MIXING BUSINESS WITH SEXUAL PLEASURE: HETEROSEXUAL WOMEN & THE DIGITALIZATION OF SEX TOYS

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Since the 1970s, sex toys have often symbolized women's sexual agency as popularized by Betty Dodson's workshops, which demonstrated how to achieve an orgasm via vibrators and allowed attendees to do so by hosting a session of consensual "collective production of sexual knowledge" (Sutton, 2023). By hosting these workshops that repurposed vibrator usage for women to pursue "sexual satisfaction" rarely found "in heterosexual encounters", or to bridge the orgasm gap, Dodson gave new life to the sex toy industry (Sutton, 2023). Over decades of technological advancements and digitalization later, however, sex toy companies have begun to non-consensually use consumer data produced by vibrator usage. This was seen at the hacking convention DEFCON24 in early August 2016, where hackers "follower" and "goldfisk" presented how they hacked into a "We-Vibe", a vibrator that can connect to smartphones via Bluetooth through a mobile application so that users can control how fast and how often it vibrates (Hern, 2016; Domonoske, 2017). They found that this mobile application communicates what the We-Vibe's temperature is "every minute" to its manufacturer, Standard Innovation, as well as "every time the intensity of the vibration changes" (Hern, 2016). The hackers also criticized the company's vague privacy policy (Hern, 2016). Standard Innovation responded, stating that this information is used to "understand what settings and levels of intensity are most enjoyed"; they only take "CPU temperature data" for "hardware diagnostic purposes"; and that, while they have said that they "may collect data", they will go over the policy in order to "provide more transparency" to users (Hern, 2016). This incident signifies the divergence from Dodson's vision of consensual "collective production of sexual knowledge", and as digitalization becomes more prevalent, it can be expected that future sex toys will deviate further (Sutton, 2023).

In this paper I argue that Bluetooth and/or Wi-Fi-utilizing sex toys reflect and perpetuate systemic economic inequalities against heterosexual women through datafication and disregard towards their sexual privacy through examining several incidents through the STS framework commodity chain analysis. In the literature review, I will present how sex toys are used by heterosexual women to gain sexual pleasure; the current state of women's wealth and economic power; sexual privacy; and Kean Birch's automated neoliberalism. The analysis will incorporate Birch's automated neoliberalism and Hopkins & Wallerstein's commodity chain analysis to examine the various commodity and payment exchanges in the incidents discussed. I will first show that the usage of these sex toys makes the human body both a labor source and a commodity through digitalization, which is problematic for heterosexual women as they have had a history of being objectified and oppressed. Then I will detail how automated sexual activity through cyber-physical interfaces can further this oppression by inherently promoting some physical human bodies over others while failing to establish security for anyone. Finally, I will demonstrate the significance of various sex toy-related lawsuits and how they signify the few, if costly, ways women can decommoditize themselves from this data exploitation. Furthermore, I distinguish between consumption and consent and how consumption does not equate to consent. Beyond this paper, I implore experts in the sex toy industry to establish official standards for cybersecurity in sex toys as well as implore the public to be more sex-positive.

Literature Review

Sex Toys in Heterosexual Women's Sexual Activities

As touched upon in the introduction, sex toys such as vibrators have been found to be instrumental to heterosexual women's sex lives. This is especially important as heterosexual women generally experience fewer orgasms than men, regardless of sexual orientation, and women of other sexual orientations — often called the orgasm gap (Frederick et al., 2018). Therefore, sex toys help reduce any disparities in sexual pleasure during sexual encounters. For instance, Herbenick et al. (2010) found that, while surveying 2056 women in the US between the ages of 18 and 60 who had bought at least one sex toy, 73% of heterosexual women had previous experiences with vibrators during partnered sex. Most vibrator users bought a vibrator for their own personal use and were comfortable using them; and some vibrator users did not tell their partners about owning a vibrator as their usage may imply to their partner they are sexually not enough. Additionally, Hensel et al. (2021) found that to make vaginal penetration more sexually satisfying, some techniques shared were applied with sex toys, such as "[s]hallowing", where vaginal penetration only happens a little past the vaginal opening, and "[p]airing", where the clitoris is stimulated simultaneously as vaginal penetration.

Women's Economic Power

In addition to the orgasm gap, there also exists a labor gap and a wage gap between men and women. While men work more hours per week, women spend more time doing household chores and childcare while earning less than men (Glynn, 2018). As housework is not compensated and women's work is less compensated than men's, their labor is undervalued, and therefore they have a lack of economic power and wealth. Since capitalism makes workers view

their bodies as a commodity valuable only through the monetary benefits it gains, women are viewed as inferior due to this wealth disparity (Federici, 2004).

