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PORNIFYING THE NETWORK

Abstract

Watching pornography online is a deeply personal, if not secretive act, yet the ease with which a near-infinite supply of adult content is shored up by networks of shared experiences. In fact, the persistent assumption that consuming adult content is a 'closed' experience has largely stunted efforts to reconceptualize online pornography as a "network experience." As Wendy Chun asks, "Why are networked devices described as 'personal,' when they are so chatty and promiscuous?" This article, therefore, attempts to 'pornify the network' by tracing the movement, flows, and processual emergence of networks that have been crucial to the formation and continued proliferation of online pornography. Two case studies are used to illustrate the persistence of this framework: the first theorizes 'edging' in early online pornography, while the second puts into question the politics of the world's largest porn website deploying user data for titillating effect. Theorizing a pornified network ultimately reroutes persistent technological imaginaries of the network through affect, sensation, and the entanglements of desire.

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Watching pornography online is a deeply personal, if not secretive act. Going 'incognito' on our personal devices for privacy, compartmentalizing our porn viewing away from our 'normal' browsing while tapping into a seemingly infinite supply of porn. However, the ease our devices provide today-saving us what would have previously required a trip to an adult movie theater or the back room of the video store-is the result of giving up privacy. In Updating to Remain the Same: Habitual New Media, Wendy Chun asks, if the basic operations of the Internet require "users constantly [downloading] their neighbor's traffic...why did we ever imagine the Internet—which is, at its base, a control protocol-to be an anonymous space of freedom? Why are networked devices described as 'personal,' when they are so chatty and promiscuous?" (x). The steadfastly taboo status of pornography makes us even more inclined to think of our watching pornography online as a secret. However, just as with other online activities, the moment you hit the homepage of your favorite porn site, you agree to share information, clicks, and traffic. With this in mind, the following piece experiments with what I am calling, 'pornifying the network', or, privileging pornography as a unique site of research for understanding the network as "chatty and promiscuous."

Pornifying the network is not about creating a diagram or mapping the use of online pornography. Rather, my goal is to track what Anna Munster terms the "network experience," or the movement, flows, and processual emergence of networks in relation to porn. As Munster argues, instead of visualizing networks and identifying them everywhere, "We need to immerse ourselves in the particularities of network forces" and that, "It is this level of imperceptible flux—of things unforming and forming relationally—that we discover the real experience of networks" (3). Thinking through this "real experience of networks" is what allows us to view the Internet from a different perspective, and for my purposes, analyze the role of online pornography in the experience of the Internet more broadly. In the following article, I utilize the framework of network experience to analyze two case studies set in different periods. The first examines the presence of pornography on Computer Bulletin Board Systems in the late 1970s and early 1980s. The second is the Pornhub Insights Blog, a statistical press vehicle that visualizes data from Pornhub users. With both case studies. I place the research of digital media scholars in conversation with historians and scholars of pornography. Several researchers have made significant contributions to the topic of digital pornography including Susanna Paasonen, Katrien Jacobs, Feona Attwood, and Patrick Keilty, to name a few. However, despite the growing number of scholars studying online pornography, the assumption that consuming adult content is a 'closed' experience has persisted and largely stunted efforts to reconceptualize online pornography as a "network experience" shored up by internet technologies. The central goal of this article is to experiment with pornifying the network. In doing so, I also hope to draw attention to the crucial role of online pornography in defining the material and discursive conditions in which we create, circulate, and consume online content more broadly.

I. BBS and Edging

One reason it is useful to place the concept of network experience alongside online pornography is because of the compelling historical relationship between the early Internet and adult content. Not only did the "threat" of online porn guide mainstream and institutional discourse about the regulation of the Internet, but adult content producers are the originators of numerous technologies that continue to define online experience today (Chun 108-110). From credit card payment systems to advertising, and even video-streaming, online pornographers were some of the first to understand the potential of the Internet as a medium for content creation, delivery, and distribution (Barss 114-116). However, in addition to these historical connections, I also see a more basic link between network experience and porn. The connection draws even closer when Wendy Chun argues for a reframing of networks as "the pulsing of energy and affect" (49). A guiding guery among pornography scholars, in particular, has been to negotiate the representational versus the affective elements of porn: is it something you look at or something you feel? The answer is both, but accurately describing sight versus touch in the analysis of pornography has remained difficult for the field of pornography studies. To expand upon this basic connection, I draw upon the history of Computerized Bulletin Board Systems (BBS) and early computerized pornography. The BBS was difficult to use, and in many ways, a technological failure. The BBS is therefore a good place to begin pornifying the network as it provides a unique glimpse into experiences and feelings that structured the network experience of early online pornography.

