴⁰ Beer, “The social power of algorithms,” 7.

⁴¹ Kurgan, et al., “Homophily: The Urban History of an Algorithm.”

⁴² Ibid.

⁴³ Beer, “The social power of algorithms,” 6.

⁴⁴ Ibid.

⁴⁵ Alexander, “Catered to Your Future Self,” 90; Burgess, “How Netflix’s Recommendation System Works.”

⁴⁶ Ibid.

⁴⁷ Wendy Hui Kyong Chun, *Programmed visions: Software and memory* (MIT Press, 2011), 9.

⁴⁸ Ibid., 2.

see and what content is hidden.⁴⁹ This is also what is happening with the usage of recommended content within Netflix, since the outcome of the algorithm decides which content users see and which content is hidden. Hence, it is possible that algorithms for recommending content come to “produce” everyday life, which Thrift calls our “technological unconscious”.⁵⁰ When users are unaware that what they are seeing is shaped by these algorithms, they are seen as invisible processes.⁵¹

However, when users within platforms are aware that these algorithms are shaping their content, this may have consequences as well. For instance, in a research by Cotter it was established that online influencers changed their content and even their online identities in order to be visible on social media because of how the algorithm sorts content.⁵² It is stated that “some influencers believe that the transition to an algorithmic platform has bred banality by rewarding conformity”.⁵³ In addition to this, a research by Bucher portrays how wrong a recommendation algorithm can be which causes users of a social media platform to become aware of the fact that their online life is being shaped by these algorithms.⁵⁴ Bucher calls this the “algorithmic imaginary”, which according to her entails the ways of thinking about what algorithms are, what they should be and how they function within platforms.⁵⁵ Consequently, Bucher argues that participants changed their information-sharing behaviour in order to “make it work for the Facebook algorithm”.⁵⁶ We can infer from this that researching these algorithms within a platform is important. The influence algorithms can have on identity is discussed in the next paragraph.

1.2 Identity

Within narrative identity theory, identity is seen as the story which people tell about who they are, who they were and who they anticipate themselves to be(come).⁵⁷ Gentry argues that all the power to define one’s identity lies with the individual. However, this does not mean that the self is not altered by outside factors. After all, “we are in essence the products of our environments”.⁵⁸ Within this research, it is argued that this identity construction takes place via online streaming platforms such as Netflix. For instance, online platforms help become material for users for self-reflection, allowing the active reflection and reconstruction of their identities.⁵⁹ For instance, when creating an online avatar. Turkle argues that this avatar creates a statement not only about who the user is but also who they want to be.⁶⁰ Therefore,

⁴⁹ Chun, *Programmed visions*, 18.

⁵⁰ Nigel Thrift, *Knowing capitalism* (Sage, 2005), 474.

⁵¹ David Beer, “Power through the Algorithm? Participatory Web Cultures and the Technological Unconscious,” *New Media & Society* 11, no. 6 (September 2009): 985–1002.

⁵² Kelley Cotter, “Playing the visibility game: How digital influencers and algorithms negotiate influence on Instagram,” *New Media & Society* 21, no. 4 (2019).

⁵³ *Ibid.*, 902.

⁵⁴ Taina Bucher, “The algorithmic imaginary: exploring the ordinary affects of Facebook algorithms.” *Information, Communication & Society* 20, no. 1 (2017).

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*, 40.

⁵⁷ Bobbi Gentry, *Why Youth Vote: Identity, Inspirational Leaders and Independence* (Springer, 2018), 19.

⁵⁸ *Ibid.*, 38.

⁵⁹ Sherry Turkle, *Alone together: Why we expect more from technology and less from each other* (Hachette UK, 2017), 102; 324.

⁶⁰ *Ibid.*, 180.

identity development is never finished but always being reconstructed.⁶¹ For this reason, it is argued that the stable and singular identity is history and that identity is seen as multiplicity.⁶²

These online worlds and platforms help create stories which can offer a clear view of how technology reshapes our identity.⁶³ This correlates to the framework designed by Ricoeur in relation to our narrative identity. However, while online worlds make it easier to play with identity they also make it harder to leave the past behind.⁶⁴ For instance, by building upon past data with algorithms. Based on this, within this research it is proposed to use a modified version of the narrative identity theory by Ricoeur.

1.2.1 Narrative Identity

The narrative is a suitable metaphor for human identity but also for the medium that can be used in order to form identity.⁶⁵ The theory of narrative identity argues that humans construct their identity through stories from biographies and autobiographies to fictional stories of human life in novels.⁶⁶ Based on the interpretation of the publications of Ricoeur by Frissen et al. it is argued that answering the question “Who?” implies the narration of a life story.⁶⁷ Within narrative identity the stories we tell others (1) about ourselves, (2) about our own lives and (3) about other people’s lives, makes it possible to articulate our own selves. According to Ricoeur, only by identifying ourselves with stories does our identity come into being. There are three stages of mimesis which shape an individual’s identity. The first stage, mimesis₁, is connected with the narrative prefiguration of our daily life. For instance, the ability for characters to have motives and interests. Mimesis₁ can be seen as the building blocks for the following stages because for it to become mimesis₂ it is necessary to embed these motives and interests into a plot.⁶⁸ In mimesis₂ simple succession acquires a state of relationships such as goals, means, results, and other factors in such a way that these factors are incorporated within “incidents, reversals, recognitions, and effects” thus, the mediating function of the plot gets put into play.⁶⁹ Finally, the third stage in the construction of narrative identity, mimesis₃, consists of the ability for readers to reflect upon the narratives and identify with the characters of the story.

In this view, the theory of narrative identity offers a starting point for understanding identity construction in the age of datafication because it illuminates the mediated character of human identity construction through stories. While in the framework by Ricoeur the medium of novels and autobiographies plays an important role, this research argues that a new framework is needed because the algorithms within platforms now provide the medium that shapes identity. Consequently, this research proposes a modified version of narrative identity, namely algorithmic identity. Therefore, instead of mimesis_{1 2 3}, identity is shaped by algorithms creating algorithmic_{1 2 3}.

⁶¹ Turkle, *Alone together*, 158.

⁶² Cheney-Lippold, *We Are Data*, 10.

⁶³ Turkle, *Alone together*, 169.

⁶⁴ *Ibid.*, 169; 260.

⁶⁵ Frissen et al., “Homo ludens 2.0,” 32.

⁶⁶ *Ibid.*, 11.

⁶⁷ *Ibid.*, 31.

⁶⁸ Loretta Dornisch, “Ricoeur's Theory of Mimesis: Implications for Literature and Theology,” *Literature and Theology* 3, no. 3 (1989): 312; Frissen et al., “Homo ludens 2.0,” 31.

⁶⁹ Dornisch, “Ricoeur’s Theory of Mimesis,” 309; Frissen et al., “Homo ludens 2.0,” 33.

1.2.2 Algorithmic Identity

Within Netflix, algorithms are used for profiling users and delivering them personalised content. This occurs through all the available data which a user creates when using the platform, such as what they watch, how long they watch it and which ratings they give a film. When gathering this data, it is possible to categorise and profile users according to their measurable types. These actions correlate to the previously discussed narrative identity stages by Ricoeur. Firstly, users use the Netflix platform and create data, such as films and series that they watch and ratings they give. This can be seen as the first stage of algorithmic identity construction, *algorithmic₁*. Secondly, the algorithms use this data to create for each user its PRS. By using the data, fitting it to the algorithms, and delivering personalised content the second stage of algorithmic identity construction takes place, *algorithmic₂*. Finally, the last stage of algorithmic identity construction, *algorithmic₃*, takes place when users reflexively read and understand themselves through the identity prescribed to them on the basis of the content that the PRS recommends.