Automated Neoliberalism

This wealth disparity is furthered by today's economies, depending on digital infrastructure. Kean Birch proposes that these economies have taken the form of automated neoliberalism, where social, financial, and market interactions are dictated by corporate digitalization of economic processes rather than "unpredictable…human actors" (Birch, 2020). Personal user data is essentially currency, where companies are given the power to view, store, and exchange personal user data with each other (Birch, 2020). This power allows technology platforms to only promote actor behaviors that benefit the market and establish this technology-dependent system as the correct system. This partiality "increases the …proof" of this system's success and therefore "increases" the system's validity (Birch, 2020). Birch (2020) proposes that consumers can challenge the validity of this system and reclaim their own agency by revealing less of and even fabricating personal data while using digital technologies. In terms of sex toys specifically, Kaisar (2021) further explores how sex toys utilizing Bluetooth applications function in platform societies, or societies that are facilitated by online exchanges of data, and how they translate sexual activity into data. Additionally, Wilson-Barnao & Collie (2018) discuss surveillance and datafication in sex toys and its usage in "commodif[ying] …the private body" for personal data by sex toy companies in order to satisfy a wide range of consumers with their products and therefore profit off consumer private behavior (Wilson-Barnao & Collie, 2018).

Sexual Privacy

The rise of automated neoliberalism has led intellectuals such as Citron to consider its impact on sexual privacy. In the digital age, Citron defines sexual privacy so that it entails who or what authorities are allowed access to information about someone's sexual activities (Citron, 2019). Specifically, Citron (2019) defines sexual privacy as the "behaviors, expectations, and decisions" that hide sexual activities from unauthorized observers and allow knowledge of someone's sexual activities, their sexual history, and how they present their naked body to others during sexual intimacy. Applying this to digitally platformed sex toys, Sundén (2023) conflates sexual agency in digital networks with digital sexual privacy and argues that while digital sexual privacy is a "paradoxical" concept, any data transferred during digital sexual activity should be protected from potential observers. Sundén (2023) also discusses how digital sex toys disrupt the notion that sex is solely a property in the private sphere of society and sex and therefore can give insights into the social consequences of sex toy companies having such personal user data.

Gaps in Literature Review

Taking the above background into consideration, there are several gaps in the literature that are worth exploring. For all the current research in the sex toy industry, to my knowledge, there has not been a comprehensive review of different controversies and sex toy technological advancements in the sex toy industry. There has been more emphasis on the potential to violate sex toy users through malicious hacking instead of sex toy users being inherently violated through lack of digital privacy, as discussed by Osipova et al. (2024). Additionally, the significance of sex toy marketing towards heterosexual and queer demographics has been discussed, but nothing has been as specific regarding heterosexual women.

To bridge these gaps, I will use the commodity chain analysis STS framework to explore the economic value that sex toy consumers present to sex toy companies. This framework has existed since 1986, when Hopkins & Wallerstein presented it to analyze the different kinds of labor and production needed to make a product throughout history (Hopkins & Wallerstein, 1986). What comes out of the process is a flow diagram like Figure 1 that specifies what raw materials, tools, and labor are needed to advance the manufacturing of a product until it can be sold to consumers. These diagrams are made backwards, from establishing the consumer to the raw materials involved (Hopkins & Wallerstein, 1986). This is to identify the economically valuable aspects of one finished product, rather than identifying raw materials in different applications (Hopkins & Wallerstein, 1986). Since I am primarily interested in analyzing the economic impact that data has on these sex toys as a consequence of our automated neoliberal society, rather than discussing the raw materials of the sex toys involved, such as the silicone mold and its electronics, this process will be valuable for developing my analysis. This may also be why, in the analysis section, figures may differ from Figure 1 so that labor and tool sources as well as consumers are interconnected and serve multiple roles at particular stages.

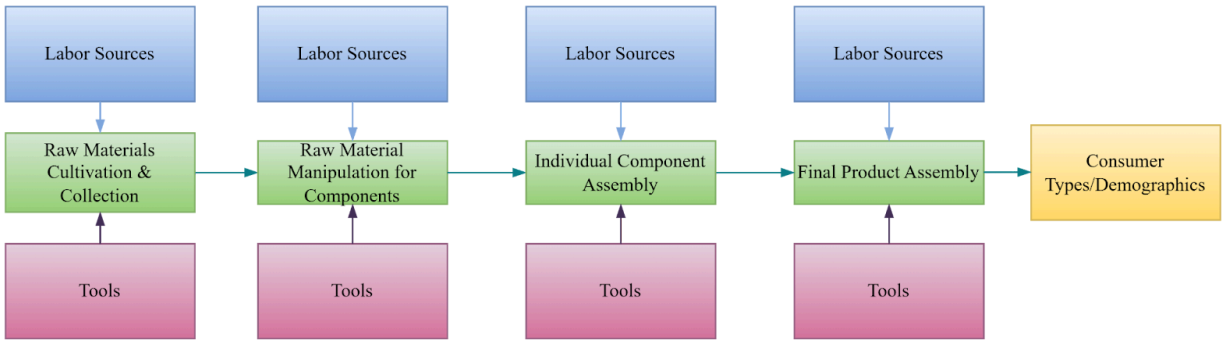

Figure 1. Sample commodity chain. *Adapted from "Commodity Chains in the World-Economy Prior to 1800," by T. K. Hopkins and I. Wallerstein, 1986, Review (Fernand Braudel Center), 10(1), p. 161.*

