

# Abject Visualization: A Duo Auto-netnography in the Legal Online Adult Entertainment Generative AI Cyborg Context

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## Abstract

*Auto-netnography provides a nuanced understanding of human interactions with a generative visual AI platform, through an in-depth analysis of over 900 AI-generated cyborg adult entertainment images collected by a two-person netnographer team during a 15-month period of immersive engagement. After describing and developing the method and findings, including positioning the two researchers' perspectives and queering the method, the research introduces, unpacks, and then inverts "abject visualization" to describe how AI images transgress and provoke. Likening concerns over humanity in the age of AI to LGBTQ threats to heteronormativity, this study challenges a range of dominant positions prevalent in the system sciences by emphasizing the need for research that delves deeply and longitudinally into the affective responses to technological systems and the complex intersection of human and artificial desires they inhabit.*

**Keywords:** abjection, adult entertainment, artificial intelligence, auto-netnography, netnography

## 1. Introduction

Netnography is a method that has been traditionally applied to understanding social interactions on the internet. It is based on a set of precise, methodological instructions that delineate a clear path through data collection, analysis, and interpretation (Kozinets 2020). This structured approach breaks down into three distinct categories and six overlapping stages or 'movements' that guide the researcher through a systematic exploration of digital experiences, communication networks, and information and meaning systems. The clear, methodical nature of netnography, as designed, avoids ambiguity and esoteric explananda. Instead, the central idea is to provide clear explanations of procedures that can be duplicated, modified, shared, discussed, and communicated clearly. These procedures are focused on developing deep insights into the cultural elements and contexts of digital experience and communication.

In Kozinets (2015), the practice of "auto-netnography" was systematized as distinct approach to netnography that highlights "the role of the netnographer's own experiences of his or her own online experiences by capturing and documenting these experiences" through what eventually came to be called immersion journal notes (p. 226). Thus, netnography's deep cultural insights move several levels lower when they encounter the immersive and positional elements of auto-netnography, which is an offshoot of both auto-ethnography and netnography (Howard 2021, Kozinets and Kedzior 2009).

The evolution from traditional ethnography to netnography and to auto-netnography represents a shift towards integrating more subjective, perspectival and unquantifiable methods into the study of the qualitative understanding of digital cultural experiences. By design, auto-netnography can study novel digital experiences by focusing on the human side of human-computer interaction. The approach may be considered particularly useful in examinations of the complexities of human reactions and social uses of AI as it interacts with human users, often in ways that are both profound and unexpected.

In this paper, we demonstrate this use by exploring how the principles of netnography can be adapted to study human experience with artificial intelligence (AI). This study aims to illustrate this purpose by examining a seemingly novel and ostensibly somewhat unusual context for human-computer interaction: desire.

## 2. Principles and philosophical assumptions

Marketing and consumer research took their cue from economics and its assumptions about rational decision making, utility and optimizing (Hinterhuber 2015). Utility, the touchstone of rational choice models, underscores traditional economic paradigms that paint a picture of the consumer as a calculated decision-maker, constantly processing information to optimize outcomes. This perspective envisions a

marketplace of perfectly informed individuals making decisions that maximize their personal satisfaction or utility.

However, in the 1980s forward-thinking consumer culture researchers such as Sidney Levy, Russell Belk, Melanie Wallendorf, Eric Arnould, Annamma Joy, and John Sherry pointed out to the marketing field that people don't work like that in the real world. We have known since Freudian protégé Ernst Dichter (1960) that it is the fire of desire that underlies much if not most consumer behavior. Passions make behavior which moves the markets and perpetuates the technologization and industrial mechanization of everything around us in human society.

As well, organic real world qualitative data often reflects a different narrative—one of satisficing rather than optimizing. Here, consumers settle for things that are "good enough," relinquishing agency as they acknowledge and lazily confirm the limitations of their own cognitive capacities and the imperfect information that often characterizes their choices.

Furthermore, behavioral decision-making introduces a layer of complexity that challenges the sterile, linear paths proposed by rational choice models (Ariely 2008). It suggests that decisions are not merely the output of users, consumers, or citizens' utilitarian calculation. Instead, seeing human actors as human beings means noting where they are subject to biases, heuristics, and the influences of emotional and social contexts.

