JOURNAL OF DIGITAL SOCIAL RESEARCH

GOOD STRONG WORDS
VOL 4, NO 3, 2022

GENDER, SEXUALITY, AND EMBODIMENT IN DIGITAL SPHERES

Connecting Intersectionality & Digitality

JOURNAL OF DIGITAL SOCIAL RESEARCH

VOL. 4 : NO. 3 : 2022

JOURNAL METADATA

ISSN
2003–1998

DOI
http://doi.org/10.33621/jdsr

WEB
www.jdsr.io

ABOUT JDSR

JDSR is a interdisciplinary, online, open-access journal, focusing on the interaction between digital technologies and society. JDSR is published by DIGSUM, the Centre for Digital Social Research at Umeå University, Sweden.

CONTACT US

E-MAIL
editor@jdsr.se

JOURNAL OF DIGITAL SOCIAL RESEARCH

VOL. 4 : NO. 3 : 2022

JOURNAL OF DIGITAL SOCIAL RESEARCH

WWW.JDSR.IO ISSN: 2003-1998

VOL. 4, NO. 3, 2022, 1–9

GENDER, SEXUALITY, AND EMBODIMENT IN DIGITAL SPHERES: CONNECTING INTERSECTIONALITY AND DIGITALITY

Sara De Vuyst[a], Evelien Geerts[b] and Ladan Rahbari[c]

ABSTRACT

Gender, sexuality and embodiment in digital spheres have been increasingly studied from various critical perspectives: From research highlighting the articulation of intimacies, desires, and sexualities in and through digital spaces to theoretical explorations of materiality in the digital realm. With such a high level of (inter)disciplinarity, theories, methods, and analyses of gender, sexuality, and embodiment in relation to digital spheres have become highly diversified. Aiming to reflect this diversity, this special issue brings together innovative and newly developed theoretical, empirical, analytical, and critical approaches in the study of gender, sexuality, and embodiment in digital spheres. By connecting intersectionality and digitality to one another, it adopts an integrated approach that reflects the intricacy and interconnectedness of social categories and markers of difference, privilege, performance, and discrimination. The contributions explore a range of differently situated digital cultural practices, including intimate and sexual experiences with(in) digital media, online self-presentation, expressions of digital resistance, and forms of backlash and online attacks. What connects all these articles, is their critical approach to intersectional inequalities and privileges in relation to digitality, plus their nuanced perspective on gender, sexuality, and embodiment interferentially. The final article is based on a roundtable discussion and aims to encourage interdisciplinary connections and suggests ways of doing research that builds bridges between academia and activism.

Keywords: digitality; embodiment; intersectionality.

[a] Ghent University, Belgium
[b] University of Birmingham, United Kingdom
[c] University of Amsterdam, Netherlands

1 ENTANGLEMENTS WITH DIGITALITY

Bodies, expressions of affect and emotions, and intimate experiences are increasingly entangled with digital media, technologies, and various technoscientific objects. The digital realm has long been celebrated for offering endless possibilities to connect with others via social media, allowing subjects to experiment with various forms of digital self-representation and self-transformation and transgress the body's offline materiality. The ever-expanding digital realm has decreased the distance between digital creators and their audiences while also providing more and more people with the opportunity to become digital creators themselves (e.g., Jenkins, 2006; Pew Research Center, 2006; Boyd, 2014; Bruns, 2018).

The potential harbored by digital worlds to transcend differences and inequalities connected to embodiment and create online identities that are no longer constrained by real-life material surroundings (e.g., Turkle, 1996; Plant, 2020) thus seems enormous. Such radically optimistic debates regarding the liberating power of digital spaces – often underpinned by transhumanist viewpoints celebrating digital progress and various forms of human technological enhancement (see, e.g., Bostrom, 2005; More & Vita-More, 2013) – tend to be packed with conceptualizations of digital spaces as environments entirely separated from offline embodied lived experiences, conditions, and realities (e.g., Springer, 1991; Heim, 1994). Unlike early formulations of 'virtuality' and 'digitality', the body and its material conditions do not become irrelevant in digital spheres, engendering a need to recognize the materiality of everyday digital practices (van Doorn, 2011). In recent years, however, the materiality of the digital spaces, social media, and technoscientific objects we are almost constantly surrounded by has become increasingly less 'tangible,' thereby blurring the boundaries between our digital and offline lifeworlds: our lives are now more than ever before dominated by almost untraceable cloud environments, automated smart environments, algorithmic biases, racism, and predictive policing, sellable Big Data, even more, complex codes, and other types of bits and bytes (see Reichert & Richterich, 2015; Noble, 2018; Amrute, 2019; Nikunen, 2021).

Critical feminist, labor, postcolonial, and environmental viewpoints indicate how power inequalities, unequal labor divisions, and manual, emotional, and affective labor (see Terranova, 2004 for affective labor within the context of digital culture) have been made invisible in the ongoing digitalization of life. These perspectives, among others, zoom in on the intricate intersections between gender, sexuality, race, (often racialized) ethnicity, and class, and pinpoint how certain forms of labor have been further invisibilized through the digitization of everyday life. This has created a striking paradox: the digital has seemingly disconnected itself from the material lifeworld while at the same time also dominating the latter. We are now accustomed to effortlessly downloading digital airplane or concert tickets on our iPhones, automatically having workout data uploaded to self-

disciplining fitness trackers or storing pictures on the cloud without thinking through the complex processes behind these actions. Yet, this unmooring of digital processes still depends on concrete matter and materiality and, frequently, the latter's extractive exploitation. The digital, the cloud, and social media – none of these phenomena would exist if it were not for the material infrastructures such as data centers, server storage spaces, so-called data barns (see Portmess, & Tower, 2015 for this particular notion), geopolitically embedded power structures that obscure the destructive environmental impact of cloud computing, and vulnerable labor forces (e.g., the vast wage differences between Silicon Valley IT specialists, immigrant debuggers, and manual laborers working in an overseas data center) they depend upon.

Focusing on embodied lived experiences and embodiment, the critical scholarship sketched out above has gone beyond the question of gender and has extended to the realms of queer studies, disability studies, security and terrorism studies, critical race studies, and citizenship studies, among others. To illustrate, authors have explored digital gender(ed) and sexual(ized) performativity, resistance, defiance, and digital representations of embodied diversity and difference (e.g., Abidin, 2016; Mondé, 2018, Rahbari, 2019, Caldeira et al., 2020, and Araüna et al., 2021). Similar studies were conducted on articulating intimacies, desires, and sexualities in and through digital spaces and normative assumptions about (older) age, sexuality, and gender (e.g., Sandberg, 2013; Duguay, 2018, Tiidenberg, 2018; De Graeve, 2019; Korkmazer, De Ridder and Van Bauwel, 2021). A significant part of these inquiries focuses specifically on LGBTQIA+ issues and identities in digital spheres (e.g., Lovelock, 2017; Ridder and Dhaenens, 2019; O'Riordan, 2020). Furthermore, expressions of collective protest and feminist, queer, anti-racist, anti-ageist, anti-fatphobic, anti-ableist digital activism have been explored in a rising number of publications (e.g., Afful and Ricciardelli, 2015; Williams, 2016; Scharff et al., 2016; Sadowski, 2016; Matich et al., 2019; Schmitz et al., 2020). Overall, these studies resulted in nuanced findings highlighting how digital cultures both challenge and reproduce unequal power structures and are thus very much connected to the offline material realms. Overly optimistic beliefs about the self-emancipatory capacities of the digital are put into perspective by scholars that take the '(non-)mattering of bodies' question seriously. This is a question propelling many critical new materialists (see Geerts, 2021 for the notion of critical new materialisms), critical posthumanist, and affect theoretical scholarship (see Puar, 2007; Cooper, 2008; Gregg, & Seighworth, 2010; Chen, 2012; Braidotti, 2013; Ferrando, 2013; and Jackson, 2020), as well as other scholars of digital media. And these preceding and other theorists invested in critical scholarship demonstrate that digital spaces accommodate some bodies more than others. To give but a few examples: women and minority groups are apparently increasingly facing online harassment that targets identity markers such as gender, sexuality, age, race/ethnicity (e.g., Binns, 2012; Jane, 2014; Lewis et al., 2016; De Vuyst, 2020), algorithms and data used for machine learning contain different forms of sexist,

racist, ageist bias (Noble, 2018; Criado-Perez, 2021), and AI and voice-assistants have been shown to promote gender stereotypes (Chin and Robison, 2020).

With such a high level of (inter)disciplinarity, theories, methods, and analyses of gender, sexuality, and embodiment in relation to digital spheres have become highly diversified. Aiming to reflect this diversity, this special issue has two goals: First, we aim to bring together innovative and newly developed theoretical, empirical, analytical, and critical approaches in the study of gender, sexuality, and embodiment in digital spheres. Second, by connecting intersectionality and digitality to one another, we aim to adopt an integrated approach that reflects the intricacy and interconnectedness of social categories and markers of difference, privilege, performance, and discrimination. Therefore, this issue's contributions explore a range of differently situated digital cultural practices, including intimate and sexual experiences with(in) digital media, online self-presentation, expressions of digital resistance, and forms of backlash and online attacks. What connects all these articles is their critical approach to intersectional inequalities and privileges in relation to digitality, plus their nuanced perspective on gender, sexuality, and embodiment interferentially (see Geerts & van der Tuin, 2013). Differently put, this special issue's articles engage dynamically with other social markers, such as sexuality, ethnicity/race, class, and able-bodiedness, to name but a few.

A central theme is how emotions and affect, labor, and embodiment are intertwined in multiple ways in digital environments. Boundaries between labor and leisure have become increasingly blurred in the digital. Following this line of investigation, Locatelli's 'Rewiring the Concept of 'Sex Robots': Gender, Desire, and Embodiment in Posthuman Sextech' applies a posthumanist perspective to disrupt the monolithic categorization of sex robots. Based on a content analysis of promotional material of several sex tech companies, Locatelli shows how the design of digital technologies is not neutral but in fact, created for an ideal user, who is typically considered male and heterosexual. Locatelli's analysis indicates that sex tech is designed to satisfy the sexual needs of this type of user and has to fulfill a wide variety of emotional needs, including providing aid with domestic tasks while engaging in caregiving and emotional attentiveness. In the market of sex tech, feminine-looking robots are thus expected to take care of emotional and domestic labor, underlining how much digital and material lifeworlds overlap.

The next two articles in this special issue further explore how platforms create opportunities and structures for intimate expressions and connecting with others, while at the same time benefiting from the interactions taking place on their platforms. With social life increasingly taking place in the environments created by digital networks, intimate data find their way into commercial circuits and turn into exchangeable, profitable assets. Furthermore, while companies typically promote values of openness and inclusivity, misogyny and other harmful discourses and practices are often widespread on their digital platforms. Since any form of engagement or interaction on said digital platforms creates revenue, even violent attacks and abuse are monetized and thus form an important part of their business

model. The intricate ways these platforms are shaped and what design decisions propel these shaping processes often remain hidden. Szita's and Contente and Gomes da Costa's articles both aim to open this black box by offering insight into how discrimination is inscribed into various platforms' infrastructures and how this sustains inequalities related to gender, sexuality, and race/ethnicity.

Szita's article – 'Virtual Safe Space: An Approach of Intersectionality and Social Identity to Online Behavior in Virtual Environments' – sheds light on social virtual reality. The presented analysis shows how platforms develop options to customize avatars in online virtual social spheres that are limited and linked to rigid ideas about body shapes, gender, and age. Like Locatelli's article, this paper shows that even though more diverse digital expression options of bodies would be technologically possible, material inequalities tend to be replicated in online social spaces, while racist and sexist offline harassment continues in online spaces towards avatars with certain identity characteristics.

In digital spaces, where metrics, followers, reviews, and higher traffic define visibility, people increasingly tend to perceive themselves as and perform as if they were digital entrepreneurs. Contente and Gomes da Costa's 'Towards Entrepreneurial Ethics of Desire: LGBTQ Location-based Dating Apps and the New Configurations of Affective and Sexual Relationships among Gay Men in Brazil' shows how platforms contribute to the market of male homoerotic desire and have a direct influence on how gay men in Brazil present themselves. Describing how users construct a portfolio of representations makes them look attractive in line with normative Brazilian prescriptions of beauty, such as being muscular, fit, and white. Gay male desirability involves excessive labor to meet hegemonic standards of attractiveness. The article concludes with a reflection on the possibility of queer ethics of desire with more subversive potential based on an analysis of several individual strategies for resistance by users of the app.

The final article of this special issue draws on a roundtable discussion among Evelien Geerts, Ladan Rahbari, Sara De Vuyst, Shiva Zarabadi, and Giulia Evolvi. This paper brings together different perspectives on embodiment, gender, and sexuality. These critical theoretical scholars discuss how to move forward with future studies on digitality, gender, sexuality, embodiment, and their intersections while investigating these topics from different perspectives, taken from disciplines, such as philosophy, sociology, and feminist media studies. This roundtable discussion aims to encourage interdisciplinary connections and suggest ways of doing research that builds bridges between academia and activism.

FUNDING STATEMENT AND ACKNOWLEDGMENTS

Sara De Vuyst is working for the "Later-in-life intimacy. Women's unruly practices, spaces and representations" (LiLI) research project. The LiLI project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. 851666)

REFERENCES

Abidin, C. (2016) "'Aren't These Just Young, Rich Women Doing Vain Things Online?": Influencer Selfies as Subversive Frivolity,' Social Media + Society, 2(2), pp. 1-17. https://doi.org/10.1177/2056305116641342.

Afful, A. A., & Ricciardelli, R. (2015) 'Shaping the online fat acceptance movement: talking about body image and beauty standards,' Journal of Gender Studies, 24(4), pp. 453-472. https://doi.org/10.1080/09589236.2015.1028523.

Amrute, S. (2019) 'Of techno-ethics and techno-affects,' Feminist Review, 123 (1), pp. 56-73.

Araüna, N., Tortajada, I., & Willem, C. (2021) 'Feminist YouTubers in Spain,' In: Scarcelli M, Chronaki D, De Vuyst S, et al. (eds) Gender and Sexuality in the European Media. London: Routledge, pp. 11-23.

Åsberg, C., & Lykke, N. (2010) 'Feminist technoscience studies,' European Journal of Women's Studies, 17(4), pp. 299-305.

Binns, A. (2012) 'DON'T FEED THE TROLLS!,' Journalism Practice, 6(4), pp. 547-562. https://doi.org/10.1080/17512786.2011.648988.

Boler, M., & Davis, E. (eds.) (2020) Affective Politics of Digital Media: Propaganda by Other Means. New York – London: Routledge.

Boyd, D. (2014) It's Complicated: The Social Lives of Networked Teens. New Haven: Yale University Press.

Bostrom, N. (2005) 'A History of Transhumanist Thought,' Journal of Evolution and Technology, 14(1), pp. 1-25. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.98.7951&rep=rep1&type=pdf.

Braidotti, R. (2013) The Posthuman. Cambridge: Polity Press.

Bruns, A. (2018) Gatewatching and News Curation: Journalism, Social Media, and the Public Sphere. New York: Lang.

Butler, J. (1993) Bodies That Matter: On the Discursive Limits of 'Sex.' London: Routledge.

Caldeira, S. P., De Ridder, S., & Van Bauwel, S. (2020) 'Between the Mundane and the Political: Women's Self-Representations on Instagram,' Social Media + Society, 6(3), pp. 1-14. https://doi.org/10.1177/2056305120940802.

Chen, M. Y. (2012) Animacies: Biopolitics, Racial Mattering, and Queer Affect. Durham, NC: Duke University Press.

Chin, C., & Robison, M. (2020) How AI bots and voice assistants reinforce gender bias. Retrieved on 11 November 2021 from: https://www.brookings.edu/research/how-ai-bots-and-voice-assistants-reinforce-gender-bias/

Cooper, M. (2008) Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era. Seattle: University of Washington Press.

Criado Perez, C. (2021) Invisible women: data bias in a world designed for men. London: Random House.

De Graeve, K. (2019) "No expectations": straight men's sexual and moral identity-making in non-monogamous dating. Sexualities, 22(5–6), pp. 844–859. https://doi.org/10.1177/1363460718779946

De Vuyst, S. (2020) Hacking Gender in Technology and Journalism. New York: Routledge.

D'Ignazio, C., & Klein, L. F. (2020) Data Feminism. Cambridge: MIT Press.

Duguay, S. (2018) 'The more I look like Justin Bieber in the pictures, the better": Queer women's self-representation on Instagram,' In: Papacharissi Z (ed) A Networked Self: Platforms, Stories, Connections. New York: Routledge, pp.9 4-110.

Elwood, S., & Leszczynski, A. (2018) 'Feminist Digital Geographies,' Gender, Place & Culture, 25 (5), pp. 629-644.

Ferrando, F. (2013) 'Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms: Differences and Relations,' Existenz, 8(2), pp. 26-32. https://existenz.us/volumes/Vol.8-2Ferrando.pdf.

Geerts, E., & van der Tuin, I. (2013) 'From Intersectionality to Interference: Feminist Onto-epistemological Reflections on the Politics of Representation,' Women's Studies International Forum, 41(3), pp. 171-78.

Geerts, E. (2021) 'Nieuw Materialisme: Een Cartografie [New Materialism: A Cartography]', Wijsgerig Perspectief 61(2), pp. 34-41.

Haraway, D. J. (1997) Modest_Witness@Second_Millenium: FemaleMan©_Meets_Oncomouse™. Feminism and Technoscience. New York: Routledge.

Haraway, D. J. 1985. 'A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s.' Socialist Review, 20, pp. 65-107.

Heim, M. (1994) The Metaphysics of Virtual Reality. Oxford: Oxford University Press.

Jane, E. A. (2014) "'Your a Ugly, Whorish, Slut: Understanding E-bile",' Feminist Media Studies, 14(4), pp. 531-546.

Jackson, Z. I. (2020) Becoming Human: Matter and Meaning in an Antiblack World. New York: NYU Press.

Jenkins, H. (2006) Convergence Culture: Where Old and New Media Collide. New York: New York University Press.

Korkmazer, B., De Ridder, S., & Van Bauwel, S. (2021) The Visual Digital Self : A discourse theoretical analysis of young people's negotiations on gender, reputation and sexual morality online. DIGEST. Journal of Diversity and Gender Studies, 8(1), pp. 22–40. https://doi.org/10.21825/digest.v8i1.17608

Lewis, R., Rowe, M., & Wiper, C. (2016) 'Online Abuse of Feminists as An Emerging form of Violence Against Women and Girls,' British Journal of Criminology, 57(6), pp. 1462-1481. https://doi.org/10.1093/bjc/azw073.

Lovelock, M. (2017) "'My coming out story": Lesbian, Gay and Bisexual Youth Identities on YouTube,' International Journal of Cultural Studies, 22(1), pp. 70-85. https://doi.org/10.1177/1367877917720237.

Lupton, D. (2019) Data Selves: More-than-Human Perspectives. Cambridge: Polity.

Matich, M., Ashman, R., & Parsons, E. (2019) '#Freethenipple – Digital Activism and Embodiment in the Contemporary Feminist Movement,' Consumption Markets & Culture, 22(4), pp. 337-362. https://doi.org/10.1080/10253866.2018.1512240.

Mondé, G. C. (2018) '#BlackDontCrack: A Content Analysis of the Aging Black Woman in Social Media,' Feminist Media Studies, 18(1): 47-60. https://doi.org/10.1080/14680777.2018.1409972.

More, M., & Vita-More, N. (eds.) (2013) The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future. Chichester: Wiley-Blackwell.

Nikunen, K. (2021) 'Ghosts of white methods? The challenges of Big Data research in exploring racism in digital context,' Big Data & Society, 8 (2), pp. 1-17.

Noble, S. U. (2018) Algorithms of Oppression: How Search Engines Reinforce Racism. New York: New York University Press.

O'Riordan, K. (2020) 'Queer Digital Cultures,' In: Somerville SB (ed) The Cambridge Companion to Queer Studies. Cambridge: Cambridge University Press, pp. 185-198.

Perbawani P. S., Rahayu R., & Anshari, I. N. (2018) Online Political Participation and Netizen Anonymity in Indonesia's Digital Democracy. PCD Journal 6: 185-212.

Pew Research Center (2006) The strength of internet ties. Retrieved on 11 November 2021 from: https://www.pewresearch.org/internet/2006/01/25/the-strength-of-internet-ties/

Plant, S. (2020) 'Feministische Theorie und Kritische Medienkulturanalyse: Ausgangspunkte und Perspektiven,' In: Tanja, T., & Ulla W. (eds.) On the Matrix: Cyberfeminist simulations. Transcript Verlag, pp. 337-346.

Puar, J. K. (2007) Terrorist Assemblages: Homonationalism in Queer Times. Durham, NC: Duke University Press.

Rahbari L. (2019a) In Her Shoes: Transnational Digital Solidarity with Muslim Women, or the Hijab? Tijdschrift voor economische en sociale geografie, 112, pp. 107-120.

Rahbari, L. (2019b) 'Pushing Gender to its Limits: Iranian Women Bodybuilders on Instagram,' Journal of Gender Studies, 28(5), pp. 591-602. https://doi.org/10.1080/09589236.2019.1597582.

Rahbari L. (2021) Biopolitics of Non-Motherhood: Childfree Women on a Persian-Language Digital Platform for Mothers. İstanbul University Journal of Sociology 41: 27-41.

Reichert, R., & Richterich, A. (2015) 'Introduction: Digital Materialism,' Digital Culture & Society, 1(1), pp. 5-18. https://doi.org/10.25969/mediarep/634

Ridder, S. D. & Dhaenens, F. (2019) 'Coming Out as Popular Media Practice: The Politics of Queer Youth Coming Out on YouTube,' DiGeSt. Journal of Diversity and Gender Studies, 6(2), pp. 43-60. https://doi.org/10.11116/digest.6.2.3.

Sadowski, H. (2016) 'From #Aufschrei to Hatr.org: Digital–Material Entanglements in the Context of German Digital Feminist Activisms,' Feminist Media Studies, 16(1), pp. 55-69. https://doi.org/10.1080/14680777.2015.1093090.

Sandberg, L. (2013) 'Affirmative Old Age: The Ageing Body and Feminist Theories on Difference. International Journal of Ageing and Later Life, 8(1), pp. 11-40. http://dx.doi.org/10.3384/ijal.1652-8670.1381.

Scharff, C., Smith-Prei, C., & Stehle, M. (2016) 'Digital Feminisms: Transnational Activism in German Protest Cultures,' Feminist Media Studies, 16(1), pp. 1-16. https://doi.org/10.1080/14680777.2015.1093069.

Schmitz, R. M., Coley, J. S., Thomas C., & Ramirez, A. (2020) 'The Cyber Power of Marginalized Identities: Intersectional Strategies of Online LGBTQ+ Latinx Activism,' Feminist Media Studies, pp. 1-20. https://doi.org/10.1080/14680777.2020.1786430.

Springer, C. (1991) 'The Pleasure of the Interface,' Screen, 32(3), pp. 303-323.

Terranova, T. (2004) Network Culture: Politics for the Information Age. London: Pluto.

Tiidenberg, K. (2018) 'Visibly Ageing Femininities: Women's Visual Discourses of Being Over-40 and Over-50 on Instagram,' Feminist Media Studies, 18(1), pp. 61-76. https://doi.org/10.1080/14680777.2018.1409988.

Turkle, S. (1996) Life on the Screen: Identity in the Age of the Internet. London: Weidenfeld.

Van Doorn, N. (2011) 'Digital Spaces, Material Traces: How Matter Comes to Matter in Online Performances of Gender, Sexuality and Embodiment,' Media, Culture & Society, 33(4), pp. 531-547. https://doi.org/10.1177/0163443711398692.

Williams, S. (2016) '#SayHerName: Using Digital Activism to Document Violence against Black Women,' Feminist Media Studies, 16(5), pp. 922-925. https://doi.org/10.1080/14680777.2016.1213574.

Wynter, S. (1994) 'No Humans Involved: A Letter to My Colleagues,' Forum N. H. I: Knowledge for the 21st Century, 1, pp. 42-73. Originally published in 1992.

JOURNAL OF DIGITAL SOCIAL RESEARCH

WWW.JDSR.IO ISSN: 2003-1998

VOL. 4, NO. 3, 2022, 10–33

RETHINKING 'SEX ROBOTS': GENDER, DESIRE, AND EMBODIMENT IN POSTHUMAN SEXTECH

Chloé Locatelli[a]

ABSTRACT

This paper interrogates the posthuman potential of sextech aimed at heterosexual men, positing that advertising and design of products with digital femininities emphasise the possibility for emotional interaction. This work firstly applies pressure to the monolithic conceptualisation of 'sex robots', that impedes rigorously appraising existing sextech constructions. Applying posthuman theory to sextech, particularly critical posthumanism and the formative work of Donna Haraway, affords this investigation the theoretical rigour to reflect on the potential for emotional interaction with digital feminised others. Through digital media analysis, this paper explores three gendered-female technologies: Azuma Hikari, (2020); the RealdollX Application (2020) and VirtualMate (2020) alongside their concomitant promotional material. This research illustrates that the complex convergence of interactive technologies, digital femininities and emotive advertising suggests a shift into posthuman sextech – where digital femininities are designed and advertised as capable of providing erotic and emotive interaction.

Keywords: Posthumanism; critical posthumanism; sex robots; sextech; gender; intimacy; digital femininities.

[a] King's College London, United Kingdom.

1 INTRODUCTION

Sextech as a neologism is open to interpretation, but serves as an umbrella term for digital technologies developed with intention to provide sexual satisfaction (Cheok and Zhang, 2019). While the existing sextech market is valued at an estimated 30-billion dollars, limited research attends to this field (Dubé et al., 2022). Academic work instead disproportionately concentrates on hypothetical sex robot scenarios, with an increasingly pervasive presence of 'sex robot' academic literature suggesting their arrival is imminent. Despite this focus, at the time of writing, it is still not possible to buy a fully developed sex robot for personal use or research (Devlin and Locatelli, 2020). Research thus far fails to locate 'sex robot' development within the larger context of sextech across multiple media formats. This narrow focus is to the detriment of assessing existing forms of sextech, particularly ones that also rely on constructions of femininity. Departing from the premise that "scholars across a range of disciplines have not as of yet substantially engaged with the intensifying intersections of intimacy, sex, and the digital, particularly as they relate to the digital non-human other" (Cockayne et al., 2017, pp.1117–1118) this paper interrogates these intersections in sextech development, paying close attention to the constructions of desirable digital feminities and their emotive potential in sextech design and advertising. Within this field, gendered embodiment of dolls, 'sex robots' and sextech overwhelmingly offers constructions of feminities. The gendered dimensions of new developments are not to be understated, as it notes a marked shift in development of erotic artefacts. As Devlin cogently summarises; "Sex robots and sex toys differ drastically. The sex robots being developed today have a very specific gendered embodiment...By contrast, sex toys have been abstracted from that and, because they are not a full humanoid form, are barely seen as gendered at all, even though they resemble sexual organs" (2018, p.157).

Turning to sextech examples beyond sex robot instantiations, work must appraise how gender in constructed for erotic contexts and in digital formats. As with Strengers and Kennedy's reflections on digital representations of gender, this investigation agrees: "It is socially and culturally produced and performed, and constantly transforming, often in relation to technology. Likewise, masculinity and femininity are not something that "belong" to either men or women, but they are typically associated with each respective gender" (2020, p.34). Rejecting an essentialist and unitary interpretation, this work uses 'femininity' to encompass the social construction and ideas associated with femininity and considers this in relation to how gender, desire and embodiment are presented and created in the case studies. Given that emergent products are new releases – or in some cases still in development –websites and concomitant advertising serve as primary reference for consumers and researchers to understand what these products purport to offer. Digital media analysis of advertising and design as methodological approach has been used to explore the presentation and consumption motives of sex dolls (Ciambrone et al., 2017; Su et al., 2019; Middleweek, 2020) and extended to

silicone AI sex robots (Devlin and Locatelli, 2020) but there is limited work on other forms of feminities in sextech and the emotive potential alluded to.

This paper aims to illustrate the potential shift into posthuman sextech, through an interdisciplinary investigation that harmonises critical posthumanist thought with digital media analysis of sextech design and advertising. By firstly highlighting the limitations of previous work that disproportionately attends to a monolithic and metonymic notion of 'sex robot', this paper makes a case to expand research parameters to comparatively appraise other forms of existing gendered-female sextech. Critical posthumanism is then introduced to explore the interrelationships between embodiment, kinship and digital technologies, signposting relevant studies that help apply posthuman theory to this investigation. Building on this corpus, this paper turns to three illustrative, and in some instances unexplored, case studies to interrogate the emotive potential of digital feminities permeating sextech developments. Digital media analysis turns to Azuma Hikari[1], a hologram projection home-assistant capsule from Japanese company Gatebox Inc., that illustrates an existing example of emotive interaction available with digital feminised characters. While not a sextech artefact, Azuma is looked at in conversation with sextech developments and research carried out on primarily Japanese-oriented terrain. Focus then turns to two sextech products. Firstly, the RealdollX App[2], a customisable female avatar chatbot, marketed as "the perfect companion in the palm of your hands". Then, attention turns to VirtualMate[3] and their computer-generated character 'Sheila', touted as "the world's first virtual intimacy system", experienced through teledildonics and a VR headset. These studies lead to the postulation that the complex convergence of interactive technologies, digital feminities and emotive advertising denotes a shift into posthuman sextech – where digital feminities are designed and advertised as capable of providing erotic *and* emotive relationships.

2 RETHINKING 'SEX ROBOTS' FOR SEXTECH RESEARCH

Research exploring the possibility of sex robots has gained traction in the last fifteen years. Since roboticist David Levy's assertion that robots will be romantic partners by 2050, a plethora of work engages with this possibility (2007a). This multifaceted corpus spans an array of reflections including, but not limited to, the ramifications of sex robots for sex work (Levy, 2007b; Yeoman and Mars, 2012; Danaher, 2014; Richardson, 2016), polysemic feminist interrogation (Devlin, 2018; Danaher, 2019; Kubes, 2019a; Moran, 2019; Rigotti, 2020) and tentative and hypothetical interrogations of future ethical and legal dimensions (Cheok et al., 2017; Danaher and McArthur, 2017; Cheok and Levy, 2018; Zhou and Fischer, 2019; Bendel, 2020). Across these diverse perspectives, there is common intellectual reflection on

[1] https://www.gatebox.ai/en/hikari
[2] https://www.realdollx.ai
[3] https://www.virtualmate.com

possible affective relationships with 'sex robots' that complicates categorising these products as exclusively satisfying sexual desires.

Despite this growing corpus, academic literature overwhelmingly fails to appraise 'sex robots' with other sextech manifestations, impeding comparative analysis of this wide market. This disproportionate attention to a 'sex robot' figure is typified by exclusively conceiving AI sex dolls as 'sex robots'. 'Sex robot' research focuses on companies such as DS Dolls, EXDoll Robotics and Realbotix that have diversified into robotics from their original product of life-sized and life-like sexdolls made from thermoplastic elastomers or silicone. Most notably, American company Realbotix's AI dolls with robotic heads dominates discussions, providing "the face' of the public discourse on robot sex" (Kubes, 2019b, p.7). But given that, at the time of writing, it is still not possible to buy a fully developed sex robot, research favours hypothesising en lieu of a more comprehensive appraisal of current products. This metonymic 'sex robot' conceptualisation narrows the parameters of analysis through neglecting existing sextech examples that equally rely on constructions of femininity.

Fig. 1: Promotional material for Realdoll silicone doll, RealdollX AI sex doll aka 'sex robot' and RealdollX application (RealdollX, 2021).

While no unanimous definition of 'sex robots' exists, Danaher's often cited stance serves as an appropriate baseline to highlight key comparative aspects between sex robots and sextech, while offering a flexible framework to include variegated sextech formats:

> "A 'sex robot' is any artificial entity that is used for sexual purposes (i.e., for sexual stimulation and release) that meets the following three conditions:
>
> Humanoid form, i.e., it is intended to represent (and is taken to represent) a human or human-like being in its appearance.
>
> Human-like movement/behavior, i.e., it is intended to represent (and is taken to represent) a human or humanlike being in its behaviors and movements.
>
> Some degree of artificial intelligence, i.e., it is capable of interpreting and responding to information in its environment" (2017a, p.10).