Methods

I utilize various sex toy-related controversies and events from 2016-2024 to analyze the role and effect automated neoliberalism has had on the economic interactions and exchanges of information between sex toy consumers and sex toy companies in general. Incidents include a 2016 DEFCON 24 We-Vibe vibrator presentation and hacking demonstration and a 2017 class-action settlement over this vibrator; an active patent since 2017 of the "Interactive online entertainment system and method" as held by stakeholders involved in Lovense; a 2019 DEFCON 27 buttplug presentation and hacking demonstration; and a 2024 lawsuit against sex toy retailer Adam and Eve. These incidents seemed to be the most significant to discuss because of the demonstrated lack of consideration towards consumer digital privacy. These incidents will be described and viewed through the commodity chain analysis framework and analyzed through recorded videos of DEFCON presentations; news articles about these incidents; legal documents; and patent documents.

Results & Analysis

The Human Body: Both a Labor Source & a Commodity from Digitalization

From analyzing hacking demonstrations in DEFCON 24 and DEFCON 27, the human body has become both a labor source and a commodity under digitalization. Figure 2 summarizes my arguments below, where consumer data can affect sex toy product development and subsequent sex toy interactions despite the lack of consent.

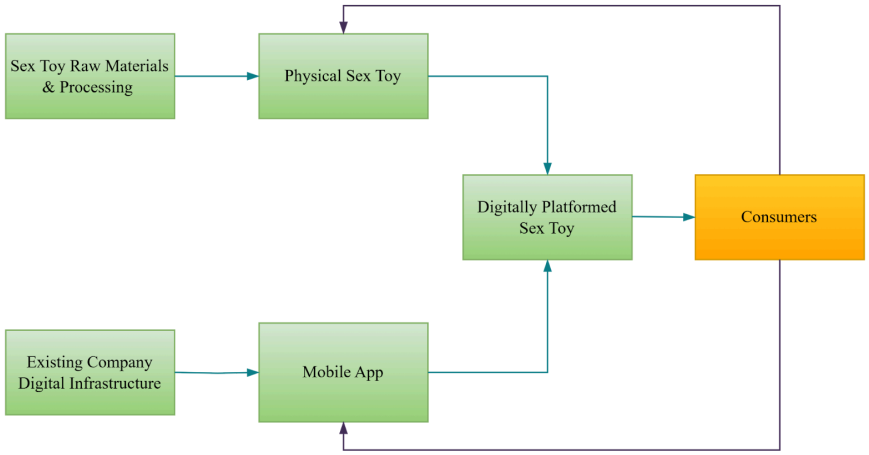

Figure 2. General commodity chain for digitally platformed sex toys.

From the hacking demonstration in DEFCON 24, it is clear that to We-Vibe's manufacturer, Standard Innovation, consumers are performing non-consensual and unpaid labor by collecting company data analytics unwittingly; sex toy companies exploit sexual exploration and are enabled by the relatively recent digitalization of sex toys and lack of regulatory standards. This is an irony brought on by a capitalistic system: the consumers become the product. It gets especially insidious once you consider consumer demographics. As women have had a long-standing history of oppression, which includes their objectification and their lack of economic power and agency, this only continues this said history. This oppression can only carry over to digital interfaces, as we will see in the following section.

Automated Sexual Activity Through Cyber Physical Interfaces

In the talk hacker "smea" gives during the hacking convention DEFCON 27 in 2019, he briefly mentions a patent by Lovense describing a system where consumer tipping can affect sex toy vibrations experienced by webcam models (DEFCONConference, 2019). Inspecting it further, it is an active patent by Eddy Olivares and Dan Liu, the latter the founder of Lovense, and will expire in 2036 (Olivares et al., 2016). The patent demonstrates the entanglement between financial gain, lack of digital privacy, and physicality of bodies, which can be seen in Figure 3.

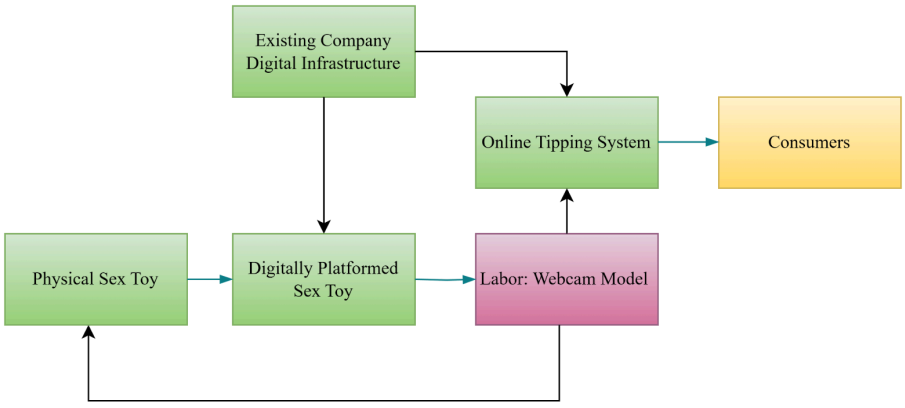

Figure 3. Commodity chain for interactive tipping for webcam models. *Adapted from "US9762515B1 - Interactive online entertainment system and method," by E. Olivaries and D. Liu, 2017.*