To see the human being clearly behind the technical system, researchers and systems developers should broaden their investigations beyond rational decision making models. Developers and researchers may encounter seemingly irrational undercurrents in their attempts to understand system needs and usage. Whether designing systems built for pleasure, or seeking to understand how technology alters desires and addicts, a focus on consumer desire seems poised to reveal more useful and relevant information.

### **3. Desiring-Machines, Deleuze and Guattari, and the world of online adult entertainment**

In a study of online food porn, Kozinets, Patterson, and Ashman (2017, p. 667) theorized that they transpired in the same "networks of desire" as online adult entertainment. They conceptualize these networks as complex, open systems comprising technologies, consumers, and both virtual and physical objects, all fueled by passionate engagement on the part of a user. They based their theory on Deleuze and Guattari's (D+G) theory of desire, which repositions desire from a type of

psychological lack (in Freudian and Lacanian theories) to a productive and real force which transcends mere metaphor (Goodchild 1996). Theirs is an ontological theory which conceptualizes desire as free-flowing energy that fundamentally drives connection and capacity building across various types of entities. This energy is not abstract but palpable in various forms, from human bodies and organs to language systems, social organizations, and even the myriads of technological assemblages that increasingly surround us.

Desiring machines, as D+G term them, include not only organic components like lungs or hearts but also animals, plants, and artificial constructs like AI and robots—a type of "posthuman desire" (Wennerscheid 2018). These extensions of D+G's already expansive view integrate computer science and psychological philosophy with political activism. Within Kozinets et al.'s (2017) networks of desire concept, transgression and mutations become key modalities for expanding creativity and creating personal change and cultural transformation. The interactions between different components—people, devices, people with devices, groups with platforms, and so on create an interconnected "desiring-machine." This machine produces consumption "interests" that influence broader social systems and create connections among various actors, including corporations and government agencies. As well, network actors may advocate for liberation and emancipation by recognizing the omnipresence and potency of desire. Some of this work raises the possibility that AI is a new species of intelligence whose desires play a role in forming its capacities and generating its own assemblages.

One possible onramp to empirical investigation of these matter is the examination and theoretical/philosophical deciphering of technodildonics and sex tech. Hamming (2001) explores the cultural implications of the dildo and its role in redefining lesbian sexuality. The discussion centers on the dildo as a transformative tool that mutates gender boundaries rather than reinforcing traditional sexual roles. This mutation is emblematic of Donna Haraway's "Informatics of Domination," where technology becomes a medium for reinterpreting human existence, challenging the binary constructs of gender and identity, and requiring, as Bell (2020) asserts, "feminist vigilance." Similarly, AI and VR technologies are not merely extensions of existing realities but are creators of new realms of human experience. Like dildonics, which can detach from traditional notions of sexuality and gender, technodildonics in virtual

and augmented environments allows users to explore identity in post-human terms—beyond the binaries of male and female, real and virtual. This integration profoundly challenges traditional views and supports a new understanding of human interaction where desire and identity are not fixed but are continually evolving through interactions with technology.

Therefore, just as the dildo in Hamming's analysis is a tool that disrupts preconceived notions of sexuality, so too do AI, VR, and social media disrupt and reshape the boundaries between the digital and physical desire, stitching the technocultural ever more extensively into the fabric of our passions. This blending suggests we are continuing to develop new human experience, where the boundaries of identity, body, and even reality are not merely blurred but are continually rewritten. Just as Bell (2020) asserts a feminist vigilance in the face of technology's gender interpretations, we might consider the shapes of a humanist vigilance that considers the effects of these desire technologies upon our humanity—for good and for ill.

### 3.1 Online legal adult entertainment

All of the foregoing brings us to the legal adult entertainment industry, which is now almost entirely an online technology-driven industry. Debates abound about exact numbers, yet recent surveys suggest that in countries with unrestricted and widespread Internet access, up to 76% of men and 41% of women regularly access online adult entertainment (Kirby 2021; Regenerus, Gordon, and Price 2016), and the number of visitors of online pornographic sites are increasing every year (Dwulit and Rzymiski 2019). According to Böthe et al. (2019), lesbian, gay, bisexual, transgender, and queer adults have higher pornography use than other adults. An online survey of more than 1000 18–25-year-olds in Great Britain found that 77% of men and 49% of women had viewed X-rated online content in the last month (McLean 2019). An Italian study of 1492 high school seniors found that 78% of those who used the internet (male and female) watched porn, with 8% watching it daily (Pizzol, Bertoldo, and Foresta 2016). An Australian survey of 15–29-year-olds found 87% reporting having viewed adult entertainment at some time (Lim et al., 2017).

