Streaming the Romance: Gendered Algorithmic Interpellation on Netflix

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Abstract

This paper broadens understanding of the relationship between algorithms and gender by examining how a group of women in Costa Rica relate to algorithmic recommendations on Netflix. Drawing on 25 interviews and an analysis of their Netflix profiles, we examine how this group of women made sense of algorithmic technologies that drew their attention to content associated with ideas of romantic love. We theorize this process as "gendered algorithmic interpellation" or the work embedded in algorithms to "hail" users in particular ways and offer them gendered subject positions. Our analysis centers on four dynamics: personalized interpellation (how users come to believe that they are being addressed in a personalized manner by Netflix); bundled interpellation (how traditional generic cues that guide interpellation have been repackaged in Netflix's interface); ritual interpellation (the belief that recommendations are a product of past user behaviors); and calculated interpellation (the notion that recommendations are the result of sophisticated algorithmic calculation). We discuss how interviewees both responded to these four dynamics of interpellation and how they resisted them. In this way, we shed light on how algorithmic recommendations can become important means to exploit and worsen gendered structures.

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Algorithms have come to play an increasingly important role in society. As a key component of most technological systems used in daily life, they shape processes of cultural production, distribution, and consumption. But scholars have worried that algorithms also worsen existing forms of inequality (Brayne & Christin, 2020). Many researchers have noted that algorithms reproduce sexist and patriarchal discourses by automating and standardizing biases against women (Noble, 2018; Schwartz & Neff, 2019). These scholars show that this is not a random occurrence but rather a constitutive bias that is part of how media technologies operate nowadays (Eriksson & Johansson, 2017; Noble, 2018; Wachter-Boettcher, 2017).

This paper broadens understanding of the relationship between gender and algorithms by examining how a group of women in Costa Rica relate to algorithmic recommendations on Netflix. As a leading platform in both the production and streaming of content around the world, Netflix provides a key lens onto the role of digital media in reinforcing sexist and patriarchal discourses. According to the company's own estimation, algorithmic recommendations account for 80% of the content that users watch on the platform (Chhabra, 2017).

Studies with similar goals have concentrated on the internal biases of algorithms and the affordances of recommendation platforms themselves (Eriksson & Johansson, 2017; Werner, 2020). As a supplement, in this paper we focus on how a group of Costa Rican women incorporated them into their daily lives and resisted them. Several reasons explain this analytic preference. First, as many feminist scholars have demonstrated, performing gender is the result of both how people reproduce certain social norms *and* how they subvert them (Butler, 2016). By privileging a user-centric perspective, we thus avoid making conclusions about the reproduction of social structures without interrogating what women actually do in practice.

Moreover, by looking at both women's understanding of algorithms and the mechanisms that Netflix employs to make recommendations appealing to them, we espouse a view of gender and technology as mutually constitutive (Wajcman, 2004).

Furthermore, our research supplements the traditional study of discourses as carriers of gendered meaning. Rather than looking *only* at the particularities of media texts, we examine how users make sense of the technologies that draw their attention to specific kinds of content. In this way, we also contribute to efforts to further understand how ideology and culture are reproduced and resisted through technology (Brock Jr, 2020). Our focus is on algorithmic recommendations associated with romantic love because of its pervasiveness in public culture and its significance in revealing the mechanisms of capitalist patriarchy's reproduction (Swidler, 2001). We theorize this process as *gendered algorithmic interpellation*, that is, the work embedded in algorithms to "hail" users in particular ways and thus offer them gendered subject positions (Althusser, 2014).

Our analysis centers on four dynamics of gendered algorithmic interpellation: *personalized interpellation* (the work undertaken by Netflix to make users believe that they are being addressed in a personalized manner); *bundled interpellation* (how Netflix's repackages traditional generic cues that have guided interpellation towards certain meaning); *ritual interpellation* (the notion that recommendations are a causal product of past user consumption practices); and *calculated interpellation* (the belief that recommendations are not random but rather the result of sophisticated algorithmic calculation). To discuss these dynamics, we make visible users' beliefs about how Netflix and its algorithms operate. These beliefs may be understood as "folk theories" or intuitive ways of thinking about things or issues, which are rooted in evolving practices and allow individuals to act.

Costa Rica is an ideal site for such an investigation (Siles et al., 2019a, 2020). After Canada, Latin America was the second region where Netflix became available outside the United States. Netflix was launched in Costa Rica in September 2011 as part of this early global expansion process and has grown steadily over the past decade. Costa Rica aptly illustrates Netflix's early interest in Latin America: it has a relatively large middle-class, high Internet connectivity rates, and reliable telecommunications infrastructures (Lobato, 2019; Siles et al., 2019a, 2019b). Because of the small size of its consumer market and local production industry, there are only a few Costa Rican productions available on Netflix. Yet, Netflix's content produced in Latin America is part of the catalog available in the country. Thus, by looking at the Costa Rican case, it becomes possible to reveal how users relate to algorithms based on their particular historical and cultural conditions, rather than uncritically reproducing processes identified in the global North as a "natural" or "inevitable" outcome.

On Gendered Algorithmic Interpellation

To make sense of how algorithmic recommendations work from the perspective of users, we turn to the notion of interpellation. Althusser (2014) argued that individuals become subjects through the way they are ideologically addressed or "interpellated." For Althusser, ideology works by hailing individuals. Interpellation, he argued, "can be imagined along the lines of the most commonplace, everyday hailing [...]: 'Hey, you there!'" (p. 190). When individuals recognize themselves as the addressees of certain discourses, they accept the subject position that is offered to them. Fiske (1992) summarized this process in a useful manner:

> In communicating with people, our first job is to "hail" them, almost as if hailing a cab. To answer, they have to recognize that it is to them, and not to someone else, that we are

> talking. This recognition derives from signs, carried in our language, of whom we think they are [...] In responding to our hail, the addressees recognize the social position our language has constructed, and if their response is cooperative, they adopt this same position. (p. 217)

For Althusser, this process also supposes the existence of a unique and central Subject, which interpellates all individuals as subjects. He used Christian religious ideology to illustrate this point. In this account, God is the Subject and God's people are the "Subject's interlocutors, those He has hailed: His mirrors, His reflections" (Althusser, 2014, p. 196). Interpellation thus leads to the establishment of power formations through which roles, norms, and values are assigned and reproduced.