This patent demonstrates that sexual activity can happen outside a consumer's nearby physical environment via multiple controlled digital interfaces that a corporation has set up to observe this interaction in order to profit. This patent is insidious as it makes sexual activity something that needs an outside party to initiate, mediate and finalize said sexual activity. While it makes sexual activity physically convenient, its convenience compromises privacy for

company profit. This can be seen in the lack of a detailed section on the system's security and instead in its inclusion of diagrams detailing monetary transactions in its digital interfaces (Olivares et al., 2016). This prioritization of monetary gain without any consideration for ensuring sexual privacy proves that sexual privacy will always fare second to profit by asking consumers for data to complete company-mediated sexual encounters. Overall, this corporation is invading sexual privacy by unnecessarily intervening during sexual encounters to profit.

This lack of sexual privacy affects not only consumers but also individual employees, such as webcam models. As webcam models in this patent bring the most economic value, this patent also highlights that some human bodies and, therefore, some physical attributes may be financially worth more than others. By using digital interfaces that necessitate interactions with physical human bodies to profit and collect data of said profit, this system encourages the tracking and commoditization of human bodies that most often engage with consumers and therefore encourages companies like Lovense to see webcam models as products that can be discarded or be further utilized based on data collection. Even employees are not spared by sex toy companies as this patent would allow data mining while they are performing labor. Overall, all individual humans lose the most, while corporations gain the most from this system.

Taking Back Consumer Digital Privacy through Legal Action

Individual consumers have, however, attempted to take back their digital privacy through legal action. For instance, one American woman who bought a "We-Vibe" in May 2016 later initiated a class-action lawsuit for the privacy violations described in DEFCON 24 (Domonoske, 2017). It was eventually settled so that "anyone who bought an app-enabled vibrator" could "receive up to $199" and "anyone who actually connected it to the app" could "collect up to $10,000"; more realistic estimates by Standard Innovations, however, stated $40 and $500 each

respectively (Domonoske, 2017). Seven years later an anonymous woman filed a lawsuit, which as of April 4, 2025, is currently ongoing, against sex toy retailer Adam and Eve, claiming that the retailer sold their data to Google advertising services by "using the Google Analytics tool" without making her IP address anonymous even though she and others did not consent to these sales (Jewett, 2024; "Doe V. PHE Inc. Et Al. - 24STCV00181," n.d.). These lawsuits show that legal action is one of the few options women have for claiming compensation for their labor and reclaiming their data back. Taking legal action, however, is a time-consuming process that can be unaffordable for some women, especially considering their lower economic power and wealth compared to men. And even if the company settles, the time and money invested may not be justifiable to only receive a few hundred dollars at most. This inability for women to get full compensation further perpetuates the wage gap that they struggle against.

Furthermore, the claims in the Adam and Eve lawsuit demonstrate how sex toy retailers are inclined to share data with third parties such as Big Tech (Google) rather than protect consumer data (Jewett, 2024). To companies, this consumer data may be just numbers, but to consumers, their data is not just numbers. It is their bodies and what their bodies like and dislike — preferences that consumers had to mine themselves using the sex toys and preferences that consumers thought were their own private data. And instead of respecting consumer sexual privacy, Big Tech such as Google and retailers such as Adam & Eve conspire and use this data to create a personal digital shopping experience for the very consumer they exploit, as seen in Figure 4.

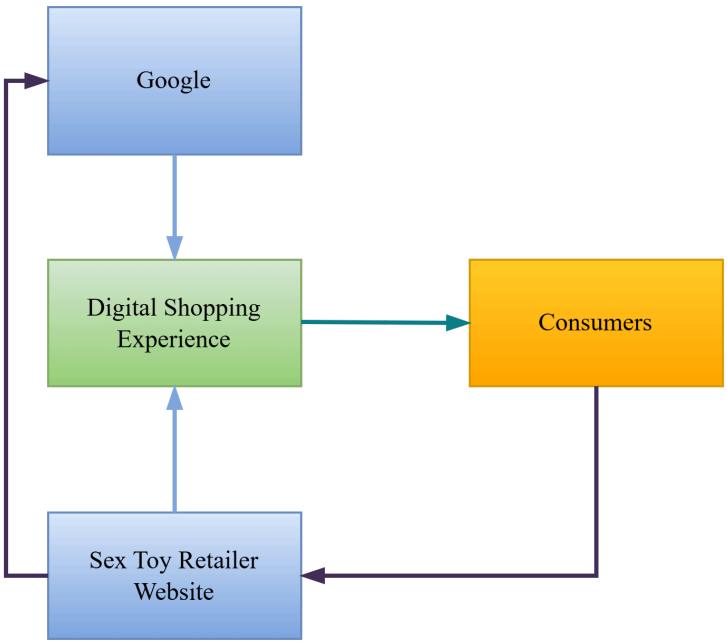

Figure 4. Commodity chain for exchanging and commoditizing consumer data outside of sex toy usage.