Studies on the impact of regular adult entertainment consumption are mixed. Some studies find that it creates unrealistic expectations and sets impossible beauty standards (Kirby 2021). Numerous studies suggest a positive effect on existing relationships (Binnie and Reavey 2020). However, there is also a risk of addiction associated with its consumption (Duffy, Dawson, and Nair 2016). In a comprehensive 42 nation study, Böthe et

al. (2024) found that between 3.2-16.6% of the population of these countries could be classified as problematic pornographic users, a manifestation of the newly introduced Compulsive Sexual Behavior Disorder diagnosis. Furthermore, Hebernick et al. (2020) found that sexually active men and women were more likely to report “diverse sexual behaviors” such as choking, having their face ejaculated on, and aggressive fellatio if they also reported being pornography users. Conversely, there is continuing interest in new forms of adult entertainment that may be more “sex positive” and “feminist,” which demonstrate sexual consent, emphasize the real pleasure of female performers, represent diversity, and provide ethical working conditions for the “talent” involved (Lim, Carrotte, and Hellard, 2015). These factors underscore the economic, technological, and cultural dimensions of pornography, highlighting its importance and influence in contemporary global social and digital environments.

## 4. Methodology

Method and methodology are terms that are often used interchangeably. However, they have distinct meanings in research and academic contexts. Method refers to the specific procedures or techniques used to collect and analyze data. Methodology, on the other hand, is a broader concept that refers to the theoretical analysis of the methods applied in a field of study. It goes beyond the tools and techniques to include the underlying principles and philosophical assumptions that govern a particular approach to research.

Methodology encompasses the rationale and the theoretical underpinning for the understanding of which methods should be applied. It includes considerations regarding the appropriateness of certain techniques and strategies for data collection and analysis processes. Methodology considers contexts, ethical considerations, and the philosophical bases for qualitative interpretations. A methodology of netnography, then, discusses “how” and “why” netnography should be chosen and is used within the broader framework of the research's theoretical and philosophical orientation.

The methodological development of netnography, using the lens of auto-netnography, offers a robust methodological framework for future work and development. Although this complex methodological unpacking cannot be fully

developed or fully demonstrated here, we will try to get us part of the way there.

First, we answer what netnography is in an up-to-date manner. According to Kozinets and Gretzel (2024), netnography is fundamentally about understanding cultural phenomena both general and technocultural, employing a systematic, immersive, and multimodal approach to collect and analyze data. This methodology is particularly suited to explore how social media platforms not only reflect but also shape and amplify user interactions and desires.

Although not explicitly fashioned as such, we can easily position the use of netnography in this study as a “queer method” as described by Brim and Ghaziani (2016). These authors describe queer methods as methods which “advance two major innovations about how we study the social construction of sexuality and the sexual construction of the social. First, queer social research methods question the origins and effects of concepts and categories rather than reify them in an allegedly generalizable variable-oriented paradigm, because these categories do not always align with lived experiences. Second, queer social research methods reject the fetishizing of the observable. If empiricism grants authority to categorize to categories that are operationalized into observable units, then to queer empiricism means to embrace multiplicity, misalignments, and silences” (pp. 16-17).

Netnography offers a way to explore new forms of digital sexuality that are not necessarily tethered to particular investments in definable categories. In this paper, it offers us a way explore the dynamic and interconnected nature of these various digital-sexual-social interactions and experiences without necessarily pigeonholing them into particular scientific narratives or theories. By deploying auto-netnography, an emplaced, historically specific, perspectivized, and embodied researcher can take the time to delve into their own personal navigations through these networks, offering a reflexive, insider's view.

Our embodiment is central to the viewpoint we adopt here. As queer methods do, an auto-netnography approach recognizes the ubiquity and fluidity of digital experiences and the unstable, socially constructed nature of sexuality within them. Both researchers become active participants on adult entertainment platforms, reflecting on their own physical reactions, from gut to groin, head to toe, while also noting imagination and cognitive response while creating and modifying their digital environments. Taking such an insider's approach is one important way to understand how platforms mediate and mutate personal and collective desires, turning these networks into powerful "desiring-machines" that continuously shape and are shaped by the interactions of users. A qualitative systems science approach, with its cultural studies, queer

studies, and critical communication background, becomes a crucial ingredient facilitating the growth of the netnography in this social investigation space.

