ALGORITHMIC WOMEN'S WORK: THE LABOUR OF NEGOTIATING BLACK-BOXED REPRESENTATION

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Introduction: Made in data

Increasingly, commercial web platforms seek to algorithmically categorize their users into complex yet dividuating datasets: users are profiled as 'male' or 'female', 'married' or 'single', 'first-time buyers' or 'renters' or any number of other demographic segments, who are then inferred to interested in 'dogs', 'cats', 'small kitchen appliances', 'feminism', 'maternity', the list similarly goes on. Critical approaches theorise the ways in which the social subjects profiled are not just reflected in data but might be performatively constituted by them: such processes create 'algorithmic identities' (Cheney-Lippold, 2017, 5), and 'database subjects' (Jarrett, 2014, 27). This paper takes forward claims that the 'algorithmic self' plays a powerful role in how identity is constituted, yet considers this constitution as a black-boxed, market-driven form of commodification (Kant, 2020). I argue that under the proprietary logics of the contemporary web, 'algorithmic identities' function as value-generating constellations that unequally and opaquely distribute the burdens of being constituted in data. This paper will ask: how do platforms such as Facebook and Google value their users as datafied, profit-generating subjects? Are all data subjects valued equally, or are some more equal than others? Finally, what can the 'user herself' know, and indeed trust, about her algorithmic constitution, and what kind of 'force relations' (Bucher, 2016) do such forms of knowledge production create outside of the algorithm at the level of everyday representation?

The paper considers these questions through the examination of a particular identity demographic: the algorithmically inferred 'female', based in the 'UK', 'aged 25-34'. Though other algorithmic profiles certainly exist (and generate their own critical problems), I use this particular template of subjectivity to explore issues of

representation, black-boxing and user trust from a gendered perspective. I centre on the topics of women's fertility and pregnancy, specifically analysing the online targeted ad campaigns of Clearblue Pregnancy Tests and the Natural Cycles contraception app. I have chosen these campaigns because both have generated controversy in some form. Clear Blue Pregnancy Test ads have been met with a plethora of negative reactions online – with those who have been delivered the ad calling it 'annoying', 'insulting' and 'inescapable' on Twitter threads and Reddit forums. Ads for the Natural Cycles contraceptive app do not have seem to have created the same user-generated scorn, yet were temporarily banned by the ASA (Advertising Standards Authority) following complaints of unplanned pregnancies among app users. These controversies, I argue, are underpinned by issues surrounding gender representation that emerge in part because of the black-boxing which occurs in personalised advertising. I argue that black-boxing occurs at two stages in this process: firstly when the subject is computationally constituted as female (i.e. in the database) and secondly when the user herself is delivered the ads informed by her algorithmic identity (i.e. at the interface). This black-boxing creates implications for user trust, representation and labour, as I explore below.

Methodology and indicative findings

This paper combines audience reception with political economy to ascertain how the fertile female is a) made in data and b) comes to confront the 'user herself' (Gillespie, 2014) through personalised advertising. I chart my attempts to obtain delivery statistics that show exactly how many social media users have seen these ads, how many times they have seen them, and how these users were deemed to interested in fertility products.

As scholars such as Brunton and Nissenbaum (2015) have noted, obtaining commercial datasets has been historically been difficult or impossible: the proprietary imperative of commercial data aggregators means that it is only those who are willing to work with the logic of commerce that have been awarded access to data. My endeavours to 'get at' fertility datasets have (at the time of writing) proved similarly unsuccessful: despite requests from Clearblue and Natural Cycles, Google, Facebook, iSpot Analytics, Neilsen and Comcast (some of the actors that might have access to such statistics), I have been unable to obtain any statistics. Perhaps most notably, industry regulators such as the Advertising Standards Authority do not have access to such data, despite the fact the Natural Cycles app ads were banned in the UK for a short time. Though unsurprising, the black-boxing of such processes can be analysed as more than just an issue of 'transparency' – I will argue that confronting such ads opens up critical questions regarding how representation can be theorised when ad delivery is so individualised, ephemeral and hard to trace.

Critical framework and indicative discussion

I consider Cheney-Lippold's (2017) claim that being made in data might be politically liberating: Cheney-Lippold argues that because algorithmic 'identity is beholden to algorithmic fit, not the disciplinary confines of political identity' (2017: 66), the algorithmic self might be considered open to 'post-identity politics'. Thus, to be algorithmically identified as 'male' when one is cultural identified as 'female' reconstitutes not just users' selfhood but can perhaps productively redefine normative categories of identity in themselves. I consider this claim from a market-driven perspective, arguing that though datafication might potentially destabilise established socio-cultural markers of gender, the marketisation of such data means that the algorithmic 'female' comes to be constituted through ideologically entrenched notions of the body that complicate data's potential as wholly abstract means of categorization.

I will explore Cheney-Lippold's claims alongside Bucher's work on the 'algorithmic imaginary' (2016). Bucher employs the term to describe the ways in which users themselves understand, interpret, and engage with the algorithms they encounter on a day-to-day basis but do not 'know' the inner mechanics of. She proposes that 'what the algorithm does is not necessarily 'in' the algorithm as such' (2016, 40) but rather is constituted partly through the imaginaries of the users that encounter the computational. I consider the ways in which the 'algorithmic imaginary' intersects with representations of fertility, through audience responses that suggest web users know they are being targeted, but mistrust the ways in which they are constituted in data.

Turning to theorisations of digital 'women's work', I propose that confronting one's datafied self as a 'fertile female' constitutes a form of immaterial labour (Jarrett, 2015). I argue that consuming female-specific ads should be considered algorithmic women's work – wherein the experience of being algorithmically profiled as 'female' both commodifies user interactions and imposes an unequal burden of socio-technical classification. Though we might *be* data, the ways in which users are constituted as data subjects is distributed differently – and unequally – in web users' everyday engagements. Black-boxing must be critiqued not just from the perspective of privacy invasion but from the perspective of representation, in order to understand how personalised advertising might constitute forms of subjectivity, that for some, come with a heavy ideological burden.

References

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