In 1978, Chicago was shut down by a blizzard dubbed the "White Hurricane." Trapped inside his house, a young programmer named Ward Christensen decided to create a computerized version of the corkboard his computer hobbyist club used to leave messages for one another (Kushner 33). After two weeks of work, Christensen launched the Computerized Bulletin Board System, or the BBS for short (33). According to journalist Patchen Barss, the BBS was "dead-end technology, ultimately subsumed by the Internet"— due in large part because it was complicated and slow (Barss 79). However, despite this, Barss continues, "[Bulletin Board Systems] were many people's introduction to the online world. And thanks to a robust trade in pornographic images, they drove the market for home computers and modems" (79). It is difficult to confirm the extent to which pornography drove the market for home computers, but we do know that it took less than a year after the invention of the BBS for adult content to begin sweeping across the systems (Kushner 33-35). In the beginning, it was just boards dedicated to "dating." On one board called the French Connection, users would log on and were given the choice of pressing 6 for "Sexual Discussion," 9 for "Guys Locker Room," S for "Swing Scene, and so on" (70). You can picture these boards as early message forums used to discuss sex or arrange hookups in real life. As the 1970s drew to a close, however, it started to become possible to upload, consume, and download pornographic images across a variety of boards, not just the dating kind. Users would upload images in one of two formats: computer images drawn from lines of ASCII text (the American Standard Code of Information Exchange), or scanned pornographic photos uploaded as binary files (44-45). Examining the popularity and nature of pornographic content available on BBSs is an entire project unto itself. However, for this article, I am more interested in thinking about the flourishing of porn despite the technological constraints of the BBS.

Accessing or managing a bulletin board system required a great deal of money, time, patience, and technical expertise. You would need to purchase a personal computer, a modem, a CD-ROM drive, software to run a BBS, and pay for an extra phone line—none of which were particularly affordable (Dewey 23). If you were unfamiliar with computers, you would have to take the extra step of signing up for a distance learning program or a night class at the local college. If you were searching for the proper software or interesting BBSs, it was necessary to send away for guides and directories (23). Moreover, the BBS membership itself could be expensive. The dating board mentioned above. The French Connection, cost \$18 per month in 1979 (Kushner 70). To top it off, when you did finally figure everything out and place a call to the system of your choice, you would often have to wait your turn to dial into the board. Especially in the early days of the technology, boards could only deal with a handful of users at once, which also meant asynchronous communication between users. Writing about the early Internet, Patchen Barss states, "It is virtually inconceivable to us today how slow, unreliable and expensive it was to go online, how much patience it took to make a cantankerous modem do what it was supposed to, how much tweaking and troubleshooting it took for a process that never seemed to go smoothly" (80). Yet, despite this Barss also admits that Bulletin Board systems and these "computer-to-computer connections" were the early flickers of the Internet we have today (79). Comparing the speed with which pornography emerged and multiplied on the BBS with the patience it took to access the system, I am led to thinking more closely about how the affect of waiting in combination with that of porn was inscribed upon early network operations. In particular, the practice and concept of edges and edging.