Consumption vs. Consent

Some may consider that, since the privacy policy in sex toy apps often lists what data is collected and what they do with the data, then any user consumption signals user consent to company data collection and that their continued consumption is implicit consent. This is clearly not the case, however, because companies can make it difficult for consumers to gain knowledge of their data collection practices and therefore prevent public backlash. This can be through putting the responsibility on consumers to check website privacy policies frequently for updates, as seen in Figure 5 (We-Vibe Privacy Policy, 2025). This can also be seen in companies making it difficult for consumers to find privacy policies for sex toy-related apps outside said apps, as demonstrated in Figures 6-7, leading consumers to trust the promises in the apps' advertising as seen in Figure 8 despite them being contradicted by their privacy policies as seen in Figures 9-10 (We-Vibe - Apps on Google Play, n.d.; Search Results for: "we Connect Privacy," n.d.; WOW

Tech, 2021). The inability of We-Vibe to be transparent about their data collection practices suggests that, as consumers are shielded from the specifics of company data collection, consumers cannot fully consent as they do not have resources such as time to delve into and "understand these agreements" (Carrigan et al., 2021).

14. Changes to our Policy

We may update our Policy from time to time. Any changes we make to our Policy in the future will be posted on this page. Please check back frequently to see any updates or changes to our Policy.

Figure 5. Screenshot of "Changes to our Policy" section in We-Vibe's privacy policy as of March 19, 2025.

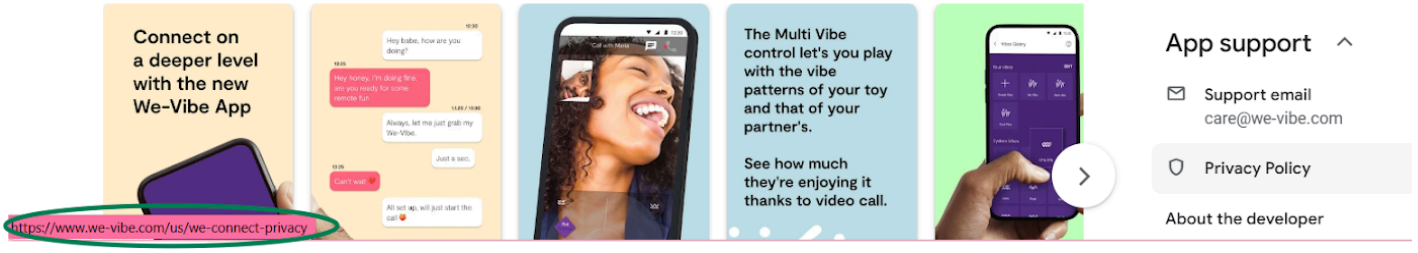

Figure 6. Screenshot taken on April 4, 2025. It shows the privacy policy button on We-Vibe's page in the desktop Google Play Store being highlighted to reveal the URL (text circled on the bottom left) for viewing the app's privacy policy.

