

## Disoriented and alone in the “experience machine”

- On Netflix, shared world deceptions and the consequences of deepening algorithmic personalization

### Abstract:

Most online platforms are becoming increasingly algorithmically personalized. The question is if these practices are simply satisfying users preferences or if something is lost in this process. This article focuses on how to reconcile the personalization with the importance of being able to share cultural objects - including fiction – with others. In analyzing two concrete personalization examples from the streaming giant Netflix, several tendencies are observed. One is to isolate users and sometimes entirely eliminate shared world aspects. Another tendency is to blur the boundary between shared cultural objects and personalized content, which can be misleading and disorienting. A further tendency is for personalization algorithms to be optimized to deceptively prey on desires for content that mirrors one’s own lived experience. Some specific - often minority targeting - “clickbait” practices received public blowback. These practices show disregard both for honest labeling and for our desires to have access and representation in a shared world. The article concludes that personalization tendencies are moving towards increasingly isolating and disorienting interfaces, but that platforms could be redesigned to support better social world orientation.

**Keywords:** Algorithmic personalization, cultural objects, racial profiling, deception, online platforms, data surveillance, social epistemology, windows-mirrors, shared world

### 1. Introduction

More and more, our informational, cultural and social experiences are mediated by algorithmically personalized platforms and other “smart” tools and applications. As Reviglio and Agosti write in a recent paper: “Online personalization is our interface with the infosphere” (2020:1). Algorithmic personalization is championed as a necessary means to navigate the cluttered digital sphere and deal with information and option overload. By way of personal data-driven algorithms our options can be filtered, sorted and presented in a curated way that optimize our interfaces and thus serve experiences according to the preferences that we have expressed through the data trail of our prior choices. What is not to love? As many scholars have pointed out there are some quite significant downsides and ethical worries around these powerful algorithmic tools.<sup>1</sup> Some worries consistently highlighted concerns:

- 1) Monetization: Conflict of interest, as data harvesting and predictive “optimization” is controlled by for-profit companies and their financial imperatives (Zuboff 2019).
- 2) Manipulation: Personalized “choice architectures” as “hypernudging” (Yeung 2018) and imposing hidden coercive influences (Susser 2019).
- 3) Lack of transparency: Algorithms as legally protected as private and proprietary (Cohen 2013) and operating like “black boxes” (Pasquale 2015).
- 4) Bias: “Smart” tech as perpetrating “algorithmic bias” and discrimination (Benjamin 2019) e.g. via “social sorting” (Lyons 2003).

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<sup>1</sup> See also Yeung’s (2018) for a recent overview.

- 5) Filter bubbles: Personalization as trapping users in past preferences, “filter bubbles” rife with polarization and misinformation (Pariser 2011, Hendricks & Vestergaard 2019).

Relating to these five concerns, this paper focus on the value of being oriented in our broader social world, and analyzes deceptive and disorienting features of current personalization practices, which increasingly and imperceptibly mingle individualized platform content with content originating beyond the platform. While other scholars have raised worries around epistemic isolation, deception and manipulation, I highlight how the common and shareable world is getting lost – or rather purposefully hidden, blurred or misrepresented – and why this matters also when it comes to cultural objects likes movies and entertainment.

I start by laying out some background concepts and insights and then move to analyses of some concrete examples from Netflix. Here we see the present tendencies to increasingly introduce personalized features and content that respectively 1) hide and 2) deceptively blur or appear as - shared social world objects. Epistemically these tendencies interact to create isolation from and disorientation in regard to the overall landscape of our social world.

An analysis of how more precisely the core practices of algorithmic personalization disorients us is particularly important due to the fast-evolving tendencies towards deeper personalization. But also given tech giants’ – and the press’ – narrow focus on *content moderation*. Moderation and censorship are important issues. But when we talk about removal of false and misleading information, we need to include a discussion about what we might dare call the “faking of the shared world” which is *not simply allowed* by these platforms but business as usual, and regularly *purposefully optimized*.<sup>2</sup>

Most epistemic worries hitherto have centered on peer-to-peer social media platforms like Facebook, Twitter and YouTube. I focus on the entertainment streaming service Netflix to broaden the debate and stress that shared social world concerns goes beyond factual claims, and that our cultural imagination also needs to be shareable. Creative works are core avenues for cultural coordination, understanding and tensions of identities and perspectives. But fiction and cultural products need to be shared to serve these functions and not merely be ephemeral individual fantasies. Robert Nozick (1974) famously proposed an “experience machine” thought experiment to criticize hedonistic utilitarianism, and to highlight the values lost if we individually plugged into a machine that could provide whatever simulative experience we desired. One of the questions I shall raise is if the tendencies of personalized entertainment platforms are taking us towards precisely this kind of solipsistic hedonism that Nozick aimed to criticize.<sup>3</sup>

## 2. Unproblematic Personalization and being locally oriented

The critique raised, is specifically directed at epistemic harms of current algorithmic personalization tendencies, not personalization more generally. I start with two examples of personalization that are not inherently disorienting.

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<sup>2</sup> McLuhan’s (1964) famous dictum: “The medium is the message” certainly is an apt reminder when considering Facebooks “supreme court” and its narrow jurisdiction as a “censored content” appeals panel.

<sup>3</sup> See Frischman and Selinger (2018) for further thoughts on current experience machine tendencies.