As Butler (2016) has argued, gender assignment has "an interpellating force" (p. 18). Butler (2016) explains: "We are treated, hailed, and formed by social norms that precede us and that form the constraining context for whatever forms of agency we ourselves take on in time" (p. 17). Yet, gendered interpellation--or the acceptance of specific gender subject positions--is not an inevitable process but rather a site of struggle. Individuals can contest and resist the subject position that is offered to them through interpellation. Butler, Gambetti, and Sabsay (2016) thus argued for rethinking the relationship between vulnerability and resistance. They proposed not to frame this relationship in terms of opposition but rather by considering vulnerability as a condition of possibility of resistance. In Butler's (2016) words, "without being able to think about vulnerability, we cannot think about resistance, and [...] by thinking about resistance, we are already under way, dismantling the resistance to vulnerability in order precisely to resist" (p. 27). We take a cue from this approach to argue for the need to discuss instances of gendered algorithmic interpellation and resistance as mutually constitutive.

Scholars have considered media (both "old" and "new") as key mechanisms of interpellation (Cohn, 2019). Feminist scholars have long demonstrated how certain shows and programs interpellate women through sexist discourses. Radway's (1984) classic study of why women read romance novels--which inspired the title of this study--also showed the centrality of these novels in addressing cultural anxieties, fears, and needs of readers that resulted from their social and familial position.

The framework of gendered interpellation can fruitfully be applied to the case of Netflix. Some have celebrated the variety of content available on the platform that was written, produced, and starred by women (Bucciferro, 2019). Instead, others have shown important continuities between Netflix's "original" productions and gendered norms that "reaffirm hegemonic discourses through [shows that] disguise [themselves] as ironic and progressive social critique" (Rajiva & Patrick, 2019, p. 3).

For the most part, studies have concentrated on Netflix's role as a content producer. But in addition to this role (which connects the platform to television studies), Netflix is *also* a particular technological infrastructure (which links it to technology studies). Netflix is both television *and* new media. As Lobato (2019) puts it,

> Netflix is a shape-shifter: it combines elements of diverse media technologies and institutions. [...] In its dealings with government, Netflix claims to be a digital media service--certainly not television, which would attract unwelcome regulation. Yet, in its public relations, Netflix constantly refers to television, because of its familiarity to consumers. (p. 43)

Thus, interpellation operates at two simultaneous levels in Netflix: the media texts or discourses that present users with certain subject positions; and a socio-technical system that works to

interpellate specific individuals. Although studies have focused on the former dimension, the latter aspect has received comparatively less scholarly attention. This paper sets out to explain how a group of women in Costa Rica both responded to and resisted algorithmic gendered interpellation in practice.

Research Design

Our analysis draws on 25 interviews conducted with Netflix users in Costa Rica. We began by sharing a call for participants on social media profiles of the university where the research was conducted. Our main sampling criterion was sociodemographic variety. We specifically sought individuals of different ages, occupations, backgrounds, and experience with the platform. In this way, we sought to diversify the experiences that served as the basis for our study but make inferences only about the group of people that were part of this sample. We selected a group of 25 people for interviews among respondents to our call. The age of interviewees ranged between 19 and 58 years old. Half our interviewees were younger than 30 years of age and the other half were between 30 and 58 years old.

According to Lobato (2019), access to the platform is not equally distributed across the world. In Costa Rica, middle and upper classes are the primary users of Netflix (Red 506, 2018). Although some interviewees preferred not to reveal their approximate monthly income, we would characterize our sample of respondents as middle-class. Most of our respondents were educated in a variety of professions.

We conducted interviews in person at our university between March 2019 and February 2020. Conversations lasted for an average of 35 minutes. We recorded these interviews upon the approval of each interviewee and transcribed them in their entirety. We use pseudonyms to

protect the identity of our respondents. (These interviews were conducted in Spanish. All translations are our own.) Conversations focused on the history and practices of Netflix use, but also included discussions of people's backgrounds and social contexts.

We also used a version of the "scrollback technique" advanced by Robards and Lincoln (2017) to supplement our interviews. This method fosters user participation through explanations of certain particularities of their "profiles" on different platforms. In Robards and Lincoln's (2017) words, this technique "'brings to life' the digital trace, capturing the specific context(s) and contours within which our participants are using [a platform] to make disclosures that we could not intuit without them present" (p. 720). Informants thus become co-analysts of the digital traces they have left over their use trajectory.

Upon their approval, we asked informants to open their Netflix "profiles," which were projected on a screen so that interviewers could see them. We then asked interviewees to describe the main configurations of their "profiles" on this platform. We also asked them to discuss specific examples of recommendations they had received and requested analytical descriptions of their accounts and practices. We captured videos and screenshots constantly for the purpose of posterior analysis. In this way, we triangulated data sources, such as verbal descriptions of interviewees, videos, images, and texts available on users' "profiles."

We analyzed the different data in a grounded theory manner. We combined rounds of individual and collective coding to further develop inductive categories and patterns. During a first round of coding, we individually identified how people accounted for algorithmic recommendations on Netflix. We conducted a collective second coding round in which we compared similarities and differences in our initial analysis. Finally, we carried out a third round of collective coding to aggregate the data into the four dynamics of interpellation that we discuss

in the next section. These dynamics capture the main patterns and relationships we found in the data.

