"WANT BOYFRIEND ✖✖✖": PORN BOTS, AUTHENTICITY AND SOCIAL AUTOMATION ON INSTAGRAM

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Whenever a celebrity posts a photo on Instagram, it is almost inevitable that the first comment on it will be made by a porn bot (Alvarez 2020). Observations of this kind – some focusing on the distorted perception of 'sexiness' and social media authenticity (Thing 2020; Salim 2023), others contesting Instagram's community guidelines prohibiting both nudity and automation (Santos 2023) – have been ubiquitous in online tech reports for years. In academic discussions, scholars usually define porn bots as automated or semi-automated software agents that operate via sexual solicitation to capture attention (Narrang 2019). Twitter porn bots using Not Safe for Work (NSFW) hashtags to advertise commercial links have been addressed in their generic patterns (Paasonen, Jarrett, and Light 2019). Tumblr porn bots have generated significant controversy due to their uninterrupted operation during the platform's so-called 'porn ban' (Pilipets and Paasonen 2020). Within Instagram, as we will show, porn bots continuously intervene in a network of relationships that users forge with the platform, avoiding detection through a range of circumvention tactics. In all these instances, porn bots operate as medium-specific, heterosexually scripted 'personas' (Bucher 2014), demonstrating remarkable adaptability to the platforms' current cultures of use.

What constitutes a porn bot 'persona'?

This contribution explores the platform-specific design of such 'personas' as it registers in the bot-exploited 'Instagrammatics' (Highfield and Leaver 2016) of identity performance, social amplification, and attention capture. We argue that a bot programmed to operate with sexual content to generate attention derives its agency from the paradoxical blend of pornographic 'imagination' and social media 'authenticity'.

Akin to the scripted dynamics known from commercial culture and reality television, authentic engagement on Instagram often involves sexualized identity play in tandem with a self-promotional attitude attached to the cultivation of 'Instafame' (Marwick, 2015). Like their Twitter counterparts, Instagram porn bots display authenticity by blending rigid standards of attractiveness with a strategic emphasis on community-building routines (Assenmacher et al. 2020). In terms of self-presentation, they reflect the 'ready-made conventions of character, setting, and action', which Susan Sontag described in her 1967 essay on 'The Pornographic Imagination'. In operational terms, comments on posts, likes in stories, tags in reels, direct messages, follower-following relations, and disguised links in profile bios present bot operators with multiple opportunities to work with and around platform affordances and constraints (Bucher and Helmond 2018). Ongoing enhancements in Meta's policies (2023) continuously transform the operational landscape for both social automation and sexual solicitation. In turn, bot operators face the challenge of adjusting the accounts' functions, altering the ways in which porn bot agency registers in different contexts. Against this background, the question becomes key: How would a plural conceptualization of porn bot agency operate if we shifted our attention to the situations through which bots become agents?

Methods: Situations and Relations

Methodologically, we expand our focus from studying the situations of porn bots 'in action' to the platform environments and artifacts that make such situations possible (Marres 2020; Guilbeault 2017). For our analysis, we manually identified thirty porn bot accounts spamming in the comment sections of highly visible Instagram posts (those published by Justin Bieber in June 2022) (Figure 1). We then scraped associated metadata – bot profile names and pictures (n=30), bot comments (n=30) and comment likers (n=1297), bot followers (n=15729) and followings (n=4550), bot profile posts (n=150), and links in profile bio (n=28). The research affordances (Weltevrede, 2016) of these metadata derive from the situations that porn bots are designed to be part of and that come with certain API-based (Application Programming Interface) access restrictions but also with some analytical possibilities. In our project, we examine amplified comments, analyze follower-following relations using network analysis, visually explore bot content, and trace the click trajectories of links in the bots' bios.

Identity Performance, Social Amplification, Attention Capture

Our analysis shows how porn bots intertwine common strategies of digital amplification, heteronormative sexual scripts, and social automation, focusing on three interconnected layers of porn bot agency. First, we reflect on bots' strategies of identity performance and gendered representation, contextualizing them within Instagram's ongoing tendency towards deplatformisation of sex (Molldrem 2018; Tiidenberg and van der Nagel 2020). We then connect these findings to how bots exploit Instagram-native ideas of authenticity and visibility (Leaver, Highfield, and Abidin 2019) by exploring the dynamics of following and being followed along with the adoption of automated 'likers' that push porn bots' comments to the top (Figure 1). The utilization of comments like 'want boyfriend XXX!!' posted by clmn_veronica_ and liked by rairebefitsehardbloodliecrit, faecarrrorosibibsouffhenrand and hundreds of others indicates an instant but, from a