First, a basic example of personalized medicine: We are now finally in a world where for example your temperature is not necessarily compared with the national average but rather with your own baseline, or even better with your own variable baseline as it oscillates given menstrual cycle and time of day. With such personalization a patient’s current temperature can signal an aberration even when falling within the broader population norms. The key is to see that this personalization is transparent about its own self-oriented status. Indeed, the goal is the health and self-care of the individual, and the personalization is precisely useful because the self-referential nature of the data is clear.

Secondly, in terms of subdivided spaces, another kind of personalization concerns instances where one freely and knowingly enters distinct environments. A classical unobjectionable personalized space is our homes, where others enter at inhabitants permission and they are locally in control.<sup>4</sup> But schools, movie theaters and other public and other-owned spaces are also sub-divisions of the overall social world, where we go with expectations of only meeting and being exposed to certain others and certain events. We know from analyses by ecological psychologists how our actions are deeply anchored in our perception of the “affordances” or possibilities of a given environment, and that the ability to move and find our way between different “behavioral settings” is essential to any meaningful freedom.<sup>5</sup> Thus, the key to unharmful personalization is firstly that we enter such spaces knowingly, and that it is relatively transparent who we share – and don’t share - the space with. Secondly, that we as free and oriented agents can move to other settings with other possibilities. Thus, if I go to see an obscure movie at an arthouse theater, I knowingly pass through several “filters,” but as I actively navigate there, I e.g. notice the near empty room and the line at an interesting looking Korean thriller.

As we look at the Netflix case studies, these principles need to be kept in mind. Some of the core problems with algorithmic personalization are that the affordances are unclear, deceptive or perhaps worst of all – missing. We are under most current personalization regimes simply not offered the option to turn off personalization, and in that sense, the ability to “leave” or “move into” different the subdivided spaces within the platform. It is increasingly the personalized space served - or nothing. Further, when options exist, they are not presented in an ecologically meaningful way that is intuitive from the perspective of action.<sup>6</sup>

### **3. “Platform” terminology as giving allure of stability and public access**

As mentioned, the great promise and allure of the internet and current service platforms have been their unparalleled ability to aggregate and connect people and all sorts of shared world contents and products across time and space. The function of the platform as suggested by Gillespie (2010), is to connect but also to filter or censor. Thus, to create access but also prevent overload.

Already pre-internet personalization, many scholars highlighted how media like newspapers and television transformed our traditional attachment of action and knowledge to a local time and space (e.g. Meyrowitz 1985). Many early analyses focused on how local spaces get transformed, fractured internally and united with other places as various forms of media

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<sup>4</sup> The home of 2021 is of course permeated with various screens and connectivities that makes for the more complex “personalized” picture – that precisely shall be discussed in this paper.

<sup>5</sup> See ecological psychologists Barker (1978) and Heft (2013).

<sup>6</sup> Increasingly options, e.g. to “unsubscribe,” are actively designed to be hidden. See also Hartzog (2018).

bridge spatio-temporal distances. Anthony Giddens (1991: 26) writes about media as “modalities of reorganising time and space” and describes what he calls the “*collage effect*” where “the event has become more or less completely dominant over location, media presentation takes the form of the juxtaposition of stories and items which share nothing in common other than that they are ‘timely’ and consequential.” Online platforms and their personalized user interfaces certainly fits this rubric of the “collage effect” as content, posts, programs and products are displayed in “feeds” and rank-ordered layouts that are not connected by way of their contents or sources but according to their assumed ‘timely’ or ‘consequential’ nature. As Giddens highlights, how individual pieces of the collage relate is mute, and the original home terrain of these sources is pushed to background. There is no landscape guiding our wayfinding if you will, we must trust the curator.

Turning now to personalized platforms - with Jose van Dijck et al’s (2018) definition: “An online “platform” is a programmable digital architecture designed to organize interactions between users—not just end users but also corporate entities and public bodies. It is geared toward the systematic collection, algorithmic processing, circulation, and monetization of user data.”(p.4) Now platforms via these activities of programable real-time data collection, algorithmic processing and organization add something to prior media connectivity and also to the basic collage effect. We now have media that is not only generative through its *mediating* powers, but that actually is adaptive and *active in its own right*. The engineers and machine learning algorithms that drive online platforms are decision-makers that constantly “redesign” the appearance of the site based on their “sensors”- i.e. methods of data collection – and the goals they have been optimized to achieve. In short, with the advent of personalized platforms our core existential categories of active persons, passive things and sharable places are put into question.

This category-defiant nature of current personalization can be illustrated by the guile of its own chosen label. Ironically, the word “platform” suggests something like a solid foundation on which various forms of public exposure and engagement can take place. Gillespie (2010:348) uses the word “intermediaries” for companies “that provide the storage, navigation, and delivery of the digital content of others.” He discusses the connotations of the term “platform” as an “open, neutral, egalitarian and progressive support for activity”(p.352), and the political incentives for companies to embrace this descriptive label – rather than the perhaps more accurate “digital service.” The “platform” terminology advantageously carries shared world connotations and suggests a stable open and egalitarian foundation on which an organic flux of public life can take place. However, this flux of people and products is in fact not organic, but 1) a curated “collage effect” (not open, not neutral and not equally accessible) and 2) algorithmically personalized: Who and what is seen is relative to the viewer. Thus, the connotations of the public platform metaphor are in fact largely inverted.