Women, Netflix, and Interpellation

All our interviewees were avid Netflix users. By their own estimation, they spent at least one hour daily watching content on the platform on weekdays (and more over the weekends). Despite some critiques, they recognized themselves as satisfied Netflix users. Most have used Netflix for several years. Student interviewees usually used a household Netflix account; those who were professionals or earned a salary paid instead for these accounts. Only a few interviewees explicitly stated to averse romantic content. For the most part, they acknowledged certain interest in this kind of content. This is not to suggest that they *only* watched romantic content. Instead, they asserted they have a relatively wide variety of interests.

Personalized Interpellation: "Who is Watching?"

A key in algorithmic interpellation is the notion that Netflix is offering algorithmic recommendations to each specific user in a personal(ized) manner. This dynamic of interpellation operates through a process that can be defined as "mutual personalization" (Siles et al., 2019a): users work to turn the platform into a reflection of their identities, while they also treat the platform as a person or, in Althusser's terms, a Subject.

Netflix's interface is designed to make users feel they are receiving content that has been prepared exclusively for them. Althusser's classic interpellation formula, "Hey, you there!" is enacted through the mandatory process of creating a "profile" on the platform. Thus, the first question that Netflix asks users is, "Who is watching?" (See Figure 1). This invites users to

recognize themselves as interpellated subjects. All our interviewees had an individual “profile,” except for one person (who shared it with her husband). Users tended to name these “profiles” after themselves and to choose specific avatars among Netflix’s pre-selected image catalog. Practically all those who selected images (rather than the default smiling face) chose an image of a woman. Fernanda, the Communications Director of a transnational enterprise, selected the avatar shown in Figure 1. She explained: “I don’t know if there is an equal number of male and female [avatars], but this is the only female *morena* (brown skin) avatar there is [there is].” Users typically searched for an image that best captured a defining feature of their selves and identities (whether a physical attribute or a personality trait). Fernanda thus challenged Netflix’s default setting by choosing the only female character available in the catalog that is not White. This practice reinforces the notion that the platform is a reflection of their personality and self.

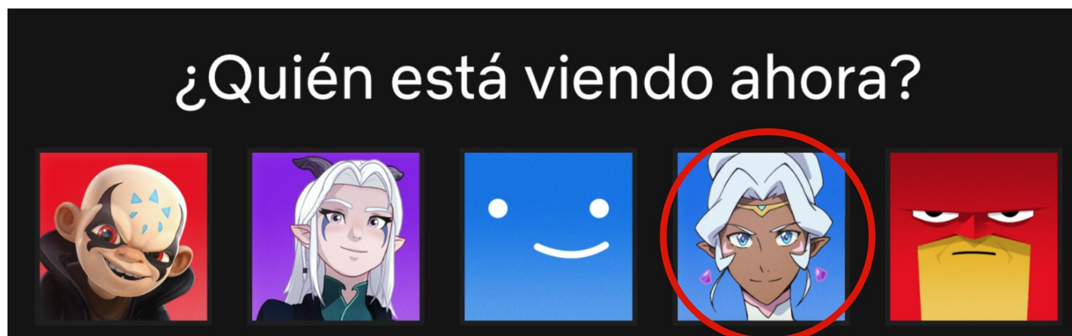

Figure 1. Fernanda’s *morena* female avatar

Answering the question “Who is Watching?” then paves the way for other interpellation mechanisms on the platform’s interface. The content is displayed under sections such as, “Continue watching for *you*,” “Recommended for *you,*” “Top Picks for *you*,” and “Because *you* watched” (emphasis added). Using “profiles” confirms the belief that personalization is Netflix’s most distinctive feature. Natalia, a 20-year-old college student, noted: “I once used my mother’s profile by mistake, and everything looked different. I said, ‘These are not *my* recommendations.’

I realized then how personalized *my* algorithm is" (emphasis added). In this account, personalization also feeds a sense of possession. Users reached similar conclusions when they compared Netflix to other platforms. Elisa, a 40-year-old professional photographer, asserted: "Have you watched HBOGo? It doesn't show you [personalized content], only the "Most Viewed." I don't understand why. I would never watch those things! Netflix, instead, is super personalized." She thus defined content for *everybody* as the opposite of suggestions made exclusively to *her*.

Interviewees indicated they regularly provide the platform with "feedback" to improve *their* recommendations, such as the "Thumbs Up" and "Thumbs Down." Natalia, the college student, noted, "[Rating content] is something I try to do often. I've 'liked' many Disney movies or even things I had already seen outside of Netflix, so that Netflix can throw [suggest] similar things at me." Recommendations are thus envisioned as a product of the time "invested" (as one person described it) providing such kind of feedback.

The mutual personalization process also results in the personification of Netflix. Elisa described her relationship with this Subject in a typical manner: "Netflix and I know each other very well, because I do pay attention and heed (*le hago caso*). He then must think, 'Look, she heeded, so I will keep recommending things.'" In this account, Netflix is a *male* Subject who not only communicates with his interlocutors but also rewards them for good behavior.

When asked to explain why they find certain recommendations appealing, many people used expressions that are consistent with the belief that someone is hailing them or talking specifically to them. During the interviews, women often used expressions such as "this recommendation is calling me" (*me llama*) or "it summons me" (*me convoca*) to explain they had found a recommendation appropriate. On these occasions, interpellation is successful:

women find algorithmic recommendations relevant for *them*.