#### 4.1. Understanding auto-netnography

Auto-netnography merges self-reflexivity with netnography's methodological rigor to capture the nuanced experiences of researchers immersed in virtual environments. Originating as a method to document re-embodiment in virtual realms, auto-netnography today emphasizes the researcher's role as an instrumental part of the investigative process, navigating the ethical complexities inherent in human subject research. We see auto-netnography as part of the revival of interest in introspective techniques that were pioneered in consumer research in the early 1990s. Gould (1991) is foremost among these trailblazers, developing these techniques in an examination of the way desire energies moved throughout his body, a topic related to our own. Wallendorf and Brucks (1993) followed with a helpful development of introspective techniques that broadened and formalized their applicability, including using introspection in interviews and ethnography. This paper benefits immensely from this earlier work as well as the more recent work of Lyz Howard (2021) within the online nursing education space.

Introspection, reflexivity, and positionality analysis—as interrelated concepts—are core components of auto-netnography and involve the researcher's engagement with their own experiences and biases. By going on record with a well-defined perspective, researchers can mitigate biases more effectively than traditional methods that claim objectivity without acknowledging the inherent subjectivity in all research activities.

The relatively new research method in which “two participants interrogate the cultural contexts of autobiographical experiences” so as to gain insight into their different perspective and experiences has been termed “duoethnography” (Breault 2016, p. 777). Themes that have commonly been explored in duoethnography include gender, race, professional practice, and sexuality. Although our study thus far lacks the tight one-on-one interrogation that characterizes duoethnography, we believe that it benefits from a similar spirit of paired inquiry and team observation.

In auto-netnography, immersion extends beyond passive observation to various forms of engagement with the research context. For instance, in our current study of AI-generated adult content,

our combined prolonged engagement took place over a fifteen-month period, documented through immersion journals of 260 pages and the collection of over 900 images. This work, which was time consuming manual search and find, was conducted in real time sessions, not with scrapers, dashboards, or spiders. One might analogize that this was a massive within-subjects repeated measures design, a nice point made by one reviewer.

This investment of time and attention demonstrates the netnographer's methodological commitment to the digital cultural landscape. The immersive approach to a shared auto-netnography allows for the emergence of patterns and themes that might remain obscured in less engaged research setups. The analysis seeks a balance between subjective experience and the systematic application of qualitative research methods such as thematic analysis to ensure the research remains anchored in observable data, verifiable patterns, and relevance. This approach not only makes the research more interesting to read but also enhances its validity by providing a transparent, socially situated, and contextualized exploration of the phenomena under study.

## 4.2. Ethical procedures for the auto-netnography

Auto-netnography, as applied in our research, adheres to specific ethical research principles, particularly in the context of interacting with digital content rather than human subjects. This approach aligns with the fundamental ethical stance that prioritizes the anonymity and non-involvement of individuals in the research process, thus circumventing potential ethical dilemmas associated with direct human participation.

In our study, the primary engagement was with the platform itself—specifically, pornpen.ai—a legal, publicly available site that generates AI-driven pornographic images. Our interaction was limited to the generation, reflection, and discussion of these images, without direct communication or interaction with other human users. This is a crucial distinction as it highlights that our research did not involve human subjects in a traditional sense. The images we analyzed and discussed were generated by the site's algorithms and were based on inputs from anonymous users, which were also accessed publicly.

Our research process involved downloading and analyzing images that were publicly available and created by anonymous users, emphasizing that these images were computer-generated and not direct depictions of real individuals. This methodological approach minimizes ethical risks typically associated with privacy breaches or psychological harm to research participants.

Furthermore, given the nature of the images—focusing on cyborg representations—there is an additional layer of ethical safeguarding. These are not

representations of real human beings. Rather, they are fictional, synthesized images created by AI algorithms. This distinction is important in clarifying that no actual physical individuals, whether human or cyborg, were involved in the research process.

However, an ethical consideration arises from the unknown origins of the images that trained the AI datasets used to generate new images. The lack of transparency regarding the training data's content poses a potential and meaningful ethical issue, although the focus on fictional cyborg imagery provides some reassurance. Nevertheless, it is crucial for future research in similar domains to consider the implications of using AI-generated adult content and to strive for transparency about the origins and nature of the training data to uphold ethical standards in digital research.