Where old-fashioned newspapers & television channels would filter and funnel viewers to curated and mostly self-produced contents, current peer-to-peer and market platforms are more like constantly morphing hallways providing individualized curated access to certain shared world points – mostly – beyond itself. I say “mostly” because what we see now, is “platforms” that not only personalize user interfaces with curated content of others, but actually also generate their own content. Sometimes this “own brand” content is labeled as such, as for example “Amazon brand” and “Netflix original”. These products can only be accessed through a given platform, but they are still shared world objects to the degree that multiple users can access the exact same content. But as discussed below personalization creep might start to blur the boundary between the platform as an intermediary to something

beyond itself, and the platform as generating its own content and thus being its own “end station”.

This effect of morphing user interfaces is really like no other hitherto known environment. It raises the question whether these “sites” might neither be environments nor really media – in the sense of “intermediaries.” In some ways, given their personalized, morphing and relatively non-shareable nature they are more like individually generated dreamscapes. But yet very different from dreams, as these “hallways” 1) facilitate real world perception and action and 2) they are created via specific dataflows by others often with conflicting interests and values. The question is how we should deal with “user interfaces,” which reject existential categories of places, things, persons - and even media - that we have evolved to take for granted and base our knowledge and action structures on.

#### **4. Perspectival knowledge dialectics and the common world as socially shareable**

Turning now to the importance of being epistemically oriented in a socially shareable world. Hannah Arendt (1958) for example vehemently stressed the importance of the “public” as a place of visibility and social reality:

“[T]he term “public” signifies the world itself, in so far as it is common to all of us and distinguished from our privately owned place in it. This world, however, is not identical with the earth or with nature, as the limited space for the movement of men and the general condition of organic life. It is related, rather, to the human artifact, the fabrication of human hands, as well as to affairs which go on among those who inhabit the man-made world together.”(p.52)

After setting up this “fabricated” aspect of the shareable social world she turns to its function and perhaps most interestingly she anticipates the challenges posed by “mass society” as she calls it:

“The public realm, as the common world, gathers us together and yet prevents our falling over each other, so to speak. What makes mass society so difficult to bear is not the number of people involved, or at least not primarily, but the fact that the world between them has lost its power to gather them together, to relate and to separate them.” (ibid. p.52)

Arendt makes two important claims here: 1) The functional claim – that the world we share in common serves to both join us in a society and separate us as individuals, and 2) her worry that without such shared world constraints we will find ourselves weirdly merging with and yet uncoupled from each other.

This dual role of the shared world can also be understood as a social extension of more basic epistemological claims of developmental psychologist Jean Piaget. Piaget expresses how given the perspectival nature of perception, we understand both ourselves and the world through understanding our relationality to the world and each other. If this dialectic process is prevented, we fail to understand both ourselves and our worlds:

“[I]t is precisely when the subject is most self-centered that he knows himself the least, and it is to the extent that he discovers himself that he places himself in the universe and constructs it by virtue of that fact. In other words, egocentrism signifies the absence of both self-perception and objectivity, whereas acquiring possession of the object as such is on par with the acquisition of self-perception”(1954, p. xii)

The question will be if our dialectic self-positioning is challenged by algorithmic personalization, and if we are in risk of self- and world-ignorant egocentrism. Note that the personalized medicine and home examples above are not “ego-centrism” in Piaget’s sense, but simply instances of a local or self-directed focus. The difference lies in knowing that one is looking towards oneself or one’s own local environment. The directedness is transparent and the “looking away” from the public is purposive. In short, to turn away from a public world knowingly we need to be oriented. The question is how we keep this orientation when platforms imperceptibly divide and herd users, via individualized routes to material that might or might not be shared with others.

In sum, we normally understand our shared world through social and spatial triangulations, that allow us to situate our own perspective. Both actual movement through a stable world and the views of others support our ability to integrate and contrast our perspective with those of others. Without triangulating contrasts, we are not merely stuck in a narrow view, we actually fail even to understand ourselves and our local or private worlds. The socially shareable world is the scene or environment that makes this social triangulation possible, but it is also the cultural objects, which are placed between us, and thus made available for public consideration.

## **5. Shared cultural objects & “Windows” and “Mirrors” in fiction**

As mentioned, the socially shared world is not uniform but provides a host of subdivided spaces where we can become aware of – and purposively seek or avoid - commonalities and differences of perspective. This multiplicity of perspectives and settings indeed themselves can become objects of public attention via various cultural and artistic products. Such products are part of our cultural fabric and generally created for the purpose of public viewing and socially accessibility. Further, this accessibility makes these works capable of shaping our collective imaginaries and our views of ourselves and each other. Now with the notion of epistemic triangulation and Arendt’s explanation of how the fabricated human world functions to both relate and separate us, we can turn to the function more specifically of fictional cultural objects as they are – pace Arendt - “placed between us.”

We will here look to a famous distinction made by educator Emily Style. She, in the context of curriculum curation, introduced the metaphorical categories “mirrors” and “windows” as referring to literature that respectively 1) reflects one own experience and identity (mirrors) and 2) expand one’s horizon with experiences very different from one’s own (windows). Her point is that students need both. But her idea is not simply that the “mirror” stories help us understand ourselves and the “window” stories the world, but – much like suggested by Piaget and Arendt - that there is a more complex dialectic of learning when both these kinds of stories are put between us.