platform moderation standpoint, seemingly insignificant rise in porn bot visibility. At the same time, it also elevates the fleeting nature of interactions studied: Bot accounts associated with other bot accounts appear as quickly as they disappear, resulting in the contrast between initially visible and remaining engagements available for scraping.
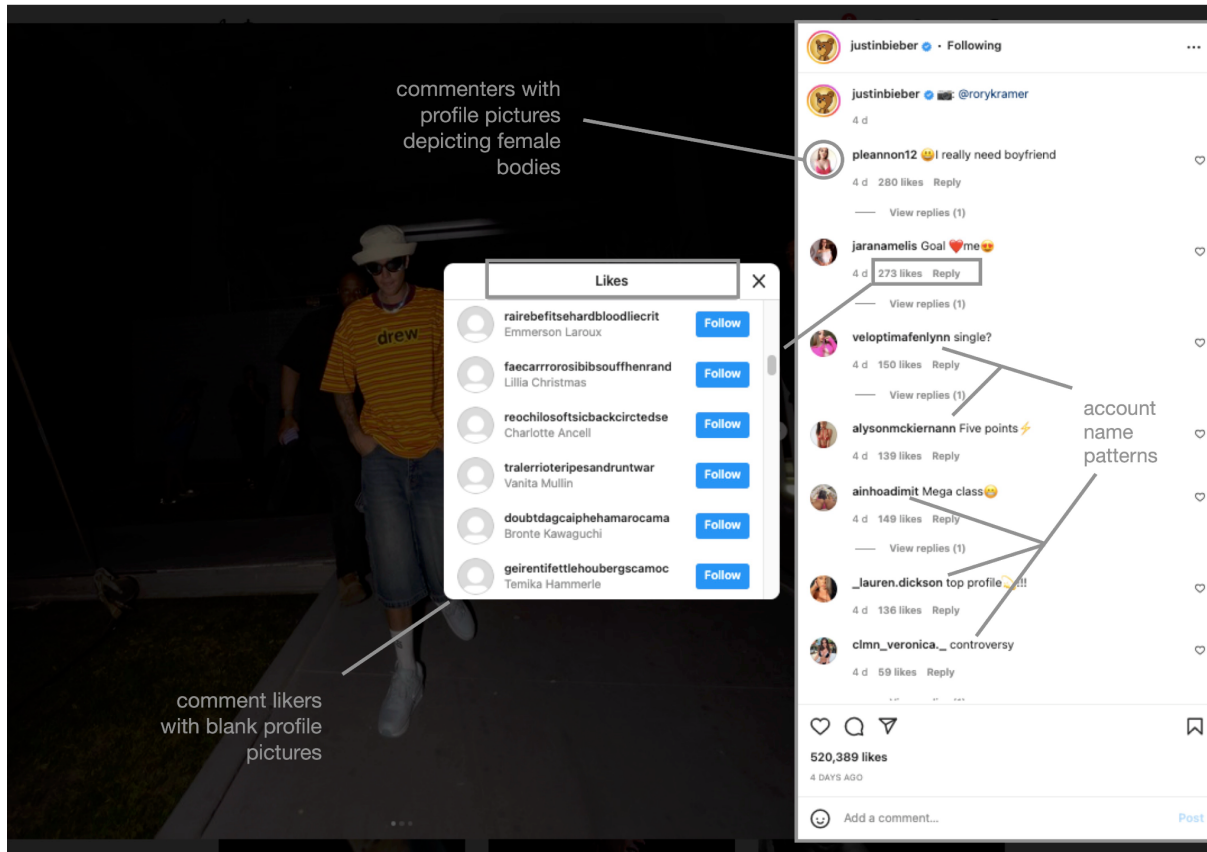

Figure 1: Screenshot of Justin Bieber's post from June 2022

The interplay of these qualities in the construction of a porn bot 'persona' is fueled by the simultaneous de-stabilization and reproduction of Instagram-specific habitats, such as displaying popularity scores (Guilbeault 2016). As with other mechanisms of relational design, bot profiles can be understood not only in terms of their immediate appearance but as contingent upon the engaging potential of user communities populating the platform. Their authenticity is maintained through ongoing management of social relations: Follower (and like) metrics not only facilitate the procedural display of connections but also shape conditions for authentication of what counts as a 'good' or 'genuine' enough profile (Lindquist and Weltevrede 2024).

Finally, by tracing the click trajectories of fraudulent dating sites and their pornographic pre-lander pages, we reflect on the heterosexually programmed characteristics of the 'attention spam' (Lee et al. 2012) initiated by the links in bot profile bios. Here, the

heteronormative excess of 'mildly sexualized' female Instagram profiles plays into the realm of 'pornographic peekaboo' (Paasonen, Jarrett, and Light 2019, p. 52) in which explicit sexual displays are perpetually 'one click away', simultaneously visible and hidden. In the Instagram-mediated situation of spamming Justin Bieber's comment sections, porn bot comments sprinkled with emojis and amplified through automated likes were intended to make users curious enough to look at the profiles and click on the links. Outside of this realm, spammy pornographic pre-landers present an intervention in the control networks of Instagram, relocating the hypothetical audience from the center of a space that typically avoids adult content to its periphery.

Our findings (Pilipets, Caldeira, and Flores 2024) point to how porn bots perform authenticity within a regulated system, in which platform policies stigmatize and valorize engagement, particularly around sexually suggestive content (Tiidenberg and van Der Nagel 2020). We show that—by 'attuning' their appearance to Instagram's vision of 'acceptable' engagement—porn bots reveal this system's double standards (Are and Paasonen 2021). On the one hand, Instagram's terms of service prescribed by Meta (2023) manifest increasingly sex-averse community guidelines in the name of safety (McDowell and Tiidenberg 2023). On the other hand, the unequal governance of user cultures paradoxically allows porn bots to reproduce normative visions of sexuality that continue to thrive on the platform, often at the expense of marginalised communities (Are and Briggs 2023).

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