By differentiating between sexual stimulation and release, a more encompassing understanding of sexual enjoyment is envisioned, that transcends viewing sex as a purely physical and corporeal experience. It places onus on 'representation', allowing for reflection on how 'sex robots' are constructed, presented, and perceived – opening interrogation regarding how design intention and reception are not the same. Crucially, this definition does not restrict its interpretation to a specific form: this criterion could equally encompass other media formats such as holograms, virtual reality, avatars and chatbots that have a humanoid form, human-like behaviour and some degree of intelligence.

Departing from a wider definition of 'sex robots', more recent research amplifies focus to comparatively consider an array of sextech formats. Work exploring "erobotics" (Dubé and Anctil, 2020), "sexbots" (Malinowska, 2020) or "machine-cued partners" (Banks and Van Ouytsel, 2020) illustrates this broadening of perspective and research parameters. Building on this, this research paper puts pressure on the gendered-female dimensions of erotic technologies beyond AI dolls sex dolls as 'sex robots'. This opens scope to include other forms of gendered-female sextech, collate relevant examples and highlight how gender, desire and embodiment are key features in wider sextech discussions. Doing so allows for an appraisal that highlights that across mediums, design and advertising emphasises the emotive potential of digital femininities – inviting the application of posthuman theory.

3 (CRITICAL) POSTHUMANISM: TURNING TO SEXTECH

Posthumanism – in particular critical posthumanism – lends itself to interrogating the notion of 'human' and interrelationships with non-human others. Posthumanism explores the "end of a certain *conception* of the human, namely the humanist notion of the human" (Herbrechter, 2013, p.3). Placing pressure on the historical catachresis of 'human', posthumanism seeks to disrupt a human-centric

vision of the world, in part through challenging dualistic Humanist philosophy. This variegated corpus spans a spectrum of approaches that question what non-human centred realities are and could be, including but not limited to: post and decolonial studies; gender studies; ecology; critical animal studies and various fields of technology studies. While frequently conflated with transhumanism, as both fields go "beyond humanism" (Ranish and Sorgner, 2014, p.7), posthumanism's goal is not to perfect or augment the human condition, but instead expand on what lives count and matter while exploring the interrelationships of existences.

Within this varied field, critical posthumanism best serves this research to explore the case studies. Critical posthumanism consists of "a grappling with humanism, an overcoming of anthropocentrism, a questioning of essentialism and (philosophical) anthropology, a critique of the knowledge cultures, as well as a clear appeal character and socio-political implications" (Loh, 2019, p.7). Characterised by "transdisciplinary discursive fronts" (Braidotti, 2016, p.382), its interdisciplinary work attempts to bridge theoretical and epistemological fissures. Three key features of critical posthumanism resonate with this investigation's exploration of gender, desire and embodiment in sextech developments: the constructed nature of bodies and gendered identities; digital advances as posthuman shift; and affective bonds with non-human others.

Critical posthumanism's reflections on the body as constructed – discursively and historically – prove timely for radical questioning of the dichotomous biological/human/'real' bodies in opposition to technological/artificial/ 'unreal' bodies. While Hayles notes "the erasure of embodiment is a feature common to *both* the liberal humanist subject and the cybernetic posthuman" (Hayles, 2010, p.4), critical posthumanist thought increasingly interrogates embodiment and, when used in conjunction with feminist theory, appraises the gendered dimensions. While Haraway is uncomfortable with a posthumanist label (Haraway and Goodeve, 2000) her formative work offers significant reflections on gender, embodiment and posthuman theory. Working from the premise that "…gender is a verb, not a noun. Gender is always about the production of subjects in relation to other subjects, and in relation to artifacts" (Haraway, 2004, p.328), the intersections of posthumanism with gender leads to analysis of the body's role in (re)presentations and receptions of gender that can be extended to technological articulations. The body, beyond a natural and given form, is open to interrogation. As Haraway surmises "[Feminist] embodiment, then is not about fixed location in a reified body, female or otherwise, but about nodes in fields, inflections in orientations… Embodiment is significant prosthesis" (1988, p.588). Applying this approach to constructions of digital bodies, critical posthumanism reflects on how bodies encase gender – affording space to interrogate digital feminities.

Technological developments and their influence on socio-realities is a key feature of critical posthumanism. Essentially, "the word 'critical' in 'critical posthumanism' names ... the task of analysing the process of technologization, based on the idea of a radical interdependence or mutual interpenetration between

the human, the posthuman and the inhuman" (Herbrechter, 2013, p.26). Rejecting dualistic notions of the technological and 'real' world is crucial to posthuman thinking, as it highlights the tension between these absolute states (Toffoletti, 2007). A conceptualisation of "technogenesis" (Hayles, 2011, 2012) as interrelated advancement between technological and human development elaborates the interactive dynamics between the two states, while illustrating the inherent post-dualism of posthumanism. By considering the interconnected nature of technology and the social world, "posthumanism addresses our intimate and co-constitutive entanglements with our technologies" (Adams and Thompson, 2016, p.5). Doing so enables contemplating the affective bonds available *through* and *with* technologies. Critical posthumanism takes seriously the way digital technologies in particular facilitate emotional interaction. As Cockayne et al. notes, "'the digital' ambivalently offers the potential for a spatial enfolding of closeness and distance, of relating to oneself and others, both human and non-human" (2017, p.1129).

Posthuman theory's exploration of kinship and companionship with non-human others probes affective relationships between humans and technological constructions. Haraway's corpus extensively engages with the interrelationship of beings – best illustrated with the eponymous cyborg of her manifesto (Haraway, 1991) and along with the conceptualisation of "companion species" (Haraway, 2003, 2016). For Braidotti's critical posthumanist approach, Haraway's companion species is significant because it encapsulates "the shifting boundaries of very affective and dynamic kinship relations. For Haraway, these relations need to be redefined in the context of a techno-scientific world" (Braidotti, 2006, p.202). Increasingly, this focus on companions and kin is extended to technological others to explore the affective bonds experienced with digital technologies. Applying critical posthumanism to sextech enables rigorous analysis of affective links to technologies while considering the ethical and social significance.

Posthuman theory already proves a rigorous theoretical framework to explore gendered-female erotic artefacts and their emotive potential – significant work explores posthuman companionship with sex dolls (Ray, 2016; Nast, 2017; Langcaster-James and Bentley, 2018) and studies triangulating gendered- female characters, game studies and posthuman theory also provide important reflections (Galbraith, 2011; Pettman, 2017; Wilde and Evans, 2019). It is of note, however, that while social sciences research increasingly uses posthuman theory to evaluate relationships with non-human technological others, it has yet to extend this to sextech examples. Contributing to this growing application of critical posthumanism with social science studies, this papers evaluation of three case studies illustrates the emphasis on emotive potential with digital femininities, and explores its increasingly pervasive presence in sextech development.

4 "LIFE WITH HIKARI": AZUMA HIKARI

Existing Japanese emotive technologies form the groundwork for examining how sextech increasingly relies on digital feminities to transmit the idea of attainable emotional interaction. Given that "In Japan … there is already an established tradition and market presence of imaginative companion technologies" (White and Galbraith, 2019, p.7), existing research provides important examples and resources to reflect on how this might pervade sextech design and influence Western audiences (Locatelli, 2020). Research on emotional longing for artificial characters in Otaku subculture[4] illustrates changing emotional dynamics between humans and technological others (Galbraith, 2019). Drawing from these examples offers tentative reflections on how we currently – and may in the future – envision emotional bonds with technological others. This affinity with digital others challenges human/nonhuman dialectics, thus sharing commonalities with posthumanism. Cultural differences between a 'Western' audience and a Japanese one impedes an absolute comparative analysis, especially when thinking about such broad topics such as love, desire and emotional responses to technologies. This paper also chooses to not approach relationships with technological others in Japan in relation to Japan's declining birth rate, changing socio-demographics and heterosexual courtship, as this has been covered extensively and comprehensively (see Robertson, 2007; Nast, 2017; Giard, 2019a, 2019b). However Japanese digital developments cannot be discounted in this body of research, given its status as an exceedingly techno-literate and post-industrial society. Instead, its incorporation allows for complex consideration of the points of imbrication between technology, femininities and emotional interaction, providing an initial comparative base. The complexity of these interconnections is equally central to interrogating posthuman sextech.

Fig. 2: English homepage for Gatebox's Azuma Hikari (Gatebox AI, 2020).

[4] This demographic is characterised by being engaging in emotional interactions with manga/anime characters, specifically cute feminised characters and overwhelmingly comprised of men (Azuma, 2009).

While Azuma Hikari is not a sextech artefact, it serves as an illustrative example of an emotive technology that is gendered female – which increasingly features in sextech design. Azuma Hikari "is not designed for sexual use, but informs the discussion on intimacy in sex robots because its feature set claims companionship" (Kuksenok and Santagati, 2019, p.100) offering a form of posthuman interaction through affinity with the digital character. Described as a "virtual home robot" Azuma Hikari from Gatebox has been available in Japan since 2019 (Galbraith, 2019, p.3).[5] Azuma is presented through audio and visuals as both a digital voice assistant and a virtual anime hologram. As a digital assistant, Azuma assists with the domestic: setting alarms; regulating lights; informing you of the forecast and tellingly "remembers your anniversary" (Strengers and Kennedy, 2020, p.21). Azuma works across multiple platforms, able to communicate through the home assistant box, or via chat through your smartphone – a feature that makes her pervasive and constantly accessible. The hologram presents Azuma as a *bishōjo*, a "cute girl" character, typical of Japanese cartoons and comics - illustrated through her blue hair, youthful appearance and maid outfit (Galbraith, 2019, p.4). The dualistic mediation offers a visual of a feminised digital figure, but other prompts designate the product's gender through stereotypically feminised behaviour – such as attentiveness, emotional availability and care giving. This is articulated most notably in the promotional material, where emotional interaction with Azuma seems a sophisticated possibility.

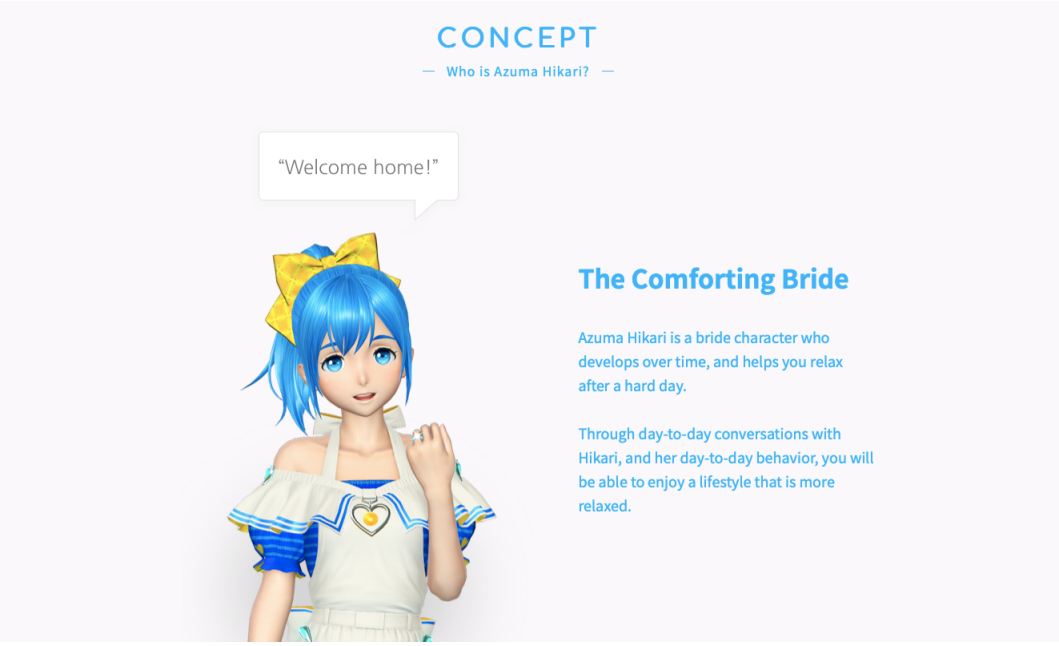

Fig. 3: Gatebox promotional material for Azuma Hikari (Gatebox AI, 2020).

[5] This analysis is based on and indebted to Galbraith's in-depth translation of the website and promotional materials semantics (2019, and private correspondence).

Gatebox's English webpage touches on some key aspects to present Azuma as both feminised, and as a companion. Notably, the word companion is employed frequently, along with gendered pronouns to reinforce the human/nonhuman character 'she' represents. The opening statement introduces Azuma as "A companion to her hard-working master in this world, her cute personality and lovable behaviour help you relax" [sic] (2020). While 'companion' speaks to the positive emotional potential with Azuma, the presentation of femininity as servility in emergent assistive technologies raises concerns (Schiller and McMahon, 2019; Dillon, 2020). The femininity embodied by Azuma, and assigned to her as a "bride character", reflects general trends in designing digital feminities that relies on a construction of femininity as young and 'cute' (McIntyre, 2020). However Azuma also typifies what Strengers and Kennedy name as the "smart wife phenomenon", with feminised digital assistive technologies providing emotional support along with domestic assistance (2020). A key feature reinforced throughout the website is how investing time in the product leads to a more rewarding experience, illustrating how interactivity through the digital platform and character facilitates the emotive interaction. Azuma "develops over time" and "The More you Talk, the More Hikari Changes" [sic] (Gatebox AI, 2020). Conversation, along with investing time and attention, becomes an important aspect in sustaining the interaction with Azuma, and a feature replicated in other emergent forms of sextech.

Promotional video material is explicit in suggesting emotional satisfaction with Azuma. The main video advertisement presents a male employee interacting with Azuma throughout his day, exhibiting positive emotional responses only to her. He smiles, stares at her adoringly, chats with her. The discourse exchanged between these two characters replicates intimate human exchanges of affection. Galbraith notes: "The routine exchange of set phrases—"I'm going now," or *ittekimasu*, said by someone going out and coming back, and the reply, "See you later," *itterasshai*—is part of a relationship" (Galbraith, 2019, p.2). With the English subtitles phrases such as "Come home early" and "I miss you" show emotional longing, but also cusp on erotically suggestive content (Gatebox AI, 2020). Through echoing romantic semantics, the discourse suggests a potential relationship with this digital figure. This is best encapsulated in the final scene, when the business man softly states "knowing someone is home feels great" (Gatebox AI, 2020). The video thus illustrates that this presence, a digital femininity, provides a form of companionship for this figure – one that fits into the posthuman paradigm of digital "entanglements" between human and nonhuman entities (Adams and Thompson, 2016, p.5).

5 "YOUR PERFECT COMPANION": REALDOLLX APP

As aforementioned, academic work disproportionately focuses on Realdoll's AI sex doll as emblematic 'sex robot' figure. Minimal attention however turns to Realdoll's

other notable product, the RealdollX Application. The RealdollX App is from Realbotix LLC, the robotic and digital development branch of Abyss Creations – an extension of the company best known for their high-end silicone love dolls. While conjecture about RealdollX's AI dolls' future capacities for intimacy dominates academic discourse, initial research into advertising material and customer interaction with the avatar format shows that romance and companionship are strong features pushed to encourage consumption (Locatelli, 2018; Devlin & Locatelli, 2020).

The RealdollX application was released in 2019 and to date, only female constructions are available – personal pronouns always gender 'her' female. Marketed as "the perfect companion in the palm of your hand" (RealdollX App, 2020), it offers a digital approximation of a Realdoll available through a smartphone. While the avatar resembles a personal assistant like Azuma in its communicative capacity, Realbotix emphasises the design choices that make for a more emotionally rewarding interaction: "Existing personal assistants and agents are *by design* limited in their ability to form or encourage close personal bonds. The Harmony system is designed to be a customizable personal companion agent capable of close personal interaction"[6] (Coursey et al., 2019, p.77). This "close personal interaction" is facilitated through the digital interface and two distinct ways: a personalisation process and an AI chatbot interface. Users can personalise their avatar through multiple menus of attributes in order to create a unique character. The application selection menus allow users to choose the avatar's visuals such clothes and body specifics: including but not limited to hair style, nipple size, angle of nose upturn etc. Personalisation also allows for the character's personality to be dictated by the selection menu. Users can choose from ten "persona points" to create their character which includes: moody, talkative, sensual, affectionate, spiritual, unpredictable, jealous, insecure, cheerful and funny. Such specifics thus indicate almost infinite possibilities for customisation. Through the chatbot interface, users can communicate with their avatar who is visually represented on the screen and also responsive to messages though audio output, giving the interaction a conversational feel. For now, communication with the application is limited to the chatbot interface, but this same programme is used for the RealdollX robotic head and CEO Matt McMullen has expressed interest in expanding into VR experiences (Coursey et al., 2019).

[6] Development for the RealdollX application was carried out with an initial beta-programme under the name of 'Harmony' (Locatelli, 2018).

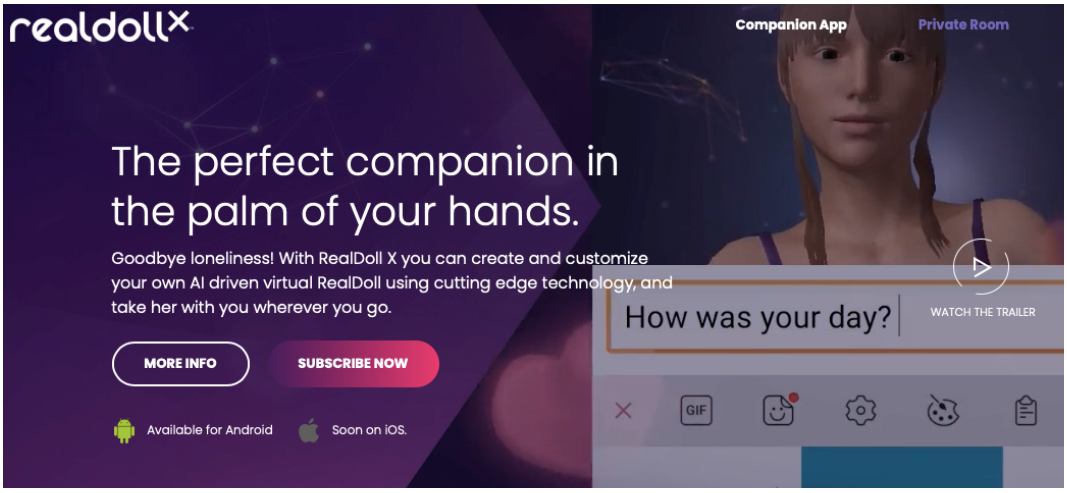

Fig. 4: Homepage for the RealdollX application (RealdollX App, 2020).

RealdollX's advertising shows how the promise of emotional interaction, such as companionship though friendship, romance and dispelling loneliness, supersedes sexual content. Upon first entering the website, one is struck by the dearth of sexual content; at no point is the word sex used in relation to the product (Locatelli, 2018). Instead, discourse constellates around themes of romantic love and companionship and is at the forefront of the website. Described as "the perfect companion in the palm of your hand", 'companion' is the most commonly used term to refer to the creation, inviting comparison reflection on affective dimensions with non-humans others as "companion species" (Haraway, 2003). Other phrases reinforce the products' aptitude for company as "your loyal friend" and "the companion of your dreams" (RealdollX App, 2020). Such explicit naming encapsulates how digital others are presented by companies as forms of posthuman companionship. Romantic capacity is emphasised as the avatar is "made to fall in love", users can "stay intimate and fall in love" and "start your romance now" (RealdollX App, 2020). Existing research on relationships with synthetic dolls shows that romantic relationships are a common form of companionship with these products (Ciambrone et al., 2017; Su et al., 2019). Stressing the romantic potential with this digital doll capitalises on an already popular consumer motive for existing products. But the digital interface locates this more firmly on posthuman territory given the sophisticated capacities for communication, personalisation and interactivity with a feminised figure.

Sexual content is inevitably present, but euphemisms allude to romanticised sexual interactions. From early 2020, the RealdollX website introduced the "Private Room", a hyperlink for age-restricted explicit content. Here the female avatars are depicted nude, presented in sex positions and accompanied with sexual paraphernalia such as sextoys and lingerie. But even when entering this space, the discourse is heavily centred on a sensual and shared sexual experience with the avatar. Offering "seduction and pleasure" the application claims users can "reach

intimacy as you touch and caress" (RealdollX App, 2020). Mutuality, and the idea of a shared intimate experience, features heavily in this section - "Explore your fantasies together", "Experiment … and reach climax together". The emphasis on a shared experience suggests this a feature anticipated to generate consumer interest for a shared sexual relationship that transcends the human/digital character divide. And while academics question whether mutuality with sextech products can be experienced (Nyholm & Frank, 2017), RealdollX's advertising presents this to their audience as an attainable feature.

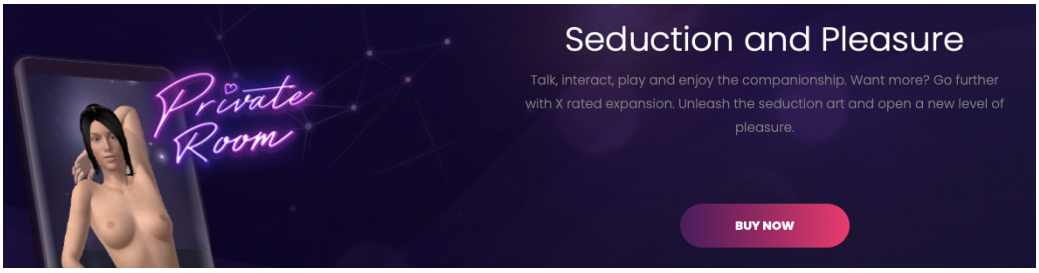

Fig. 5: RealdollX's "Private Room" (2020).

Accessibility and assuaging loneliness through the product further reinforce the posthuman potential, through introducing an individualised digital femininity catering to emotional needs. The chatbot interface through the phone application facilitates near constant interactivity, offering the possibility to "Take her with you wherever you go". As a result, the user is promised to reap rewards by investing time and energy in the relationship: "the more you speak to her, the more she will learn and fall in love with you" (RealdollX App, 2020). Both the medium and the incentives resemble Azuma Hikari's development, echoing romantic scripts of attention, investment and closeness with this character through engagement. In a parallel fashion, and intrinsically linked to the idea of constant availability, the website purports that RealdollX can alleviate solitude – "Goodbye loneliness!" (RealdollX App, 2020). Multiple researchers suggest that loneliness and/or difficulty in social skills would be a prime motivator for sex robot consumptions (Levy, 2007a; Appel et al., 2019). Others challenge this, highlighting the need for further research based on 'sex robot' interaction when available (Szczuka and Krämer, 2017). But it is of note that RealdollX recognises the possibility of loneliness as a motive for consumption, advertising this alongside the companion's constant availability. RealdollX anticipates that availability for emotional satisfaction, whether the user is lonely or not, can be a compelling incentive to buy the product. Speaking about RealdollX, Moran astutely observes "the user, who is supposedly buying a companion, is encouraged to purchase not just a physical product, but a commodification of love" (2019, p.50). RealdollX's emphasis on emotional links through interaction with a companion intimates the posthuman potential of sextech, while highlighting that constructions of femininity are crucial in making this product desirable.

6 "SAY HELLO TO THE FUTURE OF VIRTUAL INTIMACY": VIRTUALMATE

Several important factors collide when approaching VirtualMate's 'Sheila'. At the time of writing, no academic research has critically engaged with VirtualMate since its release in 2019 – an interesting omission in sextech literature, given its popularity when release broke Crowdfunders first day of sales records (Shields, 2019). VirtualMate describes itself as "the world's first virtual intimacy system", which sets the tone of advertising discourse that promises emotional interaction with their feminised character (VirtualMate, 2020). Both VirtualMate's hardware and software locates it firmly of sextech territory, thanks to explicit visual content and physical sexual release through the teledildonics system. But promotional material places significant attention on Sheila, highlighting the emotional affordances of engaging with this character, frequently presented as a 'girlfriend'. This emphasis, along with the hybridity of its software and hardware offers an interactive experience that problematises a 'real' and virtual dichotomy along with distinctions between sexual and romantic scripts, typifying the shift into posthuman sextech.

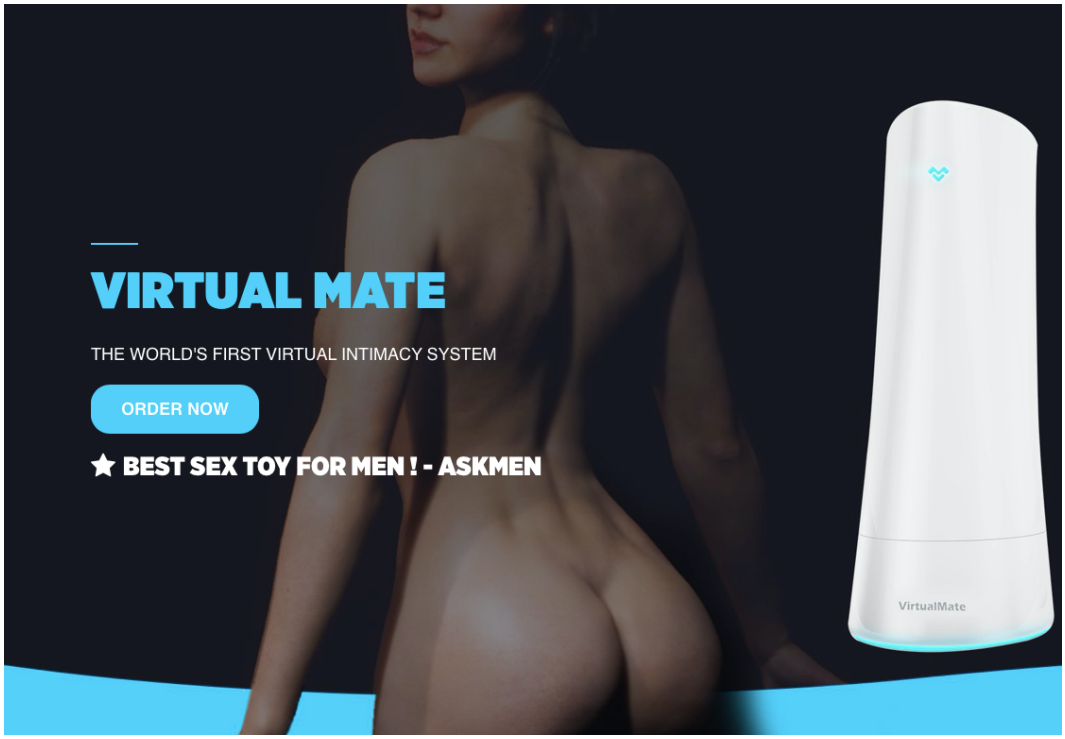

Fig. 6: VirtualMate homepage, depicting the "Core" and "Sheila" (VirtualMate, 2020).

VirtualMate markets itself as a "gaming experience" for both computer and smartphone usage, with an additional VR headset option. Complimenting this is a hardware 'Core': a teledildonic system that syncs to the game for "an interactive encounter and immersive experience" (VirtualMate, 2020). The 'Core' functions

with motion-detection sensors that connects to the software via Bluetooth. At the time of writing, VirtualMate only offers a female construction for gameplay, with a teledildonics set exclusively for users with a penis, but claims a female-user version is being developed (VirtualMate, 2020). Gameplay is centred around the user's interaction with Sheila[7], in multiple different play modes and 'worlds' where the player can have sex with the character. Sheila is a composite image of femininity; her aesthetic features derived from multiple layers of images of women deemed desirable by designers. Through facial and body capture technology, human actors' performance become Sheila's virtual one, transposing their movements onto this construction. VirtualMate's symbiotic hardware and software presents an immersive sextech experience, that stimulates both physical and mental arousal. Despite the sophisticated nature of the teledildonics system, VirtualMate shows it is reliant on Sheila for a desirable emotive interaction, as illustrated throughout advertising.

Promotional material of the game, comprised of gameplay vignettes, graphically presents Sheila as a sexual and emotional companion. This media illustrates the intersecting worlds of sexual content and gaming through digital technologies (Payne and Alilunas, 2016). This is becoming extended to sextech as Saunders' notes, with other products designed for users with a penis: "The somatic plug-ins of Fleshlights and Kirroos and the touchscreen capabilities of so many digital devices blur too the voyeurism of digital sexual activities with the tactility of game play" (Saunders, 2019, p.242). Gameplay as a medium for interaction provides a familiar format regarding how the product works and allows for reflection on how both the hardware and software fuse in order to foster posthuman experience and intimacy. Building on technologies as mediums for intimacy as seen in previous work on sex machines (Duller and Rodriguez-Amat, 2019) and sex dolls (Andreallo and Chesher, 2019), both texts problematise a view that sex is the primary important feature. With VirtualMate it is worth thinking about how both the digital interface and haptic technology are used as medium for intimacy, bridging both the "emotional" and "spatial" closeness (Cockayne et al., 2017). While arguably the hardware of teledildonics situates VirtualMate as a more typical sextech product through its affordance of a physical sexual release, the advertising around Sheila illustrates how digital femininity and emotional interaction are revealed as equally key to creating a desirable product.

VirtualMate emphasises that character development and narrative make for a positive experience with Sheila, highlighting that it affords satisfying interaction. The website states "Users will feel VirtualMate is REALLY interacting with them. We have shaped virtual mate's captivating back-story, while injecting her with distinct characteristics. The plot thickens just like a big-budget Hollywood film, helping the user learn more about Sheila along the way and build a deeper

[7] Sheila is currently the only female character available, but VirtualMate website states they are hoping to include more in future developments.

connection with her" [sic] (VirtualMate, 2020). While differing from RealdollX's customisable personality, Sheila's identity as a character is also illustrated to be crucial to the interactive experience. The narrative arc of the gameplay that develops Sheila's identity cements the user's prospective emotional bond with Sheila, with VirtualMate disrupting dialectics of 'real' and 'virtual' to stress the interactivity of the experience. The focus on realism is of note; "realistic" is the most used thematic word on their webpage. Inciting an image of full immersion, they claim to offer "…an Experience so authentic, it responds to your every movement. With Virtual Mate, this vision is now a reality" (VirtualMate, 2020). As digital developments make products more sophisticated, some are concerned that authenticity and intimacy are challenged through the insertion of technological others imitating and manipulating human behaviours (Turkle, 2007, 2011). But, as Cockayne *et al.*'s research shows, recreating authentic humanoid characters for digitally intimate interactions does not rely on a facsimile as "Software… makes it possible to simulate human activity – and thereby humanoid expressions of intimacy – in ways that extend intimate encounter beyond the sole preserve of the human, introducing non-human object choice into the spaces of sexual interaction, engagement and expression" (2017, p.1123). Sheila indicates the potential trajectory for development, where emulating human performances of romance and intimacy destabilises 'real' and 'virtual' dialectics, making posthuman sextech desirable and accessible.

Fig. 7: Game footage of Sheila shown on the website (VirtualMate, 2020).

The promotional material is incredibly powerful, as the content is explicitly sexual, dramatically romanticised, and yet reliant on a vision of femininity that raises concerns of reductive stereotypes. Video gameplay footage shows how VirtualMate works for potential customers, but also introduces Sheila by presenting her in an extremely dynamic way. Shot from a 'Point of View angle' intrinsically linked to

pornographic material, it allows for "a field of vision [that] becomes that of the viewer, who sees the action unfolding as if through his eyes" (Paasonen, 2011, p.167). Viewers experience "real time game engine footage" inserting the audience into a what is the closest experience to a simulation of using the product. Close ups abound, as if the viewer were having 'sex' with Sheila, and dramatic music plays. Sheila visibly enjoys this sexual interaction and breathily proclaims her love to the viewer, intermingling romantic scripts with sexual content. In one video, Sheila introduces herself as "your virtual girlfriend", stating she is "here to take care of you" (VirtualMate, 2020). Not all content is idealised romance, however. Sheila tells watchers "I want you to use me", "Whatever you want of me, I will give you" (VirtualMate, 2020). While this research seeks to complicate categorising these products as exclusively sexual, this aspect cannot be discounted, along with the pressing ethical questions this raises. Some of Sheila's utterances replicate stereotypes of sexual servitude, fuelling concerns about how these technologies might impact expectations of human women (Danaher, 2017b). Despite a limited representation of femininity and female sexuality, Sheila's presentation is still significant in terms of design and advertising reinforcing the emotional interactivity afforded through the character – situating Sheila and interaction with her on posthuman terrain.