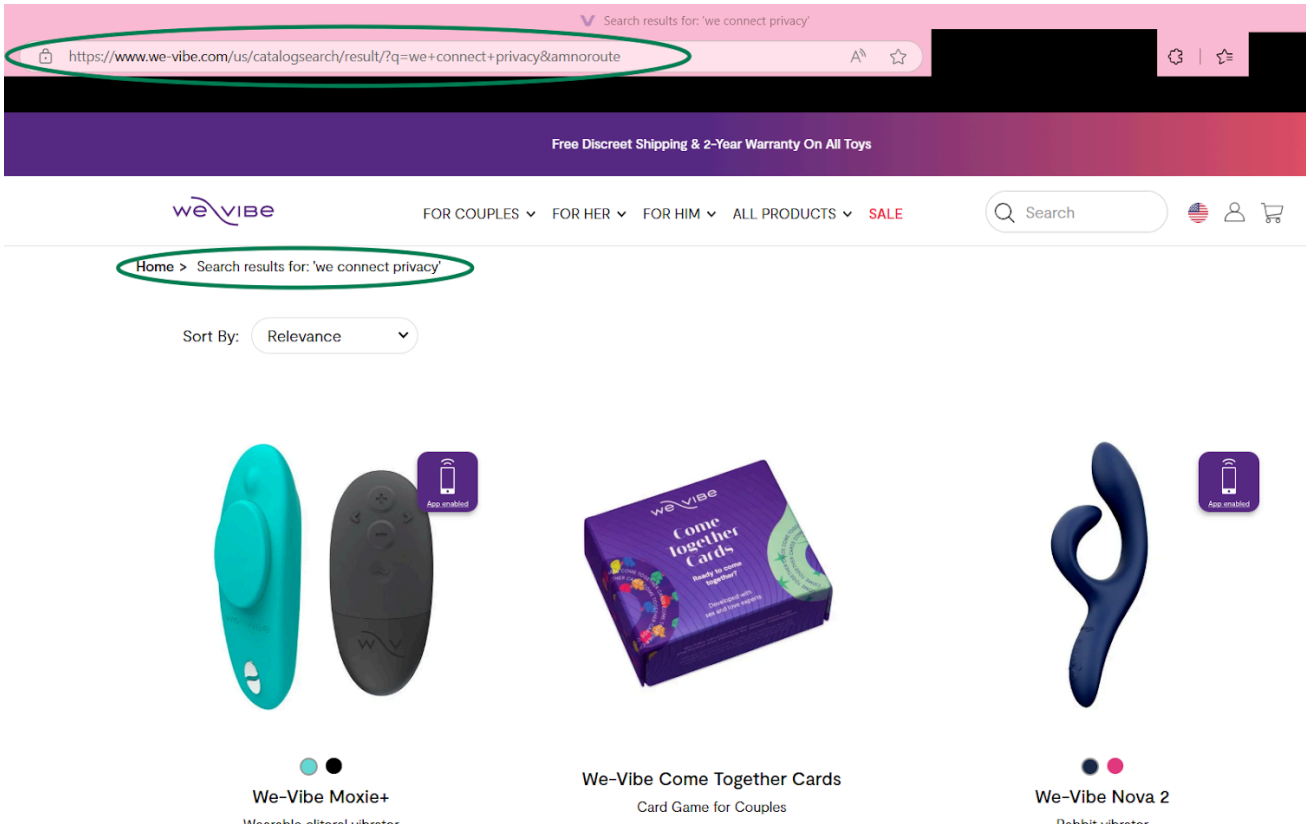

Figure 7. Screenshot taken on April 4, 2025, shows the results after clicking the Privacy Policy button seen in Figure 6. Note that there is no privacy policy for the app shown anywhere on the webpage. Microsoft Edge browser icons blacked out for author privacy.

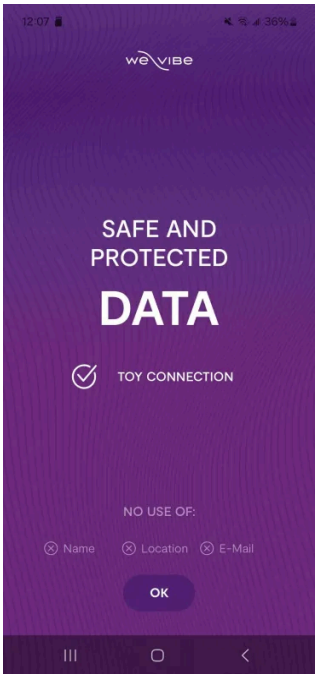

Figure 8. Screenshot of a phone screen taken on April 4, 2025, when opening the We-Vibe app on an Android phone.

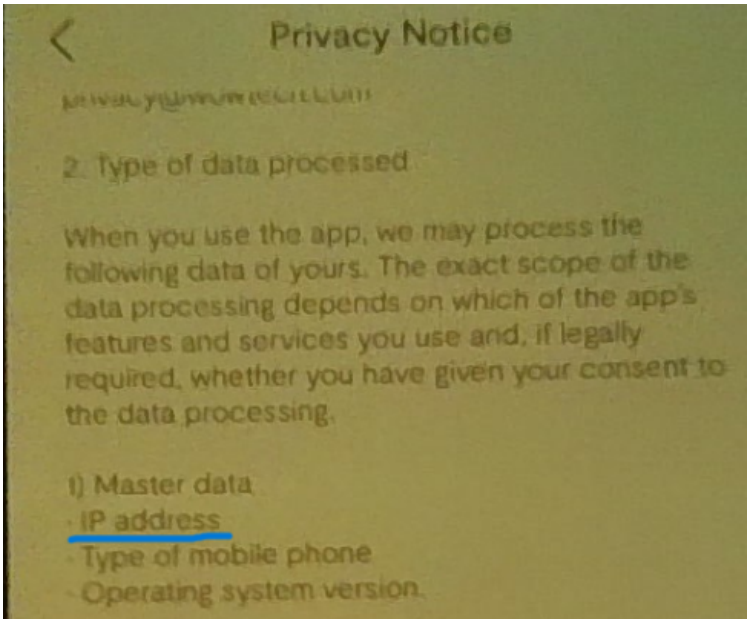

Figure 9. Picture taken via webcam of the second section of We-Vibe's privacy policy, with terms that contradict Figure 8's claims underlined – specifically where location information are used in the app. Screenshots could not be taken due to app policy. Taken on April 4, 2025.