This theory shows how algorithms can be seen as metaphors for human identity, as well as the means to which people can reflexively (re)construct their identities.⁷⁰ However, it is important to keep in mind that these algorithmic identities are decided upon by measurable types and how a user fits into categories. In addition to this, it can be challenging for users to know what measurable types they are being put into and why. As a result of this, a user can be a collection of different measurable types. These measurable types can change, for instance when the algorithm changes or the input data changes and can therefore cause a users' identity to change as well.

⁷⁰ Frissen et al., "Homo ludens 2.0," 11.

2. Methodology

Within this chapter, the methodology of this research is explained. In section 2.1 the Critical Discourse Analysis (CDA) framework by Fairclough is established upon. The three aspects of the framework are filled in by establishing upon the text aspect in section 2.2, on the discursive practice in section 2.3 and on the socio-cultural practice in section 2.4. Finally, this methodology provides an overview over how this research is conducted and what corpus it contains.

2.1 Critical Discourse Analysis

Within this research, the PRS of Netflix is analysed. Kitchin encourages researchers to think critically about and research algorithms and writes that there are six methodological approaches for researching algorithms: (1) examining code, (2) reflexively producing code, (3) reverse engineering, (4) gathering insight into the production of algorithms, (5) unpacking the full socio-technical assemblage of algorithms and (6) examining how algorithms do work in the world.⁷¹ While the first three methodological approaches do not fit into traditional humanities research, the second three methodological approaches are implemented into this research by doing a CDA following Fairclough's framework.⁷²

According to Fairclough, every instance of language is a communicative event consisting of three dimensions as can be seen in figure 1: (1) it is a text, (2) it is a discursive practice which involves the production and consumption of texts and (3) it is a social practice.⁷³ This CDA is seen as critical because it aims to reveal the role of discursive practices in the social world, including social relations which involve unequal relations of power⁷⁴ which poses a good fit to the possible unequal power relations within the PRS of Netflix.

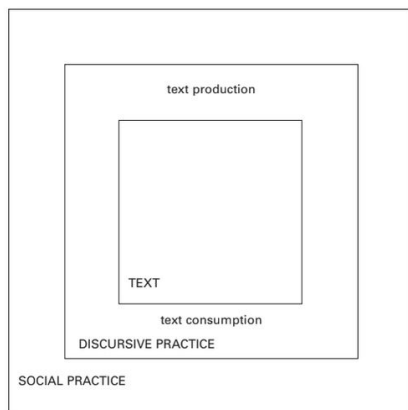


Figure 1: Three-dimensional conception of discourse.⁷⁵

⁷¹ Kitchin, "Thinking critically about and researching algorithms," 22-26.

⁷² Fairclough, *Discourse and social change*; Fairclough, *Language and power*.

⁷³ Jorgensen and Philips, "Critical discourse analysis," 68.

⁷⁴ *Ibid.*, 63.

⁷⁵ Fairclough, *Discourse and social change*, 73; Jorgensen and Philips, "Critical discourse analysis," 68.

This framework is used as follows: firstly, how algorithms do work in the world is analysed by looking at the text, in this case the interface of Netflix, with a Discursive Interface Analysis.⁷⁶ Secondly, the gathering of insights into the production of the algorithm is carried out by analysing the discursive practice. However, to understand the power of algorithms is to understand algorithms both as a thing and as a word that is framed by discourses.⁷⁷ Therefore, the algorithms are also analysed within their social ecology by focusing on both the discursive practice around the production and consumption of the PRS of Netflix.⁷⁸ Finally, unpacking the full socio-technical assemblage of algorithms is analysed by relating the gathered insights to the social practice of online personalisation. To conclude, this method is seen as critical since it focuses on how discourse is shaped by relations of power and ideologies and the constructive effects discourse has upon social identities,⁷⁹ thus posing relevance for analysing algorithmic identities within this research since it places discourse within a view of power as hegemony.⁸⁰

2.2 Discursive Interface Analysis

The analysis of the text is the descriptive stage of the CDA. This part of the analysis is most concerned with the formal properties of the text, in this case the Netflix interface.⁸¹ The analysis of the text is executed with the usage of the Discursive Interface Analysis by Stanfill.⁸² The main purpose of the combination of these methods is that analysing the norm in the Netflix interface also enables the possibility for analysing how the algorithmic identity of the user is being shaped by the interface and its affordances.

The Discursive Interface Analysis elaborates upon the usage of media as productive power, within this method web interfaces are seen as both reflecting and reinforcing social logics.⁸³ This method helps understand the norms Netflix produces within its interface and analyses what the path of least resistance looks like.⁸⁴ This is carried out by analysing Netflix's affordances aimed at algorithmically personalised content. Discursive Interface Analysis examines affordances broadly, "the features, but also what is foregrounded, how it is explained, and how technically possible uses become more or less normative through productive constraint".⁸⁵ This can be connected to the ideal type as established upon in the work by Goffman.⁸⁶ Which means that the ideal type can be seen as the social norm for appropriate behaviour within a specific situation, in this case the content that is returned to the user in the interface and can be used to discipline people.⁸⁷ For instance, by promoting certain content and not other content within the PRS.

⁷⁶ Mel Stanfill, "The interface as discourse: The production of norms through web design." *New media & society* 17, no. 7 (2015).

⁷⁷ Beer, "The social power of algorithms," 10.

⁷⁸ *Ibid.*, 4.

⁷⁹ Fairclough, *Discourse and social change*, 12.

⁸⁰ *Ibid.*, 86.

⁸¹ Fairclough, *Language and power*, 26.

⁸² Stanfill, "The interface as discourse."

⁸³ *Ibid.*, 1059.

⁸⁴ *Ibid.*, 1061.

⁸⁵ *Ibid.*, 1062.

⁸⁶ Goffman, "Presentation of self in everyday life," 16.

⁸⁷ Cheney-Lippold, *We Are Data*, 32.

Within the Discursive Interface Analysis there are three affordance types: functional, cognitive, and sensory. They are analysed as follows: (1) functional affordances are what a site can actually do, (2) cognitive affordances are how a user knows what a site can do and (3) sensory affordances enable the user in sensing something.⁸⁸ It is important to elaborate upon the fact that the Netflix interface is not only a web interface, but also a television interface. According to Chamberlain, television interfaces are “interactive systems for navigating and controlling one’s experience with digital television platforms”.⁸⁹ Therefore, interactivity is an important part of the analysis of the affordances within the Netflix interface.

In order to successfully research these affordances, a new Netflix profile has been created since the PRS already starts when first creating a new profile.⁹⁰ Netflix itself does the following to personalise content: (1) user profiles are used for A/B tests, (2) landing cards are personalised, (3) recommendation rows are personalised and (4) the timing of when the user is watching influences the recommended content.⁹¹ Within this thesis the focus is on the personalised landing cards, recommendation rows and watch times. It is furthermore important to note that Netflix is analysed at the start of 2020 and that later added updates within the interface or recommendation algorithm are not brought into account. In addition to this, this research is focused on the desktop version of Netflix and the availability of content within the Netherlands.

2.3 Discursive Practice around Production and Consumption

Within the discursive practice the interpretation of the relationship between text (the Netflix interface) and interaction is most important.⁹² As argued by Beer there is a need to not only think about the impact and consequences of code but also about the powerful ways in which notions and ideas about the algorithm circulate through the social world.⁹³ Based on this, within the analysis of the discursive practice not just the thing algorithm but also the discourse around the usage of algorithms within the PRS is analysed.⁹⁴ The corpora focuses on the discourse around the production of the PRS by Netflix and the discourse surrounding the consumption (receiving and interpretation) of the PRS.⁹⁵ These discursive practices are seen as an important form of social practices because they contribute to the constitution of the social world, including social identities and social relations.⁹⁶

The discursive practice is analysed by using the discourse analysis framework by Gee. Gee offers tools for doing a discourse analysis that provide the researcher with a specific question to ask of the data.⁹⁷ This helps with connecting details to what speakers or writers mean, intend, and seek to do and accomplish in the world by the way in which they use language.⁹⁸ Using such tools and asking specific

⁸⁸ Stanfill, “The interface as discourse,” 1063.