However, the spell of personalization often falls apart and women resist personalized algorithmic interpellation. This can occur for various reasons. The most prominent among interviewees was the feeling that algorithms "fail" constantly, that is, that users were not interested in the content that was suggested to them. On these occasions, they considered algorithmic interpellation to be wrongly addressed to them. Fernanda thus indicated: "[Netflix] comes and recommends something and it's like, 'You have too much information about me to recommend things that you know I won't like. Then why am I giving you my information?'" Fernanda thus spoke back to the all-knowing Netflix Subject to complain about its failures to be up to the mark of the expectations derived from mutual personalization. Yet, many women blamed themselves for Netflix's "failures." In a typical manner, Rosa, a 30-year-old psychologist, noted, "I think I should 'thumb down' [content] that I didn't like so that Netflix [understands]. Maybe I don't teach the algorithm enough." In this way, the obligation to provide Netflix with more explicit "feedback" is incorporated into specific user practices, which reinforces the notion that a conversation is taking place between users and the Netflix Subject.

Interviewees also resisted interpellation when they perceived that recommendations were not "personal" but rather guided by an ulterior reason. This occurred when users noted that popular content was being recommended to them (rather than unique) and, most often, when the platform recommended its own original productions. Carla, a 20-year-old college student, indicated: "What [Netflix] almost always recommends to me are things they produce. I understand they are producing lots of things and many of them are very good, but I feel it's just too much." Underlying such instances of resistance is the realization that Netflix operates by considering users not as people but rather as "profiles." Accordingly, Natalia, the college

student, redefined algorithmic hailing as a reminder that the Netflix Subject's ultimate desire is to control them. She thusly expressed what she actually hears when she is interpellated: "This is the kind of consumer that we [Netflix] know you are, and this content was made by Netflix, so watch it."

According to interviewees, their most common form of resisting interpellation is to disregard failed recommendations. Elisa, the photographer, expressed it in a telling way: "I just ignore [such recommendations]. It's not like I'm going to get into a fight with Netflix!" This assertion reveals the sense of patriarchal structure that is embedded in users' understanding of Netflix's algorithms. Elisa's words suggest that she has learned to work around the Netflix Subject rather than aggravating *him.* The statement also suggests that resistance is almost never aimed at transforming the structure of algorithmic interpellation on which Netflix operates.

Bundled Interpellation: On "International Romantic Cheesy Series"

Scholars have argued that genres function as "interpretive contracts" between producers and audiences through which certain expectations are defined around the meaning of media texts (Livingstone & Lunt, 1994; Siles et al., 2019b). But the role of genres is problematized in Netflix's algorithmic interpellation. Netflix includes multiple features as part of recommendations, including images, names of categories, content descriptions, recommendation percentages, and icons of thumbs to reinforce the suggestion, among others. In short, Netflix does not offer a single recommendation but rather bundles of features aimed at interpellating users in specific ways. Figure 2 exemplifies how Netflix recommended its original series, *Anne With an "E,"* to four different interviewees: 2a) 39-year-old business administrator (Paula); 2b) a 39-year-old university professor in human rights (Ema); 2c) a 25 years-old miscellaneous worker

(Inés); and 2d) a 19-year-old engineering student (Marcia).

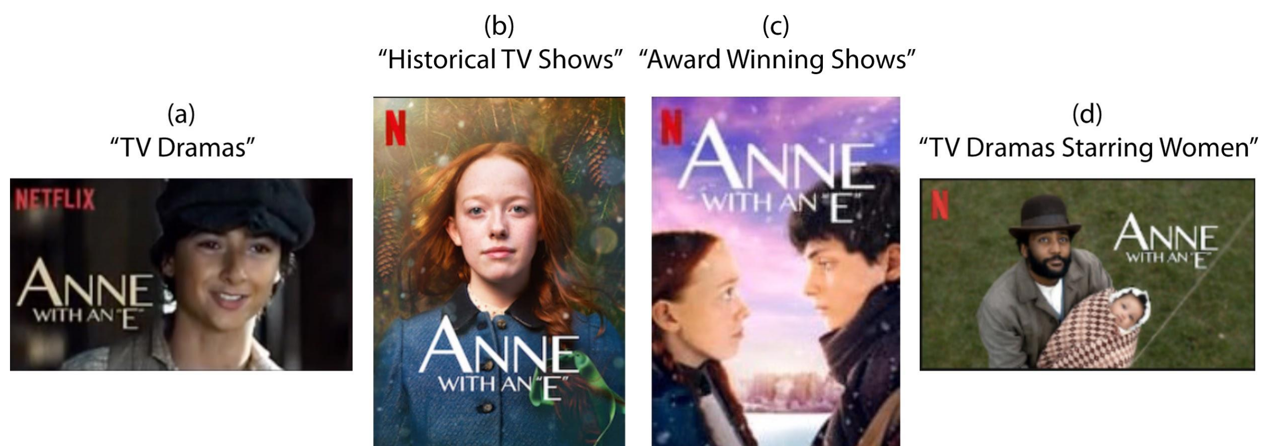

Figure 2. Four algorithmic bundles of *Anne with an "E"*

In a similar manner, we found Netflix's original series *Las Chicas del Cable* (*Cable Girls*) recommended in sixteen different categories in our interviewees' "profiles," some of which were tied to romantic ideas ("Cheesy Shows in Spanish" or "Emotional European TV Dramas") while others were not ("Historical TV Shows" or "Binge-worthy European TV Shows"). The categories "Trending Now," "Netflix Originals," "Popular on Netflix," and "Recently Added" were common to all our interviewees. The other algorithmic bundles varied from person to person. Some of the bundles that interviewees received centered specifically on romantic content but, for the most part, series and movies of this kind were included in all types of categories.