To explore further what I mean, I refer to Anna Munster's book, *The Aesthesia of Networks: Conjunctive Experience in Art and Technology*. In the first chapter, Munster analyzes Paul Baran's often-cited diagram of a distributed communication network, exploring its origins. Munster argues, following World War II and the ongoing Cold War, "The map of distributed communications materializes cybernetic military design-a network of proximate modules for withstanding attack" or in other words, the diagram was a representation of the American attitude, "don't get too close to your close or distant neighbors" (22). This origin point, Munster argues, has continued to influence our representation of networks from maps of server connectivity to "associations between users in social media networks," we imagine networks as "smoothly operable interconnectivity" (21). As an alternative, Munster argues that packet switching or the grouping and transmission of data through whatever route the network deems optimum is perhaps a better lens through which to imagine networks (22). If you take the example of packet switching then instead of smooth interconnectivity, the network is more accurately described through the image of a queue, the act of swarming, and the experience of waiting (20). To demonstrate this Munster cites the example of peer-to-peer (P2P) file-sharing: a single user makes a request for a file and waits in line to access it from its central location. Once the user is done waiting and has downloaded the file, they then become a source for the file themselves (31). Munster concludes when you privilege packet switching as the defining characteristic of networks you understand "the experience of networking is somewhere else" (31). Networks are instead defined by the processual emergence of links that are constantly forming relations and creating edges. Or, in the words of Wendy Chun, "'liveness' defines networks. Networks drawn from communication systems, presume flow between nodes so that networks are 'alive'"(48).

With Munster and Chun's arguments in mind, I want to reimagine the experience of the Bulletin Board System through the concept of edging. Picture the BBS user who has just spent a large sum of money on an IBM PC, a modem, a second telephone line, and specialized software-perhaps they are constantly running up the phone bill. They have purchased and consulted numerous BBS guides, reading between lines, or asking friends for recommendations of what boards to dial in to. They try numerous boards, sift through content, and eventually find a file they desire. Imagine them sitting in front of a computer screen and watching as a binary file slowly loads-reassembling bit-by-bit to reveal the image they sought out. As the software assembles the file, the hobbyist doesn't know what to expect or when the image will be complete. Undoubtedly, they would sit there, waiting, yearning, and edging. The literal definition of edging refers to the practice of bringing oneself to the brink of sexual climax and stopping-this is typically done repeatedly to increase the intensity of the sexual experience. Munster uses the concept of the 'edge' to imagine how links and nodes are always in motion and constantly emerging. I suggest that in addition to the act of waiting, desiring is also a driving force for the constant emergence of edges. The BBS is a foundational moment in the trajectory of porn. By reframing it through the experience of edging we come to a better understanding of how eroticism is inscribed within the network— this is pornifying the network.

II. The Insights Blog

If we began to pornify the network by reframing the Bulletin Board System through the delicious experience of waiting for an image to load, then the Pornhub Insights blog represents the fracturing of that process. The Insights blog is symptomatic of a network experience that rejects waiting and edging. Instead, the blog argues that the experience of online pornography should, instead, revolve around the production of big data. Briefly, The Insights blog is the data-reporting PR arm of Pornhub: the most well-known site in online pornography, which is run by MindGeek, its little-known parent company and the corporation largely responsible for the proliferation of free pornography websites over the last decade. Since the launch of its first tube porn site in 2008, MindGeek has rapidly acquired most of its competitors and honed the model of video-sharing pornography platforms. The Insights blog is one of MindGeek's numerous public relations strategies for shaping the perception of their business. It is intended to be a fun and humorous engine of viral content for mainstream media outlets and social media. Each month, MindGeek utilizes the data collected from millions of Pornhub users to visualize correlations between trends in popular pornographic search terms with current events, holidays, or topics such as sex, gender, nationality, and entertainment culture. In the following section, I focus on one blog post published in 2019 entitled, "The 2019 Year in Review." More precisely, I move past the facile aspects of Insights and explore the implications of visualizing pornography.