⁸⁹ Daniel Chamberlain, “Television interfaces,” *Journal of Popular Film & Television*, 38:2 (2010): 85.

⁹⁰ Christopher McFadden, “How Exactly Does Netflix Recommend Movies To You?” in *Interesting Engineering*, June 3, 2019, <https://interestingengineering.com/how-exactly-does-netflix-recommend-movies-to-you>.

⁹¹ Burgess, “How Netflix’s Recommendation System Works.”

⁹² Fairclough, *Language and power*, 26.

⁹³ Beer, “The social power of algorithms,” 2.

⁹⁴ *Ibid.*, 9.

⁹⁵ Jorgensen and Philips, “Critical discourse analysis,” 61.

⁹⁶ *Ibid.*

⁹⁷ James Gee, *How to do Discourse Analysis A Toolkit*, (Routledge: London and New York, 2014), 2.

⁹⁸ *Ibid.*

questions of the data helps to make the research political and critical.⁹⁹ Within the analysis of the discursive practice the tools 18 and 26 by Gee are used.¹⁰⁰ Tool 18, the Politics Building Tool, focuses on how the information shared is used to build what counts as a social good and to distribute this good to or withhold it from listeners or others.¹⁰¹ Gee signifies with politics not government and political parties, but any situation where the distribution of social goods is at stake. By “social goods” Gee refers to anything a social group or society takes as a good worth having. According to Gee, these social goods can be connected to certain norms by having ourselves and our behaviours be treated as “normal” or “appropriate”.¹⁰² Tool 26, the Figured Worlds Tool, focuses on the typical stories the words and phrases of the communication are assuming and inviting listeners to assume.¹⁰³ Within this tool, the ways in which such typical stories can work to marginalise people and things is analysed. In addition to this, for the analysis of the discursive practice the context is considered as well, such as by whom and why the text was produced.

2.3.1 Production Corpus

For analysing the discourse surrounding the production of the PRS of Netflix the following articles are used:

1. “Netflix Recommendations: Beyond the 5 stars (Part 1)” posted in 2012.¹⁰⁴
2. “Netflix Recommendations: Beyond the 5 stars (Part 2)” posted in 2012.¹⁰⁵
3. “Learning a Personalized Homepage” posted in 2015.¹⁰⁶
4. “Artwork Personalization at Netflix” posted in 2017.¹⁰⁷

These four articles are all from the Netflix Tech Blog at *MEDIUM* and contain more technical language. The description of this page is: “Netflix Technology Blog: Learn more about how Netflix designs, builds, and operates our systems and engineering organizations”. All four articles seem to be aimed at people interested in the technology field, since they promote people to join the company at the end of the article. The articles describe how the PRS works and explain things in an understandable manner, they do this by mixing the usage of technical language with examples that are still comprehensible for non-technical people. These articles are chosen because the most recent article, *Artwork Personalization at Netflix*, links to the other three pages. Therefore, it is assumed these articles create a representative and updated overview around the production of the PRS of Netflix.

⁹⁹ Jorgensen and Philips, “Critical discourse analysis,” 87.

¹⁰⁰ Gee, *How to do Discourse Analysis*.

¹⁰¹ *Ibid.*, 202.

¹⁰² *Ibid.*, 126.

¹⁰³ *Ibid.*, 204.

¹⁰⁴ Netflix Technology Blog, “Netflix Recommendations: Beyond the 5 stars (Part 1),” *MEDIUM*, 6 April 2012, <https://netflixtechblog.com/netflix-recommendations-beyond-the-5-stars-part-1-55838468f429>

¹⁰⁵ Netflix Technology Blog, “Netflix Recommendations: Beyond the 5 stars (Part 2),” *MEDIUM*, 20 June 2012, <https://netflixtechblog.com/netflix-recommendations-beyond-the-5-stars-part-2-d9b96aa399f5>

¹⁰⁶ Netflix Technology Blog, “Learning a Personalized Homepage,” *MEDIUM*, 9 April 2015, <https://netflixtechblog.com/learning-a-personalized-homepage-aa8ec670359a>

¹⁰⁷ Netflix Technology Blog, “Artwork Personalization at Netflix,” *MEDIUM*, 7 December 2017, <https://netflixtechblog.com/artwork-personalization-c589f074ad76>

2.3.2 Consumption Corpus

For the analysis of the discourse around the consumption of the PRS of Netflix four online texts are chosen which represent the same topics as mentioned in the production corpus, namely: the recommendations, the personalised homepage and the phenomenon around the artworks. With a focus on representativeness of the user base of Netflix the corpus for this part of the research is aimed at recent social media posts that have been found by browsing public¹⁰⁸ social media and choosing posts which focus on the PRS of Netflix. The following posts have been analysed:

1. Reddit post and replies to u/Sky_Lordy, posted September 2019.¹⁰⁹ This post consists of everyday language and is posted on the social media platform Reddit within the subreddit *Firstworldproblems*.
2. Reddit post and replies to u/TheMeanCanadianx, posted June 2019.¹¹⁰ This post consists of everyday language and is posted on the social media platform Reddit within the subreddit *Netflix*.
3. Reddit post and replies to u/thisgrilledcheez, posted November 2019.¹¹¹ This post consists of everyday language and is posted on the social media platform Reddit within the subreddit *Netflix*.
4. Tweet and replies to @slb79, posted 17 October 2018.¹¹² This post consists of everyday language and is posted on the social media platform Twitter.

Because the consumption corpora contains social media posts it is important to keep ethics in mind. As a consequence of this, the research is done without informed consent but with limitations to quotes and other data IDs such as usernames kept in mind.

2.4 Online Personalisations

In the last step of the CDA the social practice explains the relationship between interaction and social context and their social effects.¹¹³ In order to relate the gathered insights to the current social practice of the datafied society that we now live in, the results are brought into context with personalised content and its relation to the previously defined terms and theories in the theoretical framework, such as algorithmic identity.

¹⁰⁸ For which the creation of an account was not needed and the post and comments were publicly accessible.

¹⁰⁹ u/Sky_Lordy, "I'm watching a series that I was an 18% match for just to make the point to Netflix's algorithm that "you don't know me"", Reddit post, September, 2019,

https://www.reddit.com/r/firstworldproblems/comments/crt5lu/im_watching_a_series_that_i_was_an_18_match_for/

¹¹⁰ u/TheMeanCanadianx, "Is it just me, or does netflix's own promotional algorithms make it feel starved for content?," Reddit post, June, 2019,

https://www.reddit.com/r/netflix/comments/bsok27/is_it_just_me_or_does_netflixs_own_promotional/

¹¹¹ u/thisgrilledcheez, "Why are shows that I've thumbs-downed still showing up in my top-row suggestions (or at all)?," Reddit post, November, 2019,

https://www.reddit.com/r/netflix/comments/dsfqwv/why_are_shows_that_ive_thumbsdowned_still_showing/

¹¹² Stacia L. Brown (@slb79), "Other Black @netflix users: does your queue do this? Generate posters with the Black cast members on them to try to compel you to watch? This film stars Kristen Bell/Kelsey Grammer and these actors had maaaaybe a 10 cumulative minutes of screen time. 20 lines between them, tops," Twitter post, October 17, 2018, <https://twitter.com/slb79/status/1052776984231718912>

¹¹³ Fairclough, *Language and power*, 26.