Women often applied generic rules to evaluate these algorithmic bundles. The most common traditional genre these women mentioned was the "romantic comedy" (or "rom-com"). This kind of content was appealing to many women, regardless of their age. Mariana, the labor lawyer, noted: "Romantic comedies are what I like the most. Also, movies about espionage because they have their romantic side." Both younger and older women idealized romantic comedies produced in Hollywood in the 1990s (to which they often referred as "classics").

Carolina, a 21-year-old public relations specialist, argued that what distinguished these movies was how certain actresses portrayed specific female characters. In her words, "a romantic comedy is [always] the same. But I love the actresses. I know that I must have some kind of connection [with them]."

Radway (1984) explained the appeal of romantic love thusly:

> [Romance] creates a time or space within which a woman can be entirely on her own, preoccupied with her personal needs, desires, and pleasures. It is also a means of transportation or escape to the exotic or [...] to that which is different. (Radway, 1984, p. 61)

This assessment applies neatly to the experience of the Costa Rican women we interviewed. They noted that romantic comedies offered them with a narrative that interpellated them for various reasons. Fernanda expressed this idea eloquently:

> I believe that [Alfonso Cuarón's movie] *Roma* has the same value that a romantic comedy has. I would even say that the romantic comedy touches more fibers than *Roma*. I think there is a much more universal language in romantic comedies than there is in an Oscar-winning auteur film.

Fernanda thus emphasized the affective value of romantic movies by suggesting that they elicit strong feelings that connect her with others. Other women stressed hedonic reasons. Viviana, a 20-year-old college student, blended the pleasures derived from movie watching and from eating as equal forms of escaping the burdens of daily life: "If I am very tired mentally then I look for some kind of snack, like popcorn or seeds, and then I sit on my bed, turn the TV on, and put on a 'chick flick.'" The fact that this "universal language" is repetitive provides them with a sense of control over such conditions. Viviana continued:

> They're very predictable, you know what is going to happen. But it is still nice to have the feeling you get when character 1 says to character 2 that she loves him, and then comes a passionate kiss. I like that a lot, the happiness, the positive feeling it conveys.

Our interviewees thus found opportunities for escape, pleasure, and control that resulted from their social position as middle-class women in Costa Rican society.

Netflix's interpellation worked successfully when women felt that such bundles of symbolic features conveyed a meaningful recommendation that allowed them to fulfill their expectations. Yet, on other occasions, when they thought that an interpretive contract had been broken, they tended to resist such forms of hailing. This process of interpretive contract breach was nowhere clearer than in interviewees's relationship to Netflix's particular "alternative genres," categories that are unique to the platform where specific recommendations are included. Most categories recommended to our interviewees were of this kind. "Alternative genres" typically contain traditional generic cues (such as "dramas" and "comedies") but problematize them in specific ways. For the most part, users found these categories confusing. Carla, herself an audiovisual production college student familiarized with genre theory, maintained: "[This category] says it's [about] 'Women Who Rule the Screen,' which is something way too specific. I find that to be funny, but also a bit creepy." Here, the expectation is that genres should be both general (in order to incorporate variety) and specific (so they can be easily recognized). Many women we interviewed interpreted Netflix's alternative genres as privileging specificity over their expectation of universality.

Interviewees also criticized the lack of clarity in the criteria that tied together the content included in alternative genres. When these criteria were not clear, alternative genres lost interpellation power. Elena, a 24-year-old woman who works in a political non-governmental

organization [NGO], thus expressed, “The categories [Netflix] creates are plain stupid.” Like many other users, Elena felt these categories lacked common sense as organizing principles (the way a genre should). When this occurred, women indicated they lost interest in algorithmic recommendations. “Thanks for showing me something I know I won’t want to watch!,” concluded Carla.

A common resistance strategy was to mitigate the interest in the kind of romantic content that was offered to interviewees in algorithmic bundles. Our group of informants distinguished not only between types of romantic content (drawing on generic cues such as “comedy” or “drama”) but also between their degree of intensity. From this perspective, Netflix promotes a form of content that is felt as extreme. When asked why she was not interested in the “International Romantic Cheesy Series” category recommended to her despite her interest in romantic content, Inés, a miscellaneous employee, noted, “First of all, because it is too cheesy (*meloso*). I mean, I like romances but not what is cheesy.” This mitigation strategy also allowed some interviewees to keep their interest in romantic content within the realm of what they thought was socially acceptable.

Interviewees also resisted the meaning conveyed by certain images, content descriptions, and category names that bundled algorithmic recommendations. These interpellation devices usually failed because interviewees felt that aspects of these bundles revealed biases. According to one person we interviewed: “I feel there is a certain bias when it comes to explaining movies, in their synopsis. [Women] are described completely differently than men.” The expectation of this user is that Netflix should not use algorithmic bundles to favor sexist structures. Moreover, the presence of such biases reminded her that they she was more a consumer “profile” than a person to Netflix.

Ritual Interpellation: "Because You Watched…"

A third interpellation strategy employed by Netflix is to suggest that recommendations are a direct result of users' past behaviors and, therefore, that it is their responsibility to care for them. This strategy works by connecting recommendations to consumption rituals in the lives of women.

Rituals are the systematic activities and practices around which temporal and spatial processes are organized in daily life (Couldry, 2003). Our interviewees reported having various kinds of rituals through which they act[ed] out the centrality of Netflix in their daily life: individual and collective (Siles et al., 2019a, 2019b). In individual rituals, Netflix works as a companion to ordinary activities the same way other media have done in the past. Yet, the possibility to watch content on multiple devices (television sets, smartphones, and tablets) and at different times throughout the day, makes Netflix ideal for this kind of ritual. For example, Mariana noted: "Since I only have time at night, [I use Netflix] when I have my pajamas on and I'm under the blankets. It is like a form of 'before I fall asleep' [ritual]." Users choose specific types of content (mostly shows, although also certain movies) to carry out this ritual.