## 4.3. Positionality and method statement

In this paper, we endeavor to bring a comprehensive and critical perspective to the study of adult entertainment through the lens of duo auto-netnography. As researchers and consumers within the complex landscape of legal adult entertainment, which includes platforms such as OnlyFans, Pornhub, and various influencer-driven media, our backgrounds inform not only our academic interests but also our personal engagements with these digital spaces. We brainstormed and began this research while we were together in research meetings, with two laptops open and the Generative AI displaying ever-changing rows of generated images which we audienced on our separate screens and discussed. The work continued as we kept immersion journals in our countries, the United States and United Kingdom, and subsequently shared immersion journals, discussing them through Zoom conversations and email exchanges.

As a Generation X white male who has lived and worked both in Canada and the United States, and a Millennial white female from the United Kingdom, our experiences span some cultural and generational spectrums. We both are technophiles, and this meant that we engaged with enthusiasm as experienced users of AI. We are driven by an egalitarian ethos of pleasure seeking whilst also acknowledging that this is a topic which is rife with sensitivities relating to identities, politics and freedom of speech. We believe that online porn, particularly free online porn, reflects pre-existing sexual tastes, and that the algorithm teaches users to

think about sex itself in prescribed categories, trans and queer being included in these categories. Nevertheless, both authors are and inevitably represent members of dominant positionalities, a relevant point made by one of our reviewers. Our dominant positionality may give a different valence to some of our findings, such as abjection, than would be given by queer, trans, or neurodiverse embodied researchers. We have been aware of this possibility and this is one reason we were led to queer the auto-netnography method as we have. Pursuant to this queering of our analysis, we go to lengths to avoid reinforcing already harmful norms regulating gender, sexual, and relationship diversities in the porn industry. While reporting on them honestly, we most certainly do not wish to use our methods or our study to impose our views of the world without a strong shake of self-reflexivity.

We appreciate the quote that one of our reviewers shared with us from Rabbi Shemuel ben Nachmani, quoted in the Talmudic tractate Berakhot: “We do not see things as they are, we see them as we are.” In an auto-netnography, we must pay special attention to the fact that our choices and viewpoints are mirrored throughout the text. We attempted to notice our interactions with these platforms, topics, and content, and try to discern our automatic reactions. However, we realize that other researchers coming from other perspectives would likely have made different choices and perhaps reached different conclusions. This analysis of our positionality aims to clarify that our analysis is intertwined with our personal experiences and cultural understandings, which may “bias” (i.e., color with perspective) but also deepen (i.e., focus with deliberate purpose from an understood perspective) our insights. Our paper should be read through this lens.

## 5. Engaging with the platforms

Pornpen.ai is an advanced image generation platform tailored for creating customized adult content. The platform provides extensive customization options that enable users to design images with specific attributes and scenarios, facilitating a personalized user experience. It facilitates user engagement through a detailed and intuitive interface, offering selections for model attributes, actions, and settings.

The interface is divided into several categories such as a base setting, face, hair, ethnicity, style, setting, action, and clothing, each with multiple sub-options. Users can select from a range of body types, facial expressions, hair styles, and ethnic backgrounds. For example, under “body types”, users can choose from choices that include busty, huge boobs, perfect boobs, big hips, short, dark skin, tattoos, short hair, glasses, beautiful, and many others. One of these physical

elements, which is a base setting for the generation of female images is called the “Cyborg add-on: full bot”. This element is only available for the female Gen-AI figures, and not (currently) the male ones, which we find interesting and significant. The following instructional comments posted on the site about the cyborg add-on hint at a sexy subservience to the female bot figures.

“I, for once, welcome our new mechanical overlords! AI-generated robo-porn for when the inevitable robot uprising succeeds in exterminating us puny humans. NOTE: It works much better in realistic. As the name implies, it's a cyborg add-on that requires the cyborg base.”

This advice not only provides technical support in advance, but it also suggests values, in that these types of figures are held to become “our new mechanical overlords.” The tongue-in-cheek comment humorously plays with the trope of a robot uprising, highlighting the cultural fascination with and fear of advanced AI and robotics. The add-on requires a base cyborg model to function optimally, illustrating the modular nature of the tool that allows for extensive customization and variability in the robotic designs.