3. The Netflix Interface

Within this chapter, the Netflix interface is analysed by looking at affordances. There is an overlap within functional, cognitive and sensory affordances and therefore this chapter is set up as follows. Firstly, in section 3.1 the focus is on what the user should care about according to the affordances of the interface. Secondly, in section 3.2 the role of interactivity within the interface and its consequences are explained. In section 3.3 the perception of choice within the interface is reflected upon. Finally, in section 3.4 the affordances and their role within algorithmic identity construction are stated. Eventually, this chapter gives an overview of the Netflix interface and the personalised content embedded within.¹¹⁴

3.1 What the User Should Care About

When a user creates an account, they have to pick three items from a list of seventy-six films and series. This choice starts the recommendation algorithm which delivers a personalised profile page. When opening the Netflix website, the content at the top of the page automatically starts playing with the audio turned on. This is a sensory affordance¹¹⁵ which immediately asks for the users' attention. This automatic playing of image and sound is very persistent within the Netflix interface. When clicking additional content, a trailer starts to play immediately. It can be assumed that the user should care about the trailer and not the additional information stated next to it, such as description, cast, duration, etc.¹¹⁶ However, this autoplay affordance influences how a user processes information. Namely, the processing now happens through the automatic playing of the trailers and not through the affordance of reading the description. Consequently, the processing of information happens on Netflix's terms.¹¹⁷ This entails that what Netflix decides to show within the trailer is more important than the description. However, both the description and the trailer are edited by Netflix, therefore giving Netflix the power to choose which information the user is provided with and steering users in a certain direction.¹¹⁸

The user has the functional affordance to click on a landing card (a film or series). When doing so, the title of the item is displayed in a special font which calls attention to the title. It is noticeable that the buttons in the interface are all black with white text. There are four elements within the interface that are coloured. Firstly, the red Netflix logo in the top-left corner. Secondly, the image of the user watching in the top-right corner (which the user can change to an image of choice). Thirdly, the colour used for the images of landing cards of the films and series within the interface. Finally, the colour of the play button and the green text of the % match. These colours within the interface are sensory affordances that show what the user should care about: (1) that they are on the Netflix site, (2) that they are logged into their own personalised account, (3) that they have the endless possibility to watch what they want, and (4) that they are able to quickly see which content has a high percentage match.

¹¹⁴ All affordances can be viewed in Appendix 1.

¹¹⁵ Stanfill, "The interface as discourse," 1064.

¹¹⁶ Ibid.

¹¹⁷ Ibid., 1063.

¹¹⁸ Ann-Derrick Gaillot, "What Netflix doesn't want you to know about how its synopses are written," *The Outline*, 4 December 2017, <https://theoutline.com/post/2559/netflix-synopses-writers?zd=1&zi=a4ikbcnk>.

3.2 Interactivity within Netflix

A cognitive affordance within Netflix is that the text buttons are written in imperative and promote the user to take action and interact with the interface. One of the actions that a user can take within the interface is to watch content. The watching of content generates data which Netflix then uses to recommend future content. In addition to this automatised data, the user also has the ability to add data via the functional affordances of personal interest actions such as the rating of content and the creation of viewing lists. Users are able to rate content with a thumbs up or thumbs down. The given ratings are visible when accessing account settings. It is possible for users to remove past given ratings. In addition to this, users are able to add content to their viewing list which affords them to save the content to view later or save for other purposes. It is also possible to remove content from their viewing list.

When a user accesses their account settings, they can also see their viewing history. However, while users are able to hide the content they have previously seen they are unable to fully remove this. Consequently, this is seen as a functional affordance which produces norms by constricting the user from removing their viewing history.¹¹⁹ This demonstrates how power is productive¹²⁰ because the interface has an impact beyond its affordances that happen at surface level.¹²¹ For instance, television interfaces demand interaction from viewers but this interactivity goes both ways. As argued by Chamberlain: “interactivity is thus doubly productive, charming viewers with the sensation of control but at the same time generating viewer data that can be used in a number of ways”.¹²² In the case of the Netflix interface, the language of personalisation encourages viewers to make their viewing lists, rate content and thereby enable the customisation of elements within the interface. However, by foregrounding the practice of personalisation, the interface gathers data on viewer preferences and all actions taken by a user (be it time of watching, scrolling habits, etc.). Therefore, the interface can be seen as Janus-faced with the function of surveillance by the company while the user is caught up in the pleasures of interactivity and the feeling of control.¹²³ Chamberlain argues that: “the television interface is now the lens through which control is fragmented, promising new freedoms to users while simultaneously subjecting them to new modulations of powers”.¹²⁴ Namely, it is argued that this feeling of control over what to watch is merely a perception of choice.

3.3 The Perception of Choice

Based upon the viewing data of users, Netflix changes the way content is promoted, which content is promoted, how the rows are sorted and which content a user can easily access. These are all seen as functional affordances. According to Chamberlain, these affordances are seen as a way for Netflix to reformat the television experience by being able to customise content but also to control the content a user is seeing on their personal profile.¹²⁵ This turns the Netflix interface into a “scripted space”. Scripted

¹¹⁹ Stanfill, “The interface as discourse,” 1062.

¹²⁰ Ibid., 1063.

¹²¹ Chamberlain, “Television Interfaces”, 86.

¹²² Ibid.

¹²³ Ibid., 87.

¹²⁴ Ibid.

¹²⁵ Ibid., 85.

spaces are areas that seem to reflect the user's own interests and seem to give a peek at the inner workings of the system, but the interface is ultimately catering to the wants and needs of the corporation, by gathering data.¹²⁶ Because of this, Arnold argues that the interface of Netflix can be seen as merely giving the user the perception of choice.¹²⁷

Row names and the structure of the interface are changed based upon viewer data and allow the user to endlessly scroll within a personalised interface that is measured to their preferences. This suggests that the choices a user can make are endless.¹²⁸ However, Alexander argues that this endless choice is an illusion because the website's content library constantly changes due to "expired licensing agreements, leading to the point where the company can't afford the content that its subscribers most want to watch".¹²⁹ For this reason, the choices a user can make within the interface are decided upon by Netflix and their own agenda. An example of the perception of choice is the presence of Netflix Original Content within the interface. At the moment of this research, the content that was always promoted on the top of the page was Netflix Original Content. Therefore, raising the question whether this is at the top of the page because it fits with the users' personal interests or because there is something else at play. According to Alexander, Netflix's own agenda and commercial priorities play a big role within the personalised interface of a user.¹³⁰ Alexander argues that Netflix has the ability to tweak its algorithm to promote their own content without having to inform the users.¹³¹ An example of this is what happened in 2015 when Netflix started to promote their own content via trailers at the top of the page. This can be seen as advertisements embedded within the interface.¹³² Therefore, the role of viewer data can be seen as very important for the creation of Netflix Original Content since it can provide insights into the potential interests of a given show, as was done with the creation of *House of Cards*.¹³³

3.4 Identity Construction within the Interface

Based on the analysis of the interface it is established that users are being encouraged to use the algorithmic affordances embedded within Netflix. The interactivity within the interface mainly encourages users to show their interests in content via functional affordances such as voting, creating their own lists and their ability to hide previously seen content from their profile. This language of personalisation encourages viewers to feed the system with their personal data by watching films and series and taking personal interest actions (algorithmic₁). This in turn allows the system to use this data for their algorithms and create personal recommendations for the user (algorithmic₂). This interactivity of the user with the interface allows for the reflection on the users' identity within the interface since eventual recommendation rows, titles and artworks are changed (algorithmic₃). Based on this part of the

¹²⁶ Stefani Mans, "The politics of Netflix: The illusion of agency within a scripted space," in *Esti Executives*, July 2017, <https://estiexecutives.com/2017/07/21/netflix-agency/>

¹²⁷ Sarah Arnold, "Netflix and the Myth of Choice / Participation / Autonomy," in *The Netflix Effect: Technology and Entertainment in the 21st Century*, ed. Daniel Smith-Rowsey (New York: Bloomsbury Academic, 2016): 51.

¹²⁸ Alexander, "Catered to Your Future Self," 85.

¹²⁹ *Ibid.*, 86.

¹³⁰ *Ibid.*, 90-91.