Each year, the blog publishes a post summarizing trends on Pornhub for the entire year. The introduction to the 2019 version reads, "you already know 2019 was a juicy year-jam-packed with celebrities, happenings, and events that influenced how people utilized and enjoyed Pornhub. Below, you will find data that Pornhub's trusty statisticians have compiled for you, colorful charts to help you visualize this Year in Review, and commentary to help make sense of the wild world of tech, adult entertainment, and everything." First, the blog spins porn as a readable topic of general interest-it employs jokes, innuendo ("juicy" and "jam-packed"), and "colorful charts," to frame itself as a fun, slightly naughty, and humorous experience. We do not typically connect the word "fun" with data visualizations as they are often considered rigorous tools of knowledge production. Funny and bright data visualizations are more likely to become viral, but the upbeat language and fun visualizations become important when placed in comparison with pornhub.com. The Pornhub interface is purposely designed to be chaotic, it is overstimulating and difficult to navigate in order to retain users on the website (Keilty). The longer a user stays engaged, the more likely they are to create advertising revenue and the more data can be collected about their habits. Insights frames itself as the opposite experience to distract from critical questions about where the data comes from and how it's being assessed.[1] And, it is successful in these efforts, month-after-month various online publications repost the visualizations, encouraging their audiences to laugh at how the top search term in most republican states is, according to Pornhub "stepsister," for example. Second, the Year in Review's introduction also draws connections between world events and how people watch pornography. The terms Pornhub uses to categorize pornographic content, and the types of search terms that are often trending, are related to sexual acts, desires, and identity formation; terms such as 'lesbian,' 'threesome,' 'Amateur,' and so on. However, the introduction to the 2019 Year in Review assumes a broader relationship between the outside world and pornography. Asserting that instead of searching for 'lesbian' pornography because you desire to watch two women have sex, your proclivity for lesbian content might be linked to a news event, a celebrity, or even your nationality. I don't disagree that the consumption of pornography and desire are woven into the broad fabric of the mainstream, but it is important to pay attention to how and why MindGeek is creating these connections.

To analyze the above point in more depth, it is useful to analyze the image of one of the data visualizations. The 2019 Year in Review covers many topics, including 'Top Searches & Pornstars,' 'Gender Demographics,' 'Age Demographics,' 'Devices & Technology,' 'Top 20 Countries in Depth,' and more. Yet, I always take the most time looking over their use of thematic maps. A data visualization titled "The World's Most Viewed Categories," a world map of the most popular pornography categories across the globe (figure 1).

On the map, muted pink blankets the American Continent as the word 'Lesbian' categorizes users from these regions. All of Russia is bathed in a cornflower blue correlated to the subgenre 'Hentai.' Conversely, the vast majority of the African continent is filled in with a lilac hue representing the search term, 'Ebony.'[2] The map is an absurd experience as it invites you to redraw the world in the image of pornography-entire countries glued to their computer screens browsing through Pornhub and its people collectively sharing in the pleasure of consuming the same kind of adult content. The visualization makes sweeping generalizations and it is a clear example of statistical bias. Yet at the same time, the influential symbol of the map in combination with the promise of data visualization leaves the viewer wondering if the information on the map might be correct. Of course, answering this question is, in large part, impossible, not least because there is very little known about how Pornhub, and its parent company MindGeek, source this data. Moreover, similar to their use of humor and colorful images, the cognitive link the map suggests between nations and pornographic search terms is largely a distraction. For my purposes, questioning the veracity of the visualizations is far less vital than analyzing the discourses this map seeks to support and regularize.

2019 Year in Review

Porn hub

The World's Most Viewed Categories

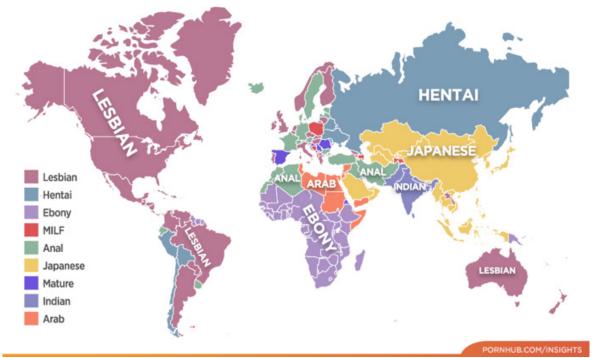


Figure 1. "The World's Most Viewed Categories" included in "2019 Year in Review," *Pornhub Insights* Blog, 11 Dec, 2019; https://www.pornhub.com/ insights/2019-year-in-review.