The capacity to focus on close-ups and utilize body tags for adjustments indicates the platform's sophisticated design to handle detailed and specific user requirements. It reflects the broader trend of using AI in creative fields to explore futuristic and transhumanist themes, allowing users to experiment with the boundaries of technology and human form. In essence, it liquifies form in the service of human desire, making various elements of the female body into drop-down options that can be chosen as “add-ons” to base bodies (which, in this research, focus exclusively on the cyborg body). Additional settings allow for the customization of the image background and the actions portrayed. This setup not only promotes a high degree of personalization but also supports diverse user engagement, from novices to experienced content creator.

## 6. Generative AI Representations of Cyborg Adult Entertainment

Even after several months of producing cyborg images and observing the outputs of others on pornpen.ai, we were still wondering if we were doing it right. In many cases, if not all of them, the images that we were producing seemed to us to be

closer to the sad, disturbing, or frightening than they did to the erotic. To illustrate our findings, let's move to some textual description and interpretation of four of the over 900 images we collected in our immersion journals before we discuss some theory and its implications for our understanding.

The first generated image depicts a highly stylized, futuristic cyborg woman with her arms raised, staring straight into the (virtual) camera. Her design is sleek and metallic, but her face is entirely humanoid with symmetrical, refined features, including pronounced cheekbones, a straight nose, and full lips. Her eyes are striking and human-like, conveying a sense of intelligence and perhaps sentience.

However, her face is framed by metal, as it appears attached to a smooth, metallic helmet or headgear that integrates seamlessly into her large shoulders and upper body, which are also composed of similar polished metal. Her breasts are almost impossibly huge, and exaggeratedly robotic. They feature two massive silver spherical components that are clearly meant to be breasts, but are also distinctly mechanical, with the "nipples" resembling cameras or optical sensors. These spheres are attached directly to her chest and have a pronounced, industrial look with a silver finish that matches the rest of her body.

Because this cyborg image has a human face blending into an exaggerated robot body, it gives us the impression that robot and human can blend yet remain somewhat separate, almost like Robocop. Yet the combination seems somehow uneasy, as the merging boundary between technology and woman seems almost threatening. Her body is an exaggeration of feminine proportions, and she looks extremely strong, intelligent and completely unafraid. This cyborg woman's gaze drills into us, perhaps addressing us as inferiors, as our robot master.

The second image also presents a sophisticated, highly detailed depiction of a female cyborg with a very human face. In this case, her body proportions are more realistic, with simply large breasts rather than impossibly gigantic ones. Her skin appears smooth and flawless and is again complemented by strikingly realistic eyes that convey depth and possibly emotion. Her head is adorned with a complex array of technological enhancements. There's a noticeable circular device, possibly a sensory input or a light, attached near her left temple. Her torso and shoulders seem to be constructed from segmented metallic plates, resembling armor but with an elegant curvature that mimics a woman's breasts.

In this case, the cyborg is looking away from us, and seems to be positioned in front of a screen, as if she is working. Her posture and the configuration of her arms suggest interaction with a technological device or console. The background includes dark, cable-like

tendrils, adding to the high-tech environment surrounding her, which might be indicative of her operational context or habitat.

These two images were typical of many of the images we saw which combined very realistic and attractive female faces with robotic bodies of various forms, posed in different ways. Sometimes, these bodies were posed to suggest that they were dancing, or perhaps stripping on a stage. Both authors felt that these dancing, stripping, posing depictions were women performing for the male gaze. There were, however, many other types of images which deviated further and further from human forms and from the types of desire that we would consider conventional (or recognizable as sexual to us). The final three images we describe belong to this more altered category.

The third image depicts a female cyborg that is more like the Borg (from the Star Trek) series than the former robot types of images. This cyborg, which is pictured from the waist up, has a sophisticated design that is predominantly metallic with black and silver components. She possesses glowing red eyes and is staring straight into the camera, as if calmly challenging the viewer. Like a Borg, her skin is pale, almost white, and is contrasted against her dark, almost black, lipstick. Her head is adorned with various mechanical parts that resemble high-tech armor or a helmet, which slips down as a mask that covers most of her face.

The cyborg's body is encased in a complex suit of armor with large, rounded metallic shoulder guards. Intricate tubes and mechanical structures run across her chest and shoulders, with thick cables and wiring creating a futuristic and industrial appearance. Large red lights are positioned at numerous points on her body, matching her glowing red eyes. Her torso includes prominently displayed, oversized, almost ghoulish white breasts, designed with a smooth, metallic finish. And between those huge breasts sits a gigantic penis, as if it was some sort of captive or totem, or perhaps a part of her body.