¹³¹ *Ibid.*

¹³² Jason Koebler, "What's New on Netflix: Advertisements," *VICE*, 1 June 2015, https://www.vice.com/en_us/article/ypwjwg/netflix-is-experimenting-with-advertisements

¹³³ Mans, "The politics of Netflix."

analysis it is argued that all three stages for algorithmic identity construction can take place within the interface.

4. The Discursive Practice around Production and Consumption

Within this chapter, the discursive practice around the production and consumption of the PRS is analysed. In section 4.1 the production of the PRS is analysed by focusing on the themes of social goods and typical stories.¹³⁴ In section 4.2 the consumption of the PRS is analysed by focusing on the recommendations, personalised homepage and personalised artworks within the PRS.

4.1 Production of the Personal Recommendation System

Based on the two themes social goods and typical stories four articles are analysed. By analysing the discourse around the production and focusing on the social goods and typical stories, it is possible to capture certain norms and marginalisation embedded within. In addition to this, the functionalities described within these articles are connected to algorithmic identity by reflecting upon the recommendations, personal homepage and the artwork personalisations.¹³⁵

4.1.1 Netflix's Social Goods

The articles of the Netflix Tech Blog have been written about the PRS and its creation. Within these articles, Netflix writes reflexively about their choices and implementations within their PRS. Netflix gives reasoning to their process which can be seen as the giving of a social good to the readers since they explain the accuracy of recommendations, the ability for users to find relevant and diverse content fast, and their measures in order to not have a presentation bias (where a member can only play from a row on the homepage that Netflix has chosen to display).¹³⁶ This social good of reflexivity is central within these articles which also provide information on how Netflix takes precautions in order to not turn the artwork into “clickbait” by testing them and by keeping in mind that the main goal of the personalised artwork is that it results in “high-quality engagement”.¹³⁷ For instance, with quotes such as: “[to] optimize our algorithms” and “[to] support all the different contexts in which we want to make recommendations” they provide the social good of openness and reflexivity about their system to the user.¹³⁸ These articles give readers confidence in the system since Netflix argues that the goal of the PRS is to “recommend the titles that each member is most likely to play and enjoy”.¹³⁹

However, there is also a social good that is being withheld from the readers. Namely, within the artwork article the usage of artworks can be seen as manipulative. Netflix argues that “if the artwork representing a title captures something compelling to you, then it acts as a gateway into that title and gives you some visual ‘evidence’ for why the title might be good for you”.¹⁴⁰ For instance, Netflix is able to change the artwork in relation to previous content users have seen and to “highlight an actor that you recognize, capture an exciting moment like a car chase, or contain a dramatic scene that conveys the

¹³⁴ Gee, *How to do Discourse Analysis*.

¹³⁵ The full analysis of the production articles can be found in Appendix 2.

¹³⁶ Netflix Technology Blog, “Recommendations 1”.

¹³⁷ Netflix Technology Blog, “Artwork Personalization”.

¹³⁸ Netflix Technology Blog, “Recommendations 1”.

¹³⁹ Netflix Technology Blog, “Recommendations 2”.

¹⁴⁰ Netflix Technology Blog, “Artwork Personalization”.

essence of a movie or TV show”.¹⁴¹ This affordance can be seen as taking away a social good by basing these recommendations on users’ data and thereby having the ability to manipulate users into clicking certain content more than other content.

4.1.2 Netflix’s Typical Stories

There are several typical stories the articles keep referring to: the importance of their recommendation system, the improvement and innovation of the recommendations and the optimisation of the member experience. According to the Recommendations 1 article, promoting trust with the members and providing explanations as to why Netflix decides to recommend certain content is seen as very important.¹⁴² They state that: “we are not recommending it because it suits our business needs, but because it matches the information we have from you: your explicit taste preferences and ratings, your viewing history”.¹⁴³ In addition to this, Netflix refers to itself as a “data-driven organization” in which they have the goal to innovate for members effectively.¹⁴⁴ They use a quote by Thomas Watson Sr, founder of IBM, namely: “If you want to increase your success rate, double your failure rate.”¹⁴⁵ Thus, central within Netflix is their goal of improving the service for their members.¹⁴⁶ However, this quote seems to suggest that they are aware that some parts of their PRS might not be as accurate as they claim it to be.

In the articles they tend to shine a spotlight upon their members by stating that “we look to our members as the final judges of the quality of our recommendation approach”.¹⁴⁷ The typical story of such personalisations is central to their arguments because they want to: “treat every situation as an opportunity to present the right content to each of our ... members”.¹⁴⁸ By stating such typical stories, they reflect upon the importance of their users.¹⁴⁹ They state that the personalised page generation is their next step in the evolution of their personalisation approach.¹⁵⁰ As a result of this, Netflix sees recommending titles that are right for each member as crucial.¹⁵¹

4.1.3 Recommendations, Personal Homepage, Artworks and Algorithmic Identity

Based on the information gathered within these articles with regards to the PRS of Netflix, the following relationship to algorithmic identity can be interpreted. This interpretation can be tested within the next step of this research by looking at the consumption corpus. Firstly, the recommendation system is seen as important by Netflix because it can optimise member experience.¹⁵² Netflix wants to offer its members titles that they are likely to play and enjoy.¹⁵³ For this reason, they use algorithms to support the different

¹⁴¹ Netflix Technology Blog, “Artwork Personalization”.

¹⁴² Netflix Technology Blog, “Recommendations 1”.

¹⁴³ Ibid.

¹⁴⁴ Netflix Technology Blog, “Recommendations 2”.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

¹⁴⁸ Netflix Technology Blog, “Personalized Homepage”.

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

¹⁵¹ Netflix Technology Blog, “Artwork Personalization”.

¹⁵² Netflix Technology Blog, “Recommendations 1”.

¹⁵³ Netflix Technology Blog, “Recommendations 2”.

contexts in which they can make recommendations.¹⁵⁴ This can be connected to algorithmic₁ and ₂ since this encourages users to feed the system with their data, which in turn activates the algorithms that deliver personalised recommendations. They use algorithms to “best tailor each member’s homepage to make it relevant, cover their interests and intents, and still allow for exploration of our catalog”.¹⁵⁵ Hereby they explain how the second stage of algorithmic identity (algorithmic₂) provides the future content the user watches. Finally, they use artwork personalisations within the personalised page. This artwork personalisation works in a way that reflects the users’ choices back to them. As stated in the article: “if the artwork representing a title captures something compelling to you, then it acts as a gateway into that title”.¹⁵⁶ Hence, this affordance provides the final stage within the creation of an algorithmic identity (algorithmic₃) namely to reflexively read and understand oneself through the algorithmic identity that is prescribed within the artworks and personalised recommendations that are being boosted back to the user within the interface. By seeing which artworks are used and which content is promoted the user is able to understand her/himself from the perspective of the personal profile created by the system.¹⁵⁷

4.2 Consumption of the Personal Recommendation System

Based on four social media posts the two themes of social good and typical stories are discussed in this paragraph. In addition to this, the functionalities described within the posts are connected to the previous paragraph of the production of algorithmic identity by reflecting upon the recommendations, personal homepage and the artwork personalisations. By doing so, it is possible to see similarities and differences between the social goods and typical stories in the discourse around the production and the discourse around the consumption. In addition to this, by reflecting back upon the affordances of the PRS it is possible to compare insights to the Discursive Interface Analysis from chapter 3.