In the introduction to this section, I argued the Insights Blogs disrupts the model of the network and edging. To expand, Insights promises readers and viewers unprecedented access to the global scale of pornography consumption-using charts, graphs, and maps to imagine the users of Pornhub as a worldwide network. The implicit assumption about mapping pornography is that it is possible to collect, archive, and represent the affective encounters between pornography and people on a global scale. However, as the analysis of the Bulletin Board demonstrated, images of online pornography networks are incapable of representing the affective encounters between online pornography and people when the links and nodes

of the pornified network are constantly in a state of becoming. Or, as Anna Munster states, "What we have lost in the model of the network delivered to us via the image and theory of the graph is the experience of the edges, the experience of relation" (31). The "experience of relation" is not evident on the Insights blog. Instead, the blog is evidence of the extent to which neoliberalism has penetrated the technological imaginary of the network. The Pornhub user, like the BBS user, still waits; they edge as they browse through personalized recommended content and/or enter search term after search term. The difference is that masturbation is no longer the driving force of edging, instead, edging has become an engine for data production. Wendy Chun echoes this process in her argument that, "By rendering the world into nodes and edges, networks both embody neoliberalism's vision of individuals as collectively dissolving society and foster analysis that integrate action/tics into shareable trends/habits" (39). Chun continues by stating that although networks promise to map individuals in relation to others, they often obfuscate instead of empowering. The network image has been, instead, "used to preempt disruption and make users more predictable. Network maps inert the dynamic system they trace" (Chun 40). The Insights blog produces maps of the pornified network to assert MindGeek's control over its users' habits, employing the assumed objectivity of data visualization to erase any trace of the network experience. Imagine the Pornhub user reaching the homepage of the Insights Blog and eagerly scanning "The 2019 Year in Review." They have spent the year browsing through Pornhub, perhaps hiding in the bathroom at work or laying in their bed late at night; they more than likely entered hundreds if not thousands of search terms, opening video after video, deferring the possibility of pleasure. Yet, when the user looks at "The World's Most Viewed Categories" these actions are nowhere to be found. The map promises to visualize the globe but in doing so erases the possibility of understanding the affect comprising the pornified network.

was to unearth the presence of edging amidst MindGeek's attempts to map pornography and transmute its users into an abundance of data. The pornified network is not: 'networks: the naughty version.' Instead, the pornified network refers to the potential for the pornographic to reroute persistent technological imaginaries of the network through affect, sensation, and the entanglements of desire. In particular, to question fixed diagrams and maps that imagine the network as an enclosed web. However, my goal was not just to use online pornography as an example of how networks are innately "promiscuous" (Chun x). More than that, I have been striving to suggest that, at the core of the network, there is something innately pornographic. This is demonstrated first through the role of pornography in expanding the Internet and second through a series of affectual processes that the network and pornography share; waiting, searching, and edging. As Wendy Chun argues, "networks are about edging: pulsations that frustrate neat separations and create sticky connections between the molecular and molar" (49). There is something to be gleaned about the network through its pornification, so to speak. At the very least, confirmation that the network is not only 'alive' as Wendy Chun states, but also laden with desire.

Conclusion

In the first section of this article, I reconceptualized the network experience through pornography on Computerized Bulletin Board Systems. The goal of this analysis was to reframe Anna Munster and Wendy Chun's exploration of network edges to include 'edging' within the network imaginary. The second part of the paper analyzed the Pornhub Insights Blog to reveal the intersections between neoliberalism and the network within a pornographic context. Here, the aim

Notes

[1] The Pornhub Insights blog has always maintained that it does infringe upon the privacy of its registered users. Instead, the blog claims to partner with Google Analytics to source data such as the IP address, age, gender, and preferred device. However, even if this were true, it does not prevent MindGeek from collecting, utilizing, and/or selling the data of its users.

[2] When users reach Pornhub.com they have the choice of looking for content in several ways, namely by using search terms or browsing through numerous preset categories of pornography. Many of the categories are labels that have been used to describe adult film for decades, such as, "BBW" and "Lesbian," while other categories detail specific sexual acts and still others direct viewers toward certain nationalities and languages.

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