Overall, just as with the other images, this one blurs the lines between human and machine. Like image one, it depicts a female figure that is attractive but whose gaze is also intimidating, perhaps even threatening. Including her glowing red eyes, her confident smirk, and a large penis held captive between her breasts, this image caused us to question and discuss the type of sexual response it might arouse. Her defiant glare, smug smile, and built-in penis suggest a woman with full control over her desires. Although potentially threatening to a heteronormative perspective, and perhaps to a

humanist one, we had to respect the empowering possibilities of the image, despite our initial discomfort.

The fourth and final image of this set offers a highly stylized representation of a female cyborg, confined within what appears to be a square, metallic frame resembling a hatch or a compartment on a spacecraft or other futuristic setting. The cyborg's design is complex and entirely mechanical, dominated by silvery and grey tones with accents of purple and gold, contributing to a visually striking aesthetic. In this image, unlike the other three (but typical of many other images we saw), the cyborg's head and face are barely recognizable as female. Although human-like in shape, the form is fully metallic in texture, with a smooth, reflective surface. The face features glowing purple eyes set within sockets that appear more metallic than organic, giving it an eerie, otherworldly gaze.

However, the cyborg's body is unmistakably female, although its feminine qualities strike us as more parodic than pornographic. Below its head, the cyborg's body is composed of elaborate and detailed mechanical parts. Its chest is exaggeratedly feminine, with large, rounded, metallic breasts seem overly engineered. The torso includes various complex assemblies of gears, tubes, and wiring, arranged to mimic the human form. Large breasts, it seems, make the cyborg female, for they are rarely if ever depicted as small. Our analysis recognizes the maternal and heteronormative nature of this fascination, but also affirms that women of various sexualities are also attracted to female breasts.

The cyborg also has a prominent, rounded section at the lower torso, which we interpret as depicting a pregnant belly. Numerous cyborg females were depicted as obviously pregnant, as this was a choice that apparently many users decided to enact. Yet the pregnancy of cyborgs adds another layer of provocative complexity to the representation, blending elements of human reproductive biology with mechanical design. It hints at ideas of artificial life, which stands as a depiction of what we see as perhaps the very deepest possibility for human and machine integration: the progeny of human and machinic intercourse.

Finally, the background of the cyborg's compartment is filled with coiled, flexible conduits or cables that create a nest-like structure around her, suggesting confinement or integration into a larger mechanical system. The being in this image seems completely docile, completely controlled. Perhaps she is a type of slave, a gestating sex machine, held captive within the womb of some type of mechanical hive. But her face is content, blank, a mystery. Perhaps, here she is protected in her pregnancy. Maybe she is being watched

over, as Richard Brautigan's poem memorably phrases it, by machines of loving grace.

## 7. Abject Visualization

We initially devised the concept of "abject visualization" to refer to unsettling and uncomfortable aspects of the sexualized AI visualizations that we encountered. Like the body horror scenes in a David Cronenberg film, these visualizations blurred the lines between human and machine in ways that were, at first, uncomfortable for us, and initially raised questions about the intersection of pornography with horror. "Who finds this stuff sexy?" we asked each other with genuine puzzlement. The depictions, which often feature large-breasted cyborgs in poses that we initially interpreted to be threatening, frightening, horrific, pitiful, miserable, or pathetic, seemed anything but stimulating. The female cyborgs, and yes, we both wished there could have been a balance of males and females, were often depicted with smooth, hard edges and a glaring absence of human warmth. Our initial reactions were a sense of dread in us that tapped into what we at first believed were our existential fears about mechanization and dehumanization.

But as we built our knowledge base, read through related literature on the abject (a process hastened by the helpful review process of this HICSS paper and our consequent queering of the auto-netnographic approach), and kept exposing ourselves to the images, contemplating and questioning them, we began to see things differently. We started to see the eroticism behind representations that challenge the conventional boundaries of what might be considered pornographic by intertwining elements of fear and the grotesque. We came to appreciate that these images are perhaps more about the obscene—which provocatively tests sexual boundaries—than they concern the pornographic—which is intended to provoke sexual excitement.