Highlighting knowledge as perspectival, she writes: “Basic to a liberal arts education is the understanding that there is more than one way to see the world; hence, a balanced program insists that the student enter into the patterning of various disciplines, looking at reality through various “window” frames.” (1988:1) Interacting with this recognition that we do not experience or stand in the same relation to the world Style – in 1988 - highlights the historic and persistent inequities of representation. She writes:

“White males find, in the house of curriculum, many mirrors to look in, and few windows which frame others’ lives. Women and men of color, on the other hand, find almost no

mirrors of themselves in the house of curriculum; for them it is often all windows. White males are thereby encouraged to be solipsistic, and the rest of us to feel uncertain that we truly exist. In Western education, the gendered perspective of the white male has presented itself as “universal” for so long that the limitations of this curriculum are often still invisible.” (1988:4)

Thus, the value of mirror literature is not only for students to read stories that reflect their own lives, but to know that their lives are important enough to be written about and be read about by others. In Styles words:

“All students deserve a curriculum which mirrors their own experience back to them, upon occasion — thus *validating it in the public world of the school*. But curriculum must also insist upon the fresh air of windows into the experience of others — who also need and deserve the *public validation of the school curriculum*.”(1988:4, my italics)

Seeing oneself on the page in a “mirror” story helps not only self-understanding but also self-worth precisely because this book is shared in common with others and given public validation. The window story is “fresh air” as it lets us see more of the world. A “mirror” story for one is a “window” for others – and having both is crucial for understanding our broader social fabric.

## 6. Some examples from Netflix

With this we can now turn to the analysis of actual personalization practices. Methodologically, “getting the facts” about current personalization is notoriously hard, precisely due to how current algorithms and company choices are proprietary and often camouflaged to users. User-end access and analysis depends on 1) companies’ willingness to voluntarily share information and 2) on creating shared world archives<sup>7</sup> and comparisons between the different user interfaces. The irony therefore is that good empirical analyses would benefit from the transparency, user opt-outs, and forms of access, which are precisely currently wanting.

Netflix like most platforms use proprietary algorithms in their content curation, search rank, layout etc. These general forms of “collage effect” personalization will not be our focus. Rather, I shall focus on two specific Netflix personalization practices, instituted over the past decade, about which there has been some public discussion and documentation.<sup>8</sup> The first pertains to their feedback and evaluation system, where Netflix have moved from reviews and star-ratings to “thumbs up/down” & “% match”. The second example has to do with imagery, and the move from movie posters to personalized cover art.

### Netflix 1: From stars and reviews to likes and matches

Readers may recall that Netflix up until 2017 had a rating system, where each movie had a 1-5-star rating. What might be less known is that these stars were personalized – not an objective average as users typically expect from such stars. In a 2017 tech interview a Netflix executive Camron Johnson explained the systems as follows “Netflix’s star ratings were

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<sup>7</sup> The Internet Archive’s Wayback machine is a glorious resource for snapshots of non-personalized “shared world” websites and a great tool to track changes over time. But when the user interfaces are personalized the question is how to document and archive that?

<sup>8</sup> I base the factual part on news articles as well as Netflix own posts and promotional material (and my own experience as longtime customer).

personalized, and had been from the start. That means when you saw a movie on Netflix rated 4 stars, that didn’t mean the average of all ratings was 4 stars. Instead, it meant that Netflix thought you’d rate the movie 4 stars, based on your habits (and other people’s ratings)” (McAlone,2017) I shall discuss this kind of personalization below, but first a note on the history. Johnson highlights that their stars were personalized “from the start”, however the fuller story is that up until 2015, Netflix would - under their personalized star rating iconography - show *two different numerical ratings*: One personalized labeled “Our best guess for [insert username]” along with an objective and straight-forward average, including the base number of overall ratings (Armstrong 2015, figure 1). Further, these quantitative measures were also accompanied with access to all qualitative reviews written by other viewers. Hence, pre-2015 there were two “shared world” elements: 1) the objective quantitative average and 2) the qualitative reviews. Note also that the personalized rating could be triangulated and interpreted on the background of the average to provide the viewer with some sense of the work of the personalization process.



**Figure 1:** Screenshot Netflix, *The Interview*, desktop double rating system (Armstrong, 2015)

Now in 2015 the straight-forward average was dropped – along with the anchoring “shared world” baseline that it provided - and only the personalized stars and numerical rating remained. And, then in 2017 the star rating systems was dropped altogether for an entirely new system. Johnson explained the latter shift as follows: “[The shift] came from the realization that Netflix had always used star ratings differently than the rest of the internet, but that this distinction wasn’t clear to users.”(McAlone,2017) Further, Johnson publicly confirmed that “many people didn’t get”(ibid) their personalized system, and also that it was misleading given expectations from other sites. Take Amazon, for instance. “In those contexts, those star ratings are an average. People assumed Netflix was the same.”(ibid) The stars were deceptive in the sense that they gave the allure that one was looking to the broader social world of other viewers feedback, when in fact the stars were user-referential or rather user-taste-predictive.