Collective rituals occur instead at preestablished times in the day and include other participants. In addition to a form of entertainment, they are ways to maintain a bond with someone else. Carla, the college student, stressed the importance of romantic comedies to this end: "I watch romantic comedies with my mom a lot. We sit together and often watch romantic movies." As these words exemplify, some interviewees turned to the "universal language" of romantic content (particularly movies but sometimes certain shows) to cultivate an interpersonal connection that is meaningful to them. For Carla, romantic content has the capacity to

interpellate women from different generations and from cultural backgrounds in places such as Costa Rica. This ritual is thus structured in particular ways: women reported to watch romantic content specifically with other women (family, partners, and friends).

We also identified another type of practice that bridged individual and collective rituals. Many women indicated that they watch certain shows simultaneously (mostly with girl friends) at a distance. Thus, this ritual is individual (because the user is alone when she watches the content) but also collective (because someone else is doing it simultaneously somewhere else). Interviewees referred to this practice by using terms such as having a "Netflix party," referring to the extension for the Google Chrome browser that allows users to watch Netflix remotely with other people. Carla explained: "We don't share a physical space to watch [content], but along with a girl friend, we watch shows at the same time." Conversations about content watched with others take place synchronically and asynchronically both through messaging apps and in person. Romantic comedies proved once again central for carrying out this ritual. When asked to explain how she chose content for this ritual, Carla responded: "[it depends on] whether it sounds like it is a movie I would watch with my mother." Women thus argued that they evaluated algorithmic recommendations based on their potential to fulfill rituals.

For Althusser, "the most significant feature of [ideological apparatuses] is that they all present themselves as socially neutral, as not favoring one particular class over any other" (Fiske, 1992, p. 216). In a similar manner, Netflix presents itself as neutral by suggesting that, through algorithmic recommendations, it merely reflects previous choices of individuals. With its iconic category "Because You Watched..." (Figure 3), Netflix frames algorithmic recommendations as a causal result of previous user actions and behavior patterns. Figure 3 shows an algorithmic bundle displayed on Marcia's profile. It associates the consumption of Netflix's romantic movie

Love is Blind with notions of dating, traditional wedding rituals, wealth, Latina womanhood, and kindness.

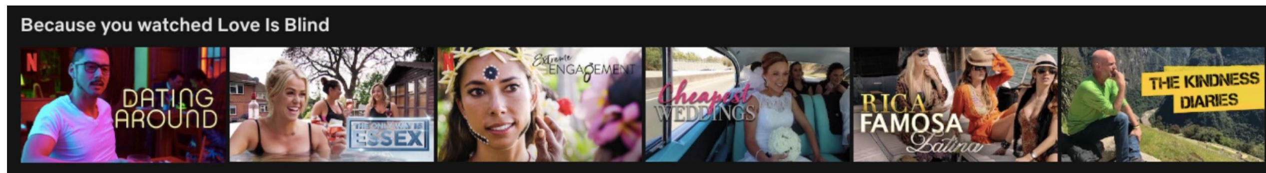

Figure 3. Algorithmic bundle derived from content previously watched by Marcia

When interpellated in this way, interviewees accepted some recommendations as a natural consequence of their consumption rituals. During the interviews, a typical way to explain why users thought they had received certain recommendations was to say, as one person did, "It's because I've led to this." Accordingly, many interviewees incorporated the care of the platform as their responsibility and protected their "profiles" from external "contamination" or the possibility that algorithms recommended content based on the practices of other people rather than their own.

As with other interpellation dynamics, women also resisted the notion of algorithmic recommendations as a causal product of their consumption rituals. On some occasions, they questioned Netflix's neutrality by recognizing temporal patterns behind the recommendations. Thus, Inés, who defined herself as very interested in romantic content, distanced herself from certain suggestions she received by noting, "This is not permanent. It [Netflix] is showing it because Valentine's is close." She thus noted a commercial bias to promote certain content that did not derive precisely from her own rituals and practices but rather from an external cause. Interviewees also strategically compartmentalized recommendations based on the rituals they

sought to carry out. In this way, they downplayed the relevance of recommendations by showing that they were not appropriate all the time and for all circumstances.

Calculated Interpellation: "Top Picks for You"

Another interpellation dynamic is the notion that Netflix is not making random recommendations to users but rather calculating them through unspecified but sophisticated computational procedures. The more our interviewees thought they understood how and why Netflix calculated data inputs to make recommendations, the more receptive they were to such recommendations.

Users explicitly mentioned their folk theories to discuss how they think Netflix calculates recommendations. These theories derive from their experiences with the platform. Interviewees said they had never searched for technical explanations about algorithmic recommender systems or Netflix in particular. Yet, many women explicitly used the term "algorithm" when they put forth their own theories of the platform.

The most common theory about how interviewees think that Netflix recommends them content is by establishing patterns of association between what they have already seen and "similar" kinds of content. Natalia, the college student, summarized this belief: "If it [Netflix] knows that I watch animation, it will suggest animation; if it knows that I watch 'teen drama,' that is what I will get. That's how it gets me with its algorithm." In a similar manner, Valentina, a 20-year-old Psychology student, stated: "I suppose [Netflix] has something like a system: if I saw this show, it will recommend similar things to me, based on the genre or the plot." Users thus believe that the Netflix Subject "knows" with absolute certainty what users have done on the platform and recommends content that reproduces generic patterns with mechanical

predictability.