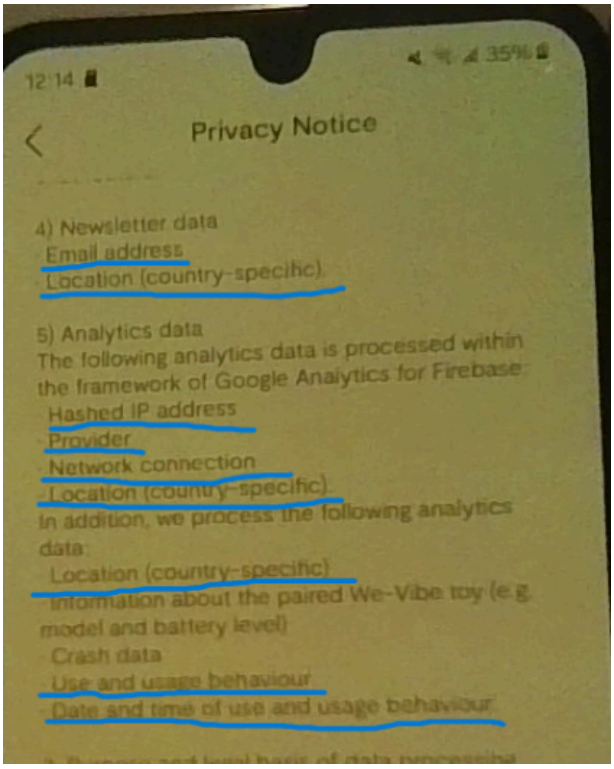

Figure 10. Picture taken via webcam of the second section of We-Vibe's privacy policy, with terms that contradict Figure 8's claims underlined – specifically where location information and arguably email address information are used in the app. Taken on April 4, 2025.

Conclusion

Based on my commodity chain analysis, app-utilizing sex toys make consumers, specifically women, a labor source and a commodity, which perpetuates gender inequalities and promotes certain human bodies over others under automated neoliberalism. Heterosexual women, being underpaid; performing more labor than men; and orgasming less than men, collect free data for digitally-platformed sex toy companies while trying to close the orgasm gap. Their sexual exploration is therefore unpaid labor that they cannot get compensated for unless they pursue legal action. Rather than set ethical privacy standards for smaller digital institutions, Big Tech, such as Google, enables their disregard and therefore perpetuates the idea that all data is free data to use. The lack of transparency from these companies makes it difficult for consumers to fully understand data collection practices and therefore fully consent to them. While "the personal is political", as phrased by Shulie Firestone and Anne Koedt, the personal should never just be economical (Hanisch, 2006).

Recommended Systemic Changes

First, there should be an established standard for digital privacy in sex toys. The sex toy industry is laughably behind in establishing regulatory standards that protect consumers; only in 2021 was there an established ISO standard for only the material properties of sex toys (Rogers, 2021). Besides establishing the prioritization of consumers' digital privacy and cybersecurity, the standard should make changes to privacy policies easier to access and make "informed refusal", or "a justice-oriented approach to" techno-science without the compulsion to consent as implied in the term "informed consent", towards data collection practices easier to enact (Benjamin, 2016). This informed refusal could be implemented in the product design itself, as Zong & Matias (2023) discuss. This ISO standard should be enforced very strictly to hold sex toy

companies accountable. If possible, there should also be more legal protections against data collection and against Big Tech in order for companies to take data collection limitations seriously.

Most importantly, changing the system requires first acknowledging the biases that keep the system in place. Specifically, we need to decrease the stigma behind sex toy usage and sexual activity and instead increase sex-positive sentiment to have discussions of and actions taken regarding sexual empowerment without labor exploitation. It should be noted that this mentality has its limits, especially if this system has been long established, such as the American economic system and its preference towards free markets over the personal health and privacy of consumers.

Future Research

Because of limited resources, I could not fully explore the sex toy industry and the digitalization of sex. To expand on this paper, ethnographic research should be done on sex toy consumers and sex toy industry experts to gain insights into the impact of data collection during sex toy usage. This ethnographic research can also include webcam models to further understand how the human body undergoes commoditization through data collection. If ethnographic research cannot be conducted, a simple expansion of my work could include utilizing commodity chain analysis over decades to better analyze how the lack of digital privacy during sex toy usage affects consumers long-term. Most importantly, I urge further research on the effect of digitalization on commodifying other gender and sexual minorities.

References

Benjamin, R. (2016). Informed refusal. *Science Technology & Human Values*, *41*(6), 967–990. https://doi.org/10.1177/0162243916656059

Birch, K. (2020). Automated Neoliberalism? The Digital Organisation of Markets in Technoscientific Capitalism. *New Formations*, *100/101*, 10–27. https://doi.org/10.3898/NEWF:100-101.02.2020

Carrigan, C., Green, M. W., & Rahman-Davies, A. (2021). "The revolution will not be supervised": Consent and open secrets in data science. *Big Data & Society*, *8*(2). https://doi.org/10.1177/20539517211035673

DEFCONConference (Director). (2016, November 10). *DEF CON 24—Goldfisk, follower—Breaking the Internet of Vibrating Things* [Video recording]. https://www.youtube.com/watch?v=v1d0Xa2njVg

DEFCONConference (Director). (2019, November 19). *DEF CON 27—smea—Adventures In Smart Buttplug Penetration testing* [Video recording]. https://www.youtube.com/watch?v=RnxcPeemHSc

Doe v. PHE Inc. et al. - 24STCV00181. (n.d.). In *ClassAction.org*. Retrieved April 4, 2025, from https://www.classaction.org/media/doe-v-phe-inc-et-al.pdf

Domonoske, C. (2017, March 14). Vibrator Maker To Pay Millions Over Claims It Secretly Tracked Use. *NPR*. Retrieved December 7, 2024, from https://www.npr.org/sections/thetwo-way/2017/03/14/520123490/vibrator-maker-to-pay-millions-over-claims-it-secretly-tracked-use

Federici, S. (2004). *Caliban and the Witch*. Autonomedia.