7 RESEARCH CONCLUSIONS

A comparative examination of these case studies highlights that emotional interactivity with digital female characters is emphasised in design and advertising. With Azuma Hikari, RealdollX and VirtualMate, the emotional affordances of interactivity with digital femininities are key to design and heavily stressed in promotional material. This emphasis speaks to the posthuman potential of affective links with digital characters that sit at the interstices of human/nonhuman binary. This provides important initial reflections on sextech progress beyond a narrow robot focus. Positing that 'sex robots' are but one facet of sextech allows for the inclusion of multiple formats in a comparative frame while drawing attention away from the monolithic 'AI-doll-as-sex-robot-figure' so rife in academic circles. Doing so illustrates how across media formats, gendered-female characters are designed to appear emotionally responsive to create desirable and engaging products. Speaking about AI girlfriends, Devlin and Belton state:

> "They are not, primarily, *sex* fantasies, but *love* fantasies, which are intimately tied up with the realities of the capitalist system. It is possible to pay for sex—the realities of sex work, and the emerging development of sex robots, point to this. It is not, however, currently possible to buy something that will love you and desire you" (2020, p.371).

While buying such a product may not be possible, the case studies' advertising and design choices certainly heavily allude to emotional and romantic interaction. Despite affinity with digital others challenging human/nonhuman dialectics, thus

sharing commonalities with posthumanism, this is not a neutral enterprise. As Braidotti warns "the advocates of advanced capitalism seem to be faster in grasping the creative potential of the posthuman than some of the well-meaning and progressive neo-humanist opponents of this system" (2013, p.45). A critical posthumanist stance thus allows for serious interrogation of companionship with technological others, without losing sight of concerning aspects of its manifestation in sextech. While this work attends primarily to the gendered dimensions, other tentative studies in this field probe the racial elements of design that favours whiteness and fetishes constructions of femininity that represent non-white characters (Puig, 2017; Johnson, 2019; Moran, 2019). Although beyond the scope of this paper, sextech research needs to expand to attend to these factors. This work agrees that "notions of intimacy and companionship … must overtake narrower discussions of sexuality, robots, and 'sex robots'" (Scheutz and Arnold, 2017, p.460), as all the while this market grows exponentially and symbiotically with digital developments in a myriad of formats. This investigation provides an initial attempt, heeding calls for urgent and nuanced research in this ever-expanding field (Döring and Poeschl, 2018). This market is poised to create intimate and sexual interaction with digital feminities, envisioning forms of posthuman sextech – with or without the arrival of 'sex robots'.

FUNDING STATEMENT AND ACKNOWLEDGMENTS

Many thanks to Dr. Kate Devlin who provided valued feedback and to the reviewers whose thorough editing helped to improve this paper.

REFERENCES

Adams, C., & Thompson, T. L. (2016). *Researching a Posthuman World: Interviews with Digital Objects*. Palgrave Macmillan. https://doi.org/10.1057/978-1-137-57162-5

Andreallo, F., & Chesher, C. (2019). Prosthetic Soul Mates: Sex Robots as Media for Companionship. *M/C Journal*, *22*(5). https://doi.org/10.5204/mcj.1588

Appel, M., Marker, C., & Mara, M. (2019). Otakuism and the Appeal of Sex Robots. *Frontiers in Psychology*, *10*, 1–11. https://doi.org/10.3389/fpsyg.2019.00569

Azuma, H. (2009). *Otaku: Japan's Database Animals*. University of Minnesota Press.

Banks, J., & Van Ouytsel, J. (2020). Cybersex With Human- and Machine-Cued Partners: Gratifications, Shortcomings, and Tensions. *Technology, Mind, and Behaviour*, *1*(1), 1–13. https://doi.org/10.1037/tmb0000008

Bendel, O. (2020). *Maschinenliebe: Liebespuppen und Sexroboter aus technischer, psychologischer und philosophischer Perspektive*. Springer Gabler. https://doi.org/10.1007/978-3-658-29864

Braidotti, R. (2006). Posthuman, All Too Human: Towards a New Process Ontology. *Theory, Culture & Society*, *23*(7–8), 197–208. https://doi.org/10.1177/0263276406069232

Braidotti, R. (2013). *The Posthuman*. Polity Press.

Braidotti, R. (2016). The Critical Posthumanities; Or, Is MediaNatures To NatureCultures As Zoe Is To Bios? *Cultural Politics*, *12*(3), 380–390. https://doi.org/10.1215/17432197-3648930

Cheok, A., & Levy, D. (Eds.). (2018). *Love and Sex with Robots: Third International Conference, LSR 2017 London, UK, December 19–20th, Revised Selected Papers*. Springer. https://doi.org/10.1007/978-3-319-76369-9

Cheok, A., Levy, D., & Devlin, K. (Eds.). (2017). *Love and Sex with Robots: Second International Conference, LSR 2016 London, UK, December 19–20th, Revised Selected Papers*. Springer. https://doi.org/10.1007/978-3-319-57738-8

Cheok, & Zhang, E. Y. (2019). Sex and a History of Sex Technologies. In A. D. Cheok & E. Y. Zhang (Eds.), *Human–Robot Intimate Relationships* (pp. 23–32). Springer International Publishing. https://doi.org/10.1007/978-3-319-94730-3_2

Ciambrone, D., Phua, V., & Avery, E. N. (2017). Gendered Synthetic Love: Real Dolls and the Construction of Intimacy. *International Review of Modern Sociology*, *43*(1), 59–78.

Cockayne, D., Leszczynski, A., & Zook, M. (2017). #HotForBots:Sex, the non-human and digitally mediated spaces of intimate encounter. *Environment and Planning D: Society and Space*, *35*(6), 1115–1133. https://doi.org/10.1177/0263775817709018

Coursey, K., Pirzchalski, S., McMullen, M., Lindroth, G., & Furuushi, Y. (2019). Living with Harmony: A Personal Companion System by Realbotix™. In Y. Zhou & M. H. Fischer (Eds.), *AI Love You* (pp. 77–95). Springer. https://doi.org/10.1007%2F978-3-030-19734-6_4

Danaher, J. (2014). Sex Work, Technological Unemployment and the Basic Income Guarantee. *Journal of Evolution and Technology*, *24*(1), 113–130.

Danaher, J. (2017a). Should We Be Thinking About Robot Sex? In J. Danaher & N. McArthur (Eds.), *Robot Sex: Social and Ethical Implications* (pp. 10–30). The MIT Press. https://doi.org/10.7551/mitpress/9780262036689.003.0001

Danaher, J. (2017b). The Symbolic-Consequences Argument in the Sex Robot Debate. In J. Danaher & N. McArthur (Eds.), *Robot Sex: Social and Ethical Implications* (pp. 189–243). The MIT Press. https://doi.org/10.7551/mitpress/9780262036689.003.0007

Danaher, J. (2019). Building Better Sex Robots: Lessons from Feminist Pornography. In Y. Zhou & M. H. Fischer (Eds.), *AI Love You: Developments in Human-Robot Intimate Relationships* (pp. 133–148). Springer. https://doi.org/10.1007/978-3-030-19734-6_7

Danaher, J., & McArthur, N. (Eds.). (2017). *Robot Sex: Social and Ethical Implications*. The MIT Press. https://doi.org/10.7551/mitpress/10718.001.0001

Devlin, K. (2018). *Turned On: Science, Sex and Robots*. Bloomsbury Sigma.

Devlin, K., & Belton, O. (2020). The Measure of a Woman: Fembots, Fact and Fiction. In S. Cave, K. Dihal, & D. Sarah (Eds.), *AI Narrative: A History of Imaginative Thinking about Intelligent Machines* (pp. 358–382). Oxford University Press. https://doi.org/10.1093/oso/9780198846666.003.0016

Devlin, K., & Locatelli, C. (2020). Guys and Dolls: Sex Robot Creators and Consumers. In O. Bendel (Ed.), *Maschinenliebe* (pp. 79–92). Springer Gabler. https://doi.org/10.1007/978-3-658-29864-7_5

Dillon, S. (2020). The Eliza effect and its dangers: From demystification to gender critique. *Journal for Cultural Research*, *0*(0), 1–15. https://doi.org/10.1080/14797585.2020.1754642

Döring, N., & Poeschl, S. (2018). Sex toys, sex dolls, sex robots: Our under-researched bed-fellows. *Sexologies*, *27*(3), e51–e55. https://doi.org/10.1016/j.sexol.2018.05.009

Dubé, S., & Anctil, D. (2020). Foundations of Erobotics. *International Journal of Social Robotics*. https://doi.org/10.1007/s12369-020-00706-0

Dubé, S. et al. (2022) Technology-Based Sexualities A.D. Lykins (ed.). Encyclopedia of Sexuality and Gender [online]. Available from: https://doi.org/10.1007/978-3-319-59531-3_70-1.

Duller, N., & Rodriguez-Amat, J. R. (2019). Sex Machines as Mediatized Sexualities: Ethical and Social Implications. In T. Eberwein, M. Karmasin, F. Krotz, & M. Rath (Eds.), *Responsibility and Resistance: Ethics in Mediatized Worlds* (pp. 221–239). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-26212-9_13

Galbraith, P. W. (2011) Bishōjo Games: 'Techno-Intimacy' and the Virtually Human in Japan. *Game Studies*. 11 (2), [online]. Available from: http://gamestudies.org/1102/articles/galbraith (Accessed 9 April 2021).

Galbraith, P. W. (2019). *Otaku and the Struggle for Imagination in Japan*. Duke University Press. https://doi.org/10.1515/9781478007012

Gatebox AI. (2020). *Azuma Hikari*. Gatebox. https://www.gatebox.ai/en/hikari

Giard, A. (2019a). Affects électroniques au Japon. Les systèmes de rencontre par machines interposées. *Hermes*, *84*(2), 104–111. https://doi.org/10.3917/herm.084.0104

Giard, A. (2019b). L'amour d'air au Japon. Rituels de rencontre avec des voix venues d'ailleurs. *Gradhiva*, *29*(1), 116–139. https://doi.org/10.4000/gradhiva.4082

Haraway, D. (1988) Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*. [Online] 14 (3), 575–599. [online]. https://doi.org/10.3178066 (Accessed 31 July 2020).

Haraway, D. (1991). A Cyborg Manifesto. In *Simians, Cyborgs, and Women: The Reinvention of Nature* (pp. 149–181). Routledge.

Haraway, D. (2003). *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Prickly Paradigm Press.

Haraway, D. (2004). *The Haraway Reader*. Routledge.

Haraway, D. (2016b). *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press. https://doi.org/10.1515/9780822373780

Haraway, D., & Goodeve, T. N. (2000). *How Like a Leaf: An Interview*. Routledge. https://doi.org/10.4324/9781315022888

Hayles, K. (2010). *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. University of Chicago Press.

Herbrechter, S. (2013). *Posthumanism: A Critical Analysis*. Bloomsbury Academic.

Johnson, S. A. (2019) The Transformers. illumiNation 3 p.16–19. [online]. Available from: https:/liberalarts.vt.edu/content/liberalarts_vt_edu/en/magazine/2020/the-transformers.html (Accessed 12 October 2020).

Kubes, T. (2019a). Bypassing the Uncanny Valley: Sex Robots and Robot Sex Beyond Mimicry. In J. Loh & M. Coeckelbergh (Eds.), *Feminist Philosophy of Technology* (Vol. 2, pp. 59–73). Springer. https://doi.org/10.1007/978-3-476-04967-4_4

Kubes, T. (2019b). New Materialist Perspectives on Sex Robots. A Feminist Dystopia/Utopia? *Social Sciences*, *8*(8), 1–14. https://doi.org/10.3390/socsci8080224

Kuksenok, K., & Santagati, S. (2019). Readable as Intimate: Toward a Conceptual Framework for Empirical Interrogation of Software Implementations of Intimacy. In Y. Zhou & M. H. Fischer (Eds.), *AI Love You: Developments in Human-Robot Intimate Relationships* (pp. 97–110). Springer. https://doi.org/10.1007/978-3-030-19734-6_5

Langcaster-James, M., & Bentley, G. R. (2018). Beyond The Sex Doll: Post-human Companionship and the Rise of the 'Allodoll'. *Robotics.*, *7*(4), 1–20. https://doi.org/10.3390/robotics7040062

Levy, D. (2007a). *Love and Sex with Robots*. Harper Collins.

Levy, D. (2007b). *Robot Prostitutes as Alternatives to Human Sex Workers*.1–6. http://www.roboethics.org/icra2007/contributions/LEVY%20Robot%20Prostitutes%20as%20Alternatives%20to%20Human%20Sex%20Workers.pdf

Locatelli, C. (2018). *"The Perfect Companion": From Cyborgs to Gynoids-Sex Robots and The Commodification of Authentic Intimate Experience* [Universidad de Granada].

Locatelli, C. (2020, August 25). What Japan's Love for Virtual Characters Reveals About the Future of Sex Tech. *Future of Sex.Net*.

https://futureofsex.net/virtual-sex-entertainment/what-japans-love-for-virtual-characters-reveals-about-the-future-of-sex-tech/

Loh, J. (2019) 'What Is Feminist Philosophy of Technology? A Critical Overview and a Plea for a Feminist Technoscientific Utopia', in Janina Loh & Mark Coeckelbergh (eds.) *Feminist Philosophy of Technology*. Berlin: Springer. pp. 1–24.

Malinowska, A. (2020). Sexbots and Posthuman Love. *The International Encyclopedia of Gender, Media, and Communication*, 1–6. https://doi.org/10.1002/9781119429128.iegmc036

Mcintyre, A. (2020). Gendering Cuteness. In *The International Encyclopedia of Gender, Media, and Communication* (pp. 1–6). John Wiley & Sons. https://doi.org/10.1002/9781119429128.iegmc285

Middleweek, B. (2020). Male homosocial bonds and perceptions of human–robot relationships in an online sex doll forum. *Sexualities*, *0*(0), 1–18. https://doi.org/10.1177/1363460720932383

Moran, J. C. (2019). Programming Power and the Power of Programming: An Analysis of Racialised and Gendered Sex Robots. In J. Loh & M. Coeckelbergh (Eds.), *Feminist Philosophy of Technology* (Vol. 2, pp. 39–57). Springer. https://doi.org/10.1007/978-3-476-04967-4_3

Nast, H. J. (2017). Into the arms of dolls: Japan's Declining Fertility Rates, the 1990s Financial Crisis and the (Maternal) Comforts of the Posthuman. *Social & Cultural Geography*, *18*(6), 758–785. https://doi.org/10.1080/14649365.2016.1228112

Nyholm, S., & Frank, L. (2017). From Sex Robots to Love Robots: Is Mutual Love with a Robot Possible? In J. Danaher & N. McArthur (Eds.), *Robot Sex: Social and Ethical Implications* (pp. 396–442). The MIT Press. https://doi.org/10.7551/mitpress/9780262036689.003.0012

Paasonen, S. (2011). *Carnal Resonance: Affect and Online Pornography*. MIT Press. https://doi.org/10.7551/mitpress/9780262016315.001.0001

Payne, M. T., & Alilunas, P. (2016). Regulating the Desire Machine: Custer's Revenge and 8-Bit Atari Porn Video Games. *Television & New Media*, *17*(1), 80–96. https://doi.org/10.1177/1527476415601212

Pettman, D. (2017). Love in the Time of Tamagotchi. *Theory, Culture & Society*, *26*(2–3), 189–208. https://doi.org/10.1177/0263276409103117

Puig, K. (2017). *The Synthetic Hyper Femme: On Sex Dolls, Fembots, And The Futures of Sex* [Master of Arts, San Diego State University]. https://digitallibrary.sdsu.edu/islandora/object/sdsu%3A21504

Ranish, R., & Sorgner, S. L. (2014). Introducing Post- and Transhumanism. In R. Ranish & S. L. Sorgner (Eds.), *Post- and Transhumanism: An Introduction* (pp. 7–27). Peter Lang.

Ray, P. (2016). 'Synthetik Love Lasts Forever': Sex Dolls and the (Post?)Human Condition. In D. Banerji & M. R. Paranjape (Eds.), *Critical Posthumanism*

and Planetary Futures (pp. 91–112). Springer India. https://doi.org/10.1007/978-81-322-3637-5_6

RealdollX App. (2020). *RealdollX App*. RealdollX: The Perfect Companion in the Palm of Your Hands. https://www.realdollx.ai

Richardson, K. (2016). Sex Robot Matters: Slavery, the Prostituted, and the Rights of Machines. *IEEE Technology and Society Magazine*, *35*(2), 46–53. https://doi.org/10.1109/MTS.2016.2554421

Rigotti, C. (2020). Guardare i sex robots attraverso le lenti femministe. *Filosofia*, *65*, 21–38. https://doi.org/10.13135/2704-8195/5076

Robertson, J. (2007). Robo Sapiens Japanicus: Humanoid Robots and the Posthuman Family. *Critical Asian Studies*, *39*(3), 369–398. https://doi.org/10.1080/14672710701527378

Saunders, R. (2019). Computer-Generated pornography and convergence: Animation and algorithms as new digital desire. *Convergence*, *25*(2), 241–259. https://doi.org/10.1177/1354856519833591

Scheutz, M., & Arnold, T. (2017). Intimacy, Bonding, and Sex Robots: Examining Empirical Results and Exploring Ethical Ramifications. In J. Danaher & N. McArthur (Eds.), *Robot Sex: Social and Ethical Implications* (pp. 444–469). The MIT Press. https://doi.org/10.7551/mitpress/9780262036689.001.0001/

Schiller, A., & McMahon, J. (2019). Alexa, Alert Me When the Revolution Comes: Gender, Affect, and Labor in the Age of Home-Based Artificial Intelligence. *New Political Science*, *41*(2), 173–191. https://doi.org/10.1080/07393148.2019.1595288

Shields, J. (2019, September 19). 75% Funding in Two Days: VirtualMate Breaks Crowdfunding Record with New Intimacy System. *The Hollywood Times*. https://thehollywoodtimes.today/75-funding-in-two-days-virtualmate-breaks-crowdfunding-record-with-new-intimacy-system/

Strengers, Y., & Kennedy, J. (2020). *The Smart Wife: Why Siri, Alexa, and Other Smart Home Devices Need a Feminist Reboot*. MIT Press. https://doi.org/10.7551/mitpress/12482.001.0001

Su, N. M., Lazar, A., Bardzell, J., & Bardzell, S. (2019). Of Dolls and Men: Anticipating Sexual Intimacy with Robots. *ACM Transactions on Computer-Human Interaction*, *26*(3), 13:1-13:35. https://doi.org/10.1145/3301422

Szczuka, J. M., & Krämer, N. C. (2017). Not Only the Lonely—How Men Explicitly and Implicitly Evaluate the Attractiveness of Sex Robots in Comparison to the Attractiveness of Women, and Personal Characteristics Influencing This Evaluation. *Multimodal Technologies and Interaction*, *1*(1), 1–18. https://doi.org/10.3390/mti1010003

Toffoletti, K. (2007). *Cyborgs And Barbie Dolls: Feminism, Popular Culture And The Posthuman Body*. I.B Tauris.

Turkle, S. (2007). Authenticity in the age of digital companions. *Interaction Studies*, *8*(3), 501–517. https://doi.org/10.1075/is.8.3.11tur

Turkle, S. (2011). *Alone Together*. Basic Books.
VirtualMate. (2020). *VirtualMate*. VirtualMate. https://www.virtualmate.com
White, D., & Galbraith, P. W. (2019, January 25). Japan's Emerging Emotional Tech. *Anthropology News*, 6–10. https://doi.org/10.1111/AN.1070
Wilde, P. & Evans, A. (2019) Empathy at play: Embodying posthuman subjectivities in gaming. *Convergence*. [Online] 25 (5–6), 791–806. [online]. Available from: https://doi.org/10.1177/135485651770998.
Yeoman, I., & Mars, M. (2012). Robots, men and sex tourism. *Futures*, *44*(4), 365–371. https://doi.org/10.1016/j.futures.2011.11.004
Zhou, Y., & Fischer, M. H. (Eds.). (2019). *AI Love You: Developments in Human-Robot Intimate Relationships*. Springer. https://doi.org/10.1007/978-3-030-19734-6

JOURNAL OF DIGITAL SOCIAL RESEARCH

WWW.JDSR.IO ISSN: 2003-1998

VOL. 4, NO. 3, 2022, 34–55

A VIRTUAL SAFE SPACE? AN APPROACH OF INTERSECTIONALITY AND SOCIAL IDENTITY TO BEHAVIOR IN VIRTUAL ENVIRONMENTS

Kata Szita[a]

ABSTRACT

Health measures in response to the Covid-19 pandemic have confined millions to their homes and minimized social contacts. During this period, a significant proportion of social activities—including work, education, and recreation—moved to digital media platforms. Among these platforms, social virtual reality (VR) has gained importance offering "alternative" realities in which users can engage with others, participate in cultural and sports events, complete education-related activities, and (mental) health treatments, to name but a few functions. With the increasing popularity of social VR and the expanding range of activities these platforms can host, hitherto-unexplored questions arise regarding social interactions and the representation of virtual bodies. Therefore, the objective of this paper is to outline a potential framework for assessing how avatars that represent various body types and demographic characteristics, such as gender or ethnicity, may impact behaviors and identity. The paper presents a theoretical study that combines social identity theory and theories of intersectionality and applies them to the case of digitally created human-like bodies. By doing this, it illuminates the challenges and benefits virtual reality platforms and digital body representations hold—including remote social interactions due to social isolation and social dynamics based on online personas.

Keywords: social virtual reality, intersectionality, social identity, virtual body, avatars.

[a] Trinity College Dublin, Ireland

1 INTRODUCTION

Health measures in response to the Covid-19 pandemic have confined millions to their homes and minimized social contacts. This strengthened mediated communication and what Slater (2002) labels as media users' *disembedded* presence—social interactions where physical time and space are homogenized into a simultaneous online presence, akin to Marshall McLuhan's (1964) global village. During this period, a significant proportion of social activities—including work, education, and recreation—moved to digital media platforms. Among these platforms, extended (virtual, augmented, and mixed) reality technologies (collectively: XR) have gained importance offering "alternative" realities in which users can engage with others, participate in cultural and sports events, complete education-related activities, and (mental) health treatments, to name but a few functions. Some of the most widely publicized examples from this period include XR events, such as scientific conferences (e.g., the Immersive Learning Research Network's virtual conferences), museum tours (e.g., by Rijksmuseum and Museum of Modern Art, New York), concerts (e.g., by Lindsey Stirling and Billie Eilish), and performances (e.g., at Metropolitan Opera).

During such a global health crisis, new living circumstances can be managed using digital media and virtual communication channels (Wiederhold 2020; Siani and Marley 2021). However, the effects of the Covid-19 pandemic on digital media consumption notwithstanding, it is perhaps safe to declare that XR platforms' underlying popularity is also important from the standpoint of other phenomena. For instance, they provide communication channels and environments for various activities while decreasing carbon footprints of traveling. XR platforms can also offer the means for socializing for those in temporary or permanent isolation (e.g., hospitalized people) as well as for people with limited mobility, such as those living with disabilities.

Regarding the growing application of XR platforms and their advantages in closing geographic gaps and presenting embodied experiences, a note on technology adoption is in order. It is incontestable that digital media is embedded into Western populations' social lives through the widespread use of various social media platforms and messaging apps. At the same time, while statistical data presents the increase of extended reality's market value, accessibility to technology still shows mixed trends for the general public (Alsop 2021a, 2021b, 2021c). On the one hand, some devices to access XR content, such as head-mounted displays (virtual reality headsets), are often costly and the hardware may be bulky, uncomfortable, and complicated to use. This implies the technology's constraints on everyday application. On the other hand, however, XR content is often available on ubiquitous appliances, such as computers or smartphones that are present in many households. For instance, virtual reality spaces (e.g., AltspaceVR) are generally based on immersive systems and applications but some of them are configured even for two-dimensional access on computers or portable smart devices. Similarly, some

augmented reality (AR) contents—for example, AR filters that can create virtual bodies out of users' self-images—are designed for smartphones and tablets and are implemented in a wide range of social media and communication applications. The AR capacity of mobile devices is perhaps the most significant factor responsible for XR's collective pervasiveness.

This paper focuses on the particular case of social virtual reality (VR), an internet-based telepresence[1] platform for social interactions. Social VR is operated by immersive technology and presents three-dimensional computer-generated environments (Dzardanova, Kasapakis and Gavalas 2018; McVeigh-Schultz et al. 2018; McVeigh-Schultz, Kolesnichenko and Isbister 2019). Social VR platforms can host a wide range of real-time activities in which users take part in the form of customizable avatars[2] who can interact with each other in a shared space through voice conversations or live chat. These activities can be small (private) and large scale (public)—anything from friendly get-togethers, work meetings, and home movie nights to group fitness classes, lectures, and arena concerts (see Figures 1–2).

Figure 1: A virtual cinema screening in Bigscreen VR. Image source: https://www.facebook.com/bigscreenvr. Figure 2: The Immersive Learning Research Network's (iLRN) virtual campus by Virbela. Screenshot by the author.

With the increasing popularity of social VR and the expanding range of activities these platforms can host, hitherto-unexplored questions arise regarding social interactions and the representation of virtual bodies. Therefore, the objective of this paper is to outline a potential framework for studying the links between the digital manifestation of body characteristics and social behavior in extended reality environments. It focuses on how the graphical representation of users epitomizing various body types and demographic characteristics—such as gender or ethnicity—may impact behaviors and identity. The paper presents a theoretical study that applies theories related to the studies of social identities (particularly, social identity theory and intersectionality) to the case of digitally created human-like bodies. By

[1] Telepresence, a term introduced by cognitive scientist Marvin Minsky (1980), refers to remote participation through telecommunication tools. In virtual reality and human–computer interaction studies, it demonstrates the extent to which a virtual environment can induce a feeling of "being there."

[2] An avatar in an online word—including social VR—denotes the two or three-dimensional graphical representations of a user in that specific digital space.

doing this, it aims to illuminate the challenges and benefits extended reality platforms and digital body representations hold—including remote social interactions due to social isolation and social dynamics based on online personas.

The study builds on a theoretical framework of social identity theory and intersectionality. Social identity theory (SIT) is used for predicting in-group and intergroup behavior: a social group to which an individual belongs defines their relations to members and non-members (Tajfel and Turner 1986; Huddy 2001; Hogg 2006). Here, I build on the thesis that interactions with others depend on identifications with social groups—keeping in mind that users' online identities might differ from real-life identities. The problem of such malleable digital identities links SIT to intersectionality, which highlights an individual's multiple identities (based on, for instance, the intersections of gender and ethnicity) and the way these identities include or exclude them from social groups (Crenshaw 1989, 1991; Dill and Zambrana 2009). Although, intersectionality does not only contextualize the factors for social advantages and oppression based on the combination of two or more demographic characteristics (see Jones 2003). Besides being a framework of analysis, it also serves as a tool for promoting political change in national, transnational, and global contexts (see Ngan-Ling Chow, Texler Segal and Tan 2011).

Social identity theory and intersectionality are rarely linked because of their epistemological and methodological differences (see Warner 2008; Taksa, Powell and Jayasinghe 2015): while SIT highlights cognitive processes that shape inter and in-group relations, intersectionality observes social and political statuses—often from a feminist perspective. This combined theoretical framework, however, allows for an analysis of social identities both from internal and external angles; that is, through the questions of self-identification and autonomous behavior as well as group identification and peer pressure, respectively.

The analysis begins with an in-depth discussion of the theoretical framework based on the amalgam of social identity theory and intersectionality. I will argue for the combination of these two distinct approaches and explicate their potential uses for studies of online and virtual behavior in relation to extended reality. Then, I turn to the practical, ethical, and aesthetic aspects of virtual bodies. Following the discussion of body representations, the paper will conclude by presenting potential behavioral patterns across social groups in social VR and arguing for the future directions of research based on its findings.

2 SOCIAL IDENTITIES ONLINE AND OFFLINE

Social identities are adaptable; one can assimilate with social groups chosen by or assigned to them. Studies of social identity from a social psychological point of view stem precisely from this point, namely, human behavior related to being part of or excluded from a group (Tajfel et al. 1971; Turner 1975; Tajfel and Turner 1979). The approach is based on Henri Tajfel's thesis of positive social identity:

recognizing one's own group and assigning positive values to it in comparison to other groups to achieve and maintain integrity (Tajfel 1972). This implies that allocating individuals into groups would make them identify themselves through their group membership rather than their individual values. According to Tajfel, the underlying process involves categorization, identification, and comparison, the latter of which eventually leads to positive distinctiveness (Turner and Reynolds 2016).

There are social, geopolitical, and cultural systems according to which individuals may be assigned to groups (Abrams and Hogg 1990, 2010): people can belong to groups based on their nationality, religion, sex and gender, sexual orientation, political view, interests, hobbies, and many other factors. These groups function according to internal rules that determine the range of included populations (the conditions of membership) and define certain norms regarding members' actions or even characteristics. For instance, a country's population is based on the place of living and an ethnic group's members may be defined by a common language, ways of expressions (e.g., dialect), or bodily characteristics (e.g., skin color). However, besides historical and organically constructed structures, group membership can derive from spontaneous connections between people, too. This means that one can identify oneself as part of a group of unfamiliar individuals that gathered, for instance, to watch a concert as much as being part of a nation with common history, social, and cultural formulae.

Building on theories regarding identification with a group, Turner and Reynolds (2016) note the importance of interpersonal and intergroup behavior—the engine to personal and social identities. In this regard, we must consider the factors that would define and can be used to predict an individual's attitude and roles. These factors include one's status within the group, attitudes toward group members, and the group's perceived legitimacy and stability (Tajfel and Turner 1979, 1986). Such an approach to group psychology is suitable to explain conflicts and behaviors based on prejudices even in online spheres: perceiving one's position within the context of a group can affect perceptions of others.

Online systems function according to specific standards that create frameworks to shape communities, behaviors, as well as the aesthetic and functional elements of spaces, tools, and participants. These frameworks form social structures and interactions that define participants' group-related identities. It may be compelling to observe these identities as extensions or mediated manifestations of real-life identities; but as previous research suggests (and as many of the cases examined along this essay illustrate), online and offline presence form identities and social behaviors on separate grounds (Slater 2002; Orgad 2009; van Zoonen 2013). Highlighting this, Slater (2002) argues that online identities can momentarily replace real-life identities. Correspondingly, Orgad (2009) claims that online and offline identities can be equally "real:" one is not inherently more reliable in terms of social interactions or social identities than the other. Digital spheres have evolved and transformed since the moments these studies freeze; the current generation of

social interaction platforms enables increasingly high sensory immersive experiences and realistic representations. Yet, I argue for the relevance of defining the parallels between online and offline social identities particularly in relation to XR. Moreover, in the lack of a coherent social and technological ecosystem or unified frameworks and practices in online social interactions, it is important to observe the social constructs that specific technologies—such as extended reality—afford, dictate, or even hinder.

3 AN INTERSECTIONAL APPROACH TO DIGITAL BEHAVIOR

In internet-based communities, online identities characterize group memberships and group-related attitudes. An online identity may have varying correspondence to offline (physical-world) identities and discrepancies between these can be based on an online community's social structure, a platform's technical affordances, or personal choices (e.g., choosing to hide or disclose certain characteristics or demographic markers).

Interactions in social VR spaces are executed through avatars with different levels of fidelity, detail, or communication capacities depending on the particular space's design principles or purposes. For instance, in Virbela, a social virtual reality platform for hosting professional events, avatar representations are tied to business demeanor and expressions, and users are encouraged to disclose their real-life full names and professional affiliations. Contrarily, AltspaceVR, which involves popular culture events and free-time activities, allows for more personal freedom in avatar representation and communication. Users' social identities can be represented by "imaginative combinations" (AltspaceVR 2020, par. 3): the platform supports the freedom of body representation by offering a wide range of accessories as well as body types and skin tones (including alternative tones, such as pink or green) to support curiosity and comfort in expressing one's identities.