Interviewees also explained algorithmic interpellation by stressing similarities in technical or formal aspects of the content. Carolina, the public relations specialist, explained why she thought she was being suggested a certain film:

> I think that [Netflix] is throwing me [this recommendation] because I liked *To All the Boys I've Loved Before*. I like the photography of that movie. The content is garbage, but I love the photography, the colors. There is a pattern behind all this.

Carolina thus thought that Netflix could link together media texts with certain kinds of "colors." Other women interpreted that Netflix established patterns of similarity between specific actors and actresses and recommended content accordingly.

In addition to folk theories that centered on issues of similarity, interviewees argued that Netflix's capacity to recommend content also stemmed from surveillance practices. Elena, the NGO employee, was among the most vocal defenders of this theory. She articulated it in the following manner:

> I have the theory that [Netflix] is spying on us through the microphone [of cell phones]. Not only does it gather data from what you have seen and what you rated, but also from the access it has to our phones. It makes weird associations based on this.

To support her theory, Elena narrated anecdotes of how Netflix had recommended shows to her that could not be explained in any way other than because it had eavesdropped her conversations during the day. Like Elena, other women believed that what they had read or expressed on social media platforms, such as Facebook and Instagram, often had repercussions on the algorithmic recommendations they had received.

For users, folk theories have the status of certainties. This assurance comes from using

the platform regularly and noticing certain patterns in Netflix's operation. Elena thus noted, "I *know* that [Netflix's] algorithm uses it [information about what she has watched]. Therefore, I am interested in giving it the [right] information so it can recommend things to me that I really like" (emphasis added). In this way, folk theories create fertile grounds for interpellation. Interviewees welcomed algorithmic suggestions that they interpreted as accurate calculations of their data inputs. Elisa's words are worth quoting at some length:

> I do let myself be influenced [by Netflix's] patterns. Netflix recommends things based on what you have already watched. It thus knows what is recommendable. [...] When Netflix shows me a [recommendation] pattern, I heed and watch it. I don't depart from my algorithm. I don't dare to watch something completely different [from algorithmic recommendations].

This assertion reveals the force of Netflix's calculated interpellation. Elisa willfully puts herself in a position to be interpellated because she is convinced that Netflix "knows" with precision what will be of interest to her. By using the term "pattern," she suggested that recommendations are not random occurrences but personalized calculations made for her (hence "*my* algorithm"). She framed her relationship with the Netflix Subject in terms of obedience and thus pledged submission to the algorithm.

However, this form of interpellation is also vulnerable. Interviewees questioned algorithmic recommendations mostly when they weren't able to decipher the criteria that substantiated them. Referring to content recommended to her at the time of our conversation, Elena noted: "I practically never consume such things. I don't know why [Netflix] is throwing it [recommending it] to me. The algorithm must be categorizing it as 'similar' for me or as something 'general'. But that doesn't mean anything to me." The premise behind this assertion is

that Elena would be in a better position to assess an algorithmic suggestion if she could better understand why she is receiving it. Regarding what she thought was a failed recommendation on her "profile," Carla similarly maintained: "This means nothing to me. I would have to understand what it's all about in order to understand what [Netflix] is trying to say to me." Carla did recognize the recommendation as an interpellation from Netflix but argued that she needed more clarity about the criteria that were used to make it in order to respond to such hailing.

Finally, interviewees resisted not only recommendations that seemed unfounded but also those that they interpreted as a glitch in the system. According to the group of women we interviewed, Netflix's most common "failure" is to offer them content they have already watched. Even Elisa, the obedient follower of algorithms, protested about this: "This [movie] keeps popping out! I hate it! This movie has been shown to me way too many times!" Although some exceptions are applied to series for their potential to carry out certain rituals, interviewees tended to interpret Netflix's insistence on watching films more than once as a failure rather than a strategy informed by algorithmic calculation. After all, they suggested, Netflix should know them better.

Concluding Remarks

This paper has examined the relationship between gender and algorithms by analyzing the experiences and practices of a group of Costa Rican women with Netflix. Research on this issue has mostly concentrated on the internal biases of algorithms. To be sure, we found evidence of such biases in the recommendations that interviewees received. But we also broadened knowledge of this relationship by analyzing how a group of women made sense of Netflix's algorithmic recommendations in their daily life. Through interviews and the use of the

"scrollback technique," we showed how these women in Costa Rica responded to gendered algorithmic interpellation by both recognizing themselves as addressees of certain discourses but also by resisting them.

The four dynamics of interpellation we discussed created fertile grounds for the acceptance of particular algorithmic recommendations. Personalized interpellation is key in establishing the belief that Netflix users are receiving recommendations that are uniquely addressed to them. Netflix's interface has been strategically designed to promote this belief. Offering recommendations as part of bundles of features then augments the number and type of symbols that are used to interpellate Netflix's users. Individually, any part of these bundles can make content appealing. Combined, these features make algorithmic bundles a powerful source of hailing. Ritual interpellation promotes the notion that whatever recommendation users receive is a causal product of their past behavior. In this way, Netflix naturalizes certain recommendations and also hides its role in the interpellation process. Finally, Netflix's hailing operates by suggesting that a sophisticated computational system is making recommendations. When users think they understand how this system works, they become more receptive to these recommendations.

Throughout interpellation, Netflix constantly relied on established cultural structures to reproduce certain meanings around gender. In its algorithmic bundles, Netflix often promoted associations between certain conceptions of gender, romantic love, marriage, dating, and Latina womanhood. Thus, through interpellation, algorithmic recommendations can become important means to exploit and worsen gendered structures by naturalizing the notion that sexist discourses that are recommended to women are the causal product of their own behavior on the platform and are calculated for them in a personal and sophisticated manner.