Frederick, D.A., John, H.K.S., Garcia, J.R. *et al.* Differences in Orgasm Frequency Among Gay, Lesbian, Bisexual, and Heterosexual Men and Women in a U.S. National Sample. *Arch Sex Behav* 47, 273–288 (2018). https://doi.org/10.1007/s10508-017-0939-z

Glynn, S. J. (2018). An Unequal Division of Labor: How Equitable Workplace Policies Would Benefit Working Mothers. In *Center for American Progress*. Retrieved March 21, 2025, from https://www.americanprogress.org/article/unequal-division-labor/

Hanisch, C. (2006). *The Personal Is Political: The Women's Liberation Movement Classic with a New Explanatory Introduction*. Retrieved April 3, 2025, from https://www.carolhanisch.org/CHwritings/PIP.html

Hensel, D. J., von Hippel, C. D., Lapage, C. C., & Perkins, R. H. (2021). Women's techniques for making vaginal penetration more pleasurable: Results from a nationally representative study of adult women in the United States. *PLoS ONE*, *16*(4), 1–16. https://doi.org/10.1371/journal.pone.0249242

Herbenick, D., Reece, M., Sanders, StephanieA., Dodge, B., Ghassemi, A., & Fortenberry, J. D. (2010). Women's Vibrator Use in Sexual Partnerships: Results From a Nationally Representative Survey in the United States. *Journal of Sex & Marital Therapy*, *36*(1), 49–65. https://doi.org/10.1080/00926230903375677

Hern, A. (2016, August 10). Someone made a smart vibrator, so of course it got hacked. *The Guardian*. Retrieved December 7, 2024, from https://www.theguardian.com/technology/2016/aug/10/vibrator-phone-app-we-vibe-4-plus-bluetooth-hack

Hopkins, T. K., & Wallerstein, I. (1986). Commodity Chains in the World-Economy Prior to 1800. *Review (Fernand Braudel Center)*, *10*(1), 157–170. http://www.jstor.org/stable/40241052

Jewett, A. (2024, January 9). *Google, Adam & Eve class action claims companies shared viewing, purchase information*. Top Class Actions. https://topclassactions.com/lawsuit-settlements/privacy/google-adam-eve-class-action-claims-companies-shared-viewing-purchase-information/

Kaisar, M. (2021). Bluetooth Orgasms. *MedieKultur: Journal of Media and Communication Research*, *37*(71), Article 71. https://doi.org/10.7146/mediekultur.v37i71.125253

Olivares, E., Liu, D., & Ltd, D. I. T. (2016, April 30). *US9762515B1 - Interactive online entertainment system and method*. https://patents.google.com/patent/US9762515B1

Osipova, E., Badieijaryani, A., & Spiel, K. (2024). Cyber toy stories: The broken promises and broken parts of interactive sex toys. *Sexualities*, *0*(0). https://doi.org/10.1177/13634607241274983

Rogers, A. (2021, October 22). New sex toy standards let some sensitive details slide. *WIRED*. https://www.wired.com/story/sex-toy-standards/

Search results for: "we connect privacy." (n.d.). https://www.we-vibe.com/us/catalogsearch/result/?q=we+connect+privacy&amnoroute

Sundén, J. (2023). Play, secrecy and consent: Theorizing privacy breaches and sensitive data in the world of networked sex toys. *Sexualities*, *26*(8), 926–940. https://doi.org/10.1177/1363460720957578

Sutton, E. (2023). Pedagogy, politics, and Betty Dodson's liberating masturbation. *Signs*, *49*(2), 311–331. https://doi.org/10.1086/727205

We-Vibe - apps on Google Play. (n.d.). https://play.google.com/store/apps/details?id=com.standardinnovation.weconnect

We-Vibe Privacy Policy. (2025, March 19). We-Vibe. https://www.we-vibe.com/us/privacy-policy

Wilson-Barnao, C., & Collie, N. (2018). The droning of intimacy: Bodies, data, and sensory devices. *Continuum*, *32*(6), 733–744. https://doi.org/10.1080/10304312.2018.1525922

WOW Tech. (2021). We-Vibe (Version 5.47.0) [Mobile application software]. Retrieved from https://play.google.com

Zong, J., & Matias, J. N. (2023). Data Refusal from Below: A Framework for Understanding, Evaluating, and Envisioning Refusal as Design. ACM Journal on Responsible Computing, 1(1), 1–23. https://doi.org/10.1145/3630107