Turning now to the new “thumbs up/down-%match-system”, which replaced the personalized stars in 2017. I here transcribe a Netflix promotional video explaining the shift:

“Netflix ratings are getting a makeover. The stars are no more. A misunderstood hero... The stars were always a prediction of what you may enjoy not the critics, not your neighbor, not your cat. Ratings on Netflix have never been a reflection of popularity. So you might have seen 1 star for house of cards but your politics-obsessed cousin could see 5. Which is why we found a better way to help you find the perfect match. It’s kind of like dating apps, actually. Netflix will find shows that seem like a fit, *23% Match, 95% Match*. Then you can decide if it’s true love – or not. This helps Netflix get to know you better. And make smarter more personalized recommendations. Finding love is hard. Finding your next binge doesn’t have to be.”<sup>9</sup>

The new “perfect match” system does appear less misleading. Now viewers simply see the algorithmically generated “%match” under each program and are given the opportunity to further train the algorithm with the “thumbs up/down” after each program consumed. In terms of what this new system *can do*, Netflix suggests that it provides us with a sense of whether a program will be “a match” for us individually and the ability to improve the personalized suggestions through feedback.<sup>10</sup>

Netflix explicitly contrasts this personalized “dating app” style rating with what “critics” or “neighbors” might like. This fact, that Netflix would like to move us away from being public critics is quite important. Here a passage from the 2017 McAlone interview:

“The other problem Netflix hopes the change will take care of is people’s tendency to get into critic mode when they see star ratings. Instead of saying how much they enjoyed a show, they tried to assess its objective worth. “What we observed was a difference between what [users] say,” in terms of ratings, “and what they do,” in terms of actually watching. People might rate a guilty-pleasure sitcom low and then keep watching, and watching, and watching. “What we saw with ‘thumbs up’ and ‘thumbs down’ more aligned with what people actually play,” Johnson said.”

Johnson here lays out why they don’t want us in “critic mode”, as reviews written under such a mind-set aims to evaluate “objective worth”. Given our background discussion of Style and Arendt, it makes sense that when think we are *speaking to others*, we would attempt to be somewhat objective – even as we express our own perspective. In a sense, the perception that something is socially accessible to others might make us try to meet them halfway. But we also might be more idealistic or aspirational in such reviews. We might, as Netflix data suggested, tone down our “guilty-pleasure” preferences in public. Perhaps because we have a purpose – beyond hedonistic pleasure – when engaging others. Why take the time to rate and write reviews for others if not to try to shape their views, actions and our overall public imaginary?

Now this is notably not Johnsons angle. He does not consider that users might desire to access reviews and opinions of *others* or have a chance to influence the *shared world* via their feedback. Rather, the move to the “thumbs-up/down-%match” system, is explained as providing better *individual* feedback. McAlone (2017) writes: “[Users] didn’t understand that the more they rated, the better the system would be at understanding their tastes.” In other

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<sup>9</sup> Text transcribed from YouTube video “Introducing Thumbs” posted to Netflix official channel on April 5, 2017, [https://www.youtube.com/watch?v=as4pZhodG5I&feature=emb\\_logo](https://www.youtube.com/watch?v=as4pZhodG5I&feature=emb_logo)

<sup>10</sup> See (Tassi 2017) for an argument that even as a personalized tool the binary choice between “thumbs up/down” is quite blunt, and that absent a baseline, it is unclear what exactly the %match tells us.

words, the new system more transparently tells the user that their feedback simply is for training the algorithm to their tastes. Now this means that the personalized stars were not just misleading to users, they were in fact – via this misperception - harming the usefulness of the user feedback for training the algorithm in two ways: 1) People got into “critic mode” and expressed more objective rather than purely subjective views, and 2) they gave too little feedback. Both of these are clearly influenced by people’s expectation that they were speaking to others and send their reviews into a shared world. Now in terms of the deceptive star system the fact was that they didn’t. But we can now see why Netflix didn’t simply rectifying the deception by aligning their star ratings with other consumer sites like Amazon that uses an average. What Netflix new match system does instead is to embrace a completely solipsistic rating experience – just the individual user and their algorithm. The move away from the shared world in the rating arena was completed with the discontinuation and deletion of all user reviews in 2018. A journalist sums up the loss thus: “The peer-to-peer recommendation has taken another hit”(Reisinger, 2018).

So, to sum up, Netflix’ star system was personalized, and particularly deceptively so after 2015. The new thumbs-match system is more honest about its personalized nature. But it was introduced along with a move to phase-out of actual reviews, thus what we are left with, in terms of evaluation, is a complete solo experience. The question is if the embracement of purely solitary predictive evaluations is an “improvement”? The problem – which is now at least glaringly obvious – is that the current platform does not allow for a shared world of publicly expressed opinion. As expressed by in a Forbes article “right now there is quite literally nothing that indicates the level of quality of any shows or movies on Netflix.” Overall, this history of Netflix ratings highlights the tendency towards personalization and user isolation, and the loss of both social access and the aspirational “critic mode” that can come with acting and evaluating in public.

## **Netflix 2: From movie posters to personalized artwork**

In this section I discuss what Netflix calls its “artwork personalization.” Back in the early days of the company, the images seen on the Netflix site were limited to official promotional material for the movie or show in question, i.e. posters and DVD cover art from the production company. However, as remarked by tech writer Dany Roth: “Using officially sanctioned art by a film or show's marketing team might seem like a no-brainer, but it's not necessarily as helpful as you might think.” One problem was basic size and layout. But it was clear from early on that the company was interested in using their data-driven analytics to optimize the power of pictures well beyond creating a layout fit. In a 2016 post on *Netflix Innovation blog*, Nick Nelson summarized the findings regarding the importance of their artwork imagery:

“In early 2014, we conducted some consumer research studies that indicated artwork was not only the biggest influencer to a member's decision to watch content, but it also constituted over 82% of their focus while browsing Netflix. We also saw that users spent an average of 1.8 seconds considering each title they were presented with while on Netflix. We were surprised by how much impact an image had on a member finding great content, and how little time we had to capture their interest.”(Nelson, 2016)

Now given this enormous power of artwork images in viewer decisions, they quickly became a focus for algorithmic “optimization”. Netflix, thus around 2015 started to produce its own artwork and began to A/B test the relative effectiveness of various different images pertaining

to the same titles (Krishnan, 2016). In this initial phase of image optimization Netflix was still looking to present the same images to all users, just to use experimentation to identify the artwork with the best “take rate” - as they poetically call the image-clicks correlation (Krishnan, 2016). However, as A/B testing is onboarded people experimented on are effectively already seeing different images.<sup>11</sup> And, as reported on the *Netflix Technology Blog*, soon thereafter image personalization was put to systemic use:

“In previous work, we discussed an effort to find the single perfect artwork for each title across *all* our members....However, given the enormous diversity in taste and preferences, wouldn’t it be better if we could find the best artwork for *each* of our members to highlight the aspects of a title that are specifically relevant to *them*?” (Chandrashekar et al., 2017)

This goal became a reality in fall 2017 when a new artwork selection algorithm was rolled out “to its now 137 million subscriber-base”<sup>12</sup> This change went under the radar for many users – still does for many today. But some curious events in 2018 around the use of minor supporting black actors in “cover art” drew social media attention to the phenomenon of individual image personalization. A reaction quoted from a Guardian article goes as follows:

“On Twitter, Stacia L Brown, a writer and creator of the podcast *Hope Chest*, asked: “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 [figure 2c] had maaaaaybe a 10 cumulative minutes of screen time. 20 lines between them, tops.” Underneath she posted Netflix’s promotional artwork for the film *Like Father*, specifically presented to her with the black actors Leonard Ouzts and Blaire Brooks.” (Iqbal, 2018)



**Figure 2.** From left: 2.1 poster from Imdb.com, 2.2 Personalized artwork – Bell. Photo by Kelly Quantrill (@codetrill), 2.3 Personalized artwork - Ouzts/Brooks. Photo by Stacia Brown’s (@slb79) see tweet above.<sup>13</sup>

<sup>11</sup> As methodology of A/B testing is key to much platform personalization it is important that its process and prevalence is understood. Many people think that personalization is driven only by “passive” data collection along with volitional user feedback – like thumbs up/down on Netflix. However, A/B testing is precisely “testing” and not simply collecting data. It actively generating data, by a behaviorist approach of dividing audiences, exploring and comparing “responses” to different “stimuli”. Experimental data is often more valuable than passively collected data, precisely because it is linked to hypothesis testing.

<sup>12</sup> See Iqbal (2018)

<sup>13</sup> Images 2.2 and 2.3. also reproduced in Iqbal (2018).

Linking back to Style’s windows and mirrors distinction, what Brown basically captured was that certain viewers “like her”<sup>14</sup> were presented with imagery that basically suggested this would be a mirror story for black people, when in fact it was - yet another - white window story. The deception aspect is echoed by others interviewed:

“This feels like a step too far,” said Tobi Aremu, 26, a film-maker from Brooklyn. Recently he watched the film *Set It Up*, “which was made to look like a two-hander between Taye Diggs and Lucy Liu, but they were secondary characters in the love story of a young white couple!” To him, the misrepresentation of Netflix’s actual offer felt problematic. “It’s beyond feeling duped,” he said. “Because if something is black, I take no offence in being catered to. I am black, give me black entertainment, give me more – but don’t take something that isn’t and try to present like it is. I wonder what the makers of those shows and films think. If it was me, I would be very upset.”(Iqbal, 2018)

I quote at length as this passage captures several of important dynamics. I shall return to the comments about whether the “makers of the show” knew below. But first Aremu expresses that the personalized imagery was deceptive in terms of the product, and that the pushback was exacerbated by how the deception played on the desire for black content (recognized by the Netflix algorithm) and then utilized by Netflix (in their clickbait image production) to serve more white mainstream American culture.

Netflix in 2017 explains their picture choices and personalized algorithmic pairing as follows:

“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. The artwork may 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.” (Chandrashekar et al., 2017)

Hence the deception pickle - with Black side-characters featured prominently in thumbnails for audiences with black content in their viewing history – is actively produced: If “success rate” is optimized irrespective of thoughts about precision – i.e. “false-positives” and “false-negatives” - then the actual relevance of the image to the program content is at best marginally relevant. The algorithm – and the picture array - is in this sense built to create distortions that would generate clicks (like these cases with black actors in minor roles), and not to prevent them.<sup>15</sup> “If we present that perfect image on your homepage (and as they say: an image is worth a thousand words), then maybe, just maybe, you will give it a try.”(Chandrashekar et al., 2017) As we saw in the previous section regarding the “%match” system, Netflix is here again using something like a dating analogy: It is simply about making you “give it a try”, i.e. click.