4.2.1 Recommendations

Within the first post and comments that were analysed, the Reddit user wanted to prove that the Netflix algorithm does not know him/her.¹⁵⁸ Within this post, Reddit users see the Netflix platform with personalisations as a social good that is being withheld from them because they feel that it does not accurately measure what they like. One of the users points out the absurdity of the algorithm since it tells the users that a specific show is a 93% match even though the user has watched it more than five times. The social good of personalisation is argued to be questionable since another user argues that: “their algorithm is matching you with other people who have watching patterns that are similar to you”. It can be inferred from this that Netflix is not making it personalised for the specific person but for how the user is grouped to others, according to the social phenomenon homophily, with similar watching patterns. The typical stories that are told within this context are aimed at how the algorithm within Netflix no longer functions to predict what a user likes but only to “force [Netflix’s] own productions on you”. As a result of this, these personalised recommendations are seen as what Netflix wants a user to watch, and not what the users want to watch.

¹⁵⁴ Netflix Technology Blog, “Recommendations 2”.

¹⁵⁵ Netflix Technology Blog, “Personalized Homepage”.

¹⁵⁶ Netflix Technology Blog, “Artwork Personalization”.

¹⁵⁷ Frissen et al, “Homo ludens 2.0,” 38.

¹⁵⁸ u/Sky_Lordy, “18 % match”.

Within the second post and comments that were analysed, a Reddit user expresses their frustration with the recommended content in their personal profile page.¹⁵⁹ Namely, the affordance of endless scrolling gives this user the idea that there is plenty of content for him or her to watch, however “I’m ... seeing the same few titles six times as I scroll”. This closely correlates to how the affordance of endless scrolling can give the user the perception of choice, as explained by Arnold.¹⁶⁰ In addition to this, users within this post are seeing more promotions of Netflix Original Content than recommendations for content that they are actually interested in. As a consequence of this, the PRS can be seen as censoring since it decides which contents the users have access to.¹⁶¹ While Netflix argued to not have presentation bias, users do not agree. The typical stories that they share with each other within the second post is how their personal profile is filled with Netflix Original Content which makes it difficult to find content they are actually interested in. The homepage is argued to “just suck” and the recommendations that are being delivered to the users are not useful, “I pretty much only use justwatch and Reddit to decide what to watch on Netflix”. In addition to this, a user states that instead of using the recommendations they have to “type stuff into search to see if it exists” in order to get to the content that they are interested in. As a result, it can be argued that the PRS marginalises people according to the content the company finds important, therefore their own produced content, and not the content the users themselves actually care about.

4.2.2 Personalised Homepage

Within this post, the way content shows up in a users’ personal profile is being discussed.¹⁶² It is seen as a social good to notify the system when a user is not interested in this sort of content, by taking personal interest actions such as downvoting it, so the system can stop showing it to them. However, this social good is being withheld because “seemingly a third to two-fifths of my recommendations are shows which I have explicitly declared disliking or in which I have a stated lack of interest”. The typical stories in this post are focused on how Netflix does not “give a shit about your preferences as a user” and simply makes decisions based on data and algorithms, which do not fit the users’ personal identities. They feel that Netflix does not care about their preferences since “I have thumbed down quite a few shows... and it still appears in top-row suggestions”. One user even goes as far as to argue that Netflix is redesigning their artworks on shows every month simply to make things look new, that Netflix removed the ratings because they want to hide “how bad a show is”, and how they force a user to watch certain content with the affordance of autoplay. As a result, the PRS is argued to marginalise users by choosing what they should care about and giving them the perception of choice. As a result, the measurable types used to put users into categories do not match users’ real interests.

4.2.3 Artworks

This tweet and its replies discusses how users feel that identities are being imposed upon them within the Netflix interface and the affordance of personalised artworks.¹⁶³ As stated in the tweet, it is argued that a

¹⁵⁹ u/TheMeanCanadianx, “Starved for content”.

¹⁶⁰ Arnold, “Netflix and the Myth,” 51.

¹⁶¹ Alexander, “Catered to Your Future Self,” 93.

¹⁶² u/thisgrilledcheez, “Shows that I’ve thumbs-downed”.

¹⁶³ Brown, “Does your queue do this?”.

user who watches content with Black cast members receives artworks that reflect upon this. This is visible within the interface by having more artworks with Black cast members in it. The social good that is being withheld within this is the users' equal rights. Users feel that they are racially being put into identities which are inscribed upon them by the algorithms. As another user argues when comparing artworks with another user: "I guess Netflix thinks I'm Caucasian then".

The typical stories within this post are focused on how the change within artworks is being used to promote users into watching specific content. They see this as "manipulative not to mention mad confusing once you're actually watching the movie" because "you watch the first 5 minutes then realize it's not what it claims". In addition to this, users feel that they are being watched because they feel the system knows they are Black based on the content they are watching "how the hell they know I'm Black?? The man is watching!". Users therefore receive an identity that the algorithm prescribes upon them based on their viewing patterns. By viewing content with Black cast members and this being reflected back into the interface, users feel that the PRS knows they are Black. However, this is simply just a measurable type in the algorithm which is based upon the data that the user feeds into the system thus it has nothing to do with the individual him or herself.

4.2.4 The Clash between Typical Stories

By analysing the discourse around both the production and consumption of the PRS clashes were found between the typical stories of Netflix and its users. For instance, while Netflix argues to create the PRS for its users, to make it easier for them to find content they are actually interested in, users of the platform¹⁶⁴ argue that Netflix does not care about them but merely cares about promoting their own Netflix Original Content. Users of the platform do not see the PRS as personal at all. There is a clash between the algorithmic identity inscribed upon the users and their own identities. Therefore, the algorithmic identity construction does not take place since within the final stage, algorithmic₃, the users do not affiliate themselves with the personal profile reflected back to them by the Netflix interface. This correlates to the so-called "Myth of Personalisation" as is discussed in the next chapter.

¹⁶⁴ At this point in the analysis it is not possible to generalise all users of Netflix, since the corpora that has been analysed only delivers insights into a specific group of users. Therefore, the term 'user' from now on is focused solely on the users that have been analysed within this research - and not all users of Netflix.

5. The Myth of Personalisation

Within this chapter, the gathered insights of the Discursive Interface Analysis and discourse analysis are brought into perspective with the macro view of the socio-cultural practice. As stated in the previous chapter, although Netflix argues that their ability to recommend the right titles for each member is crucial, ¹⁶⁵ users argue that Netflix does not care about user preferences and simply makes decisions based on data and algorithms, which do not fit the users' personal identities. ¹⁶⁶ As a result, the personalisations that Netflix inscribes upon its users are not seen as personal but as a myth which is further described in this chapter. In section 5.1 the ability to personalise online content and the role of algorithms within this is described. In section 5.2 how and to which extent Netflix shapes users' algorithmic identity is established upon.

5.1 Online Personalisations

The way in which knowledge about television audiences can be gathered has changed with the ability of datafication. This datafication enables television providers to capture the data of the viewer in new ways. ¹⁶⁷ This data is used by services such as Netflix to inscribe users with an algorithmic identity. ¹⁶⁸ According to Arnold, this datafication of audience measurement represents a significant shift. While previously television platforms would follow the lead of audiences, nowadays they can predict and govern future audience behaviour, therefore implementing ideal types within their categories and measurements. According to Arnold this represents a change from understanding audience identity as culturally produced to audience identity as produced through data and defined by algorithms. ¹⁶⁹ However, the ability to measure this audience in a new way does not mean that the audience journey is experienced as more personalised.

According to Alexander, the usage of terms such as “personalisation”, “preferences” and “customisation” symbolises the discourse around Netflix as a means to give users more agency and control with regards to the content they are viewing. ¹⁷⁰ However, users of the service do not see these affordances as personal and feel the agency to make their own decisions with choosing content are taken away from them. Based upon their previous seen content they get recommendations and predictions of future content that do not fit with their own wishes. Users are being put into measurable types and the categories that are imposed upon users, with the social phenomena of homophily kept in mind, do not match users' actual interests.

It can be noted that while users still have agency to decide what to watch within Netflix and show with personal interest actions which content they are interested in, that their choices are limited on Netflix's terms. In addition to this, users feel like Netflix is trying to make them watch the Netflix Original content. Therefore, users use the search function or online fora instead to break away from the categories and decisions imposed upon them by the PRS of Netflix. Users of the platform know that the

¹⁶⁵ Netflix Technology Blog, “Artwork Personalization”.