An online identity is based on a constructed persona that, besides visual (body) representations, consists of a variety of verbal and textual elements, such as name or moniker and personal information. As introduced above, this persona (a "technoself," see Luppicini 2012) allows for a great degree of experimentation (Code and Zap 2009) and, as such, corresponds to, complements, or replaces—or intentionally masks—real-life identities (van Zoonen 2013; Marciano 2014). For instance, one's avatar may conform to gender identifiers that deviate from the user's own gender. Or, the avatar can show different ethnicity or age-related characteristics than the user themselves. This may disembody a user from their offline identities and potentially lead to misrepresentation or misinterpretation of social characteristics. However, it also enables dynamic transitions between online social groups and greater flexibility of self-identities tied to group memberships.

Such malleability of digital identities somewhat opposes notions related to identities formed by external forces (including social, geopolitical, and cultural

systems), while it draws attention to contexts of social interactions and their effects on one's identities. This suggests that demographic markers or social categories of any sort are inadequate to define one's social identities not simply because individual identities may shape in order to adapt to collective identities and group memberships, but because they are largely context-dependent.

The question of context as a driving force behind individual and collective identities links virtual identities to the approach of intersectionality. SIT does not question the overlaps between social groups—that individuals can belong to multiple groups at the same time and identify with each of them (Hogg 2006).[3] Rather, as Hogg argues, the most *salient* identity governs mental processes, where salience is dependent on the momentary social context. Although this is apt for our case, investigations of behaviors in extended reality and other online spaces require a complementary approach. SIT is effective for assessing cognitive processes that define the ways in which individuals perceive social relations through their memberships in (or exclusion from) groups. Intersectionality, in contrast, provides an analytical framework for estimating the effects of apparent characteristics of digital bodies that could define an individual's (avatar's) potential privileges and disadvantages within particular online communities.

Intersectionality observes power structures to define social dynamics across individuals and groups (Dill and Zambrana 2009). Unlike SIT that operates on the level of group dynamics, self-enhancement, and social comparison, intersectionality presents the role of demographic, apparent, and other characteristics of humans on a societal level (Taksa, Powell and Jayasinghe 2015). Intersectionality has a base in feminist studies, more specifically the black feminist movements, which defined the frameworks of systematic oppression based on intersecting social identities.[4] This base steers the approach toward the political and social means of inclusion and discrimination: it concerns how different identities and memberships in different social groups (that is, the combination thereof) would reinforce discrimination (Davis 2008). This calls attention to the combined effects of multiple identities or social-group memberships; for example, when women of minority groups (e.g., black women) are discriminated against or are victims of abuse based on both their gender and race (Crenshaw 1991).

There have been attempts to connect SIT and intersectionality and integrate them theoretically or methodologically. For instance, SIT's salience concept mentioned above was applied to the question of inclusion and discrimination

[3] Although the recent scholarship of social identity theory allows for observing an individual's multiple social identities based on group memberships, early definitions by Tajfel proclaimed that social identity is tied to an individual. Thus, one can only establish a single identity based on their knowledge deriving from group membership(s) (Tajfel 1981).

[4] Black feminism criticized mainstream feminist movements obscuring marginalized groups based on race, class, immigrant status, and others. According to the 1977 Combahee River Collective Statement, black feminism highlights how black women's "sexual identity combined with their racial identity [would] make their whole life situation and the focus of their political struggles unique" (Combahee River Collective 2000, p. 265; see also, Taylor 2017).

highlighting that the most salient identity (e.g., race *or* gender) in certain social contexts defines behaviors toward an individual more than other identities or characteristics (Holvino 2012). However, as Taksa, Powell, and Jayasinghe (2015) note, the two approaches' integration may do even more: it could "ensure the self-concept is understood as more complex than a neat package of atomistic identities waiting to be awakened by the appropriate salience stimulus" (Taksa, Powell and Jayasinghe 2015, p. 523; on the critique of atomism, see also Geerts and van der Tuin 2013 and Puar 2012).

As it was introduced earlier, online identities are socially constructed and context-dependent rather than simply being the mediation of offline identities (which are not least constructed and context-dependent). This approximates the Goffmanian concept of contexts guiding identity; the idea that one acts and presents oneself differently in different social situations (Goffman 1956, 1986). Additionally, the forms of social interactions and identity presentation (one's way of presenting themselves) both off- and online depend also on the audience (Marwick and boyd 2011).[5] Yet, as argued above, accommodating identities to social scenarios and groups on extended reality platforms may go beyond behavior. It also concerns the choices in representing one's identity and potential fit to a social system through a digital persona and body. For instance, the aforementioned social VR platform, AltspaceVR allows for a wide variety of options for forming an avatar's body shape, skin color, and overall appearance and it is openly declared that these options serve users' safety and comfort when using the platform (AltspaceVR 2020). Avatars appearing with blue, green, or other unlikely skin tones may presumably eliminate biases based on real-life race (manifested by skin color) in the virtual world and foreground other elements that conform to (or contravene) a community's social structure and its expectations from its members.

As Marwick (2013) argues, social behavior within online communities is based not only on how a user decides to present themselves but also on structural factors, such as a platform's technical mechanisms and the enabled forms of interactions. This account highlights that online platforms' behavioral frameworks and the interaction mechanisms afforded by a given technology (e.g., text, sound, image, and the combination of these) delimit the amount of information regarding one's apparent identifying characteristics other users can access. For example, participation in professional online networks, such as Virbela, would require sharing verifiable personal information, whereas, on other platforms, one's look, name, or other personal identifiers are often buried under fictional identities.

The lack of unambiguous demographic markers—that would otherwise define power structures in offline social interactions—compels an investigation of users' representation in online spheres. Thus, before analyzing the effects of social

[5] As Marwick and boyd (2011) argue, social interactions are often complicated by the merging of different audiences. In online spheres, information and messages may travel quickly across audiences (e.g., by using the retweet function on Twitter) and the combination of different audiences reflects differently on identity presentations and the original source's identity.

identities in virtual reality, I turn to the issue of virtual bodies. This includes the frameworks of customizations and sensory representations that may connect or distance users from their physical-life selves, prompt discriminatory or privileged treatments, and define behaviors within and across groups.

4 VIRTUAL BODIES

Customizations of a user's body representation on social VR platforms (and even when using AR filters) often enable choosing the amount of self-exposure. This means that users are generally free to determine how they want to present themselves and how much they want to disclose of their real-life selves and apparent characteristics that otherwise may define their social or political identities. This freedom of choice can affect social dynamics in virtual spaces and raises questions of body representation as well as individuals' relationships with others of different social groups represented by bodily characteristics or clothing.

Avatars used in social VR are generally designed using basic pre-existing templates of gender, skin and hair color, clothing, and other features (see Figures 3–4). Some platforms offer customizations to make one's avatar look very much like them: by uploading a self-image (in more advanced cases, by performing a 3D scan), the avatar can become a life-like or even a photorealistic depiction of the user. These solutions have been praised for authenticity, for the ways they increase the sense of embodied experiences, and for avatars being adorned with a personality (Selvet 2016; Rubin 2019).

Figures 3–4: Avatar customization platforms by ReadyPlayerMe and Virbela. Screenshots by the author.

While realistic avatars that correspond to users' real-life bodies have started to replace the less elaborate depictions on many social virtual reality platforms (Faulkner 2021), avatars of floating busts with limited customizability are still common. Avatars' elaborateness often depends on how vital the role of virtual bodies and bodily characteristics are in completing the activities a platform affords. For example, realistic avatars developed to be used in the Facebook Metaverse (see Robertson 2021) not only look like photographic images of users, but eye and face

tracking also allow for simulating eye movements and mimicry for increasing fidelity in virtual communication. ReadyPlayerMe renders photos into digital faces or bodies that hold some identifiable characteristics (Figure 5). Contrarily, avatars in Bigscreen VR, a virtual reality application for simulating movie theaters and organizing social movie screenings, are limited to basic features, such as skin and hair color and gender (see Figure 6). The reason behind the latter is perhaps that users mainly just see their own avatars' hands and rarely their full bodies and that the application is designed for movie watching implying that attention is directed to the screen rather than to each other's avatars. Yet another example is the appearance of avatars in the virtual worlds offered by Second Life, where one can easily be represented as a fictional character (for instance, a vampire) or an animal.

Figure 5: An avatar automatically created from an uploaded image in ReadyPlayerMe. Figure 6: An avatar customized for the same parameters using the built-in options in Bigscreen VR. Screenshots by the author.

According to the above, photorealistic representation—on one end of the spectrum of life-like vs. cartoonish representation of users in extended reality spaces—can increase embodied experiences compared to those with little or no correspondence to the user's own body. This means that the more a virtual body visually corresponds to a physical body in its motion or appearance, the stronger the sensation of ownership of the represented body (i.e., the sensation that "this is my body") will be (see Slater et al. 2008; Slater 2009; Lugrin, Latt and Latoschik 2015). In addition, avatar characteristics and users' verbal and non-verbal communication through them can positively affect social engagement (Latoschik et al. 2019; Sykownik, Emmerich and Masuch 2020). Latoschik and colleagues (2017) provide evidence that avatar realism impacts the quality of social interactions: when a user interacts with photorealistic avatars, they develop a higher sense of ownership of their own body than when they interact with a wooden mannequin and this affects engagement with others.

Graphic realism in digital bodies' appearance tends to increase the sensation of interacting with human agents as opposed to computer-generated ones. In contrast, non-realistic (or at least non-photorealistic) representations of human bodies in virtual environments are less likely to lead to anthropomorphism, the

attribution of human qualities to virtual bodies. Thus, users can attribute human traits to a figure based on how it looks. According to the theories related to the uncanny valley, a human-like object or figure (e.g., robot or animated character) evokes an uncanny sensation if it incompletely resembles a real human and its eeriness decreases only if this resemblance shifts either toward a "perfect" human or to non-humanoid representation (Mori, MacDorman and Kageki 2012). Avatars in virtual reality spaces hold a high level of human traits being operated by and linked to human users. And, although they may fall into the uncanny valley them being too human-like but not human enough, empirical results show that avatars' *exact* appearance has marginal effects on users' perception of them as strange, eerie, or uncanny (Latoschik et al. 2017). This may suggest that users of a given extended reality system accept the aesthetics of the platform—including the design, elaborateness, and fidelity of the environment and figures. Verbal and non-verbal interactions with fellow users through their digital bodies can also lead to the acceptance of these figures representing humans (see Patel and MacDorman 2015) and can compensate for the lack or deficiency of social cues (Roth et al. 2016).

The spectrum of realistic–unrealistic (or rather, life-like–cartoonish) representations is perhaps as broad as many different digital platforms exist; and, in the case of social virtual reality, a high level of realism is expected generally from platforms that afford activities similar to offline ones (Maloney and Freeman 2020). For instance, video gaming platforms that involve engagement with fictional worlds may be less realistic, while those that involve social gatherings and live events (such as Oculus Venues or Virbela) would demand higher expectations of realism. Yet, what is a general tendency among social VR and avatar-designing applications (e.g., ReadyPlayerMe) in the early 2020s is the limited range of choices for customizations. As introduced above, avatar designing functions in the majority of the mentioned applications or platforms allow some options for choosing one's gender (or choosing "unspecified"), skin color, hair, and offer basic items of clothing. These, however, often follow stereotypical representations, for example, a female body is petite, and a male body is muscly, and barely cover the range of bodily characteristics of everyday humans. Body type, including size and disabilities, are rarely among the customizable features; body shape is often tied only to the options for gender. Another striking limitation is the apparent age of avatars: representing characteristics of people of different ages are limited to settings of hair color or accessories, such as glasses. For example, when uploading a photo of an elderly woman to ReadyPlayerMe's avatar designing site, the system generates an avatar with a face that appears the same way as a teenager's face only with gray hair.

Clothing can be a strong identifier for demographic characteristics (e.g., gender, class) and can signal subcultures, interests, or hobbies on which social identities and group memberships can be based. The options for clothing items (clothes, shoes, accessories) or other objects such as sports equipment or crutches are also often toned down with little options for customization. The range of these items depends on the profile or target audience of a given platform. For example,

Virbela, which is marketed as a social virtual reality application for professional uses, offers business-like attires, whereas elsewhere (e.g., ReadyPlayerMe, WaveXR) avatars can more likely be adorned with a wide range of extravagant items, such as angel wings or space suits, than with traditional (folk) garments and accessories.

The limitations in customizing one's avatar to match their real-life looks and social identifiers inherently lead to fake representations—not only by choice but also because of necessity. While an in-depth ethnographic review of avatars and their elaborateness is out of the scope of this paper, it is nevertheless important to recognize users' *disembodied embodied* presence in online spaces before turning to the potential impacts of body representation on social behavior. Disembodied, because a virtual body may display simplified, artificial, or unrealistic characteristics. Embodied, because one takes ownership of this new body as the vessel for self-presentation, communication, and, therefore, identity.

In the following, I will turn to potential social behaviors and power structures in virtual reality spheres and the ways in which users with avatars of various appearances can be subjected to varying degrees of discrimination.

5 SOCIAL BEHAVIOR IN VIRTUAL SOCIAL PLATFORMS

Extended reality platforms create what Ceuterick (2021) calls "transitional or liminal spaces" between physical and virtual worlds (p. 93). In virtual environments, a user's physical body functions simultaneously with another, digital body. A user's body representation is generally related to the audience (e.g., fellow users) and can be adapted to one's personal narrative and communication strategies. The use of avatars may impact the connection (or even divide) between digital and physical-world identities and transport identity-related issues to physical realms: for example, avatars can create false identities and body images and can negatively impact trust and interpersonal connections (see Agar 2019).

The virtual body used to represent a user during social interactions in extended reality is an entity armored with the user's intentions and personality, but its appearance and actions are also defined by the technological and design elements of a given platform. In other words, one's social identity in extended reality spaces is an amalgam of their real-life and virtual identities defined by group memberships, power structures (e.g., dominance, discrimination), and an XR platform's interaction mechanisms and affordances for designing one's profiles. For example, in Bigscreen VR, where avatars are moderately customizable (and play little role in completing activities), one's social identity is largely conditional to groups defined by shared interests or momentary omnipresence—similar to real-life scenarios. Social structures in such an environment form based on movie preferences and attendance of a specific screening; inclusion is tied to the spatial and temporal boundaries of a screening room and the screening itself. Users attending a specific screening share a value system (e.g., interests, knowledge) and experiences (e.g., the movie and audience experience), and—ideally—adhere to the social frameworks of

movie screenings. Contrarily, Virbela encourages users to tailor their profiles and avatars to match their real-life selves, including looks or job descriptions. This means that an avatar (with a nametag and company name; see Figure 2) is likely an authentic identifier and—besides presence in a shared meeting room or lecture theater—is the base for forming social groups and defining memberships that may be followed upon outside of the virtual space.

Communities in social virtual reality involve geographically dispersed populations that are, thus, connected by a shared activity or interests. Groups of users in Bigscreen VR are connected by the act of watching a chosen movie, by their interests in viewership and a particular film. Others, in Virbela, may be connected by a shared workplace or work-related event, such as a conference. In Wave XR or AltspaceVR, people gather for a concert or other types of live events. In this sense, these communities are formed based on shared values that define the principles of membership (Abrams and Hogg 1990, 2010). For example, those who attend a specific virtual concert are likely to have similar tastes in music. Or, to look at it from another angle, they join the concert *because* they have similar tastes in music.[6]

Virtual spheres determine the frameworks of a given activity—from the sensory aspects to those of community behavior: based on the involved software and hardware, each social virtual reality platform affords certain visual, sonic, and tactile engagement, communication methods, and behavioral formulas as well as various levels of fidelity and avatar elaborateness. Thus, to summarize, the shared values and a virtual environment's or platform's affordances have the power to form a community, while geographic factors—that often define physical-world communities—have little prominence.

Based on social identity theory, the above factors—shared values, interests, and technical means—may lead to users' identification with and positive reinforcement of group values. Members of a community, that is, users who attend a particular event or are present in a particular virtual environment, accept the norms that form and define the community; the way avatars look (e.g., their fidelity), the way they interact (e.g., verbal, text-based interaction), the level of customization, and other technical, sensory, and communication-related aspects, such as bodily involvement, viewing perspectives, or language. Attending a virtual room for physical activities involves the user's physical body in a different way (i.e., by using body tracking or controllers) than watching a concert and a virtual movie theater demands different communication and behavioral standards than a sports venue.

Because of the variety of different social VR spaces, there is hardly a single *virtual identity* as much as there is no single virtual representation of a user (see above). Like offline social systems, virtual environments strongly define behavioral frameworks and a user's engagement and assimilation with an often spontaneously

[6] It must be noted that the conditions of membership also include one's access and ability to operate a virtual world via virtual reality systems and equipment.

forming community. These identities may correspond to one's physical-world life: their access to XR technology, taste in music or movies, and—to some extent and certain cases—even their appearance. This returns us to the earlier discussion of social identities: an individual can identify as a member of several groups at once, while stronger ties to a community and more salient identities govern. Strong ties are generally formed over time; national identity, religion, and even gender identification involve cultural, social, and behavioral frameworks that one assimilates with over a broader period of time rather than establishing them spontaneously (Abrams and Hogg 2010). Saliency, on the other hand, is related to momentary scenarios, where the situation dictates which identities become dominant (Hogg 2006). Thus, saliency can be governed by a virtual environment's or activity's affordances. For instance, Bigscreen VR's profile and technical framework would highlight one's identity as a movie fan (or their preferences of certain genres, directors, and the like) over apparent bodily characteristics with its moderate avatar customization options. Whereas, in virtual worlds designed with more emphasis on socializing and networking with a wide range of avatar customizations, such as AltspaceVR or Second Life, appearance would play a more significant role in establishing or declining social connections.

While some cultural, social, and behavioral frameworks are translated between one's physical-world and virtual identities, it is not to be forgotten that an online identity is tied to a constructed persona. This constructed persona involves a certain appearance, characteristics, and behavior outlined by a particular XR platform and one's own personality, social roles, and/or personal choices (see Code and Zap 2009; Marciano 2014). There may be countless motivations and preferences behind such persona: as an illustration, according to the respondents of a qualitative study by Maloney and Freeman (2020), some users find comfort in hiding behind their virtual reality avatars, which maintain their anonymity and protect their real-life selves.

Masked real-life characteristics notwithstanding, virtual personas may induce discriminatory behavior toward members of different social groups. As Gray (2012) highlights, sanctions within communities are generally induced by the perception of deviant identity, characteristics, or behavior, where deviance refers to the lack of compliance with a community's norms. Gray argues that harassment in cyberspace (specifically, in the case of MMORPGs[7]) is frequently linked to users' perception of another user's virtual persona as well as to stereotypes related to race, ethnicity, and sexual orientation. And while such acts of harassment are generally responses to one's visible characteristics or communication, they may rapidly die out, perhaps because of the discrepancies between the virtual and real-life self and the quick and simple ways of customizations. In other words, since many digital platforms allow for customizations in users' virtual appearances, negative responses to one's avatar

[7] Massively multiplayer online role-playing games, where players appear and complete quests in the form of a character.

or persona may be dissociated from their actual identities. Also, stigmatization is often prevented by opting for an avatar that conforms to a given virtual community's norms or the majority of its members.

The perception of deviance is largely based on visible information, the most striking source of such information being avatar appearance. This leads to two implications. First, that a user's avatar is the most important statement of their virtual (often fictional) identity in a virtual environment. This means that one's virtual social identity is expressed by their avatar's displayed demographic characteristics and appearance—be those chosen or something that corresponds to their physical body and identity. Users, therefore, may choose their identities in relation to the virtual community.

According to the second implication, the characteristics of a virtual body will determine the user's position within the community. In addition, the perceived identities, as well as the combination of these characteristics, will determine discrimination and privileges. Discrimination and privileges are based on the value system that forms a virtual community. While a specific race, gender, or even hairstyle or clothing is regarded as typical or accepted in some communities, it might appear deviant and be punished elsewhere. But since virtual characteristics are easily modifiable, strategies for acceptance and for adapting an online community's profile can include changing the deviant characteristics, such as skin color or gender. However, as Gray (2012) notes, users are rarely able to completely distance themselves from their real-world identities. While changing demographic or other bodily characteristics in social VR may foster compliance with a social group, it also raises ethical issues around the clash between virtual and physical-world identities. It may trivialize identity and allow for "trying on" the bodies of other (sometimes marginalized) groups without being aware of group members' actual lived experiences.

6 CONCLUSION

Considering the combined theoretical framework of social identity theory and intersectionality, I argue that digital behavior and identities modulate based on two main elements. Firstly, the technological affordances of social VR platforms—specifically the options for designing one's bodily representation. Secondly, a user's perception of an online community's characteristics, social structure, and expectations from members. According to this triangular system of identity, technology, and community, a user would perceive whether they conform to or contravene a group's social frameworks and may choose to alter their identity (and the sensory representations tied to it) using the VR system's avatar customization options. The user's virtual body, then, may prompt reactions from social networks (e.g., inclusion or discrimination) which effectuates the same cycle of assimilation and design of avatar body representation.

Social VR and other XR platforms offer confined spaces that enable some experimenting with online personas that may maintain, complement, or contradict real-life identities while participating in social interactions. Such experimenting with body representation through avatars is considered a significant part of XR use (Schroeder 2002; Ducheneaut et al. 2009; Maloney and Freeman 2020). In some sense, these platforms can be considered "safe spaces," where one can adjust their body representation and demographic characteristics to conform to the audience or a social group's dynamics. In another, these spaces may involve negative social behaviors, such as discrimination or harassment, that are often based on avatar representation and the demographic characteristics an avatar or virtual persona presents: attitudes can change toward users who express out-of-group characteristics, indicating that interactions are biased based on demographic markers (Sacheli et al. 2015). Thus, changing one's real-life gender or other demographic characteristics in XR spheres may even be used to avoid stereotypes or reinforce social roles (cf. Freeman et al. 2015).

This paper introduced a potential perspective of social behaviors in extended reality. The combination of social identity theory and intersectionality yields an overview of how identities may affect the dynamics of social groups and how social groups may affect the representation of bodily characteristics upon which prejudices and stereotypes are based. The inquiries this study pursues are vital for understanding the dynamics of the 2020s' digital culture that will likely be influenced by increased online presence due to health-related measures and environmental protection. In addition, these inquiries are of importance because virtual social interactions may have a significant impact on online behavior even for children and adolescents in social and educational arenas. The behavior of these generations has long-term effects on social justice and social behavior. While the present paper supplements previous studies on extended reality from the perspectives of design, communication, and social interactions (see Maloney and Freeman 2020), further empirical investigations are necessary to test the links between body representation, identity, demographic characteristics, and social behavior during virtual activities. Moreover, investigations are required regarding the effects of avatars' or other digital figures' body language and other nonverbal cues on social behavior.

FUNDING STATEMENT AND ACKNOWLEDGMENTS

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under the HUMAN+ COFUND Marie Skłodowska-Curie grant agreement No. 945447.

REFERENCES

Abrams, D., and Hogg, M. A. (1990). Social Identifications: A Social Psychology of Intergroup Relations and Group Processes. Florence: Taylor & Francis.

Abrams, D., and Hogg, M. A. (2010). Social identity and self-categorization. In Dovidio, J. F., Hewstone, M., Glick, P., & Esses, V. M. (eds.) The SAGE Handbook of Prejudice, Stereotyping and Discrimination. London: SAGE, 179–193.

Agar, I. (2019). How VR/AR may fundamentally change the concept of identity. PitchBook, March 13. https://pitchbook.com/news/articles/how-vrar-may-fundamentally-change-the-concept-of-identity

Alsop, T. (2021a). Augmented (AR), virtual reality (VR), and mixed reality (MR) market size 2021–2024. Available at: https://www.statista.com/statistics/591181/global-augmented-virtual-reality-market-size/

Alsop, T. (2021b). Global mobile augmented reality (AR) users 2019–2024. Available at: https://www.statista.com/statistics/1098630/global-mobile-augmented-reality-ar-users/

Alsop, T. (2021c). Virtual reality (VR): Statistics and facts. Available at: https://www.statista.com/topics/2532/virtual-reality-vr/#dossierKeyfigures

AltspaceVR. (2020). New avatars! Available at: https://altvr.com/new-avatars-coming-soon/

Ceuterick, M. (2021). Queering cultural memory through technology: Transitional spaces in AR and VR. *Alphaville: Journal of Film and Screen Media*(21), 89–110. https://doi.org/10.33178/alpha.21.05

Code, J., and Zap, N. (2009). Social identities, group formation, and the analysis of online communities. In Hatzipanagos, S. & Warburton, S. (eds.) Handbook of Research on Social Software and Developing Community Ontologies. Hershey: IGI Global, 86–101.

Combahee River Collective. (2000). The Combahee River Collective Statement. In Smith, B. (ed.), Home Girls: A Black Feminist Anthology. New Brunswick: Rutgers University Press, 264–274.

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*(1), Article 8. http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241–1299. https://www.doi.org/10.2307/1229039

Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist Theory*, 9(1), 67–85. https://www.doi.org/10.1177/1464700108086364

Dill, B. T., and Zambrana, R. E. (2009). Critical thinking about inequality: An emerging lens. In Dill, B. T. & Zambrana, R. E. (eds.) Emerging Intersections: Race, Class, and Gender in Theory, Policy and Practice. New Brunswick: Rutgers University Press, 1–21.

Ducheneaut, N., Wen, M.-H., Yee, N., and Wadley, G. (2009). Body and mind: A study of avatar personalization in three virtual worlds. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, Boston. https://doi.org/10.1145/1518701.1518877

Dzardanova, E., Kasapakis, V., and Gavalas, D. (2018). Social virtual reality. In Lee, N. (ed.), Encyclopedia of Computer Graphics and Games. Cham: Springer, 1–3. https://doi.org/10.1007/978-3-319-08234-9_204-1

Faulkner, C. (2021). Oculus is rolling out its new and more expressive avatars starting today. The Verge, April 23. https://www.theverge.com/2021/4/23/22398060/oculus-new-avatars-editor-features-vr-virtual-reality-facebook-quest-rift

Freeman, G., Bardzell, J., Bardzell, S., and Herring, S. C. (2015). Simulating marriage: Gender roles and emerging intimacy in an online game. *Proceedings of the ACM Conference on Computer Supported Cooperative Work & Social Computing*, Vancouver. https://doi.org/10.1145/2675133.2675192

Geerts, E., and van der Tuin, I. (2013). From intersectionality to interference: Feminist onto-epistemological reflections on the politics of representation. *Women's Studies International Forum*, 41(3), 171–178. https://doi.org/10.1016/j.wsif.2013.07.013

Goffman, E. (1956). The Presentation of Self in Everyday Life. Edinburgh: University of Edinburgh Press.

Goffman, E. (1986). Frame Analysis: An Essay on the Organization of Experience. Boston: Northeastern University Press.

Gray, K. L. (2012). Deviant bodies, stigmatized identities, and racist acts: Examining the experiences of African-American gamers in Xbox Live. *New Review of Hypermedia and Multimedia*, 18(4), 261–276. https://doi.org/10.1080/13614568.2012.746740

Hogg, M. A. (2006). Social identity theory. In Burke, P. J. (ed.), Contemporary Social Psychological Theories. Stanford: Stanford University Press, 111–136.

Holvino, E. (2012). The 'simultaneity' of identities: Models and skills for the twenty-first century. In Wijeyesinghe, C. L. & Jackson, B. W. (eds.) New Perspectives on Racial Identity Development: Integrating Emerging Frameworks. New York: New York University Press, 161–191.

Huddy, L. (2001). From social to political identity: A critical examination of social identity theory. *Political Psychology*, 22(1), 127–156. https://www.doi.org/10.1111/0162-895X.00230

Jones, S. J. (2003). Complex subjectivities: Class, ethnicity, and race in women's narratives of upward mobility. *Journal of Social Issues*, 59(4), 803–820. https://doi.org/10.1046/j.0022-4537.2003.00091.x

Latoschik, M. E., Kern, F., Stauffert, J.-P., Bartl, A., Botsch, M., and Lugrin, J.-L. (2019). Not alone here?! Scalability and user experience of embodied ambient crowds in distributed social virtual reality. *IEEE Transactions on Visualization and Computer Graphics*, 25(5), 2134–2144. https://doi.org/10.1109/TVCG.2019.2899250

Latoschik, M. E., Roth, D., Gall, D., Achenbach, J., Waltemate, T., and Botsch, M. (2017). The effect of avatar realism in immersive social virtual realities. *Proceedings of the ACM Symposium on Virtual Reality Software and Technology*, Gothenburg. https://doi.org/10.1145/3139131.3139156

Lugrin, J.-L., Latt, J., and Latoschik, M. E. (2015). Avatar anthropomorphism and illusion of body ownership in VR. *Proceedings of the IEEE Conference on Virtual Reality and 3D User Interfaces (VR)*, Arles. https://www.doi.org/10.1109/VR.2015.7223379

Luppicini, R. (2012). The emerging field of technoself studies. In Luppicini, R. (ed.), Handbook of Research on Technoself: Identity in a Technological Society. Hershey: IGI Global, 1–25.

Maloney, D., and Freeman, G. (2020). Falling asleep together: What makes activities in social virtual reality meaningful to users. *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*, Virtual. https://doi.org/10.1145/3410404.3414266

Marciano, A. (2014). Living the VirtuReal: Negotiating transgender identity in cyberspace. *Journal of Computer-Mediated Communication*, 19(4), 824–838. https://doi.org/10.1111/jcc4.12081

Marwick, A. E. (2013). Online identity. In Hartley, J., Burgess, J., & Bruns, A. (eds.) A Companion to New Media Dynamics. West Sussex: Wiley-Blackwell, 355–364.

Marwick, A. E., and boyd, d. (2011). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1), 114–133. https://doi.org/10.1177/1461444810365313

McLuhan, M. (1964). Understanding Media: The Extensions of Man. New York: McGraw-Hill.

McVeigh-Schultz, J., Kolesnichenko, A., and Isbister, K. (2019). Shaping pro-social interaction in VR: An Emerging design framework. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, Glasgow. https://doi.org/10.1145/3290605.3300794

McVeigh-Schultz, J., Márquez Segura, E., Merrill, N., and Isbister, K. (2018). What's it mean to "be social" in VR? Mapping the social VR design ecology. *Proceedings of the ACM Conference on Designing Interactive Systems*, Hong Kong. https://doi.org/10.1145/3197391.3205451

Minsky, M. (1980). Telepresence. *OMNI*, 2(9), 44–52. https://web.media.mit.edu/~minsky/papers/Telepresence.html

Mori, M., MacDorman, K. F., and Kageki, N. (2012). The uncanny valley [translation]. *IEEE Robotics & Automation Magazine*, 19(2), 98–100. https://doi.org/10.1109/MRA.2012.2192811

Ngan-Ling Chow, E., Texler Segal, M., and Tan, L. (Eds.). (2011). *Analyzing gender, intersectionality, and multiple inequalities: Global, transnational and local contexts*. Emerald.

Orgad, S. (2009). How can researchers make sense of the issues involved in collecting and interpreting online and offline data? In Markham, A. & Baym, N. (eds.) Internet Inquiry: Conversations About Method. Thousand Oaks: SAGE, 33–53.

Patel, H., and MacDorman, K. F. (2015). Sending an avatar to do a human's job: Compliance with authority persists despite the uncanny valley. *Presence: Teleoperators and Virtual Environments*, 24(1), 1–23. https://doi.org/10.1162/PRES_a_00212

Puar, J. K. (2012). "I would rather be a cyborg than a goddess" Becoming-intersectional in assemblage theory. *philoSOPHIA*, 2(1), 49–66. https://www.muse.jhu.edu/article/486621

Robertson, A. (2021). Mark Zuckerberg says realistic avatars are Facebook's next big VR bet. The Verge, March 8. https://www.theverge.com/2021/3/8/22319737/mark-zuckerberg-facebook-vr-ar-face-sensors

Roth, D., Lugrin, J.-L., Galakhov, D., Hofmann, A., Bente, G., Latoschik, M. E., and Fuhrmann, A. (2016). Avatar realism and social interaction quality in virtual reality. *Proceedings of the IEEE Conference on Virtual Reality and 3D User Interfaces (VR)*, Greenville. https://www.doi.org/10.1109/VR.2016.7504761

Rubin, P. (2019). Facebook can make VR avatars look—and move—exactly like you. Wired, March 13. https://www.wired.com/story/facebook-oculus-codec-avatars-vr/

Sacheli, L. M., Christensen, A., Giese, M. A., Taubert, N., Pavone, E. F., Aglioti, S. M., and Candidi, M. (2015). Prejudiced interactions: Implicit racial bias reduces predictive simulation during joint action with an out-group avatar. *Scientific Reports*, 5(1), 8507. https://doi.org/10.1038/srep08507

Schroeder, R. (2002). Social interaction in virtual environments: Key issues, common themes, and a framework for research. In Schroeder, R. (ed.), The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments. London: Springer, 1–18.