Above, I suggested that the “%match” system was more honest, yet that it was problematic due to the loss of a space for users to share reviews or access any evaluation of quality. I called the personalized stars deceptive but suggested – referring back to Arendt - that the current system exemplifies the tendency to enclose individual users/viewers in solipsistic spaces, where the

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<sup>14</sup> Note that Netflix denies targeting black viewers but not consumers of black content: “We don’t ask members for their race, gender or ethnicity so we cannot use this information to personalise their individual Netflix experience. The only information we use is a member’s viewing history.””(Iqbal 2018)

<sup>15</sup> The algorithm likely starts with assuming the viewer-content pairing and then compares 1) the individual’s viewing history - and proprietary predictive profile – to 2) the range of available artworks – which clearly can stray far from core content, to then 3) present the image predicted to maximize a click/watch.

shared world is hidden from view. Now with the personalized artwork I suggest we have a case of both deception – in two senses - and a *receding* rather than *disappearance* of the shared world. But a little more needs to be said before I can make this argument.

Currently, when we click a program, we are being connected with a creative product that can also be accessed by others - is part of the shareable world. I return to tendencies of own-brand content and deep personalization later. But for now, after we select - or fail to stop auto-play - we presumably exit the personalized “morphing hallway” and walk through a door to a shared cultural world if you will. Given this eventual arrival in the shared world, many people might be relatively unbothered by what goes on, on the way there. I.e. the fact that I cannot currently know what others see in their respective algorithmically curated user interface. Many might say, as long as the artworks are not misleading in terms of the program contents, like in the cases discussed above, there is no problem with the separate fact that we are not seeing the same images.

But here I want to return to the last part of Aremu’s comment above, where he takes us beyond the experience and desire of the individual user to the “makers of those shows and films”. The question is if they knew about the imagery used? Aremu, himself a filmmaker, concludes: “I would be very upset”. Beyond the user expectation to not have titles falsely advertised, we also see the expectation that the imagery is produced or at least approved by the creators of the content. In short, most people seeing cover art, think that they are seeing the world beyond Netflix’ algorithmic hallway.

Another artwork scandal recently unfolded around the French movie “Cuties” where Netflix eventually apologized for using personalized thumbnail pictures that focused on sexualization of minors (Rosen 2020). “Cuties” does feature minors dancing suggestively, but it arguably does not do so uncritically. The issue is that algorithms “sell” a program with the images predicted to have the highest “success” rate. Netflix, with their image creation choices and algorithms actively generates these scandals as *appropriate cover art* simply does not equal “success rate”. Appropriate images arguably fit both the content *and* the creators’ intent and aspirations. In short it is not just an image, but a “cover” and an “artwork”.

As personalized star ratings deceptively played on shared-world expectations, Netflix creation of an array of personalized images certainly seems similarly problematic. In fact, three kinds of deception can now be distinguished: Images 1) misrepresenting content and 2) playing on expectations of being shared cultural objects and 3) not originating with content producers. I suggest that while the first kind was egregious in cases discussed, the two other shared world disorientations must be taken seriously as well – particularly given Netflix’ own data that these images by far are the key variable to our attention and choice.

However, we should also remember that our knowledge and expectations about personalization constantly shift. Our current expectations – also in regard to home entertainment - is that we are coming into contact with a world beyond our screen. But we might no longer expect that our colleague has the same Netflix image in mind as us. Given the functions of the shared social world discussed above via Arendt, Piaget and Style, the problem is not limited to deception or current expectations. Rather, knowledge of personalization leaves the core worries intact, and I suggest that beyond deceptive targeting, we should worry about the core ambiguity, lack of transparency and general creep of targeted content. When the shared world is not completely hidden, but just non-transparently pushed back like in the Netflix artwork case, a new problem arise, as we are increasingly losing the ability to understand *when* we are in a personalized space versus in a shared world. We are getting

disoriented as our interfaces prohibits us from triangulating our own perspective via that of others, and the ability to know whether and when what one is seeing, is what others see.

In sum, these Netflix cases illustrated a couple of distinct worries: 1) deceptive elements as our expectations are violated, and 2) the tendency for the shared world to be hidden (%match system) or to recede further into the background (personalized artwork). But I also highlighted the epistemic harm that arises from these. Namely 3) the disorientation that comes from not being able to tell where personalization ends, and the shared world begins.

## **7. A future of “deep” personalization, “experience machines” and social isolation?**

As discussed, a core attraction of social or market “platforms” is that they are “sites” where one can encounter products or people that themselves are situated - or originates from - beyond that platform. Thus, the platforms rely on the allure of a broader common world. With social media sites, one seeks access to a publicly accessible space and expects to meet others and to “appear” oneself, as Arendt would say. With marketplaces and streaming services like Amazon and Netflix one expects to see products that come from a world beyond the site, or at least are the same for other viewers/customers.<sup>16</sup> But there is currently an increasing tendency for streaming services to entice their audiences with “own brand” content that they can keep as exclusive on their platform.<sup>17</sup> This puts a new spin on our “morphing hallway” metaphor, as the platform in these cases in a sense keeps you there.

In his 2011 book *The Filter bubble*, Eli Pariser quite astutely anticipated many possibilities that now, a decade hence, are coming into full view. One worry that Pariser raised was what we can call “deep personalization”. He envisioned it in the context of personalized product placement:

“If the product placement and advertiser-funded media industries continue to grow, personalization will offer whole new vistas of possibility. Why name-drop Lipsicks when your reader is more likely to buy Cover Girl? Why have a video-game chase scene through Macy’s when the guy holding the controller is more of an Old Navy type? When software engineers talk about architecture, they’re usually talking metaphorically. But as people spend more of their time in virtual, personalizable places, there’s no reason that these worlds can’t change to suit users’ preferences. Or, for that matter, a corporate sponsor’s.”(Pariser, 2011)

This worry about deep personalization seems like it might indeed be coming closer, given the Netflix’ personalization innovations analyzed, and the increasing tendency towards home-grown “original” content. Just as Netflix can produce multiple images for different target audiences, they could in principle also produce variations of the same movie or show. Similarly, the algorithm could “match” the “optimal” content version with each viewer. This is utterly doable.