¹⁶⁶ u/thisgrilledcheez, “Shows that I've thumbs-downed”.

¹⁶⁷ Arnold, “Netflix and the Myth,” 50.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

¹⁷⁰ Alexander, “Catered to Your Future Self,” 85.

“personalisations” are based upon other people with similar viewing patterns¹⁷¹ therefore users have created an “algorithmic imaginary” based upon this information.¹⁷² For this reason, there is a mismatch with users' actual personal identity, the viewing patterns, and the data that the algorithms use to predict content. This corresponds to the premise that the promise of “personalisation” operates within a system that strips away human agency, personality, and character.¹⁷³ The Netflix user is turned into data and the information drawn from this data becomes the form of knowledge produced by Netflix.¹⁷⁴ Users' individualities are lost and they become merely dividuals.

5.2 Algorithmic Identity in Netflix

Within Netflix the user is subjected to a digital identity based upon their dividuality. This is executed by the system that delivers “personalised” recommendations based on measurable types that are generated through algorithms.¹⁷⁵ However, these recommendations are not personalised at all, since Netflix provides the same recommendations to different users who have similar viewing patterns. This may lead to the personal profile changing based upon watching films with Black cast members and the system returning this measurable type in a way that other content artworks now reflect this preference back to the user. Netflix therefore is an example of a system that transparently shows its users that it gathers their data and translates this into recommendations.¹⁷⁶ As a consequence, Netflix can be seen as “reflecting your own interests while algorithmic observers watch what you click”.¹⁷⁷

In 2016 Alexander stated how a “look at one’s ‘personal profile’ is supposedly a glimpse into one’s soul, desires, fantasies, and obsessions”¹⁷⁸ but the service no longer reflects what users really care about. A mismatch can be noted between the recommendations of the system and what the users are actually interested in. Users are still using the platform to pick out films and series (algorithmic₁) but they are choosing to search for content themselves via the search engine or online fora instead of using the content recommended to them by the algorithms (algorithmic₂). Users feel that the personal profile created by Netflix does not provide the content that they are actually interested in and because of this they do not use the recommendations as intended by Netflix. While they still see their choices and viewing patterns reflected back to them, they feel watched by the system and manipulated by its outputs. Because users are aware of the recommendation algorithms within Netflix and the personalisations, they see the algorithmic identity created by the PRS as isolated from their own identity and merely as something disturbing. As a result, while algorithmic₁ and ₂ take place, algorithmic₃ enables users to reflect upon the social good that is being withheld from them. Namely, users are not being treated like people with personal identities within the PRS of Netflix, but merely as measurable types belonging to set categories.

¹⁷¹ Alexander, “Catered to Your Future Self,” 86.

¹⁷² Bucher, “The algorithmic imaginary.”

¹⁷³ Arnold, “Netflix and the Myth,” 55.

¹⁷⁴ Ibid.

¹⁷⁵ Ibid., 55-56.

¹⁷⁶ Alexander, “Catered to Your Future Self,” 87.

¹⁷⁷ Eli Pariser, *The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think* (New York: Penguin Press, 2011): 3.

¹⁷⁸ Alexander, “Catered to Your Future Self,” 91.

6. Conclusion

Within this research, it was examined how algorithms do work within the Netflix interface, how the discourse around the PRS of Netflix is shaped and how the PRS is shaped by social-cultural practices. Firstly, the affordances of Netflix in relation to personalised content were analysed. The Netflix interface is a scripted space which contains personalised content such as recommendations, artworks and row titles that are shown to the user based on their interaction with the interface. This language of personalisation within the interface is an important step within the process of identity construction by giving users agency and allowing them to take personal interest actions such as rating and hiding content. It has been concluded that the affordances within the interface allow all three stages of algorithmic identity construction to take place.

Secondly, the discourse around the production and consumption of the PRS was analysed. While Netflix writes reflectively about their process of personalisation and writes about how the member plays an important role in their choices, members experience the PRS differently. Users of Netflix feel that the interface merely gives the perception of choice and promotes Netflix's own content. For this reason, users argue to use the search function more often or consult online fora for recommendations that they experience as more personal than the PRS of Netflix. This entails that while algorithmic₁ and ₂ do take place, algorithmic₃ allows users to reflect upon the social good that is being withheld from them, namely a truly personalised recommendation.

Thirdly, the social practice of online personalisation was used to give this research its macro perspective. The usage of terms such as personalisation, preferences, and customisation are seen as giving users of Netflix more control and agency within the PRS. However, in actuality their agency, characteristics and personalities are stripped away and the individuals are turned into individuals upon which the PRS is based. This causes the personalisation within the system to become a myth, since it is not aimed at individuals but merely viewing patterns and categories that match with other viewers and other data.

Finally, by answering these sub-questions the research question was answered: How and to what extent does the PRS embedded within Netflix and the discursive and social practice surrounding it shape users' algorithmic identity? Users feel that the PRS of Netflix tries to shape their identity by returning their viewing patterns to them within the interface. However, within this research, users argued that they feel the content Netflix promotes is focused on Netflix Original Content and not on what the user is actually interested in. Therefore, the extent to which users' algorithmic identity is shaped is limited because of a tension between Netflix's PRS and its users. When using the theory of algorithmic identity: (1) users are encouraged to use the interface to view content and leave ratings, (2) the adding of data to the PRS's algorithms allows for recommendations within the personal page which provides users with future content to watch, however users are not interested in these recommendations and use the search function or online fora instead, (3) the choices a user makes within the PRS are reflected back within the names of rows and the artworks, however this makes users feel watched and the way that Netflix inscribes an algorithmic identity upon them based upon their data is experienced as a mismatch to their actual identities. To conclude, in this research the ability for the PRS of Netflix to deliver fully personalised content is seen as a myth.

This research had the following limitations. Firstly, it can be argued that in order to really know how algorithms influence users of Netflix and what the consequences are, it is necessary to have access to

the algorithmic code. However, this was not possible in this research. In addition to this, the corpora aimed at the discourse around the production and consumption could have been more representative by analysing more articles and social media posts. It is also important to realise that the articles around the production of the PRS are written by Netflix itself which makes it necessary to question the openness and truths embedded within these articles. Finally, this research might have some negativity bias in it because of the consumption corpora. For instance, Netflix users that are very content with the PRS may not feel the need to post their experience on social media as much as users that are discontent would. Therefore, it is recommended to focus future research on user cases with methods such as ethnography and interviews. Interesting other insights that might be gathered with future research could be the difference between content within the Netflix interface based upon location. Additionally, it might also bring new insights to do future research within this topic but on other streaming platforms since other online platforms use PRS as well. After all, dissecting and analysing these other platforms and their PRS might bring interesting comparative insights in relation to the Netflix system.

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Appendix 1: Affordances of Netflix

Within this appendix the functional affordances of the computer interface of Netflix are noted down.

The menu on the top of the page has the following functionalities:

- Homepage
- Browse all series
- Browse all films
- See most recent added content (or content which will be added in the future)
- Browse my list (this is content the user itself has added to their list)

On the right side of the menu the user has the following functionalities:

- Search function (ability to search on title, actor but also genre)
 - Chamberlain argues that media interfaces have an aesthetic of metadata which changes the way in which users find and select television.
- Give Netflix as a gift to friends or family
- See notification
- Change personal profile that is watching
 - Access user settings

When pressing on a serie or film the user has the following functionalities:

- Play
- Add to my list
- Shows overview information: match, year of release, age rating, amount of seasons/time of film, short description of content, main roles, genres, classification)
 - This percentage match is a personalisation and changes per content the user clicks on.
- Access more information
- See all episodes
- See all trailers
- See content just like the content pressed
- Access content details (such as maker, cast, genre, age rating)

N SERIE

THE WITCHER

98% match 2019 **16** 1 seizoen

Het is bevestigd: er komt nog een seizoen

Geralt van Rivia, een gemuteerde monsterjager die je kunt inhuren, is op weg naar zijn bestemming in een onstuimige wereld waarin mensen vaak slechter zijn dan monsters.