Selvet, R. (2016). I used my own avatar in VR and it was awesome. Virtual Worlds, December 13. https://medium.com/virtual-worlds/bringing-lifelike-avatars-to-social-virtual-reality-70affa194301

Siani, A., and Marley, S. A. (2021). Impact of the recreational use of virtual reality on physical and mental wellbeing during the Covid-19 lockdown.

Health and Technology, 11(2), 425-435. https://doi.org/10.1007/s12553-021-00528-8

Slater, D. (2002). Social relationships and identity online and offline. In Lievrouw, L. A. & Livingstone, S. (eds.) The Handbook of New Media: Social Shaping and Consequences of ICTs. London: SAGE, 533–546. http://dx.doi.org/10.4135/9781848608245

Slater, M. (2009). Place illusion and plausibility can lead to realistic behaviour in immersive virtual environments. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 364(1535), 3549–3557. https://doi.org/10.1098/rstb.2009.0138

Slater, M., Perez-Marcos, D., Ehrsson, H. H., and Sanchez-Vives, M. V. (2008). Towards a digital body: The virtual arm illusion. *Frontiers in Human Neuroscience*, 2(6). https://doi.org/10.3389/neuro.09.006.2008

Sykownik, P., Emmerich, K., and Masuch, M. (2020). Like in the good old times, but virtual: A case for simulating co-located multiplayer games in VR. *Extended Abstracts of the 2020 Annual Symposium on Computer-Human Interaction in Play*, Virtual. https://doi.org/10.1145/3383668.3419885

Tajfel, H. (1972). Social categorization. In Moscovici, S. (ed.), Introduction a la psychologie sociale. Paris: Larouse, 385–426.

Tajfel, H. (1981). Human Groups and Social Categories: Studies in Social Psychology. Cambridge: Cambridge University Press.

Tajfel, H., Flament, C., Billig, M. G., and Bundy, R. F. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, 1, 149–177. https://doi.org/10.1002/ejsp.2420010202

Tajfel, H., and Turner, J. C. (1979). An integrative theory of intergroup conflict. In Austin, W. G. & Worchel, S. (eds.) The Social Psychology of Intergroup Relations. Monterey: Brooks, 33–47.

Tajfel, H., and Turner, J. C. (1986). The social identity theory of intergroup behaviour. In Worchel, S. & Austin, W. G. (eds.) Psychology of Intergroup Relations. Chicago: Nelson-Hall, 7–24.

Taksa, L., Powell, G., and Jayasinghe, L. (2015). Intersectionality, social identity theory, and explorations of hybridity: A critical review of diverse approaches to diversity. In Bendl, R., Bleijenbergh, I., Henttonen, E., & Mills, A. J. (eds.) The Oxford Handbook of Diversity in Organizations. Oxford: Oxford University Press, 518–538.

Taylor, K.-Y. (2017). How We Get Free: Black Feminism and the Combahee River Collective. Chicago: Haymarket Books.

Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behaviour. *European Journal of Social Psychology*, 5(1), 5–34. https://doi.org/10.1002/ejsp.2420050102

Turner, J. C., and Reynolds, K. J. (2016). The story of social identity. In Postmes, T. & Branscombe, N. R. (eds.) Rediscovering Social Identity. Oxon, New York: Routledge, 13–32.

van Zoonen, L. (2013). From identity to identification: Fixating the fragmented self. *Media, Culture & Society*, 35(1), 44–51. https://doi.org/10.1177/0163443712464557

Warner, L. R. (2008). A best practices guide to intersectional approaches in psychological research. *Sex Roles*, 59(5), 454–463. https://doi.org/10.1007/s11199-008-9504-5

Wiederhold, B. K. (2020). Using social media to our advantage: Alleviating anxiety during a pandemic. *Cyberpsychology, Behavior, and Social Networking*, 23(4), 197–198. https://doi.org/10.1089/cyber.2020.29180.bkw

JOURNAL OF DIGITAL SOCIAL RESEARCH

WWW.JDSR.IO ISSN: 2003-1998

VOL. 4, NO. 3, 2022, 56–80

TOWARDS AN ENTREPRENEURIAL ETHICS OF DESIRE? LGBTQ LOCATION-BASED DATING/HOOK-UP APPS AND THE CONFIGURATIONS OF SEXUAL-AFFECTIVE RELATIONSHIPS AMONG GAY MEN IN BRAZIL

Renato Contente[a] and Gustavo Gomes[a]

ABSTRACT

This article aims to reflect on how changes in digital sociability practices influence on the affective and sexual relationships among gay men in Northeast Brazil. We argue some of these changes are associated with an entrepreneurial ethics of desire, which is a set of desiring and sociability practices influenced by neoliberal imperatives, such as free competition, high selectiveness, meritocracy, economic rationale, utilitarianism, and self-entrepreneurship. In a mediatised reality under platform capitalism, we wonder: by taking on market-oriented practices, how do individuals constitute themselves as differentiated desiring subjects? We seek to elucidate this point by analysing seven in-depth interviews conducted with gay men whose affective-sexual trajectories have been impacted by communication technologies' transformations in the last three decades. All respondents were gay men between 25-34 years old, residents in Recife's metropolitan area and were contacted via Grindr. Focused on cultural scripts for sex mediated by digital media and on self-presentation in profiles, we investigate how these individuals negotiate homoerotic sociabilities simultaneously on different social platforms. In an attempt to constitute themselves as "desirable" subjects in digital spheres, these individuals experience several tensions that are triggered by social markers of desire, such as race, class, gender performativity and physicality. Based on an intersectional approach, we aim to identify aspects of what we define as an entrepreneurial ethics of desire. We also propose to investigate whether, in terms of resistance and indiscipline, we can think of an alternative sexual-affective ethics for sociability and desiring practices – namely a queer ethics of desire.

Keywords: Keywords: ethics of desire; entrepreneurial ethics; queer ethics; dating apps; hook-up apps; sociability practices; desiring practices; masculinities.

[a] Department of Sociology, Federal University of Pernambuco, Brazil.

1 INTRODUCTION: SEXUAL-AFFECTIVE TRAJECTORIES IMPACTED BY AN ENTREPRENEURIAL ETHICS OF DESIRE

Matthew[1], 26, has had a turbulent relation with his own homosexuality for most of his life. Member of a fervent Catholic middle-class family in Recife[2], he was taught that his desire was a sin and an abomination. Matthew also had access to the Internet from an early age. At 7, he accessed gaming websites at his father's office. Around 13, he got a computer with dial-up Internet access at home[3]. More confident about privacy issues, he decided to follow a tip from his classmates to join pornography groups on Orkut, a social networking site ran by Google which was accessed by 91% of Brazilian Internet users in the late 2000s[4]. Instead of searching for heterosexual material, however, he looked for erotic videos between men. As he gradually understood his homoerotic desire, he started to contact other boys online. He strengthened the perception towards his homosexuality by joining sexual chat rooms, where he could interact with distant anonymous men using text, photos, and webcam streaming. The conversations did not progress beyond the online platforms on which they were held. Matthew did not keep those contacts, nor did he consider face-to-face meetings with his interlocutors. This was followed by a long period of denial of his own sexuality. It only changed when he turned 18. By that age, he was introduced to location-based dating apps, which brought him new possibilities of interactions and affective-sexual experiences with other men.

Matthew identifies himself as a white, fat, middle class, effeminate gay man who was born in the Northeast of Brazil[5]. All these adjectives became even more relevant when he started using dating apps regularly and became evaluated by potential partners. A series of situations made him question his perception of himself as a desiring subject. Being rejected, ignored, or blocked in his attempts to meet another man became a recurring experience, whereas he reproduced these same sociability practices[6] with interlocutors who weren't of his own interest. The rejection he faced didn't make him use these tools any less; rather, it pushed him to

[1] All names have been changed to preserve the identity of the interviewees.
[2] Recife, where the research was held, is the capital of Pernambuco, one of the nine states that form Brazilian Northeast.
[3] The commercial use of the Internet in Brazil started in May 1995, by the then state-owned telecommunications enterprise Embratel.
[4] Folhaonline. (2008). "Orkut passa para as mãos do Google Brasil; empresa muda diretoria no país". Available in: https://www1.folha.uol.com.br/tec/2008/08/430818-orkut-passa-para-as-maos-do-google-brasil-empresa-muda-diretoria-no-pais.shtml
[5] The Northeast is the most underdeveloped region in Brazil, with the largest proportion of black and mixed-race population. People from the Northeast migrate regularly to other regions in search for jobs and a better life, facing discrimination and prejudice, particularly from the white communities.
[6] The "sociability" we refer to in this article is related to Simmel's definition on it, who, as put by Shangwei Wu & Janelle Ward (2020), argues that in "all human associations, regardless of content and interests, there can be satisfaction in the association itself: changing individual solitude into togetherness."

try to use them "better". To get the results he craved, he developed specific strategies of self-presentation and sociability in each platform he used, in an attempt to manoeuvre his ambivalent relationship with these technologies. From the age of 18 until the moment he was interviewed for this article, he had met several guys on dating apps like Grindr and Scruff and had had a Tinder match turned into a four-year serious relationship.

In six years of systematic use of dating apps, Matthew has developed desiring and sociability practices aligned to the dynamics of information and communication technologies. We argue that these practices are organised, to a larger extent, by an entrepreneurial ethics of desire. That is, a set of practices aligned to neoliberal logics of productivity and self-entrepreneurship (Dardot & Laval, 2014; Brown, 2019; Bourcier, 2020), which is being broadly stimulated by the market-oriented organization of social life deepened by platform capitalism (Srnicek, 2016; Van Djick, Poell, & Martin, 2018). Based on an intersectional approach, we aim to identify aspects of what we define as an entrepreneurial ethics of desire, but also spaces of rupture within its own scope. We also propose to investigate whether, in terms of resistance and indiscipline, our informants indicate alternative sexual-affective ethics for sociability and desiring practices. One possible alternative to an entrepreneurial ethics would be a queer ethics of desire – that is, an ethics based on friendship ties and other cooperative bonds, which may or may not include sexual practices. Even though many topics the participants evoked, regarding their desiring practices, can be related to an entrepreneurial ethics of desire, it doesn't mean they are reduced to this ethical possibility – or even that this ethical possibility is harmful at all ways. From complex perspectives, informants tended to show some discomfort about an entrepreneurial ethics of desire, but also pointed out some personal advantages it provided them. They also mentioned other ethical possibilities of having sexual-affective relationships that aren't necessarily entrepreneurial.

We may say chat rooms and older social networking sites were already associated with a logic of high selectiveness and abundance familiar to an entrepreneurial ethics of desire, but location-based dating apps certainly developed it even further. For Matthew and other men of his generation, being desired (and, more than that, looking desirable) on these platforms has become a fundamental premise for being recognised as a desiring subject[7]. And being recognised as a

[7] In a sociological perspective, we define desiring subjects as subjects with agency to experience their affective-sexual desires in order to enjoy the capacity to feel desirable and the possibility of being desired by their peers. Someone becomes a desiring subject when is recognised as such through a process of social recognition (of a desiring nature). We may also call this process a desiring recognition, as proposed by Richard Miskolci (2017) in reference to the concept of social recognition developed by Axel Honneth (1995). It is important to point out that desiring recognition may materialise via a sexual and/or an affective path. Its distribution occurs unequally among the subjects and may even be denied to them. In a distinct sense from "desiring subjects", we use the term "subjects of desire" employed by Michel Foucault (1990). With this denomination, we refer to the character of historical contingency of desire that understands individuals as relatively subjected -

desiring subject seems to be a decisive step to enjoy good transit in the market of male homoerotic desire. The desiring dynamics are often organized under the logic of contemporary capitalism, which may strongly influence the subjectivities of individuals that, such as Matthew, have built their affective-sexual trajectories almost entirely under the mediation of social networks and dating/hook-up apps. In an attempt to constitute themselves as "desirable" subjects in digital spheres, these individuals experience tensions triggered by social markers of desire, such as race, class, gender performativity and physicality. Influenced by an entrepreneurial ethics, they tend to experience such social markers as indicators of self-worth that may boost or interrupt their sexual-affective achievements.

This article aims to reflect on the impact of information and communications technologies on the affective-sexual trajectories of young gay men in Northeast Brazil. To this end, we investigate how changes in practices of digital sociability have contributed to an engagement in an entrepreneurial ethics of desire. We seek to identify in which ways these changes have impacted on their constitution as subjects of desire (Foucault, 1990). We propose to do such by analysing two central points of the organization of such ethics: cultural scripts for sex and self-presentation in profiles. Cultural scripts for sex refer to the steps respondents take in order to prospect partners within a social media dating circuit, which include dating/hook-up apps but also other social media platforms, such as Instagram and Twitter. The self-presentation in profiles, on the other hand, focus on the strategies respondents take to look more remarkable and desirable in digital platforms. We elucidate these points by analysing seven in-depth interviews (Seidman, 2006) conducted with gay men whose affective-sexual trajectories have been impacted by technological transformations of the last three decades. All respondents were gay men between 25-34 years old and were residents in Recife (capital of the state of Pernambuco) and its metropolitan area.

We argue the constitution of an entrepreneurial ethics of desire is associated with the spread of neoliberal subjectivities that encourage exacerbated individualism and competition (Bloom, 2017), under the coordination of a market of desire that is being redesigned by the articulation of digital platforms. Within an entrepreneurial ethics of desire, we witness a quantification of affective-sexual aspirations and conquests by contemporary subjects of desire that drive them to prospect affective-sexual partners in the most efficient and productive way possible. We believe this is a configuration directly related to platform capitalism, which consists in a culmination of several techno-social processes that have been unfolding over the last decades (Castells, 2009). In the face of a social reality that is increasingly mediated by information and communications technologies (Couldry & Hepp, 2016), we aim to give indications on how individuals constitute themselves as differentiated desiring subjects by taking on sociability and desiring

with the possibility of a more effective agency having been suggested by its author but left open by him - and associated with specificities of their time and culture.

based on an entrepreneurial ethics of desire. We also propose to investigate ruptures within this ethics pointed out by its own agents, that is, alternative and more diverse ways for individuals to engage in homoerotic social interactions possibly less attached to entrepreneurial purposes. If an entrepreneurial ethics of desire may organise dominant desiring and sociability practices, especially when it comes to social media and dating/hook-up apps, we investigate our respondents' speeches in order to identify elements of a queer ethics of desire. By this, we mean a more empowering and autonomous ethics, which values both friendship ties (be they erotic or not) and the desiring potency of bodies and perspectives that are not necessarily under the radar of normativity - in terms of race, class, gender, body, or nationality.

Over the last 15 years, a series of works in diverse fields of knowledge, such as sociology, communication, linguistics, anthropology, and psychology, have been consistently developed concerning studies on dating/hook-up apps and websites. In Brazil, scholars like Richard Miskolci (2017) and Larissa Pelúcio (2019) have contributed greatly to develop this field of studies from a sociological perspective. As defined by Wu and Ward (2017), most of the studies related to dating/hook-up apps are presented through the perspective of mediation, as proposed by Leah Lievrouw (2014), which is a framework able to help us to understand how communication technologies and society mutually shape each other. Wu and Ward point out that communication technologies consist of infrastructures that can be separated into three different axes: artefacts, practices, and social arrangements. Wu and Ward (2017) have also argued that most studies on gay dating/hook-up apps have a strong emphasis on at least one of these axes. The artefacts studies focus on the apps themselves (for instance, their design and functions). On the other hand, practices studies focus on the ways gay men use apps, whereas social arrangements studies focus on gay men's social relations and regulatory and institutional environment. By investigating an entrepreneurial ethics of desire, this article is situated in an intersection between both of these last research lines on gay dating/hook-up apps.

2 RESEARCH DESIGN: INFORMANTS' PROFILE AND ETHNOGRAPHIC APPROACH

Our main goal is to elucidate the points where the entrepreneurial ethics of desire is expressed by the gay men from Northeast Brazil we interviewed. Gay men whose affective-sexual trajectories were greatly impacted by relatively recent communications technologies, such as broad access to online pornographic content, chat platforms, social networking sites and location-based dating/hook-up apps. To draw the framework we investigate, we conducted face-to-face in-depth interviews

with seven Grindr[8] users. They were all between 25 and 34 years old[9] and lived in Recife or in its metropolitan area[10]. The interviews took place between the end of 2019 and the beginning of 2020, therefore, before the outburst of Covid-19 pandemic. We divided the analytical parts of this article into three different moments, focusing on the informants' desiring and sociability practices: 1) cultural scripts for sex; 2) self-presentation in profiles; and 3) tensions between an entrepreneurial ethics of desire and a queer ethics of desire. We believe this division allows us to investigate how our respondents negotiate homoerotic sociabilities simultaneously on different platforms. We also try to identify their strategies to take part into the regime of desirability that guides most desiring practices both online and offline. We are interested in identifying the ways in which these subjects engage in an entrepreneurial ethics of desire, understood as a set of practices of selectivity and sociability largely shared by users of digital media for affective-sexual purposes, and how they may find other ethical possibilities for interactions with sexual-affective purposes.

The interviewees are part of a generation which attributes different meanings to the use of dating/hook-up apps and the practices of sociability conducted in these spaces in a context of systemic violence towards the LGBTQ population. Although the Brazilian State does not provide official data about this specific population, non-governmental organisations annually release data reports that place the country with the highest level of violence against LGBTQ in the world. In 2019, for example, an LGBTQ individual was murdered every 26 hours in the country (Gastaldi et al., 2020). Pernambuco, the state where our research was held, was ranked third nationally in violence against this population in the same 2019. As put by Miskolci (2017), the possibilities offered by gay dating/hook-up apps, such as the regulation of self-visibility and the supposed control over the choice of partners, offer a relatively safer experience for its users. Thus, it supposedly has a significant importance in making homoerotic sociabilities easier, safer, and more frequent, especially in smaller cities.

In socio-economic terms, our informants are residents of Recife and its metropolitan area. Recife is the capital of the state of Pernambuco, and its metropolitan area is the seventh largest in Brazil[11] (IBGE, 2019). Recife is located in the Northeast region, which concentrates most (47.9%) of the population living

[8] The hook-up app Grindr was chosen because it is the most popular platform for LGBTQ people in the world, in terms of accesses and users.

[9] This age range was chosen because it is a generational cut-off in which digital technologies were supposedly naturalised from an early age. We based our choice on two age ranges from the demographic census of the Brazilian Institute of Geography and Statistics (IBGE): between 25 and 29 years and 30 and 34 years.

[10] This region comprises 14 municipalities besides Recife. Among them, Jaboatão dos Guararapes, Olinda, Paulista and Cabo de Santo Agostinho. In all, it has 4 million inhabitants.

[11] Agência IBGE. (2019). "Estimativas 2019 população Regiões Metropolitanas". Retrieved from: https://agenciadenoticias.ibge.gov.br/agencia-detalhe-de-midia.html?view=mediaibge&catid=2103&id=3109 (Accessed 15 Nov 2021)

in poverty in Brazil (César, 2020). The city of Recife is one of the most unequal capitals in the country in terms of income distribution and access to employment and social services (Santos, 2020). These data contrast expressively with Internet

access in the state, which suggests that online connectivity is seen as a priority by those who can minimally afford this expense. According to the Brazilian Institute of Geography and Statistics (IBGE), regarding Internet access, 71.4% of the 3.17 million households in Pernambuco have access to the Internet. Mobile-band connection, via 3G or 4G, accounts for 68% of the total of Internet access. The equipment most used for this purpose is the mobile phone, in 99.2% of cases.

Most of interviewees are gay men from middle-class or working-class sectors, which experienced large educational and professional opportunities during the Workers' Party's both national and local administrations between 2002 and 2016. All interviewees were contacted through Grindr, an app that demands a smartphone with Internet access. This may explain the prevalence of men from better-off class segments. However, we managed to interview individuals from different neighbourhoods and cities, encompassing diverse profiles when it comes to race, self-identified body types, gender performance, affective-sexual and techno-social trajectories (Table 1).

After a series of negotiations, we conducted seven in-depth face-to-face interviews with Grindr users, chosen according to the previously established age and location cut-off. The interviews were conducted between September 2019 and March 2020. The interview script included 10 questions of sociodemographic aspects and 50 open questions on various topics. In this article, we focused on questions about the practices of sociability online and the different strategies of building profiles applied by these individuals, as well as how they make use of the dating/hook-up apps in their daily lives.

Four informants identified themselves as white, and three as black. In terms of self-identified body types, five identified themselves as thin and two as fat. Regarding education, one interviewee stated that he had dropped their studies in high school. The remaining interviewees attended or were attending university in different areas, mostly related to the Work Party's recent educational advances. The interviewees lived in the following neighbourhoods: Graças (Recife, middle/upper class), Hipódromo (Recife, working class), Tamarineira (Recife, middle/upper class), Casa Amarela (Recife, working/middle class), Cordeiro (Recife, working class), Pontezinha (Cabo de Santo Agostinho, working class) and Salgadinho (Olinda, working class).

Table 1. Overview of the interviewees

	Age	***Profession***	***Education level***	***Neighbourhood / City***	***Race***	***Self-identified body type***	***Parents' occupation***	***Religion***
Matthew	26	Design student	Higher education	Graças / Recife - middle/upper class	White	Fat	Housewife (mother) / Sales manager (father)	Atheist
Luke	28	Artist	High school	Pontezinha / Cabo de Santo Agostinho - working class	Black	Fat	Housemaid (mother) / Fatherless	Agnostic
Peter	29	Information analyst	Higher education	Hipódromo / Recife - working class	White	Thin	State employees	Catholic
John	32	Actor	Higher education	Tamarineira / Recife - middle/upper class	White	Thin	Psychologist (mother) / State employee (father)	Catholic
Andrew	30	Administrator (currently unemployed)	Higher education	Casa Amarela / Recife - working class	White	Thin	Elderly caregiver (mother) / Military police officer (father)	None (raised as protestant)
Joseph	30	Teacher	Higher education	Cordeiro / Recife - working class	Black	Thin	Administrator (mother) / self-employed (father)	None (raised as catholic)
Mark	33	Nurse	Higher education	Salgadinho / Olinda - working class	Black	Thin	Housewife (mother) / Maintenance technician (father)	Catholic

In methodological terms, we affiliate to the critical perspective of queer ethnography as proposed by Alison Rooke (2010, p. 41), who advocates on behalf of a sociological ethnographic perspective that articulates queer studies about sexual subjectivity to an ethnographic approach, in the sense of investigating the fabrication of identity categories and the practices that enable them. In his view, a queer ethnography does not reject the abstraction aspect commonly attributed to queer theory. Rather, it aims to enhance it by observing concrete everyday life. There are also some other rich approaches to queer ethnography, such as Anima Adjepong's (2017) perception of ethnography as a queer of colour's reflexive practice. Due to the length of this article, we could not explore it more deeply.
Digital ethnography was not a priority in this article's design, for the face-to-face in-depth interviews were our main resource to compose this brief ethnographic exercise. Though a digital approach was fundamental to get in touch with informants and invite them to interviews (and it includes the creation of a Grindr profile whereby I introduced myself as a researcher), there wasn't a deep observation of the digital environment the way a digital ethnography demands. Instead of directly studying the digital environment and the relations that took place on it, we thought that face-to-face in-depth interviews would help us to understand the lived experiences of other people and the meanings they attach to these experiences, as Irving Seidman (2006) described this kind of interview. In terms of the interview itself, face-to-face meetings would also offer more concrete and less vulnerable research material, for online interactions could be more easily interrupted by the informant's sudden desistance of cooperation. We also mention the fluidity that face-to-face meetings have in comparison to online interviews, even though the veracity of what the informants say in the presence of the researcher has to be frequently questioned.

3 DESIRING SUBJECTS UNDER PLATFORM CAPITALISM

Like Matthew, the other respondents – Luke, Peter, John, Andrew, Joseph, and Mark – also had access to the Internet in their late childhood or early adolescence. The Internet was the first channel through which they contacted other gay men. It was also through the Internet that they engaged in their first love relationships with other boys. All of them reported a relatively intense use of dating apps and social networking sites for affective-sexual purposes. Although digital media did not exactly invent sexual technologies or entirely new desiring practices, they contributed to reinvent the latter. In our research, we believe that desire is a contingent social construction which produces subjects of desire and desiring practices in line with the specificities of a given socio-historical and cultural context. We agree with Miskolci (2017) when he says that "desire does not come from within a given subject, nor is it imposed by some apparatus external to it", but it is rather "an articulating axis between the subject and society being shaped in social interaction" (Miskolci, 2017, p. 27 [free translation]). Miskolci's sociological view

on desire relates to the notion of subject of desire developed by Michel Foucault (1978; 1990; 2017), who highlights its sociological layers by encompassing investigations into the ways in which individuals are led to recognise themselves as sexual subjects in distinct historical periods. By identifying the emergence of biopolitical practices between the 18th and 19th centuries, conditioned by the development of liberalism, Foucault (2008) argues that the subsequent consolidation of biopolitics and the permanence of its constant reworking processes were guaranteed by neoliberal governmentality[1].

In the scope of such governmentality, the entrepreneurial character of neoliberalism is a central element to its ethics. As put by Christian Dardot and Pierre Laval (2017, p. 134), "the promotion of entrepreneurship, and the idea that such a faculty can only be formed in a market environment, is a component part of the redefinition of the standard subject of neoliberal rationality". We argue that this entrepreneurial character organises a significant part of contemporary desiring practices, and promotes what we define as an entrepreneurial ethics of desire. The guidelines of this ethics have been deepened by platform capitalism, which we experience through an increasingly integration with digital media. In Dardot and Laval's (2014) opinion, neoliberalism has extended the logic of capital to all social relations and spheres of life as a normative system. That is, "the capacity to direct from within the actual practice of governments, enterprises and, in addition to them, millions of people who are not necessarily conscious of the fact" (Dardot & Laval 2014, p. 7). According to Dardot and Laval (2014, p. 140), among the strategic paths promoted by neoliberalism, there is a strong emphasis on the market, which is understood not only as an arena of exchanges, but also as "self-educating, self-disciplining subjective process". In this context, the entrepreneurial subject produces himself guided by competition and rivalry, in search of maximizing the opportunities available on the market.

Peter Bloom (2017) shares similar thinking in arguing that neoliberalism, being as much an ethical-political project as an economic one, constitutes an orchestrated effort to subjectively engineer 'market subjects'. In Bloom's view, not only the market dominates social, political, and economic relations, but it also "extends and shapes the way we see the world, the way we reason and the way we make moral judgments" (Bloom, 2017, p. 12). As Bloom (2017) puts it, marketization is transcending its former limits as an economic system and cements itself as the sole basis for organizing contemporary existence, for under

[1] As Fernando Danner (2011) argues, neoliberal governmentality operates on the desires and interests of individuals. Instead of acting directly on the body as sovereign power or reducing the individuals' capacity for action as disciplinary power - as the first outline of biopolitics proposed by Foucault -, it acts on their interests and the motivation for their actions. In the words of Danner, the less restrictive and less corporal power is, the more intense and more omnipresent it appears. Neoliberalism, therefore, "manufactures and fosters maximum freedoms; however, by submitting them to the dynamics of economic rationality, it demands their subsumption to the imperatives of a market that embraces and pervades individuals and society integrally" (Danner, 2011, p. 44 [free translation]).

neoliberalism, things tend to be judged in terms of their market worth. In Bloom's (2017, pp. 12-13) own words: "Everything is a potential market opportunity. Entrepreneurship now trumps all other values. The epitome of leadership - whether political or economic - is that of a hard-charging, decisive and visionary corporate executive. Ethical value is firmly and almost completely determined by the dominant financial values of the age".

Foucault (2008) already observed the invasive and expansive dimension of neoliberalism in 1979, during the course *The Birth of Biopolitics*, one of his lectures held on Collège de France and published as book posthumously. From the philosopher's perspective, the ideal human model of neoliberalism would be the *homo economicus* (Foucault, 2008, p. 226). The emergence of the homo economicus goes back to classical liberalism, but in the neoliberal context it incorporates distinctive features. From an exchange partner in the market driven by his needs, the *homo economicus* became an entrepreneur of himself, "being for himself his own capital, being for himself his own producer, being for himself the source of [his] earnings" (Foucault, 2008, p. 226). Foucault (2008) argues that the consumers through consumption also become a producer – not a regular producer, though, but a producer of his own satisfaction, similar to an enterprise. As Foucault (2008) argues, one could not analyse consumption, regardless of its scope, outside the neoliberal terms of the activity of production. Foucault (2008, p. 175) sees this subject as an enterprise, "in this economic and social regime in which the enterprise is not just an institution but a way of behaving in the economic field - in the form of competition in terms of plans and projects, and with objectives, tactics, and so forth".

Foucault's view on the neoliberal homo economicus helps us understand the contemporary subjects of desire, increasingly linked to platform capitalism. In this context, subjects are continually compelled to undertake, produce, and seek to obtain and attribute value within the ecosystem of digital platforms. In Srnicek's view (2017, p. 20), when hit by a crisis, capitalism tends to restructure itself, developing new ways of accumulation. It comes to encompass new technologies, organisational forms, exploitation models and varieties of employment and markets. In platform capitalism, the main resource exploited corresponds to the data extracted from users of platforms that constitute complex digital ecosystems, which encourages an increasingly complete integration of individuals to the regulations of contemporary capitalism (Van Dijck et al., 2018). This system has been delimiting itself since the early 2000s, when an important set of platforms was concentrated by five US corporations[2]: Google, Facebook, Apple, Amazon, and Microsoft (Van Dijck et al., 2018, p. 12). The consolidation of platform capitalism has been

[2] In the wake of the monumental crisis, the year 2009 was a milestone for the consolidation of platform capitalism, with the launch of Apple's iPhone OS 2 operating system. This software model incorporated location-based technology and began to stimulate the creation of applications by third parties, based on open-source codes. Among these platforms were Grindr (2009), its similar Scruff (2010) and the private transport system Uber (2009).

continuously monopolising the resolution of our personal demands, from the most prosaic to the most intimate, through a broad process of mediatisation of reality.

The platforms where data acquisition and processing take place are highly enhanced products of a series of ongoing processes of mediation and mediatisation. In line with the definition of platform capitalism, Nick Couldry and Andreas Hepp (2016, p. 9) argue that the basic constitutive elements of social life are shaped by "media", which encompasses "the contents and infrastructure derived from institutionally sustained technologies of communication". Couldry and Hepp (2016) situate us in an era of profound mediatisation, which comprise "all the transformations of communicative and social processes, and the social and practical forms built from them, which follow from our increasing reliance on technologically and institutionally based processes of mediation" (Couldry & Hepp, 2016, p. 9).

With regard to affective-sexual relationships, the expansion of platform capitalism reinforces a grammar of desire guided by the primacy of individual choice, as developed by Eva Illouz (2019). Illouz (2019) argues that sexual freedom is increasingly experienced by individuals as the experimentation of the exercise of the choice of partners, similarly to the choice of products on the market. The demand and supply of affective-sexual partners are increasingly mediated by information and communications technologies, resulting in a situation of widespread and pervasive cognitive and emotional uncertainty. In that sense, the market would not be a mere metaphor for the organization of affective-sexual relationships, but a grammar of relationship guided by the "efficiency of the search for a mate (…)" through "(…) scripts of exchange, time efficiency, hedonic calculus (…)" (Illouz, 2019, p. 28). Following Illouz's argument, we understand contemporary homoerotic subjects of desire as being guided by a strategic ethics for the constant maintenance of capitalist forms in activity. This defines what we see as an entrepreneurial ethics of desire, which demands, from these subjects, high performance, and productivity in their sexual and love-related prospections. As a reward for their effort undertaken, they are offered the promises of a successful participation on the competitive market of desire that they integrate and, as an ultimate aim, the acquisition of an alleged "affective-sexual plenitude".