Such personalized entertainment products could vary according to product placement – paid for by 3<sup>rd</sup> party commercial entities – as envisioned by Pariser. This is likely to happen in multiple arenas. However, a different or additional possibility is that platforms had a set of productions of the “same” program, that featured different actors and would be produced to

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<sup>16</sup> Relatedly note also platforms’ increasingly personalized and dynamic pricing schemes.

<sup>17</sup> The discussed movie *Like Father* is actually a “Netflix Original” accessible only through Netflix. I included an movie poster posted to Imdb.com in Figure 2.1. But, note that with the tendency of platforms to produce their own content, the very notion of an “official poster” is likely crumbling.

fit different audiences for “best match” or “mirror story” consumption. In this case, we can imagine a case where Taye Diggs and Lucy Liu in fact was the leading couple – in one version of *Set It Up*. Thus, if the personalization went *all the way down*, in this way there would be no question of false advertising or of being duped into watching. We could then all find our 100% match, 100% of the time and watch mirror stories or whatever our hearts desire, ad infinitum.

Returning now to Nozick’s “experience machine”, the first question is if the tendencies of personalized entertainment platforms are taking us towards this kind of solipsistic hedonism? Certainly, we saw in the Netflix examples both the focus on “matching” and on getting the viewer to the “next binge” as well as the tendency towards deeper and deeper personalization. A second question is whether an “experience machine”, increasingly optimized to fit our inferred preferences, is what we want? A third question is if in fact, in the context of cultural products, the notion of desire or “preference” is actually inherently anchored in the social world, and thus that our “content” preferences rely inherently on expectations of these being shareable cultural objects.

Going back to Style, she emphatically conveyed that a diverse curriculum is not simply for everyone to see themselves, it is also to have these stories “validated” “in the public world of the school.” The fact that a mirror story is shared – and can serve as a window as well - is likely essential to the enjoyment and value we find in it, even if we watch/read it alone. Mirror stories watched in the personalized “experience machine” would not do this job. Thus, we might not only want to watch this or that content, that preference might be related to e.g. a desire to see the world shift its priorities towards this kind of content. Hence, having it be available for others might be part of the “individual preference”.

Netflix noted that we tend to “get into critic mode” and be too “objective” with public evaluations. Similarly, we put aspirational programs on our watchlist. This is likely content that would challenge, teach or socially engage us – in short – what we ought to watch. These might not be hedonistic instant gratification “matches” and a “click optimized” algorithm might hide them. But worse, in a world of “deep personalization” what would even be the point of such titles – if they were not shareable cultural objects?

## 8. Conclusion

Given the increasingly personalized “infosphere”, this article has traced some current practices and their consequences for our epistemic orientation within the broader social world. I started with some background ideas about social and epistemic dialectics, and the importance of the ability to engage in both mutual recognition and dialectics of contrast and difference – also when it comes to fiction and its role in shaping our identity and culture. I discussed how the nature of the personalized “platform” is challenging some of our core existential categories. Then through analyses of two current forms of algorithmic personalization at Netflix, tendencies and choices to 1) create deceptive shared world illusions and 2) remove or further retract what was previously shared world aspects. However, we also saw 3) a tendency to make it harder to tell if what are seeing is personalized or not. Thus, in effect creating an epistemic disorientation. Looking forward these concerns are intensified by the fact that the current tendencies are towards deeper and deeper personalization.

Resisting narratives of technological determinism, I want to stress that some of the current socially isolating and epistemically harmful personalizations, are purposefully disorienting in

that they could have been designed differently. Thus, aligned with ideas of perspectival knowledge dialectics and the role of social triangulation, one could design platforms that valued world-orientation. Explaining solutions are beyond the scope of this paper but some options are: 1) Opt-outs of personalization, 2) transparency – as we navigate – of where the personalization begins and ends, 3) options to “see what others are seeing”, and 4) more ways of changing our perspective within the platform. But personalization is powerful and profitable, and we must also look to actions we can take absent the cooperation of tech companies. We should share our screens and our screenshots – like we saw in the Netflix examples – and create, albeit limited, shared world documentation. The main question is if we want our “platform society” to continue its race toward solipsistic experience machine-style personalization or if we think we can come up with a better path and “prefer” it enough to force a shift towards optimizing for shareable world values and functionalities.

Again, this paper is not meant as a critique of all forms of personalization, nor am I disregarding the value and need for “filtering” and for more homogeneous sub-cultures. Rather the point is that one ought to enter an exclusive space willingly and knowingly, which depends on awareness of the world beyond.<sup>18</sup> The fear is that the current tendencies of algorithmic personalization will continue to deepen, and increasingly socially isolate us. That immersed in our frictionless bubbles we will tend towards Piaget’s “egocentrism,” where we neither know ourselves or each other, as we lose our orientation in the broader social landscape needed to anchor that knowledge. Current algorithmic personalization is programmed in ways that does not value social world orientation. That is – from where I stand - a problem of our shared world.

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<sup>18</sup> Of course, most minorities precisely seek safe-spaces when all too familiar with broader world dynamics.



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