Our characterization of AI porn draws heavily on Julia Kristeva's (1982) concept of the "abject," which refers to that which disturbs identity, system, and order. In Kristeva's conception the abject is cast out because it does not respect borders, positions, or rules. Relatedly, the abject is closely related to what is fundamentally excluded from the social order. It prompts deep-seated emotions like horror, disgust, and dread. Delving into these ideas and reading Judith Butler's (1993) use of Kristeva's concept of abjection led us to see how normative heterosexual identities (such as our own) are confirmed and

confined by processes of exclusion. The abject lies at the intersection of what we seek and what we turn away from, the desirable and the monstrous; it provokes a visceral reaction at the threat it poses to break down comfortable systems of meaning and order.

In the context of this investigation, the abject manifests first through the emotions we capture in our immersion notes and then subsequently discuss. We both felt disgust and the sense that many of these images were deeply disturbing. We tracked these emotions to a sense of violated boundaries. Exactly what these boundaries were, we are honestly still exploring. Through their fusion of the mechanical and the organic, the human and the non-human, the pornographic and the pregnant, the oversexed and the challenging, the living and the lifeless, the images still challenge our understanding of our own sexuality and humanity and of the tenuous boundaries separating them.

Writing about the topic from a transexual perspective, Robert Phillips (2014) offered some illuminating insights: “normative heterosexual identities are circumscribed via a process that rejects and excludes ‘figures of homosexual abjection’ ([Butler]1993: 103). Like homosexual subjectivities, transgender subjectivities challenge heteronormative understandings of gender, sex, bodies, embodiment, and (dis)ability. Heteronormative subjects, then, can come to feel threatened, because in order to maintain their own tenuous subjectivity, they must simultaneously identify with the abject others whom they are also required to reject (ibid.: 113).” We realized that, for us, these images disturbed the normative and familiar shapes of human bodies, they disequibrated conventional sexualities, they transgressed and destabilized notions of what it means to be sexy, to be pregnant, to be gendered. Although we do not discuss them here, our auto-netnography also included images of human forms, many of which were also distorted, defamiliarizing, and strange (multiple penises, men with vaginas, women sucking penises sprouting from their necks). These images no doubt colored our responses.

In *The War of Desire and Technology*, Roxy Stone (1996) theorized that technologies transmit not just information but also representations of bodies. Her insight has never been more prescient. In our current era of digital innovation, generative AI representations in adult entertainment are not mere depictions but are constructs that challenge and expand the boundaries of physical and digital identities. We found these transgressive intersections to be potent ways to confront our own understanding of our own corporeal embodiment and sexuality and the way it stands in relation to the artificial part of AI, and also the aspects it opens for us to be critical, generous, and open to divergence and diversity. Many of these cyborgs were powerful and transgressive, and perhaps it was this aspect that we found threatening.

Like the heteronormative perspective discussed by Butler and Phillips, we were reacting to these powerful and destabilizing images first by rejecting their liminality, and then eventually by first identifying and then identifying with it. The results are unsettling, as the netnography forces us, continually, to examine what we feel, what we know and what we understand as our desires, and to confront them with something profoundly other.

## **6. Methodological conclusions: auto-netnography, its extensions, and contributions**

This study shows how auto-netnography can not only be queered but can be used to explore intimate AI experiences and interactions. Immersed and reflexive duo auto-netnography enabled us to delve into emotional reactions and symbolic resonances. The results offer a vantage point quite different from those offered by many other methods. The method we describe—two researchers carefully considering their positionality and its blindspots, immersing in a particular online image generation platform for 15 months, collecting over 900 images, and then carefully analyzing them—is replicable. Our introspective method, which attends to our own individual reactions, leverages the old ethnographic idea of the researcher-as-instrument. We could envision future research teams in which members reflected on their own reactions to collective sets of images. Images like these could also be shown to groups of people online or in person and their emotions assessed using open-ended or close-ended methods. In other words, human emotional reactions to such stimuli could certainly be studied at scale. Online exposure combined with a type of “guest book entry,” as one might have at an art exhibit, might also pick up the sort of signals we detected in these images—or it might not.

Regardless, auto-netnography has been instrumental in facilitating a reflective exploration of AI-driven experiences and domains. Through an explanation of methodology and illustration of method, we were able to capture important emotional, cultural, symbolic and even perhaps mythological dimensions of digital engagement. This approach not only deepens our understanding of human-AI relationships but also enhances our methodological repertoire for studying complex digital phenomena, highlighting the potential of auto-netnography to allowing us to investigate the shifting boundaries

and the increasingly artificial and digitalized texture of human experience.

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