4 CULTURAL SCRIPTS FOR SEX: STEPS TO SEXUAL SUCCESS

The entrepreneurial ethics of desire is associated with a series of procedures, strategies, and steps to goal-achievement. If Grindr is often a starting point for interacting with potential affective-sexual partners, it is not used by the interviewees alone: the app is a central component within an elaborate system of platforms, which integrate an adult leisure circuit[3]. We may say Grindr and other dating/hook-

[3] The notion of an adult leisure circuit, for affective-sexual recreational purposes, encompasses digital platforms, but is not limited to them. Although dating apps currently seem to constitute the

up apps function as a gateway to this circuit. The very organisation of an entrepreneurial ethics requires a type of scripting, which intends to optimise users' performances and maximise their "profits". The procedures intuitively followed by individuals to search for potential partners work as cultural scripts for sex. These scripts are constructed from the sexual experiences apprehended and inscribed in individuals' consciousness. For this reason, rather than deliberately premeditated or calculated activities, they tend to occur intuitively. The scripts are modulated from the reiteration of sociability practices continuously repeated in these spaces. They are understood by the subjects as potentially successful ways to achieve the goals associated with the guidelines of an entrepreneurial ethics of desire.

As Illouz (2019) puts it, differently from emotion freedom, sexual freedom is considered in the present time as a realm of interaction where "things run smoothly". Illouz says so because she argues "actors dispose of a large abundance of technological resources and cultural scripts and images to guide their behaviour, to find pleasure in interaction, and to define the boundaries of the interaction" (Illouz, 2020, p. 19). Cultural scripts for emotions, however, follow a quite different path, as emotions "have become the plane of social experience that 'poses a problem,' a realm where confusion, uncertainty, and even chaos reign" (Illouz, 2020, p. 19). Sex, thus, becomes an easier, more concrete and more objective feature, in terms of pleasure and social recognition of individuals as desiring subjects.

"Supplier" and "consumer" subjects[4] (roles that are not autonomous, but relational) orchestrate their steps in dating apps and social networks from the reiteration of sexual scripts that are continuously (re)interpreted in these social spaces. In that sense, each application or social network site that integrates this ecosystem of platforms provides different functions and stages, which will help the entrepreneurial subjects to achieve the results they aspire. Peter justified the ordered alternation between applications "for the same reason that you end up behaving differently in certain social environments" (Interview with Peter, 12/02/2020), suggesting that each platform delimits distinct internal rules for its good use. He shares the same thought as Matthew, for whom there are certain divisions that need to be respected to get the best affective-sexual enjoyment possible in digital media. The interviewee exemplifies as follows:

> With a person who has only sexual intent, like "let's meet up to fuck", I usually start like this: I'm on Grindr, then maybe we go to WhatsApp, to make it easier. When it is really more of a flirting, of having some interest to know the person

central axis of these circuits, we argue that they are also made up of face-to-face activities and places, such as nightclubs, bars, adult movie theatres, gay saunas, cruising areas, etc.

[4] The term "consumer-subject" derives from consume studies developed in Sociology and Psychology, such as Setiff's (2014) and Xavier's (2016). We use this term, as well as its relational opposite, "supplier-subject", to situate desiring subjects in the market dynamics they adhere. As we highlight here, they are relational roles, and most dating/hook-up apps users may act as both of them, even simultaneously. Based on our informants' stories, "supplier-subjects" and "consumer-subjects" are frequent possibilities of the subject's position within the apps' dynamics, what doesn't mean they are the only possibility of interaction.

> better, I see that it starts on Grindr, then goes to Instagram, to see more photos and everything. Then it already starts that story of following each other, so that you slightly spy on his photos, give some "likes". Then maybe you even start using Instagram's chat instead of Grindr's to talk. (Interview with Matthew, 07/02/2020)

From Matthew's perspective, we can infer that a more systematic prospection process tends to start with Grindr and other apps aimed at direct hook-up. Depending on the interests of the interviewee and his interlocutors, the rest of the interactions occur right there or move on to other platforms. The interviewee mentions the instant messaging application WhatsApp - with the purpose of narrowing the guidelines of the face-to-face meeting - and the social network of images and videos Instagram, which would be a possibility for both to evaluate each other in more detail to decide the next steps of the interaction. Depending on the progress of the conversations and the yield of the meetings, both Instagram and WhatsApp may become possibilities of maintaining a closer and long-lasting contact. In the case of Andrew, he chooses to confirm the identity of the interlocutor with a live video call, for reasons that include both his own safety and the confirmation of the veracity and "quality" of the "supplier-subject" with whom he interacts. Joseph, on the other hand, usually does not ask for Instagram in initial interactions, but makes an effort to find this and other social networks of his interlocutors without them knowing that they are being evaluated by him in other instances.

For Luke, however, Instagram is an obstacle to be overcome, because the idea of direct rejection bothers him. Immediately sharing a social network with images with his interlocutor may harm his prospecting process, as it may cause a direct rejection due to the exposure of his figure, as he pointed out. Used to this type of reaction, Luke anticipates these situations to avoid them and get further in his prospecting. The frequency with which his image was rejected made him publish fewer photos on Instagram. A way found to circumvent this type of embarrassment was involving the interlocutor in a humorous conversation that deviates from the script of the more straight-to-the-point Grindr conversations. In that way, his image would acquire secondary importance. When it comes to his investments in the apps, Luke reported that he hasn't been getting the results he wishes. Unlike Matthew and John, who share the privilege of being white and living in middle/upper class neighbourhoods in Recife - which also means a greater supply of potential partners - Luke, who is black and lives in the periphery of Cabo de Santo Agostinho, justified: "as a person whose skin colour is usually no beauty standard, I know it will be more hard-working to get to know someone. But I keep on... trying".

In routes followed by Peter on digital media, he is also used to being rejected and subjected to ghosting practices, that is, when he is deliberately ignored by his interlocutor. He usually uses Grindr and Scruff for more objective contacts, but he adheres to Tinder when he seeks something more stable than a casual encounter.

However, in his opinion, a quicker chat on WhatsApp generally leads to an accelerated disinterest, as well as the accumulation of contacts that do not yield significant interactions or face-to-face encounters, nor serious relationships. For this reason, the premature exchange of WhatsApp from Grindr or even Tinder appears as something negative and far from productive. Peter also said he had no patience for Tinder, for it is not as straight-to-the-point as other dating/hook-up apps. In Peter's experience, the chances of his interlocutor's interest to wane and of him being ghosted are high. The act of deliberately ignoring the interlocutor who no longer arouses one's interest is associated with the logic of productivity common to entrepreneurial ethics of desire: it is necessary to invest in "supplier-subjects" who are worth the effort, who are sufficiently valuable and desirable. Ghosting is not an exclusive experience of Peter's. All the informants have already been subjected to this practice and have practiced it with interlocutors with whom they had no interest in keeping a conversation. In many situations, this practice is evoked as a natural step in the cultural scripts for sex performed on digital media.

Mark also traces a route among apps in search of more effective yields. Tired of the standardized and slower scripts of Tinder, he usually prospects sex partners in Grindr and Scruff. He reported he does not share Instagram with these interlocutors because it is "a social network for the family". However, to those who want to know more about his physical attributes and his sexual performance, he shares a Twitter profile in which he posts, anonymously, videos having sex with other men. In his opinion, an "supplier-subject" should provide his potential "consumer-subjects" a sample of the sexual possibilities he can offer. In Mark's words, he shares his erotic personal Twitter's profile "so that I don't keep opening photos, seeing galleries, because this wastes a lot of time, so I send the profile right away" (Interview with Mark, 17/02/2020).

When it comes to the platform that initiates the general cultural scripts for sex followed by informants (Grindr), Matthew highlights a feeling of "discomfort" and "self-demanding" that is triggered by the app's socialization environment. It is as if the processes of sociability needed to be faster in this platform, in order to promote a feeling of obtaining actual and concrete results. The time and effort spent on using the application cannot be in vain; necessarily, they must be directed to obtaining fast and guaranteed results. The interviewee also associates Grindr to a "pre-selection step", through which he should proceed his sexual-affective prospections as if it were a kind of checklist:

> Even though I've been using Grindr for a long time - I think it's the one [app] I end up using the most -, it still seems very much to be a very uncomfortable environment, very... So, it seems there's a big feeling of pressure, you know? To talk to more and to more people and everything. There is a demand in this sense, "right, we are here, let's talk fast and decide which way we are going from here", you know? (...) Of course, in general, this happens in all dating apps. I feel a lot this thing of, like, getting to know a little bit, making some checklist. So, I think it ends up as if it were a bridge, a sieve. (Interview with Matthew, 07/02/2020)

From informants' perspectives, Grindr is seen as a space for initial selection, where options will be presented and submitted to a primary diagnosis. The "supplier-subjects" that fail at this phase are disregarded, while those approved under the "pre-selection process" made by "consumer-subjects" are elected for the next "step" – of course, subjects may act as "supplier-subjects" and "consumer-subjects" simultaneously, for these are relational roles. These positions of power are often assigned to subjects in each interactional situation based on the privileges they hold, or those they lack. In Matthew's view, what matters the most are the potential features that each "supplier-subject" can offer a "consumer-subject". That is, what the former can offer to justify the effort of the latter. The strategies applied in this process are numerous. They are mobilized in an orchestrated, almost automated manner, and reproduce cultural scripts for sex made possible by the continuous and intensified use of Grindr-like apps. This systematic use gives its assiduous users a particular expertise, capable of fostering an entrepreneurial ethics of desire that directly benefits the dynamics responsible for the proper functioning of platform capitalism. The accumulation of this differentiated expertise, one of the promises of the entrepreneurial ethics of desire, is linked to Dardot and Laval's (2014) argument that the market is a process of continuous learning and permanent adaptation. As these authors point out, the market is precisely defined by its inherently competitive character:

> Each participant seeks to outstrip others in a constant struggle to become leader and remain so. This struggle is contagious. People imitate the best, become ever more alert, gain increasingly in entrepreneurship. Entrepreneurs who seek to sell via all modern methods of persuasion have the most positive impact on consumers. By making them conscious of purchasing opportunities, their endeavours aim at 'providing the consumers with the "entrepreneurship" which they (at least in part) lack'. (Dardot & Laval, 2014, p. 130)

If we follow their thought, we are entrepreneurs because we learn to be entrepreneurs, and we tend to train ourselves through the play of the market to govern ourselves as entrepreneurs. And through the game of the market, subjects learn to govern themselves as entrepreneurs. Thus, "if the market is regarded as a free space for entrepreneurs, all human relations can be affected by the entrepreneurial dimension, which is constitutive of the human" (Dardot & Laval, 2014, p. 129).

5 PROFILE CONSTRUCTION: PRESENTING ONESELF DESIRABLE

In a similar way to cultural scripts for sex, the process of describing oneself online is rooted in cultural scripts according to "desirable personalities", as Illouz (2007, p. 176, free translation) defines it. Each digital platform used by subjects of desire demands different expressions of self-presentation and sociability practices. In the digital era, subjects of desire seem to be in constant negotiation with a regime of

desirability that regulates the market of desire in which they aspire to transit in fluidly. We evoke the notion of regime of desirability based on the conceptual apparatus of regime of truth as thought by Foucault (1980, p. 131), who understands truth as the product of multiple coercions that develop regulated effects of power. In the case of a regime of desirability, we are interested in the politics of desire which elect, within a given social imaginary, which bodies are likely to be read as desirable and which are relegated to the condition of undesirable or even abject (Butler, 1990). In that sense, each "supplier-subject"/"consumer-subject", as the entrepreneur of itself, needs to adorn its own "portfolio" and make it attractive so that they may fit the normative prescriptions of this regime. Aligned with an entrepreneurial ethics of desire, these subjects tend to make use of specific strategies in the construction of their profiles, in order to get more out of their sexual-affective incursions in digital platforms.

In an attempt to constitute themselves as "desirable" subjects in digital spheres, the subjects of desire experience tensions that are triggered from social markers of desire, such as race, class, gender performativity, regionality and self-identified body type. More than in quantitative terms, the "consumer-subjects" are interested in obtaining qualitative results. Therefore, to obtain "supplier-subjects" that fit their conception of desirable subjects, they need to develop strategies aiming at certain "market niches". For John, for example, it is important that his interlocutors have a level of culture that matches his expectations - for this reason, he presents himself with excerpts from certain books and songs of his preference - and an explicit "anti-fascist" warning ("He might be handsome as a Greek god, but if he tells me he is a 'bolsominion' [supporter of President Jair Bolsonaro], there is no conversation at all" (Interview with John, 13/02 /2020).

Despite having already used five dating apps simultaneously, at the time of the interview, John was using only Tinder and Grindr, in which "the law of supply and demand is much greater", as he puts it. On Grindr, he reported he hardly used face photos for being a "repeated sticker" - which implies a loss of value within the app environment - and also for a matter of protection. The protection that he spoke of is not associated with the possibility of homophobic aggression on the streets, but of embarrassment and offences in the app itself: "It's not because of secrecy - I don't give a shit about that. But it is a question of, in a way, of protection, to avoid - not to avoid -, but to postpone, the rejection" (Interview with John, 13/02/2020).

To depend on a single platform to pursuit one's affective-sexual demands, certainly, is not an attitude stimulated by the entrepreneurial ethics of desire. On Tinder, a network that depends on matches and where anonymity is not frequent or even welcome, John publishes face photos. As interactions occur through matches, that is, mutual choices, users need to "approve" his image before the possibility of an interaction. Based on these dynamics, the chances of someone rejecting his image during a conversation are smaller than on Grindr, once he is only able to interact with the ones who have already approved his profile as a whole. But as Tinder is a "long-term investment", which requires more patient efforts and

less guarantee of rewards, he is a more assiduous user of Grindr. The chances are higher the greater is the effort of the entrepreneurial ethics of desire's agents. Maybe this explains why John is not very optimistic about Tinder, which he considers to be an app for amateurs: "I don't put much faith in Tinder. I cannot wait to 'match' someone to have sex" (Interview with John, 13/02 /2020).

Unlike John, Peter is not afraid to expose his face on dating app profiles. He is also white, thin, effeminate and lives in a middle-class neighbourhood in Recife, but his self-esteem seems stronger than John's. For Peter, it is important that his public profiles feature a face photo in which he considers himself handsome and highlight a phrase capable of intriguing his potential interlocutors, so that they engage in spontaneous interactions with someone who does not reject him straightaway. As for the images, Peter reported that he chooses them based on the specifics of each application: "Maybe I choose my photos according to a certain app. I like to be varying the photos. Tinder, for me, is where people are most interested in having longer conversations. So, I try to show photos that give people something to talk about. I don't know, I suggest I'm a nerd, that I like *anime*, something like that. (Interview with Peter, 12/02/2020)

For Luke, a frequent strategy aiming adequacy to the homoerotic market he wants to belong to includes the creation of distinct personas for each platform. In his opinion, the acquisition of an expertise in the use of digital platforms enables the subjects to generalise and even categorise the profiles and behaviours performed by other users, so that he can adapt to different demands to get more chances of having satisfactory results in different situations.

> I think I create some personas for each app. I think on Grindr I'm more... neutral. It depends on who I talk to. I shape myself to the situation. And on Tinder I try to be funny, I present myself with some clownish stuff. On Instagram, there's a kind of curatorship. (...) I think that, after a while using [social media], you start to mimic a little of the behaviour... not to mimic, but to understand people's behaviour in general. […] I try hard to understand what the person is like, to adapt and see if anything happens. If I see that I am too much of an outsider, I try... not to talk about Lady Gaga. (Interview with Luke, 02/03/2020)

Luke reported he adapts not only his profile depending on the platform he accesses, but also his sociability practices, according to what he considers to be the expectations of his interlocutors. We can infer that the entrepreneurial ethics of desire demands from the subjects of desire a capacity of adaptation to adverse situations, as well as a differentiated disposition to conquer their goals. And even if it costs the subject to deny himself to have these expectations fulfilled. In the realm of the homoerotic market of desire, in which there is an avid competition for territory, one's commitment to one's own "authentic" and/or "natural self" is not more important than the achievement of concrete and satisfactory results.

Joseph and Mark, both young black men and residents of suburban locations, reported racist attacks while using dating/hook-up apps. Both mentioned offences, ghosting practices, and explicit refusals of their interlocutors to hold a conversation

with them because of their skin colour. The systematic symbolic violence they have suffered has led them to reposition themselves radically in Recife's homoerotic market of desire. To obtain a differentiated valuation in this market, they decided to present themselves as the "cafuçu"[5] stereotype. "Cafuçu" is a term used by queer local community to identify a hypersexualized and virile black man, generally from the favelas and other peripheral areas – an imaginary associated with the history of Brazilian colonization and the widespread racist condition of the country. For Joseph, the discomfort with the fetishisation of his blackness is almost always present. However, he tends to use it to his own advantage, in order to make his prospections more agile and productive.

> Sometimes it bothers me, but I use this thing of being black and people having this fetish. When I really want to have sex, I use this thing, you know? To have something quicker with someone I find interesting. It depends on how I am at the moment. So, sometimes, when I am well, with a good self-esteem, life is all right, I use it to my advantage. (Interview with Joseph, 14/02/2020)

Like Joseph, Mark usually keeps his profiles on dating apps as "neutral" as possible. For him, the path of the conversation, of getting to know his interlocutor little by little, is more fruitful. However, to "guarantee" the interest and attention of the person with whom he talks, he shares his Twitter profile, in which he publishes personal erotic videos, as a "sample" of his own sexual potentialities and attributes. Mark also chooses to appropriate the fact that he is black to optimise his "earnings" on the apps. In his perspective, the erotic profile he keeps on Twitter, besides being a practical and quick "catalogue" for his prospections, contributes to feed the imaginary that he wants to project on those who seek him because of racial fetishisation. He stressed that this attitude is about an "exchange", in which both involved will be satisfied.

> I also fit as a "cafuçu" man. Because people with brunette, curly hair, like me, generally attract - not that I'm generalising, or going like "oh, all black people look like thugs" - this fantasy, the black, "cafuçu", peripheral, you know? I don't particularly like labels, but I think this is funny because, anyway, this will be something that will happen today, it won't be something that you will carry on. It's not going to be a relationship; it's just going to be a moment. You know what I mean? A single episode. It's an exchange. Each one will be satisfied in a different way. (Interview with Mark, 17/02/2020)

Both Joseph and Mark reported appropriating a degrading stereotype and using it as a "medium of exchange". This seems a way of engaging in an entrepreneurial ethics, so that they are able to participate more competitively in the homoerotic market of desire. The neoliberal logics from which entrepreneurial derives does not necessarily exclude or invisibilise non-normative subjects within its range; it includes them, but within its own terms. This logic welcomes and instrumentalises

[5] What Does Cafuçú Mean? (2015) In Contemporary Queer. Retrieved from: http://contemporaryqueer.com/2015/12/what-does-cafucu-mean/.

these individuals under the terms that the market identifies as appropriate and productive. In the cases of Joseph and Mark, it occurred under a process of fetishisation. Despite placing them in a "prominent" position in the market of desire, it doesn't take into account their subjectivities, and dehumanises them. The entrepreneurial ethics of desire does not hesitate to demand from its agents the submission to controversial situations in the name of obtaining what it constantly advertises as valuable, worthy, and desirable. As put by Senthorun Raj (2011), the encounters between bodies made possible by Grindr-like apps "are marked by profiles and conversations which filter and govern intimacy through disciplinary norms around race, masculinity, whiteness, physical aesthetics and geography". In Raj's (2011) view, especially whiteness is seen as a privileged form desiring capital, what enables bodies that "pass" as "white", whereas marks out bodies which do not. As marked in Joseph and Mark's reports and argued by Raj (2011), "racial 'others' become produced in this economy of desire as fetishes or repugnant objects".

If specific paths between certain apps and social networks sites constitute roadmaps that must be respected for the optimization of performance on these platforms, most of public profiles shared on these networks show specificities for this same purpose. Nonetheless, according to our informants, each subject has its own strategies to move successfully within the market of desire in which they are eager to integrate. Their remarks suggest that these strategies can be modulated directly by normative prescriptions associated with the desirability regime which drives sociability practices in the apps (such as the use of certain images or words that are more erotic), but can also be constructed in different ways, from the expertise acquired by the intensified use of different platforms.

6 TENSIONS BETWEEN ENTREPRENEURIAL AND QUEER ETHICS OF DESIRE

By proposing to understand the ethics of desire as historically contingent, we observed other possibilities of constructing the self beyond a strict entrepreneurial conduct. In terms of a queer ethics of desire, scholars such as Judith Butler (1999), Paco Vidarte (2007), Jack Halberstam (2011) and Paul B. Preciado (2018) have been producing remarkable collaborations in moving towards non-deterministic perspectives of subjects of desire and technology. We do not aim to prescribe conduct or offer consolidated answers, but we propose an intellectual provocation: could we consider new desiring practices within a queer ethics of desire? That is, an ethics of desire in which neoliberal assumptions are minimised, such as compulsory happiness, the quantification of our affective-sexual performances and impersonal affections (Illouz, 2019). An ethics in which we could explore the subversive potency of failure and dismantle the logics of compulsory success (Halberstam, 2011).

In one of the interviews, Peter provided clues that suggest small, although important ruptures, in the dominant entrepreneurial logic of desire. He highlighted

some sociability strategies that he performed on Grindr to try to set up not only casual sex dates, but situations in which he could establish more consistent and lasting bonds - and this did not imply engaging in a monogamous relationship, as he reiterated. Peter said he started proposing intimate meetings for drinks, smoking weed and watching TV series. Having sex was still under his radar, but not as the organising centre of his interactions with other men. He highlighted the potential of apps to promote less volatile human bonds - from making new friends to finding jobs and expanding worldviews. But for him, this idea is still a utopia because people aren't interested in it, not even him, as he doesn't have "the disposition for being like this all the time" (Interview with Peter, 12/02/2020). Peter's view on other sexual-affective ethical possibilities relates to Todd May's (2012) perspective on friendship as a powerful resistance to neoliberalism. In one of his late interviews, Michel Foucault (as cited in May, 2012, p. 123) states against a view of homosexuality as purely sexual, once friendship ties may annul "everything that can be uncomfortable in affection, tenderness, friendship, fidelity, camaraderie and companionship, things which our rather sanitized society can't allow a place for without fearing the formation of new alliances and the tying together of unforeseen lines of forces".

Relating to May's (2012) observation, Peter criticizes one of the most latent characteristics of the entrepreneurial ethics of desire, which is the difficulty of deepening human bonds between the subjects of desire, as Eva Illouz (2019) points out when she describes the negative structure of contemporary relationships. Peter seems to suggest, though, that Grindr-like apps have potential to transform relationships between gay men: through friendship bonds and professional contacts, for example, beyond strict sexual interest. He suggests the possibility of creating a group of "fuckbuddies", a practice identified by Race Kane (2015) that disrupts the quantitative and ephemeral sexual relationships associated with the entrepreneurial ethics of desire. In Peter's view, a queer ethics of desire would not necessarily demand the end of apps like Grindr, but the reappropriation of its uses. And this change only seems to be possible if aligned with a series of broader social transformations. If we take the thought of Preciado (2018), particularly his epistemological counterproposal to the binary sex-gender system and to a heterocentric and phallocentric politics of desire, we may observe some elements of a possible queer ethics of desire. Even in terms of a reappropriation of technologies and identities - identities, it is important to highlight, that technologies invariably collaborate to produce and reiterate through subjects' practices. Preciado (2018, p. 88) cites Michel de Certeau to stress that "every form of technology is a system of objects, users, and uses open to resistance and *détournement* (diversion, perversion, appropriation, and queerization)". The author goes further when he defines a queer praxis as a "method of turning certain domination technologies into technologies of the self, including what could be called identity-construction techniques" (as cited in Preciado (2018, p. 88).

In Preciado's view (2018, p. 108), "every technique that belongs to a repressive practice is liable to be cut off and grafted onto another set of practices, reappropriated by different bodies, reversed, and put to different uses, giving rise to other pleasures and other identity positions". Although the author refers to body and sexual technologies, we may consider a transformation of the uses and practices engendered by digital media. The logics of dissolution of sexual and ontological "truths" proposed by the author may contribute to weaken the technological "truths" that we have discussed so far, since "it is possible to reverse and reroute (change course, morph, set adrift)" the practices of production of sexual identities and other "truths" related to desire and technology (Preciado, 2018, p. 29). In a similar vein, Race (2015) suggests hook-up apps enable users to co-construct fantasies and pleasures as well as to participate in the elaboration of a "specific sphere of sociability and amiable acquaintance among men in urban centres that prioritizes sex as a principal mechanism for connection and sociability" (Race, 2015, p. 271). This sphere could be seen as an alternative to contemporary discourses on gay desire increasingly hegemonized by heteronormative ideals, such as marriage and compulsory monogamy. Grindr-like apps could also be instruments for remapping some locations into queer spaces, whose properties could be creatively reworked to accommodate diverse sexual pleasures, as put by Shaka McGlotten (2013, p. 13), and cooperative bonds between queer people other than entrepreneurial drives.

In line with the debate of what elements could define a queer ethics of desire, Halberstam (2011) investigates alternative routes to a heteronormative idea of success that drives desiring practices in the scope of the entrepreneurial ethics of desire. For the author, failure has a subversive power capable of damaging the political trenches of the idea of compulsory success to which we are continuously subjected through the discursive-mediatic apparatuses. The author sees failure as a "way of refusing to acquiesce to dominant logics of power and discipline and as a form of critique", and, as a practice, "failure recognizes that alternatives are embedded already in the dominant and that power is never total or consistent; indeed failure can exploit the unpredictability of ideology and its indeterminate qualities" (Halberstam, 2011, p. 88). In that sense, a queer perspective of an ethics of desire could offer us "one method for imagining, not some fantasy of an elsewhere, but existing alternatives to hegemonic systems" (Halberstam, 2011, p. 89). If we take on Halberstam's argument, a queer ethics of desire embraces failure and treats it as dejection the compulsory success of the hegemonic system that has become the entrepreneurial logics. Beyond failure, perhaps a queer ethics of desire can be thought through the logic of cooperation, through the formation of bonds of friendship, affection, and care. In a moment of severe humanitarian crisis, in which inequalities in all areas have acquired obscene levels, the formation of diverse alliances and the engagement in revolutionary micro-politics seem to be a possible path to follow. To be able to overcome the entrepreneurial ethics of desire, a queer ethics of desire presupposes the mobilisation of different parameters of representation, visibility, and desirability. It is necessary to dynamite the dusty

regimes and ally with processes of political reconstruction that start from new epistemologies. Epistemologies that aim to undermine exclusions and exterminations. Epistemologies that encompass, guarantee and value diverse and powerful forms of being and desiring in the world.

FUNDING STATEMENT AND ACKNOWLEDGMENTS

We would like to thank the reviewers and editors, for all their dedicated effort to strengthen this article. We also thank the funding agency Facepe (Fundação do Amparo a Ciência e Tecnologia de Pernambuco), Professor Richard Miskolci, my PhD co-advisor, and all members of the research group Social Theory and Subjectivities, coordinated by Professor Cynthia Hamlin at the Federal University of Pernambuco. Thank you very much!

REFERENCES

Adjepong A. *Invading ethnography: A queer of color reflexive practice.* Ethnography. 2019;20(1):27-46. https://doi.org/10.1177/1466138117741502

Bloom, P. (2017). *The Ethics of Neoliberalism: The Business of Making Capitalism Moral*. London, UK: Routledge.Bourcier, S. (2020). *Homo Inc.Orporated: O triângulo e o unicórnio que peida*. São Paulo, SP: n-1 edições.

Brown, W. (2019). *In the Ruins of Neoliberalism: The Rise of Antidemocratic Politics in the West*. New York: Columbia University Press.

Butler, J. (1990). Bodies that matter: on the discursive limits of "sex". London, UK: Routledge.Butler, J. (1999). *Gender Trouble: Feminism and the Subversion of Identity*. New York, NY: Routledge.

Castells, M. (2009). *The Rise of the Network Society: The Information Age: Economy, Society and Culture* (Vol. 1). Hoboken, NJ: Wiley-Blackwell.

César, D. (2020). Região Nordeste possui quase metade de toda a pobreza no Brasil, segundo IBGE. Fundo Estadual de Combate à Pobreza do Ceará. *Fecop*. Retrieved from: https://www.fecop.seplag.ce.gov.br/2020/11/20/regiao-nordeste-possui-quase-metade-de-toda-a-pobreza-no-brasil-segundo-ibge.

Couldry, N., & Hepp, A. (2016). *The Mediated Construction of Reality*. A construção mediada da realidade. Cambridge, UK: Polity. E-book.

Danner, F. (2011). *Biopolítica e liberalismo: a crítica da racionalidade política em Michel Foucault* (PhD thesis). Retrieved from: http://tede2.pucrs.br/tede2/handle/tede/2874.

Dardot, P., & Laval, C. (20164*). A The New Way of the World: On Neoliberal Society*. London, UK: Verso.

Foucault, M. (1978). *The History of Sexuality: An Introduction*. New York, NY: Pantheon Books.

Foucault, M. (1980). *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*. New York, NY: Pantheon Books.

Foucault, M. (1990). *The History of Sexuality*: *The Use of Pleasure*. New York, NY: Vintage Books.

Foucault, M. (2008). *The Birth of Biopolitics: Lectures at the Collége de France 1978-1979*. London, UK: Palgrave Macmillan.

Foucault, M. (2017). *Subjectivity and Truth: Lectures at the Collége de France, 1980-1981*. London, UK: Palgrave McMillan.

Gastaldi, A., Mott, L., Oliveira, J., Ayres, C., Souza, W., & Silva, K. V. C. (Orgs.). (2020). *Observatório de mortes violentas de LGBTI+ no Brasil – 2020* (report).

Halberstam, J. (2011). *The Queer Art of Failure*. Durham, UK: Duke University Press.

Honneth, A. (1995). *The Struggle for Recognition: The Moral Grammar of Social Conflicts*. Cambridge, UK: The MIT Press.

Illouz, E. (2019). *The End of Love: A Sociology of Negative Relations.* Oxford, UK: Oxford University Press.

Illouz, E. (2011). *O amor nos tempos do capitalismo*. Rio de Janeiro, RJ: Zahar.

Lievrouw, L. (2014). *Materiality and Media in Communication and Technology Studies: An Unfinished Project*. Cambridge, UK: The MIT Press.

May, T. (2012). Friendship in an Age of Economics: Resisting the Forces of Neoliberalism. Lanham, MD: Lexington Books.

McGlotten, S. (2013). *Virtual intimacies: media, affect, and queer sociality*. New York, NY: Suny Press.

Miskolci, R. (2017). *Desejos Digitais*. Belo Horizonte, MG: Autêntica.

Preciado, P. (2018). *Countersexual Manifesto*. New York, NY: Columbia University Press.

Race, K. (2015). 'Party and Play': Online hook-up devices and the emergence of PNP practices among gay men. *Sexualities*, 18(3), 253-275. https://doi.org/10.1177/1363460714550913.

Raj, S. (2011). Grindring Bodies: Racial and Affective Economies of Online Queer Desire. *Critical Race and Whiteness Studies*, 7 (2), 1 -12.

Rooke, A. (2010). Queer in the Field: On Emotions, Temporality and Performativity in Ethnography. In Browne, K., & Nash, C. (Eds.). *Queer Methods and Methodologies: Intersecting Queer Theories and Social Science Research*. Surrey, UK: Ashgate.

Santos, J. M. (2020). Recife é a capital mais desigual do Brasil. Pernambuco está em terceiro lugar em desigualdade entre os estados, mostra IBGE. *Blog de Jamildo*. Retrieved from: https://m.blogs.ne10.uol.com.br/jamildo/2020/11/12/recife-e-a-capital-mais-desigual-do-brasil-pernambuco-esta-em-terceiro-lugar-em-desigualdade-entre-os-estados-mostra-ibge.

Seidman, I. (2006*). Interviewing as Qualitative Research*. New York, NY: Teachers College.

Setiffi, F. (2014). Becoming consumers: Socialization into the World of Goods. *Italian Journal of Sociology of Education*, 6(3), 6-25. Retrieved from: http://www.ijse.eu/wpcontent/uploads/2014/10/2014_3_2.pdf.

Srnicek, N. (2016). *Platform Capitalism*. Cambridge: Polity Press.

Van Dijck, J., Poell, T., & Martin, W. *The Platform Society: Public Values in a Connective World*. New York, NY: Oxford University Press EUA.

Vidarte, P. (2007). *Ética marica: Proclamas libertarias para uma militancia LGBTQ*. Sevilla, Spain: Egales.