Yet, gendered algorithmic interpellation is always vulnerable. Our interviewees constantly ignored and resisted these forms of interpellation for various reasons. They rejected recommendations when it became clear to them that the Netflix Subject did not consider them as persons but rather as "profiles." This typically broke down the spell of personalization. In a similar manner, our interviewees often resisted algorithmic bundles that diverged from interpretive contracts around certain genres. This turned Netflix's algorithmic bundles (such as so-called alternative genres) into sites of constant symbolic struggle. Likewise, interviewees challenged the premise that the suggestions they received were a natural consequence of their rituals when they identified a bias or commercial interest in the promotion of certain kinds of content. Calculated interpellation was also subjected to disruptions when users criticized the lack of clarity in the logic that guided algorithmic recommendations and when they interpreted certain suggestions as a glitch in Netflix's system.

Following Butler, Gambetti, and Sabsay (2016), we argued for theorizing both successful interpellation and resistance as mutually constitutive processes that need to be examined in tandem rather than separated (Siles et al., 2020). Thus, understanding whether and how Netflix systematically reproduces gendered social structures requires considering not only the platform's biases and affordances (as has been the dominant approach in the literature), but also how women create meaning from their practical experience with technologies such as algorithms.

Gendered algorithmic interpellation also provides scholars with an analytical device that can be applied to other technologies and practices. This is because many platforms nowadays draw on these interpellation dynamics to naturalize certain kinds of content and technological features. TikTok, for example, exploits the notion of personalization to promote content by "suppress[ing] posts created by users deemed too ugly, poor, or disabled for the platform"

(Biddle, Ribeir and Dias, 2020, par. 1). Spotify relies heavily on algorithmic bundles that assign particular roles to men and women to promote a utilitarian relationship with music. With this study, we hope to provide tools that can help to better identify how such forms of interpellation work in contemporary media systems and how women subvert them.

References

Althusser L (2014) *On the reproduction of capitalism: Ideology and ideological state apparatuses*. London: Verso.

Biddle S, Ribeiro PV and Dias T (2020) Invisible censorship. Available at: https://theintercept.com/2020/03/16/tiktok-app-moderators-users-discrimination/ (accessed 18 April 2020).

Brayne S and Christin A (2020) Technologies of crime prediction: The reception of algorithms in policing and criminal courts. *Social Problems* (OnlineFirst): 1–17.

Brock Jr A (2020) *Distributed blackness: African American cybercultures*. New York: NYU Press.

Bucciferro C (2019) Women and Netflix: Disrupting traditional boundaries between television and film. *Feminist Media Studies* 19(7): 1053–1056.

Butler J (2016) Rethinking vulnerability and resistance. In: Butler J, Gambetti Z and Sabsay L (eds) *Vulnerability in resistance*. Durham: Duke University Press, pp. 12–27.

Butler J, Gambetti Z and Sabsay L (eds) (2016) *Vulnerability in resistance*. Durham: Duke University Press.

Chhabra S (2017) Netflix says 80 percent of watched content is based on algorithmic recommendations. Available at: https://mobilesyrup.com/2017/08/22/80-percent-netflix-shows-discovered-recommendation/ (accessed 18 April 2020)

Cohn J (2019) *The burden of choice: Recommendations, subversion and algorithmic culture*. New Brunswick: Rutgers University Press.

Couldry N (2003) *Media rituals*. London: Routledge.

Eriksson M and Johansson A (2017) Tracking gendered streams. *Culture Unbound: Journal of*

Current Cultural Research 9(2): 163–183.

Fiske J (1992) British cultural studies and television. In: Allen RC (ed) *Channels of discourse, reassembled: Television and contemporary criticism*. London: Routledge, pp. 214–245.

Livingstone S and Lunt P (1994) *Talk on television: Audience participation and public debate*. London: Routledge.

Lobato R (2019) *Netflix nations: The geography of digital distribution*. New York: New York University Press.

Noble SU (2018) *Algorithms of oppression: How search engines reinforce racism*. New York: New York University Press.

Radway J (1984) *Reading the romance: Women, patriarchy, and popular literature*. Chapel Hill: University of North Carolina Press.

Rajiva M and Patrick S (2019) "This is what a feminist looks like": Dead girls and murderous boys on season 1 of Netflix's You. *Television & New Media* (OnlineFirst): 1–18.

Red 506 (2018) *Red 506*. San José, Costa Rica: El Financiero.

Robards B and Lincoln S (2017) Uncovering longitudinal life narratives: Scrolling back on Facebook. *Qualitative Research* 17(6): 715–730.

Schwartz B and Neff G (2019) The gendered affordances of Craigslist "new-in-town girls wanted" ads. *New Media & Society* 21(11–12): 2404–2421.

Siles, I., Espinoza, J., Naranjo, A., & Tristán, M. F. (2019a). The mutual domestication of users and algorithmic recommendations on Netflix. *Communication, Culture & Critique*, *12*(4), 499–518.

Siles, I., Segura-Castillo, A., Sancho, M., & Solís-Quesada, R. (2019b). Genres as social affect: Cultivating moods and emotions through playlists on Spotify. *Social Media + Society*,

5(2), 1–11.

Siles, I., Segura-Castillo, A., Solís-Quesada, R., & Sancho, M. (2020). Folk theories of algorithmic recommendations on Spotify: Enacting data assemblages in the global south. *Big Data & Society*, *7*(1), 1–15.

Swidler A (2001) *Talk of love: How culture matters*. Chicago: University of Chicago Press.

Wachter-Boettcher S (2017) *Technically wrong: Sexist apps, biased algorithms, and other threats of toxic tech*. New York: W. W. Norton & Company.

Wajcman J (2004) *Technofeminism*. Cambridge: Polity.

Werner A (2020) Organizing music, organizing gender: Algorithmic culture and Spotify recommendations. *Popular Communication* (OnlineFirst): 1–13.