▶ AFspeLEN **+ MJN LUST**  

Hoofdrollen: Henry Cavill, Anya Chalotra, Freya Allan
Genres: Fantasyseries, Series gebaseerd op een boek, Dramaseries
Deze serie is: Meeslepend

OVERZICHT **AFLEVERINGEN**

In addition to this, the footer of the interface has information such as:

- Social media accounts;
- Audio and subtitles;
- Mediacenter;
- Privacy;
- Contacts;
- Servicecode;
- Audio description;
- Relation with investors;
- Legal provisions;
- Help centre;
- Vacancies;
- Cookie preferences;
- Gift cards;
- Terms of use;
- Company information.

Appendix 2: Production of the Recommendation System

Within this appendix the fully analysed corpus for the production corpus of the discourse analysis is stated.

2.1 Netflix Recommendations: Beyond the 5 stars (Part 1)

Within this article, the PRS is explained and the steps taken to recommend content are established upon. First off it is important to note that all these articles are from the ‘tech blog’ of MEDIUM, therefore containing more technical language than everyday language. In addition to this, all four articles seem to be aimed at people interested in the technology field, since they promote people to join their company by stating “and remember that we are always looking for more star talent to add to our great team, so please take a look at our jobs page” at the end of post.

Within the first post the social good can be seen as distributed throughout the reflective writing of Netflix with regards to their choices, implementations and systems. For instance, with quotes such as: “optimize our algorithms to give the highest scores to titles that a member is most likely to play and enjoy” and “supporting all the different contexts in which we want to make recommendations requires a range of algorithms that are tuned to the needs of those contexts”. This gives a professional feeling to the way the PRS is built and implemented within the system and makes readers feel that they are receiving the social good that they deserve.

However, within the post there are some typical stories that keep being referred to. Such as: “one of the most valued Netflix assets: our recommendation systems”, “improve recommendations ... which is a key part of our business”, “optimizing the member experience”. According to this article, promoting trust with the members and providing explanations as to why Netflix decides to recommend certain content and not others is seen as very important. They state that: “we are not recommending it because it suits our business needs, but because it matches the information we have from you: your explicit taste preferences and ratings, your viewing history ...”.

2.2 Netflix Recommendations: Beyond the 5 stars (Part 2)

Within the second article of the PRS the writers go deeper into depth with regards to how the system works. However, they still explain things in an understandable manner, therefore mixing the usage of technical language with examples that are still comprehensible for non-technical people. For instance, by stating examples, explaining what terms mean, explaining why they take certain steps and by providing illustrations: “the graph below shows the ranking improvement we have obtained by adding different features and optimizing the machine learning algorithm”.

The social good of the recommendation system and the content it promotes is clearly explained by this article and is emphasised to “present a number of attractive items for a person to choose from”. The article writes that the goal of the PRS is to “recommend the titles that each member is most likely to *play and enjoy*”.

However, within the post there are some typical stories that keep being referred to. Such as “algorithmic innovation”, “lead innovation”, “the importance of both data and models in creating an optimal personalized experience for our members”, “turn data into product features”. Netflix is being referred to as a “data-drive organization” in which they have the goal to innovate for members effectively.

They use a quote by Thomas Watson Sr, founder of IBM, namely: “If you want to increase your success rate, double your failure rate.” Central within Netflix is their goal of improving the service for their members. In addition to this, they tend to shine a spotlight upon their members by stating that “we look to our members as the final judges of the quality of our recommendation approach, because this is all ultimately about increasing our members’ enjoyment in their own Netflix experience”.

2.3 Learning a Personalised Homepage

This article is used for explaining the personalised homepage. Within the post they “highlight what ... the most relevant and interesting aspects of this problem [are] and how we can go about solving some of them”. Within this post, they provide readers with reflection upon their choices and their decision making within the process of creating a personalised homepage. When they use certain technological language they also provide explanations: “consider a simple metric like Recall@n, which measures the number of relevant items in the top n divided by the total number of relevant items” and “Recall is a basic metric and requires choosing values for m and n, but we can likewise extend metrics that assign a score or likelihood for a member seeing a position, like NDCG or MRR, to the two-dimensional case”. Although this article is more technological-heavy with relation to terms used, they still try their best to make it comprehensible for other readers.

There are several social goods discussed within this article, for instance: the ability for Netflix to come up with evidence/explanation to support the presentation of a row, the accuracy of recommendations, find relevant content fast, find content that is diverse, not having presentation bias (where a member can only play from a row on the homepage that Netflix has chosen to display since this can have a huge impact on the training data). In addition to this the article discussed how they “want to be able to highlight the depth in the catalog we have in those interests and also the breadth we have across other areas to help our members explore and even find new interests” which can also be seen as a social good. In addition to this, Netflix wants to offer stability “so that people are familiar with their homepage and can easily find videos they’ve been recommended in the recent past”. To conclude, Netflix reflects upon their usage of training data for their algorithms and how they “need to be extremely careful” about how they select their data in order to provide users with these social goods.

Several typical stories are shared within this article. The affordance of personalised content is central to their arguments because they want to: “treat every situation as an opportunity to present the right content to each of our over 57 million members”. By stating such typical stories they reflect upon the importance of their user base. They state that the personalised page generation is their next step in the evolution of their personalisation approach. They also tend to state their shortcomings: “there is a lot of potential to improve the homepages for all of our members and help them easily find content they will love” and “a general algorithmic challenge becomes how to best tailor each member’s homepage to make it relevant, cover their interests and intents, and still allow for exploration of our catalog”.

2.4 Artwork Personalisation at Netflix

Within this article, the subject is the artwork personalisation within the Netflix interface. In order to translate the technological language into everyday language, examples are being used to explain the phenomena and choices that are being made within Netflix: “consider the following examples where different members have different viewing histories”. In addition to this, they state their limitations “of

course, not all the scenarios for personalizing artwork are this clear and obvious” and “to properly learn how to personalize artwork we need to collect a lot of data to find”, “by personalizing artwork we help ... improve our member experience”. In addition to this, they explain terms they use: “briefly, contextual bandits are a class of online learning algorithms ...”, and their previous research steps: “in our previous unpersonalized image selection work, we used non-contextual bandits where we found the winning image regardless of the context”.

The PRS and its accuracy are seen as a social good, “the main goal of the Netflix personalized recommendation system has been to get the right titles in front each of our members at the right time”. However, the usage of such artworks can be seen as manipulative because “if the artwork representing a title captures something compelling to you, then it acts as a gateway into that title and gives you some visual “evidence” for why the title might be good for you”. With the ability of Netflix to change the artwork in relation to content they have the ability to “highlight an actor that you recognize, capture an exciting moment like a car chase, or contain a dramatic scene that conveys the essence of a movie or TV show”. Netflix sees the fairness of personalised artworks by keeping in mind to not make them “clickbait”, to test them, and still keep in mind that the main goal of the personalised artwork is that it results in high-quality engagement. Within this new step of their personalisation system, they are changing not just what they “recommend but also how [they] recommend to [their] members”.

The typical stories within this article are emphasised upon their catalog which spans “thousands of titles and a diverse member base spanning over a hundred million accounts”. Therefore, Netflix sees recommending titles that are right for each member as crucial. By shaping content in such a personal way, Netflix sees themselves as different “from traditional media offerings: we don’t have one product but over a 100 million different products with one for each of our members with personalized recommendations and personalized visual”. Therefore, resulting in “meaningful improvement in how our members discover new content”.