Wu S, Ward J. Looking for "interesting people": Chinese gay men's exploration of relationship development on dating apps. *Mobile Media & Communication.* 2020;8(3):342-359. https://doi.org/10.1177/2050157919888558

Xavier, M. (2016). Subjectivity Under Consumerism: The Totalization of the Subject as a Commodity. *Psicologia & Sociedade*, 28(2), 207-216. https://doi.org/10.1590/1807-03102016v28n2p207.

JOURNAL OF DIGITAL SOCIAL RESEARCH

WWW.JDSR.IO ISSN: 2003-1998

VOL. 4, NO. 3, 2022, 81–106

PUSHING INTERSECTIONALITY, HYBRIDITY, AND (INTER)DISCIPLINARY RESEARCH ON DIGITALITY TO ITS LIMITS: A CONVERSATION AMONG SCHOLARS OF GENDER, SEXUALITY, AND EMBODIMENT

Evelien Geerts[a], Ladan Rahbari[b], Giulia Evolvi[c], Shiva Zarabadi[d], and Sara De Vuyst[e]

ABSTRACT

During the past two decades or so, the emergence and ever-accelerating development of digital media have sparked scholarly interest, debates, and complex challenges across many disciplines in the social sciences and the humanities. Within this diverse scholarship, the research on digitality, gender, sexuality, and embodiment has contributed substantially to many academic fields, such as media studies, sociology, religion, philosophy, and education studies. As a part of the special issue "Gender, Sexuality, and Embodiment in Digital Spheres: Connecting Intersectionality and Digitality," this roundtable consists of a conversation between five researchers from different (inter)disciplinary locations, all addressing matters of methodology, intersectionality, positionality, and theory in relation to the topics of gender, sexuality, and embodiment in digital spheres. Said roundtable begins with a critical self-positioning of the participants' (inter)disciplinary and embodied locations using examples from their own research. The conversation then progresses to how these researchers have employed contemporary theories, conceptual vocabularies, methods, and analyses of gender, sexuality, and embodiment in digital spheres to then conclude with some ethico-political notes about collaborations between scholars and (digital) activists.

Keywords: Digitality, embodiment, gender, sexuality, intersectionality, (inter)disciplinarity, hybridity, positionality.

[a] University of Birmingham, United Kingdom
[b] University of Amsterdam, the Netherlands
[c] Erasmus University Rotterdam, the Netherlands
[d] ULC, United Kingdom
[e] Ghent University, Belgium

Since we all come from different academic disciplines and work with very specific conceptual genealogies, let us start this roundtable with a self-situating, albeit rather general, set of questions. Firstly, how are questions about the connections between gender, sexuality, and embodiment in digital spheres generally approached in the fields of media studies, sociology, religion, philosophy, and educational studies? And secondly, how have these connections found their way into your own research?

Sara De Vuyst (SDV): The connections between gender, sexuality, and embodiment have been central in several ways in my research in the past years. I have a background in feminist media studies and cultural studies. At the moment, I am working on the ERC-project *Later-in-life intimacy: Women's unruly practices, spaces, and representation*[f]. My current postdoc focuses on the media component of the just-named ERC project, for which I am collecting and analyzing representations that challenge normative ideas on gender, ageing, and sexuality; interviewing media producers; and co-constructing alternative narratives on ageing and sexuality with older queer women.

Looking at the discipline of feminist media studies more broadly, the topic of digital activism has been high on its research agenda lately. On the one hand, there is a wide range of studies that focus on specific hashtags used in online protests against racism, sexism, and homophobia, such as #SayHerName, #BlackLivesMatter, #aufschrei, #BabaeAko, and #MeToo (see e.g., Alingasa, & Ofrenco, 2021; Gray, & Breigha, 2021; Williams, 2016; Zongxuan, & Yang, 2019). Digital media are explored for their potential to bring about connections between online and offline communities, set the agenda of mainstream media, and challenge existing forms of bias in news reporting. On the other hand, feminist media studies research has focused on more individual expressions of resistance in digital spaces, too. Think about the dynamics of self-representation on social media and expressions of online identities, for instance (see e.g., Abidin, 2016; Araüna et al., 2021; Caldeira, De Ridder, & Van Bauwel, 2020).

When social media came into being, there was a lot of optimism about these new media and the potential of creating a strong feminist participatory culture. The same can be said about social media's association with a novel form of the more networked fourth wave of DIY feminism. The boundaries between producers and users have increasingly blurred in digital spaces, offering opportunities to go beyond the deeply rooted inequalities in traditional media companies and produce more inclusive online stories. However, these optimistic assumptions are more and more

[f] This particular ERC-project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation program (grant agreement No. 851666).

being tempered, as studies are also showing that offline inequalities continue, or are amplified, in online spaces. Women are disproportionally confronted with name-calling, verbal and physical threats, stalking, and sexual harassment in digital spaces (e.g., Binns, 2021; De Vuyst, 2020; Jane, 2014). Sexism in online abuse intersects with other forms of oppression, such as ageism, racism, and homophobia. Topics related to migration, feminism, racism, and critical analysis of the politics and government of a country are triggers for all kinds of trolling, stalking, online hate speech, harassment, and intolerant discourses.

Evelien Geerts (EG): I want to take some time to situate myself and my research interests later, as Sara's comment about the ambiguity of digital spaces immediately struck a chord: Seen from a philosophical – or more aptly put, phenomenological embodiment-focused – point of view, material and digital lifeworlds strongly differ from one another. If we then throw some transhumanist, critical posthumanist, and new materialist approaches in the mix – three approaches that, by the way, decenter the human and make space for the nonhuman, more-than-human, and depending on the strength of the critical lenses used, the dehumanized – then we could arrive at the following analysis: Conceptualized through a transhumanist viewpoint (often a rather naïve perspective, equal to blindly worshipping all technological progress, see e.g., More, & Vita-More, 2013), the virtual world harbors various empowering possibilities for certain folks that the more mundane material world does not. One can find refuge in a fabricated virtual life, for instance, by wandering around in World of Warcraft as a not-so-human night elf, or escape one's bodily conditions and, consequently, certain societal restrictions, by creating a genderfluid Sims 4-avatar (see e.g., Schmider, 2016).

But considering how digitalized the lives of many are today, the boundaries drawn between the digital and material lifeworld are becoming increasingly porous, as feminist science studies scholar – and critical posthumanist-leaning thinker[g] – Donna Haraway (1985; 1991) already noted in the mid-1980s and early 1990s. And anyone regarded as differing from the standard 'cybersubject', so to speak, also knows this by and through their lived experience: Our cyber access and experiences are always impacted by virtual structures of exclusion that mirror offline ones, as Sara also pointed at earlier; often pushing us back into the trappings of our 'offline bodies'… Critical posthumanist and new materialist theories, such as Haraway's oeuvre, but also that of literary theorist Katherine N. Hayles (1999), neoliberalism-critical sociologist Melinda Cooper (2008), nomadic philosopher Rosi Braidotti (2013), and critical theorist Zakiyyah Iman Jackson (2020), offer us the tools to analyze how these crisscrossing networks of power relations seep into the digital realm as well, whereas transhumanist perspectives merely seem to hyperfocus on

[g] For those interested in the work of Haraway, and how she locates her work within posthumanist theory, see Gane, & Haraway 2006.

the liberating potential of the technoscientific world of today, therefore naïvely bypassing these trappings…

Shiva Zarabadi (SZ): I would also like to briefly reflect on Sara's and Evelien's arguments about the ambiguity of digital spaces before situating myself and my research. I can think of a link between what I have explored earlier in my research and how digital spheres could become a platform for marginalized people to be heard. In my research, I work with the viral medialogical relational materialities that emerge between bodies, virtual, and material capacities in educational environments. These relations with digital spheres create "affective qualities" (Lupton, 2017, p. 13). In a chapter I co-wrote (Zarabadi and Ringrose, 2018), I demonstrated how these relational – affectively contagious (see Thrift, 2008; Grusin, 2010, p. 57 for this notion) – forces create new forms of sensory relations between Muslim women and jihadi Brideism. In that process, the perceived threat of all Muslim women becoming radicalized and fleeing to Syria to marry jihadi fighters[h] becomes viral, thereby representing *all* Muslim women, and particularly Muslim school girls in the UK, as potential risks, and jihadi brides.

Examining what these affective relations with digital spheres working through the bodily, the virtual, and the material do to human and more-than-human bodies do, I pay particular attention to the enabling or constraining capacities of said bodies to act or not act. I think and work with digital spheres in a broader sense, as Evelien also mentioned, so, not as having either complete power over other agencies in these relations, nor as a passive container for interactions to happen in, nor as an inert tool to be used by human agency. But, rather, as *only one* of the agential actants in the events-to-come, or, as Evelien put it, as part of crisscrossing forces. In that sense, my research participants and I re-materialized the everyday lived experiences of Muslim schoolgirls on the way to and from school through what I called a walking methodology. I also worked with Skype to conduct walking intra-views, which allowed me to be physically absent from my participants' commuting to school while being virtually present (see Zarabadi, 2021).

Ladan Rahbari (LR): Speaking of digital activism and the ambiguity of digital spaces that Sara, Evelien, Shiva refer to, my research is located at the intersection of migration, gender/sexuality, and digital media, and I find that within all these fields, I am working on what I could characterize as a type of 'in-betweenness.' And by this, I do not only mean in-between disciplines but also refer to my work on queer digital spaces in Iran. I am not only looking at hybridity and in-between identifications that defy everyday binarizations of gender and sexuality, but also spatial settings blurring the lines between online and offline environments, anonymity, and identification. And I specifically look at how (queer) Iranians deal

[h] Also see e.g., Dearden, 2016.

with these in-between locations (see, e.g., Rahbari, 2021, Rahbari, 2020a, Rahbari 2020b, Rahbari, 2019a) and how the latter utilize spaces for explicit and implicit forms of activism (Horton & Kraftl, 2009).

My focus, furthermore, is on spaces that are not official – as in: legitimized by the Iranian government – but are also not closed down by the Iranian cyber police for a variety of reasons. In some instances, these spaces are not closed down because the Iranian State does not have the power or will to do so, and in others, because the users find strategies to mask their activities as non-threatening to the State.

In the case of the encrypted application Telegram that I am studying, some channels are used as political media and even employed to organize protests and resistance. Telegram – a Russian company – actually recently refused to hand in its encryption keys to the Russian authorities so that they could not access any user content, and as a result, Russia and Iran have both blocked the application. The State, of course, also allows some spaces of political resistance to function to attain information on the users, founders, and whoever manages them. Another reason is that what the State perceives as non-threatening defiance is allowed to exist online, precisely because for the authorities, small-scale digital activism seemingly poses a less fundamental threat than offline and street-level activism.

GE: To position myself, I am a scholar of religion and media, and I focus on digital religion, exploring how religious individuals and groups employ the Internet – and in that sense my research touches upon the idea of digital activism Ladan just referred to. Within the field of digital religion, gender and sexuality issues are increasingly relevant as they relate to secularization and religious change. In the European context, women belonging to religious minorities, particularly Islam, are often marginalized because of their garments and practices – think of Islamic veiling practices. At the same time, some religious conservative groups, usually belonging to Catholic denominations, oppose same-sex unions and feminist emancipation. These are just some examples of the debates going on in the European religious public sphere, which is mirrored in online practices and narratives. Moreover, these debates can be connected to what Sara said about digital spaces allowing for both the expression of identity and furthering marginalized groups' oppression. For this reason, Mia Lövheim (2013) calls on us to pay more attention to gender and sexuality questions in digital religion while incorporating feminist and gender theoretical perspectives in the field.

Discussions of gender and sexuality in online spaces also touch upon embodied religious practices. While religion has often been approached as a spiritual, immaterial practice, it is deeply embedded in sensations, practices, objects, and rituals. Anthropologist Birgit Meyer (2010) elaborated on the theory of religious mediation as involving material practices that help people attain transcendence and experience religion. The aforementioned veil, displayed in online videos and tutorials, could be regarded as embodied practice connected with

visibility and materiality. The use of the Internet does not erase these embodied aspects of religion, but rather sustains mediation processes by providing people with creative outlets to show, discuss, and negotiate religious garments, objects, and practices (see Hutchings, & McKenzie, 2016). Furthermore, attention to embodiment and materiality compels a focus on the notion of space: the Internet can become a hybrid third space, to employ a term coined by postcolonial theorist Homi Bhabha (2004), where practices exist in-between online and offline venues (Pennington, 2018).

LR: Giulia's reference to Homi Bhabha (2004) is apt here. With hybridity, Bhabha argues that there is no essential or 'pure culture.' The digital is not the only space where this hybridity manifests itself – or the only space that offers the affordances required for it. Digital spaces, as mentioned earlier, can be mediators through which already existing hybridities become explicit. Therefore, embodied elements – whether carrying symbolic religious meaning or hyperpoliticized or not – can be visual manifestations of hybridity and may carry this same meaning in digital spaces; furthermore, they can sometimes find new meaning as they turn into digital objects. This lack of fixity of identities and practices is something that needs to be remembered, especially as disciplinary practices sometimes tend to characterize specific objects, practices, or spaces – including 'the digital' and even hybridity – as uniform or as universalized concepts that have a set of specific traits. Doing so essentializes and reduces those concepts, practices, or objects.

Now, while I do locate myself within the field of sociology, I would also want to emphasize that I do not see a strict disciplinary line that differentiates sociological research from research in other disciplines, and even less so in the studies on digital spaces. I have always found this question of inter- or trans-disciplinarity a very difficult one, and this becomes even more complicated when it comes to studies of digitality – and this is, in a way, also embodied by the in-betweenness aspect we are now discussing. To illustrate, my own education has been in the fields of literature, anthropology, sociology, and gender and diversity studies, and I have come across similar, if not the same, types of research, thoughts, methods, and ideas across these named disciplines. Thinking of knowledge as this strict set of disciplines that expand within their own borders is, therefore, for me, not only artificial but also epistemologically counterproductive and symptomatic of existing disciplinary hierarchies in our academic habitus.

GE: To continue on Ladan's note on Bhabha's postcolonial perspective and its interdisciplinary applications in the field of digital religion, Bhabha's idea of hybridity has been very useful for a study I recently conducted on Neo-Pagan online rituals (Evolvi, 2020). Neo-Paganism is a new religious movement based on pre-Christian beliefs, and it pays particular attention to the feminine and feminist issues. While not all Neo-Pagans self-identify as feminists, they usually discuss

gender and sexuality as fundamental aspects of their practices. They often employ the Internet to form communities and perform rituals, which include raising and releasing energy in a sacred circle. For some, the Internet can thus enhance this embodied religious aspect, help them feel connected through their bodies, and give them a sense of community. It creates an in-betweenness of online and offline actions; something that can be defined as forming a hybrid third space.

EG: It is interesting that disciplinary in-betweenness is mentioned here and that by both of you! Like Ladan, I have been trained in a wide range of disciplines, such as political philosophy, critical theory, science studies, and queer theory, and tend to let the research phenomenon take the agential[i] lead instead of following strict disciplinary parameters. In that sense, I would say that I am a multidisciplinary philosopher moving towards the trans/disciplinarily[j], always focusing on the intertwined issues of identity, difference, and violence, and that together with the question of whose bodies come to culturally and socio-politically matter and *not* matter – to put in Butlerian (1993) lingo. I moreover have a great interest in posthumanist, critical (new) materialist, and affect theoretical approaches (see e.g., Haraway, 1997; Barad, 2007; Puar, 2007; Gregg, & Seigworth, 2010; Chen, 2012; Braidotti, 2013) – as embodiment & (de)humanization often go hand in hand, and the analysis of the latter entanglement requires approaches that deconstruct the subject-as-solely-human.

Now, as a political philosophical issue, gendered-racialized-sexualized embodiment – and the stickiness (see Ahmed, 2004) of the latter categories – is a topic that cannot be disconnected from contemporary conceptualizations of identity and the ongoing debate on identity politics – which is starting to look a lot like the Culture Wars 2.0, but then boosted by echo chamber-enhancing digital social media spaces and applications. Just think of Twitter, Facebook, and, of course, Telegram, as Ladan just mentioned; an application that not that surprisingly recently played a crucial role in the identity politics-laden case concerning the far-right soldier Jürgen Conings[k] and Belgium's leading allegedly 'way-too-woke' virologist, Marc Van Ranst.

[i] See Barad 2007 for more in the agential realist framework that characterizes Baradian new materialist thought, and Barad's more relational take on the notion of agency, which is ascribed to all living material phenomena, and the notion of intra-action, which is referred to later in the main text.

[j] By using the notion of trans/disciplinarity here, I am following in the footsteps of Barad (2001 and 2007) and feminist theorist Nina Lykke that both regard combining and working across different disciplines as a question of "[b]oundary work" (Lykke, 2013, p. 138) and taking up accountability for the disciplinary cuts made, here represented by a forward slash.

[k] Past spring, virologist Van Ranst became the target of the far-right soldier-on-the-run, Conings, amidst heavily polarized Twitter discussions on vaccination strategies and what could be seen as digital back-and-forths on Flemish nationalism, racism, and other polarizing issues between the left-leaning virologist and several politicians and supporters of Belgium's far-right and extreme right parties. Multiple Telegram chat groups and memes were later on discovered, created in support of Conings' actions. Also see Geerts, 2021.

Let me make things a bit more concrete here: In these supposedly 'post-'identitarian but actually hyperindividualizing neoliberal identity-charged times, the question of how one experiences and gets to be recognized as an embodied – and thus fleshy and existentially vulnerable – subject, positioned on various intersecting identity lines and axes of power and privilege, seems to matter more than ever before. And that on both an individual and collective level, plus within online and offline spaces. There appears to be a widespread societal desire to approach questions of gender and sexuality, to name but two, in less rigid ways; yet this increased attentiveness for more inclusive systems of intelligibility and recognition is currently being met with massive political resistance.

All of this is creating a paradoxical situation that I am currently investigating for a project on identity politics and critical new materialist thought (see Geerts, forthcoming): On the plane of lived experience, or micro level, if you will, subjects fighting for more all-encompassing types of identity-based recognition are blamed by political – often conservative, populist – opponents for partaking in a so-called politics of 'wokeness', thereby allegedly re-politicizing identity in 'post-'identitarian times. The existence of affect-driven but very much bodily felt microaggressions is being denied; gender is put aside as pure 'ideology' (see Kuhar, & Paternotte, 2017) and replaced by biological 'God-given' sex; and identity-propelled processes of (un)marking are met with resistance from those that would like to see minorities' identities remain minoritized forever, often leading to counter-formulations of identity and embodiment that re-essentialize identities, identity categories, and self-chosen labels (e.g., Geerts, & van der Tuin, 2013; Geerts, 2019). Digital spaces, such as Twitter, and digital artefacts, such as what I consider to be affect-laden memes, are merely enhancing an already incredibly polarized climate…

SZ: I can connect my approaches to the ones Evelien uses, as I think and work with gender, sexuality, and embodiment in digital spheres through philosophers Gilles Deleuze and Félix Guattari's (1987) concept of assemblage and Karen Barad's (2007) concept of intra-action. I have been trained as a sociologist and ethnographer, however by working with feminist new materialist approaches in my PhD, I became a multi-disciplinary, or more apply put, *more-than-disciplinary* scholar and researcher.

Like other scholars in the field of posthumanist educational research, my interests are situated across philosophy, sociology, biology, quantum physics, critical terrorism studies, education policy, surveillance studies, media studies, … and remains open to establishing new connections with other disciplines. I think these types of multidisciplinary thinking and researching, as Ladan also mentioned, not only help us move beyond disciplinary boundaries but also to think through inter/transdisciplinary methodologies – think of other ways of thinking, being, and doing, such as decolonizing Indigenous methodologies (e.g., Tuhiwai Smith, 2012) and Black methodologies (e.g., McKittrick, 2021) to work within and think outside

of the closed system or discipline. Inspired by these ways of thinking, I used a walking methodology to pay attention to human and more-than-human things that matter for my participants in their everyday practices of commuting to school.

To come back to the just-mentioned concepts of assemblage and intra-action: The reason I like to focus on assemblage and intra-action, is because these concepts enable me to think of gender, sexuality, body, and digital spaces as agential actants as inseparable components. I consider the connections between gender, sexuality, and embodiment in digital spheres a question of ethics and ontology as well as of epistemology (also see Barad 2007; Haraway 2016; Puig de la Bellacasa, 2017). Assemblage-based thinking and doings bring about ethico-onto-epistemological shifts in understanding the foregoing issues, and that by considering these as human and more-than-human entangled experiences that come into being through relations rather than separations.

Jane Bennett (2010, p. 23) explains assemblage thinking quite well when she states that:

> […] ad hoc groupings of diverse elements, of vibrant materials of all sorts [that] are living, throbbing confederations…have uneven topographies, because some of the points at which the various affects and bodies cross paths are more heavily trafficked than others, and so power is not distributed equally across its surface.

Thinking and doing with the idea of assemblage enables me to integrate and entwine with race, gender, sexuality, and disability as dynamic processes that circulate, accumulate, and stick to bodies than being identity markers (see Springgay and Truman, 2018, p. 47). Here I employ Jasbir Puar's (2012, p. 58) understanding of identity categories as assemblage, or, as she puts it, as "events, actions and encounters between bodies". New materialist approaches vis-à-vis power, agency, and identity provide us with radically different capacities for thinking and researching.

I would like to extend assemblage thinking and doing to what Ladan and Evelien pointed at earlier with regards to the experiences of in-betweeness, or, more specifically put, in-between-ness. Thinking with Braidotti's idea of nomadic subjectivity (2011), in-between-ness is a potential and powerful space to reside in; disrupting binaries; a state of never fully getting there; a nomadic positionality that is always in becoming, moving, and emerging otherwise. This, I guess, could also explain the vitality of transdisciplinary research (also see Taylor et al., 2020): In calling for transdisciplinary feminist research, Carol Taylor and others suggest that disciplines cut and separate human, more-than-human and other-than-human experiences, and understandings into hierarchized knowledge fields

EG: Interesting that you mention assemblage in this context, Shiva. I am also really fascinated by assemblage-focused philosophies and love how Puar (see e.g., 2007; 2012) has given the Deleuzoguattarian (2005) framework operating behind the notion a critical theoretical update, so to speak, by putting it into dialogue with

intersectional theory and activism. Like you hinted at just now, Deleuze and Guattari in *A Thousand Plateaus* (2005) use the notion of assemblage – semi-correctly translated from the French *l'agencement,* denoting the process of bringing several elements together – as a way to refer to constantly changing intricate constellations of heterogenous material agencies (think: bodies, territories, qualities, …) coming together to create something new. In that sense, assemblage could, just like intra-action, be regarded as a metaphor for a different type of onto-epistemology: one in which differences can exist and be conceptualized as such, without having to be hierarchically structured. Without fully letting go of representationalist, recognition-based politics (and rightfully so, because we are not exactly quite there yet), Puar (2012) pushes for an understanding of identity-in-becoming, while highlighting "the patterns of relations – [and] not the entities themselves, but the patterns within which they are arranged with each other" (p. 60-61).

Bringing this specific type of assemblage thinking back to the realms of identity politics and the digital realm, then, I am interested in analyzing how memes – videos, images, specific pieces of texts, … usually with a humorous undertone that spread virally and are being recreated every time they get copied (also see Dawkins, 1976; Blackmore, 2002) – work like affect-laden micropolitical assemblages, supporting specific types of identity politics. Think of American alt-right meme culture, with Trumpian Pepe and other white supremacist-supporting variations of Pepe the Frog, or, more Continentally, the memes of the Flemish alt-right youth movement *Schild & Vrienden* [Shield & Friends] that are packed with microfascist colonial desire and nostalgia. Without an assemblage thinking that is also explicitly intersectional, we would not be able to philosophically analyze these memes' haunting (see Derrida, 1994), or, what I, following in the footsteps of del Pilar and Peeren (2013) also call spectro-micropolitical, qualities. Many of the memes made by *Schild & Vrienden* – such as the infamous Congo meme that depicts a Belgian colonial occupier being carried around by dehumanized black men, next to a very stereotypical drawing of a Congolese man with chopped off hands, signed off with the comment "Do it again, Leo", referring to Belgium's King Leopold II who pillaged the Congo Free State in genocidal colonial fashion – can only be understood when seen as part of an assemblage of Belgium's current-day geopolitical situatedness; brutal colonial history and neocolonial present; and other *Schild & Vrienden* memetic artefacts, such as a typed up chant sung during their frat parties glorifying King Leopold II's plundering; and another meme, that looks like a children's cartoon version of a Pepe the Frog that, in Flemish, reads: "Roses are red, violets are blue. The little frog splashes around; the Congo is ours."

A micropolitics-focused assemblage thinking, as also hinted at by Shiva earlier, with critical new materialist tenets focuses on the relations between these phenomena, and helps us see that these memes are more than just signs or discursive regimes – these digital phenomena in fact play an active role in the denial of

humanness and the being-made-disposable of certain embodied beings within today's neoliberal extractive capitalist system; a system that is, after all, strongly anchored in racialized colonial imperialism (see Chakravartty, & Da Silva, 2012)…

Since intersectionality was just brought up: Do you all spot a need for more scholarship that focuses on one or more specific contemporary methodological approaches or frameworks? How could we for instance approach digitality and embodiment from an intersectional viewpoint, or a perspective that explicitly focuses on intersecting macrostructures of oppression, discrimination, and privilege? Are there also particular (dis)advantages attached to intersectional thinking that we should consider?

LR: In my current research, I specifically engage with standpoint feminism and intersectionality (Crenshaw, 1989; Harding, 2004). Besides Kimberlé Crenshaw, I also always think of Brittney Cooper (2016) and Sirma Bilge (2014) every time I reflect on intersectionality, and I myself employ an intra-categorical approach to intersectionality (McCall, 2005), meaning that I focus on particular social groups at neglected points of intersection. When it comes to specific challenges attached to intersectional thinking – which is not limited to the realm of digital research – I think that it is the complexity and multiplicity of research approaches and methods associated with it.

With this, I do not intend to claim that there should be one way that we engage with intersectionality, but that because of this rich complexity, it sometimes becomes harder for researchers – and, in my experience, also students – to understand and put it to practical use. Another issue that other scholars have raised is that intersectionality is at times translated to or conflated with identity politics in stable and intact categories (see e.g., Cooper, 2016). This creates a challenge when studies focus on power relations constructed on the basis of identifications that do not easily fall within neat categorizations. This issue has implications for my research because of the in-betweenness that we discussed earlier. Some of these identity categories come with historical baggage that can be rooted back to Euro-American contexts. This introduces difficulties for researchers like me, who often produce scholarship by studying non-Euro-American contexts.

While all of the above challenges exist and matter, I also believe that those of us working within or close to the fields of gender, sexuality, queer, and feminist studies have access to reminders in the form of keynotes, publications, and in general, a robust body of scholarship on intersectionality. While I do not mean that this is not the case for the field of sociology as a whole, there are subfields of digital sociology that do not adequately engage with intersectionality as a method or an analytical model. On the other hand, there are also valuable attempts to incorporate intersectional thinking in digital sociological work and quantitative methodology.

SDV: I find conversations with scholars and activists working in different fields beneficial when approaching intersectionality, exactly because, as Ladan just pointed out, there is such a robust body of scholarship available to us. I work in an interdisciplinary research team with colleagues that have a background in anthropology, arts, and geography. Thinking about and discussing intersectionality from these different disciplinary perspectives has added extra layers of depth to my research. In the project, we depart from a more dynamic understanding in which intersectionality is part of an ongoing discussion and not a 'fixed' starting point (also see Geerts, & van der Tuin, 2013).

My own research is shaped by intersectionality in several ways: Currently, I am studying ageing women's experiences – and primarily the experiences of older queer women – with(in) media. Representations of older women's sexuality in media are rare, and if portrayed at all, these portrayals mostly stay within heteronormative frames. Women's sexuality is commonly expressed in reference to men's pleasure, making it so that relationships between women are de-eroticized. The aim of my study is to challenge dominant narratives on women and ageing that are produced by medicalized and consumerist visions and portray older women as asexual, unattractive, and abject. And this is where the digital comes in: Digital spaces actually seem to increase the opportunities for marginalized communities to let their voices be heard. They can be used to create alternative representations outside traditional media frameworks where women, queer people, older people, and ethnic minorities are still underrepresented or misrepresented. I am thinking, for example, about the magnificent creations of Rachel House (2021) that challenge ageism and sexism in several ways. House frequently shares images of her zines and art online and is also included in the edited collection *Menopause: A Comic Treatment* by M. K. Czerwiec (2021). Her work challenges the dominant discourses on ageing, women, and menopause expressed in advertisements and women's magazines. It provides alternative representations of women's ageing that focus on resistance, joy, and solidarity. Digital platforms are also used by older women as a means of resistance. *Omas Gegen Rechts* [Grandmas United Against Right-Wing Politics] (2021), a group of mostly older women operating in Germany and Austria, share videos online about their protests against extreme right-wing politics. They dance and sing to resist inequalities. These representations all offer us new visions of gender, sexuality, and ageing that counter pre-existing norms of beauty, heteronormative desirability, and anti-ageing (see also De Vuyst, 2021).

SZ: Continuing on Ladan and Sara's notes, I like to revisit the assemblage thinking, as there is a connection with intersectional thought. I employ Puar's (2012) intersectionality-assemblage to relocate the critiques of the normative. This approach helps me in my understanding of subjectivity formation, while not dismissing the existing structural and institutional racism, sexism, homophobia, and

Islamophobia while remaining attuned to the more-than-human agencies that oftentimes stay invisible in some intersectional conceptualizations of identity.

For Puar, intersectional representational politics alone cannot capture the bordering of the body when subject positioning happens. The shift to intersectionality-assemblage allows repositioning of our focus from a simple epistemology to an onto-epistemology of multiplicity. Thinking through intersectionality-assemblage has enabled me to extend my research focus to the intersectional construction of the Muslim 'Threatening Other' in the works of Black feminist poststructuralist scholars (see Mirza and Meeto, 2018; Mirza, 2013; Shain, 2003) to the affective power and relational materialities that events such as racial harassment experienced by Muslim schoolgirls in and outside of the school environment engender.

And what about the posthumanist, new materialist, and affect theoretical frameworks that have been referred to a couple of times now? Could you expand on these a bit more? Are there any particular pitfalls attached to these approaches?

SZ: As noted earlier, I use Barad's (2007) intra-action to understand the connections between gender, sexuality, and embodiment in digital spheres as a series of fluid and flowing mutual becomings that co-constitute the assemblage that is gender-sexuality-body-digital space. I furthermore employ feminist theorist Hillevi Lenz Taguchi's (2011, p. 47) accounts of Barad to understand to understand these flowing mutual becomings as entangled with an ethics of immanence and potentiality that is to be attentive to "the inter-connections and intra-actions in-between human and non-human organisms, matter and things, in processes of constant movement and transformation".

Put more concretely: I work with stories, places, objects, thoughts, and feelings to research on racial harassment and the atmosphere of fear which governs Muslim schoolgirls' lives and jeopardizes their well-being. I look at how Muslim schoolgirls' subjectivity becomings are produced through the fluid, heterogenous assemblage of entities that agentically participate in schooling events, such as other humans, materialities, architectures, technologies, commuting to/from school, home, time, space, feelings, and more. New materialist and posthumanist approaches have helped me zoom in on the following questions: Who and what matters; who and what is excluded from mattering; how and what relations are materialized; what particular boundaries and meanings are enacted; and what political and ethical consequences emerge?

EG: I feel obliged to jump in here, as both Shiva and Sara have brought up some important points when it comes to the potential challenges attached to intersectional and posthumanist/new materialist thinking. Sara, you referred to a piece on rethinking intersectional thought that I wrote with critical epistemologist

Iris van der Tuin a couple of years ago, in which we examined some of the limits of intersectional thinking – such as its epistemic, 'Othering', bias; representationalist focus; … – to then use interferential thinking (based on the diffractive theorizations of identity by literary theorist Trinh Minh-ha, Haraway, and Barad; also see Geerts, & van der Tuin, 2021) as a potentially more open, non-paralyzing way of looking at identity, and consequently, self/other relations.

The irony of course is that one of the philosophical motors behind interferential thinking, i.e., new materialist thought, has itself become more and more paralyzed since then, or, put differently, seems to have transformed into a theoretical paradigm, that, not unlike intersectional thought, is in the process of becoming more and more academically mainstreamed. Shiva's question about 'who and what are excluded from mattering' is thus of importance when looking at new materialist thought epistemologically – and, in a way, has also been prefigured by Zakiyyah Iman Jackson (2013) when critiquing the geographical and geopolitical limits of posthumanist philosophy.

When working with all these just mentioned paradigms, the challenge in my regard consists of situating, contextualizing, and also opening up the oeuvres, authors, and concepts used…

Are there other methods, methodologies, and conceptual frameworks that you are working with currently, or are planning on exploring? What are some of the newly developed theoretical, empirical, analytical, and critical approaches in the study of gender, sexuality, and embodiment in digital spheres that have inspired your research?

GE: I tend to employ qualitative approaches to highlight the connections between different media platforms, as well as online and offline spaces. I often assume a perspective informed by theories of media hybridity (Chadwick, 2013) and media ecology (Treré, 2019), which look at actions that exist in different media spaces. I believe this is a useful approach when taking into account Internet spaces, because communication practices never occur in a single moment and a single venue; rather, we increasingly see networks of actors creatively and performatively employing the visual and narrative potential of the Internet across platforms and simultaneously organizing actions in offline spaces. By assuming this theoretical and methodological perspective in the study of religion, gender, and sexuality, it is also possible to see how the online-offline divide is blurred, and how new spaces are formed at the intersection of virtual and physical practices. Moreover, it helps putting emphasis on material, embodied, and affective practices that are reproduced and enhanced by Internet spaces.

Methodologically speaking, I like to analyze online texts through Critical Discourse Analysis (CDA). Because CDA pays particular attention to the structure of discourse that points to hegemonic social narratives and power (im)balances

(Fairclough, 2013), I believe it is helpful to highlight the point of view of marginal groups, including religious, sexual, and gender minorities. Hence, CDA is a useful methodological tool to examine intersectional voices, and to understand various layers of inequality that may exist in society in relation to religion, gender, and sexuality.

SDV: We have been discussing inter-, multi-, trans-, and trans/disciplinary research so far, so when it comes to different methods and methodologies, I believe that research that crosses boundaries between academia, arts, and activism is of added value, too. The work of Elke Zobl and Ricarda Drüeke (2012) on online counterculture, feminist zines, and online participatory spaces is an excellent example of a dialogue between feminist media scholars, DIY culture and zine makers. Conversations across disciplines are moreover needed. In this respect, I appreciate initiatives such as the LSE Digital Ethnography Collective (2021). This interdisciplinary group explores the intersections of digital culture and ethnographic methods and brings together people interested in the ethnographic study of online spaces and digital technologies. Their reading list and workshops are excellent resources for anyone interested in the latter topics!

SZ: I like to expand on Sara's point about research methodologies that cross the boundaries between academia and other social fields. I mentioned earlier that I used a multisensory methodology for my research in the field of education: Walking intra-views; creating photo diaries; face-to-face interviews; … Doing so, I follow Alecia Jackson and Lisa Mazzei's (2012) call for thinking with theory in practice: Walking while interviewing, for instance, allowed me to move across and cross various spaces, times, and bodies – and that all while interviewing via Skype and mapping human and more-than-human worlds (also see Springgay and Truman, 2018). As an art practice, creating photo diaries moreover mobilizes feelings and materiality.

These multisensory art-based and walking methodologies not only create connections between art, the body, movements, voices, materiality, and so forth, but also provide possibilities for various data to emerge; an assemblage of spoken, written, made, walked, felt, audio, video, visual and digital data. EJ Renold and Jessica Ringrose (2016) have also done interesting things with art-based methodologies and posthumanist feminist theory: Through mapping and challenging forms of what they call the coercive phallic touch of Facebook-tagging processes, they have explored teenagers' engagement with the bio-technological spheres of image creation and exchange in networked peer cultures.

LR: One of the recent works that I draw on a lot is Jack Gieseking's research on queer spaces, which uses digital methods but interestingly is not necessarily *on* digital spaces. I got inspired by Gieseking's recent book, *A Queer New York* (2020),

and the notion of queer constellations. 'Constellation' is an analytical term used by Gieseking to map queer spaces in New York. The notion is used to follow presences, accumulations, and interruptions, whereby Gieseking traces the spatial and temporal queer presences in New York using hand-drawn maps. The concept speaks to the mythical (*imagined*), calendrical (*temporal*), and navigational (*wayfinding*) qualities of lesbian and queer life in the city (see Gieseking, 2020, p. 3). I use the notion of constellations to study queer spaces in both Persian-language language digital spaces and everyday offline spaces. This notion helps me illustrate how queer networks are not constantly ongoing flows or permanent presences but on and off, appearing and disappearing 'stars' within sometimes stable and other times short-lived constellations. The stars are queer spaces, from physical gatherings, communities, and parties to online forums and support groups, online dating channels, and chat rooms.

The method that Gieseking employs could be used for a combination of digital and physical spaces precisely because Gieseking lets his participants create their own imagined maps by sketching what their version of a queer New York looks like by means of shapes, lines, movement patterns, etc. Now connecting this to my own research on digital spaces in Iran: because of the heavy surveillance regime of the Iranian State, queer platforms (the stars in the constellation) are always at risk. This also means that they pop in and out of the map, and hence, there is no single constellation as different constellations appear as new stars appear, and others go (permanently) dark. The hand-drawn mapping method Gieseking uses is thus very useful to me.

EG: I love how you are weaving mapping methods and methodologies into our roundtable, Ladan, as this is precisely what I am working on right now as well (see e.g., Geerts, 2021) – but then seen through a more philosophical lens! In my work, I mainly use Braidotti's (2011) Deleuzoguattarian (2005) – i.e., more rhizomatic – take on mapmaking. This new materialisms-driven methodology of critical cartography – of course highly influenced by postcolonial thought and critical geography, as maps have been used as representational-explorative tools to dominate, and create, but also destroy, worlds – demands more from us as knowledge producers than merely creating a history of the present through genealogies. There also needs to be a certain openness toward the future – to not paralyze the object of interest – as well as a clear, accountable engagement with the mapmaker's geopolitical situatedness. It is also the latter emphasis on accountable, situated knowledge production that runs through new materialist thought as well.

SDV: This does not necessarily relate to a recently developed theory or method, but the growing focus on free and openly accessible information matters to me. Freely available information on gender and media, to illustrate, could make the existing ties between researchers and activists even stronger. There lies a lot of

potential in the collaboration between feminist academics and data journalists, especially when it comes to placing gender issues such as gender-based violence, femicide, and the gender pay gap on the agenda. The knowledge that has been gathered over the years by feminist scholars on methodologies and ways to study issues pertaining to gender are of added value to data journalism projects, while techniques from data journalism could be essential add-ons to science communication to spread, translate and visualize results of studies on gender issues and feminist topics. I think the *Hacks de Vida*-project by Estrella Soria and Luisa Ortiz Pérez (2018) in collaboration with the Institute for War and Peace Reporting provides a guide to better understanding online gender violence in Latin America and how to support those who face it, is an inspiring example of how research can go hand in hand with activism. The relationship between gender, intersectionality and innovation was central in my PhD research and previous postdoc project.

The question has organically popped up a couple of times during our conversation already, but do you think that collaborations between academics and (digital) activists, as Sara just pointed at, are needed? And how do you, as scholars, envisage this kind of collaboration?

GE: When looking at digital religion and discussions of gender and sexuality, I find it particularly relevant to try and include the voices of the people whose practices I am exploring. This is something that scholar Alberta Giorgi (2021) did in her study on the Italian feminist group *Non Una Di Meno* [Not One Less]. Giorgi employed interviews to invite conversations with religious women and validate their experience and activism as feminists. In some cases, these women felt ambivalent about being both Catholic and feminists because feminist groups criticized their faith. Being interviewed as part of Giorgi's research gave these women a sense of being legitimized in their feminist activism and space to talk about their faith. By fostering similar interview practices, I believe that it is possible to validate and amplify interviewees' experiences, especially when they come from marginalized standpoints. Considering interviewees not only as research subjects but also as partners in the knowledge that can provide new viewpoints could open up new possibilities for better including them in the conversation. This can be enhanced by open access practices, but also, for instance, by university seminars and workshops that include members of feminist and LGBTQ+ groups.

However, there are instances where it can be challenging to cooperate with research subjects. For instance, I have researched Catholic-inspired groups in Italy and France who oppose LGBTQ+ rights and feminism (Evolvi, forthcoming). As analyzed in the work of Kuhar and Paternotte (2017) that Evelien mentioned, these groups dismiss gender as an 'ideology' and support heteronormative and traditional family values inspired by conservative Catholic principles. They do employ a repertoire of activist strategies and can be considered digital activists (Graff, 2016),

but they generally refuse any collaboration with academics. This happens in particular because these groups often criticize academic works, such as those of Judith Butler, as allegedly propagating a 'gender ideology' that erases differences between men and women and 'forces' women outside of traditional, Catholic-inspired family roles (Peto, 2016)

In such cases, while I personally believe it is important to study these activist practices, there is a need to define the researcher's positionality. In my specific case, I choose to study these anti-gender movements without amplifying their voices, but rather embedding them in the larger debate on LGBTQ+ and women's rights. For the future, I hope that collaborations with activists can be made by sharing information about such groups with feminist and LGBTQ+ groups and analyzing conflicting positions about gender and sexuality within religious movements.

LR: I work on both implicit and explicit forms of activism in my research; therefore, I will answer this in the most sociological way possible by saying that I think this depends on the field, context, and research topic. I was asked a similar question during the *Queering Authoritarianisms: Conflict, Resistance, and Coloniality* (CRAASH, 2021) conference in March 2021, where I presented my (hitherto unpublished) paper 'Queering Iran, Digitally: Implicit Activism and LGBTQI+ Dating on Telegram.' I spoke about implicit activism in online spaces in Iran. While I was compelled to answer 'yes' to this first question of whether academics should collaborate with activists – assuming that these are two separate categories – I think it is important to raise the point that some digital activists, especially those in precarious or risky conditions such as being under surveillance by undemocratic political regimes, may need to tread carefully. My work on queer and digital spaces in Iran (e.g., Rahbari, 2020a; Rahbari, 2020b; Rahbari, 2019a) reveals this precarity and how important it is for academic work, where this collaboration is possible, to represent and research implicit and explicit activism keeping in mind that activist works may get exposed to further risks.

What I can say for the specific context of my research is that research and activism inform each other and can interact, but depending on the context, academics' or activists' wellbeing or lives may be at stake. This is not always the case, but in my research, there is a clear difference between researchers like me and the activists. There is also a clear difference between activist spheres depending on where and how they are active. When you look at the case of a successful campaign such as My Stealthy Freedom, for instance, you see a mainly digital campaign against the compulsory veiling laws in Iran (e.g., Rahbari et al., 2019b) as an explicit form of activism. There is an almost permanently flowing activist space there. Instead, when we look at smaller-scale spaces of solidarity that are often organized in Iran, there are what I consider implicit forms of activism. I use Horton and Kraftl's (2009) critique of activism as a practice that is organized, collective, intentional, agentic, connected to a known movement, that makes lots of noise to

discuss that theorizing it like this, we end up eliminating those acts that are not constantly in flow. These are still practices that go against the political current but are seemingly banal and perhaps attract much less fanfare (Ryan, 2016). The latter is more common in social contexts where the former is impossible, such as in the Iranian context, where activism bears substantial risks.

SZ: Looking at this roundtable as a whole, it is clear that we all have our own approaches when it comes to the entangled questions of gender, sexuality, and embodiment in digital spheres – but we do all seem to share the same kind of creativity when it comes to thinking, theorizing, and writing. The following quote by Deleuze neatly summarizes our shared attachments to creativity:

> Once one steps outside what's been thought before .... once one ventures outside what's familiar and reassuring, once one has to invent new concepts for unknown lands, then methods and oral systems break down and thinking becomes, as Foucault puts it, a "perilous act", a violence, whose first victim is oneself (Deleuze, 1995, p. 103)

REFERENCES

Abidin, C. (2016) "'Aren't These Just Young, Rich Women Doing Vain Things Online?": Influencer Selfies as Subversive Frivolity,' *Social Media + Society*, 2(2), pp. 1-17.

Ahmed, S. (2004) *The Cultural Politics of Emotion*. London: Routledge.

Alingasa, A. P. T., & Ofreneo, M. A. P. (2021) "'Fearless, powerful, Filipino": Identity positioning in the hashtag activism of #BabaeAko', *Feminist Media Studies*, 21(4), pp. 587-603.

Araüna, N., Tortajada, I., & Willem, C. (2021) 'Feminist YouTubers in Spain', in M. Scarcelli, D. Chronaki, S. De Vuyst, & S. Villanueva Baselga (Eds.), *Gender and Sexuality in the European Media*, pp. 11-23. London: Routledge.

Barad, K. (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.

Barad, K. (2001) 'Scientific Literacy ---> Agential Literacy = (Learning + Doing) Science Responsibly,' In Mayberry, M., Subramaniam, B. & L. H. Weasel (Eds.), *Feminist Science Studies: A New Generation*, pp. 226-246. New York: Routledge.

Binns, A. (2012) 'DON'T FEED THE TROLLS!', *Journalism Practice*, 6(4), pp. 547-562.

Bhabha, H. K. (2004) *The Location of Culture*. 2nd edition. London: Routledge.

Blackmore, S. (2002) 'The Power of Memes', *Scientific American*, 283(4), pp. 52-61.

Brandt, N. van den (2019). 'Secularity, gender, and emancipation: Thinking through feminist activism and feminist approaches to the secular', *Religion*, 49(4), pp. 691-716.

Braidotti, R. (2011) *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory*. 2nd edition. New York: Columbia University Press. Originally published in 1994.

Braidotti, R. (2013) *The Posthuman*. Cambridge: Polity Press.

Butler, J. (1990) *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.

Butler, J. (1993) *Bodies That Matter: On the Discursive Limits of 'Sex.'* London: Routledge.

Bennett, J. (2010) Vibrant Matter: A Political Ecology of Things. London: Duke University Press.

Calhoun, C., Juergensmeyer, M., & VanAntwerpen, J. (Eds.) (2011) *Rethinking Secularism*. Oxford: Oxford University Press.

Chen, M. Y. (2012) *Animacies: Biopolitics, Racial Mattering, and Queer Affect*. Durham: Duke University Press.

C. M. K., (2021) *Menopause: A Comic Treatment*. Pennsylvania: Penn State University Press.

Chadwick, A. (2013) *The Hybrid Media System: Politics and Power*. 1st edition. Oxford: Oxford University Press.

Chakravartty, P., & Ferreira Da Silva, D. (2012) 'Accumulation, dispossession, and debt: The racial logic of global capitalism—An introduction', *American Quarterly*, 64(3), pp. 361-385.

Cooper, B. (2016) 'Intersectionality', in Disch, L. J., & Hawkesworth, M. E. (Eds.) *The Oxford Handbook of Feminist Theory*, pp. 385-406. New York: Oxford University Press.

Cooper, M. (2008) *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era*. Seattle: University of Washington Press.

Crenshaw, K. (1989). 'Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics', University of Chicago Legal Forum, pp. 139-167.

Dawkins, R. (1976) *The Selfish Gene*. Oxford: Oxford University Press.

Dearden, L. 2016, August 13. 'Isis "jihadi brides" trying to radicalise girls and encourage UK terror attacks online as they remain trapped in Syria.' *The Independent*. https://www.independent.co.uk/news/world/middle-east/isis-jihadi-brides-women-british-syria- kadiza-sultana-radicalise-terror-trapped-abuse-married-air-a7187946.html.

Del Pilar, B. M., & Peeren, E. (2013) 'The spectral turn', in del Pilar, B., & Peeren, E. (eds.) *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, pp. 31-36. London: Bloomsbury Publishing.

Deleuze, G. (1995). Negotiations. New York: Columbia University Press.

Deleuze, G., & Guattari, F. (2005) *A Thousand Plateaus: Capitalism and Schizophrenia*. Translation and Foreword by B. Massumi. University of Minnesota Press. Originally published in French in 1980.

De Vuyst, S. (2020). *Hacking Gender in Technology and Journalism*: New York: Routledge.

De Vuyst, S. (2021) 'Creating a patchwork of unruliness: The grumpy old woman as affect alien', *International Journal of Cultural Studies*, pp. 1-17.

Evolvi, G. (2019) 'The veil and its materiality: Muslim women's digital narratives about the burkini ban', *Journal of Contemporary Religion*, 34(3), pp. 469-487.

Evolvi, G. (2020). 'Materiality, Authority, and Digital Religion: The Case of a Neo-Pagan Forum', *Entangled Religions*, 11(3).

Evolvi, G. (Forthcoming) 'The World Congress of Families: Anti-Gender Christianity and Digital Far-Right Populism', *Journal of International Communication*.

Fairclough, N. (2013) 'Critical discourse analysis and critical policy studies', *Critical Policy Studies*, 7(2), pp. 177-197.

Gane, N., & Haraway, D. J. (2006) 'When We Have Never Been Human, What Is to Be Done? Interview with Donna Haraway', *Theory, Culture & Society*, 23(7-8), pp. 135-158.

Geerts, E. Forthcoming. 'A Critical Cartography of the Materialisations of Identity & Identity Politics: From Intersectional to Interferential Explorations', in Kontturi, K-K, Leppänen, T., Mehrabi, T., and Tiainen, M. (Eds.) *Making Middles Matter: Feminist Methodologies in-between New Materialisms and Intersectionality*. London: Routledge.

Geerts, E. (2019) 'Niew Materialisme: Een Cartografie [New Materialism: A Cartografie]', *Wijsgerig Perspectief* 61(2), pp. 34-41.

Geerts, E. (2021, June 16) 'Jürgen Conings: the case of a Belgian soldier on the run shows how the pandemic collides with far-right extremism', *The Conversation*. https://theconversation.com/jurgen-conings-the-case-of-a-belgian-soldier-on-the-run-shows-how-the-pandemic-collides-with-far-right-extremism-162365.

Geerts, E., & van der Tuin, I. (2021) 'Diffraction & Reading Diffractively', *MATTER: Journal of New Materialist Research*, 2(1), pp. 173-177.

Geerts, E., & van der Tuin, I. (2013) 'From Intersectionality to Interference: Feminist Onto-epistemological Reflections on the Politics of Representation', *Women's Studies International Forum*, 41(3), pp. 171-78.

Geerts, E. (2019) 'Zonder de Ander, ook geen Zelf [Without the Other, no Self]', *Wijsgerig Perspectief* 59(1), pp. 14-24.

Gieseking, J. J. (2020) *A Queer New York: Geographies of Lesbians, Dykes, and Queers*. New York: NYU Press.

Giorgi, A. (2021) 'Religious feminists and the intersectional feminist movements: Insights from a case study', *European Journal of Women's Studies*, 28(2), pp. 244-259.

Gorski, P. S., Kim, D. K., Torpey, J., & Vanantwerpen, J. (2012). *The Post-Secular in Question: Religion in Contemporary Society*. New York: New York University Press.

Graff, A. (2016) '"Gender Ideology": Weak Concepts, Powerful Politics,' *Religion and Gender*, 6(2), pp. 268-272.

Gray, K. L., & Adeyemo, B. (2021) 'Not "falling for the okey-doke": #BlackLivesMatter as resistance to disinformation in online communities', *Feminist Media Studies*, 21(5), pp. 868-871.

Gregg, M., & Seighworth, G. J. (Eds.) (2010) *The Affect Theory Reader*. Durham: Duke University Press.

Grusin, R. (2010*) Premediation: Affect and Mediality after 9/11*. Houndmills: Palgrave Macmillan.

House, R. (2021) *Resistance, Sustenance, Protection*. Self-published.

Haraway, D. J. (1985) 'A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s.' *Socialist Review*, 20, pp. 65-107.

Haraway, D. J. (1991) *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge.

Haraway, D. J. (1997) *Modest_Witness@Second_Millenium: FemaleMan©_Meets_Oncomouse™. Feminism and Technoscience*. New York: Routledge.

Haraway, D. J. (2016) Staying with the Trouble: Making Kin in the Chthulucene. Durham: Duke University Press.

Horton, J., & Kraftl, P. (2009) 'Small acts, kind words, and "not too much fuss": Implicit activisms', *Emotion, Space and Society*, 2(1), pp. 14-23.

Hayles, N. K. (1999) *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press.

Hutchings, T., & McKenzie, J. (Eds.) (2016) *Materiality and the Study of Religion: The Stuff of the Sacred*. London – New York: Routledge.

Jackson, A. Y., & Mazzei, L.A. (2012) *Thinking with Theory in Qualitative Research: Viewing Data across Multiple Perspectives*. London: Routledge.

Jackson, Z. I. (2020) *Becoming Human: Matter and Meaning in an Antiblack World*. New York: NYU Press.

Jackson, Z. I. (2013) 'Animal: New Directions in the Theorization of Race and Posthumanism,' *Feminist Studies*, 39 (3), pp. 669-85.

James, R. (2016) 'Strategic activism, educational leadership, and social justice,' *International Journal of Leadership in Education*, 19 (1), pp. 87-100.

Jane, E. A. (2014) '"You're an Ugly, Whorish, Slut"', *Feminist Media Studies*, 14(4), pp. 531-546.

Kargar, S. and McManamen, K. 2018. 'Censorship and Collateral Damage: Analyzing the Telegram Ban in Iran' (September 2018*). Berkman Klein Center Research Publication*, 2018-4, Available at SSRN: https://ssrn.com/abstract=3244046. http://dx.doi.org/10.2139/ssrn.3244046

Lovheim, M. (2013) *Media, Religion and Gender: Key Issues and New Challenges*. New York – London: Routledge.

Lupton, D. (2017) 'Feeling your data: Touch and making sense of personal digital data', *New Media & Society*, 19(10), pp. 1599-1614.

LSE Digital Ethnography Collective (2021). Collective Reading List. Retrieved from https://zoeglatt.com/wp-content/uploads/2021/08/LSE-Digital-Ethnography-Collective-Reading-List-August-2021.pdf

Kuhar, R., & Paternotte, D. (Eds.) (2017) *Anti-Gender Campaigns in Europe: Mobilizing against Equality*. London – New York: Rowman & Littlefield International.

Lykke, N. (2013) 'This Discipline Which Is Not One. Feminist Studies as a Postdiscipline,' in Buikema, R., Griffin, G. & Lykke, N. *Theories and Methodologies in Postgraduate Feminist Research: Researching Differently*, pp. 137-150. New York: Routledge. Originally published in 2011.

Mahmood, S. (2005) *Politics of Piety: The Islamic Revival and the Feminist Subject*. Princeton University Press.

Mahmudova, L., & Evolvi, G. (2021) 'Likes, Comments, and Follow Requests: The Instagram User Experiences of Young Muslim Women in the Netherlands', *Journal of Religion, Media, and Digital Culture*, 10(1), pp. 50-70.

McCall, L. (2005) 'The Complexity of Intersectionality', *Signs*, 30(3), pp. 1771-1800.

Meyer, B. (2010) *Aesthetic Formations: Media, Religion, and the Senses*. Houndmills: Palgrave Macmillan.

Massumi, B. (2015) *Ontopower: War, Powers, and the State of Perception*. Durham: Duke University Press.

McKittrick, K. (2021) *Dear Science and Other Stories*. Durham and London: Duke University Press.

Mirza, H. S., & Meetoo, V. (2018) 'Empowering Muslim girls? Post- feminism, multiculturalism and the production of the "model" Muslim female student in British schools,' *British Journal of Sociology of Education*, 39(2), pp. 227-241.

Mirza, H. S. (2013) '"A second skin": Embodied intersectionality, transnationalism and narratives of identity and belonging among Muslim women in Britain.' *Women's Studies International Forum*, 36, pp. 5-15.

More, M., & Vita-More, N. (Eds.) (2013) *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*. Chichester: Wiley-Blackwell.

Niccolini, A. D., Zarabadi, S., & Ringrose, J. (2018) 'Spinning Yarns: Affective Kinshipping as Posthuman Pedagogy.' *Parallax*, 24(3), pp. 324-343.

Omas Gegen Rechts (2021) *Omas Gegen Rechts – das Erste*. Retrieved on September 21, 2021. https://www.youtube.com/watch?v=CFlbvQ4-rBs.

Peto, A. (2016) 'How are Anti-Gender Movements Changing Gender Studies as a Profession?', *Religion and Gender*, *6*(2), pp. 297-299.

Puar, J. K. (2012) '"I Would Rather Be a Cyborg Than a Goddess": Becoming-Intersectional in Assemblage Theory', *PhiloSOPHIA*, 2(1), pp. 49-66.

Puar, J. K. (2007) *Terrorist Assemblages: Homonationalism in Queer Times*. Durham: Duke University Press.

Pennington, R. (2018) 'Social media as third spaces? Exploring Muslim identity and connection in Tumblr', *International Communication Gazette*, 80(7), pp. 620-636.

Puar, J. K. (2012) '"I would rather be a cyborg than a goddess": Becoming-Intersectional in Assemblage Theory.' philoSOPHIA: A Journal of Transcontinental Feminism 2 (1): 49–66.

Puig de la Bellacasa, M. (2017) Matters of Care: Speculative Ethics in More Than Human Worlds. Minneapolis: University of Minnesota Press.

Rahbari, L. (2021) 'Biopolitics of Non-Motherhood: Childfree Women on a Persian-Language Digital Platform for Mothers', İstanbul University Journal of Sociology, 41(1), pp. 27-41.

Rahbari, L. (2020a) 'Duffs and puffs: Queer fashion in Iranian cyberspace', Middle East Critique, 29(1), pp. 69-86.

Rahbari, L. (2020b) 'Serial Acid Attacks and Women's Online and Offline Resistance and Activism in Iran', Social Politics: International Studies in Gender, State & Society.

Rahbari, L. (2019a) 'Pushing gender to its limits: Iranian women bodybuilders on Instagram', Journal of Gender Studies, 28(5), pp. 591-602.

Rahbari, L., Dierickx, S., Coene, G., & Longman, C. (2019b) 'Transnational Solidarity with Which Muslim Women? The Case of the My Stealthy Freedom and World Hijab Day Campaigns', Politics & Gender, 17(1), pp. 112-135.

Renold, E. & Ringrose, J. (2016) 'Selfies, relfies and phallic tagging: posthuman part-icipations in teen digital sexuality assemblages', Educational Philosophy and Theory, 49 (11), pp. 1066-1079.

Renold, E. (2017) '"Feel what I feel": Making da(r)ta with teen girls for creative activisms on how sexual violence matters', Journal of Gender Studies, 27(1), pp 37-55.

Soria, E., Pérez, L.O. (2018) Hacks De Vida: consejos préticos para la atención a personas que enfrentan violencias de género en línea en América Latina. Institute for War and Peace Reporting. Retrieved from https://archive.org/details/DocumentoHacksdeVida_201803/page/n1/mode/2up.

Treré, E. (2019) Hybrid media activism: Ecologies, imaginaries, algorithms. New York – London: Routledge.

Shain, F. (2003) The Schooling and Identity of Asian Girls. Stoke-on-Trent: Trentham Books.

Schmider, A. (2016, June 2) 'EA introduces new gender options in "The Sims"', GLAAD. https://www.glaad.org/blog/ea-introduces-new-gender-options-sims.

Springgay, S., &Truman, S.E. (2018) Walking Methodologies in a More-than-Human World: WalkingLab. New York: Routledge.

Taylor, C.A., Hughes, C. , & Ulmer, J. B. (2020) Transdisciplinary Feminist Research, Innovations in Theory, Method and Practice. London and New York: Routledge.

Taylor, C.A. (2018) 'Edu-crafting posthumanist adventures in/for higher education: A speculative musing,' Parallax, 24(3), pp. 371-381.

Thrift, N. (2008) Non-representational Theory: Space, Politics, Affect. London: Routledge.

Tuhiwai Smith, L. (2012) Decolonising Methodologies, Research and Indigenous Peoples. London and New York: Zed Books.

Williams, S. (2016) '#SayHerName: Using digital activism to document violence against black women', Feminist Media Studies, 16(5), pp. 922-925.

Zarabadi, S. (2021) Racialising assemblages and affective events: A feminist new materialism and posthuman study of Muslim schoolgirls in London. Doctoral thesis (Ph.D.), London: University College London.

Zarabadi, S., & Ringrose, J. (2018) 'Re-mattering Media Affects: Pedagogical Interference into Pre-emptive Counter-Terrorism Culture', in S. Riddle, & A. Baroutsis. Education Research and the Media: Challenges and Possibilities, pp. 66-79. London: Routledge.

Zhongxuan, L., & Yang, L. (2019) 'Individual and collective empowerment: Women's voices in the #MeToo movement in China', Asian Journal of Women's Studies, 25(1), pp. 117-131.

Zasanska, N. D. (2019) 'New Producers of Patriarchal Ideology: Matushki in Digital Media of Russian Orthodox Church', Journal for Communication Studies, 12(2), pp. 99-128.

Zobl, E., & Drüeke, R. (2012) Feminist Media: Participatory Spaces, Networks and Cultural Citizenship. Bielefeld: Transcript Verlag.

ROUNDTABLE PARTICIPANTS' BIOS:

Evelien Geerts (Ph.D., e.m.l.geerts@bham.ac.uk) is a multidisciplinary philosopher and Research Fellow at the University of Birmingham, where she is part of the *Urban Terrorism in Europe (2004-19): Remembering, Imagining, and Anticipating Violence* ERC-project. She holds a Ph.D. in Feminist Studies and History of Consciousness from the University of California, Santa Cruz, and (research) M.A. degrees in Philosophy and Gender & Ethnicity Studies. Her

research interests include new materialisms & Deleuzoguattarian philosophy, critical epistemologies, and political philosophical questions of identity, difference, and violence. She has published in *Philosophy Today*, *Women's Studies International Forum*, and *Rhizomes: Cultural Studies in Emerging Knowledge*—publications that can be found at www.eveliengeerts.com—and is a Posthumanities Hub & PhEMaterialisms affiliated researcher.

Ladan Rahbari (Ph.D. mult.; l.rahbari@uva.nl) is an assistant professor at the Department of Sociology University of Amsterdam and a senior researcher at the International Migration Institute (IMI). She was formerly an FWO post-doctoral fellow (2019-2022). She obtained a Ph.D. in Gender and Diversity (Studies) (UGent & VUB, 2019) and a Ph.D. in Sociology (University of Mazandaran, 2015). Her research interests include gender politics, migration, race, body, and digital media. She is affiliated with Amsterdam Institute for Social Science Research and Amsterdam Research Centre for Gender and Sexuality. Rahbari was formerly the editor-in-chief of the *Journal of Diversity and Gender Studies* (DiGeSt).

Giulia Evolvi (Ph.D., evolvi@eshcc.eur.nl) holds a Ph.D. in Media Studies from the University of Colorado Boulder, USA. Previously, she obtained a M.A. in Religious Studies from the University of Padua and the University of Venice "Ca' Foscari", Italy. Evolvi completed a postdoc at the Center for Religious Studies at Ruhr University in Bochum, Germany and she is currently a lecturer in Media and Communication at Erasmus University in Rotterdam. Evolvi's first book, *Blogging my Religion: Secular, Muslim, and Catholic Media Spaces in Europe* (2018), explores how digital practices define religious experiences in contemporary society. Evolvi's works are available at www.giuliaevolvi.com.

Shiva Zarabadi (Ph.D., shiva.zarabadi.15@ucl.ac.uk) holds a Ph.D. in Education, Gender, Feminist New Materialism and Posthumanism from UCL Institute of Education, and MSc degree in Sociology from London School of Economics and Political Science (LSE). Her research interests include feminist new materialism, posthumanism and intra-actions of matter, time, affect, space, humans, and more-than-humans. She uses walking and photo-diary methodologies to map relational materialities.

Sara De Vuyst (Ph.D., s.devuyst@ugent.be) is a postdoctoral researcher in the Department of Languages and Cultures at Ghent University in Belgium and is working on the ERC-project *Later-in-Life Intimacy: Women's Unruly Practices, Places and Representations*. Her research interests are feminist media studies, queer women's media experiences, representations of women's later-in-life sexuality, and gender issues in journalism. Sara De Vuyst is chair of the ECREA Gender, Sexuality and Communication section and author of the book, *Hacking Gender and Technology in Journalism*, published in the *Routledge Disruptions: Studies in Digital Journalism* series.