Genevieve Costello
University of Amsterdam, Amsterdam School for Cultural Analysis
Research MA Thesis: *Becoming-user* in the Wake of Planetary-Scale Computation
31 July 2016

4.0 *Becoming-user: Home* and Life-Making

Herndon, *Home*

Introduction

I continue to question what it is to become-user in the Stack by way of close reading of Holly Herndon's music video *Home*.[1] Where *Pig Simulator* is a scene of planetary-scale computation's ontological reorientation away from human-subject-User and world-maker to *becoming*-user as interoperable computational-entity; *Home* frames the confused computational territories of traditional governance institutions (like state and economic) and *becoming*-user of cloud platforms. *Pig Simulator* questions what and how entities may operate within a non-orchestrated world (i.e. its nonnarrative). It creates worldlessness as method to for non-mastery and opens the potential for emergence between entities as a way to be in the post-anthropocene. Alternatively, *Home* poses the binds of *becoming-user* within the existing institutional, life-making frames. That is, the shift away from life-as-constituting institutional subject to data-producing computational-agent. In this chapter, I lightly engage with theorist Lauren Berlant's concepts of crisis ordinary and impasse to reinforce important

---

[1] *Home* is available here: https://www.youtube.com/watch?v=I_3mCDJ_iWc.

points of my analysis of *Home* as a case of becoming-user in the concept and design of

Bratton's The Stack.[2]

 In conjunction with the music video, experimental electronic musician Herndon's

song *Home* was first released online as a single by Brooklyn-based independent record label

RVNG Intl. in September 2014.[3] The 6 minutes and 14 seconds-long video was directed and

designed by Amsterdam-based studio, Metahaven. The song has since been included as part

of Herndon's album *PLATFORM* in May 2015. In *Home*, Herndon directly addresses the

NSA's betrayal to her as a citizen by illegally collecting citizen's (beyond) data, exposed

most clearly by Edward Snowden's NSA revelations.

 I begin by explaining my theoretical orientation and what I find the video to open

through my analysis. Then, I provide an overview of watching the video, and continue close

reading the video's aesthetics throughout the essay. I address the visual metaphors and

semiotics of the shadow figure and camera, the NSA data rain, lyrics/subtitles, and word box

as situating that home is no longer a material, singular site. Rather, I treat them as an

occurrence by multiple entities, across material and immaterial positions. I then suggest that

these elements orient Herndon in a 2D frame. This represents the development of a new and

unknown value of citizen's lives through the datafication of movements, which results in the

multiplication of identity. I examine how Herndon uses her datafication to create the textured

sounds and spatial orientation of *Home*. I propose that the displacement of the preconceived

notion of home serves as a creative force for Herndon, exemplified by the affectsphere of the

video's auditory and visual spatial juxtaposition. Through this materializing of her global,

digital movements, Herndon creates a unique locality of her personal user behaviors, the site

of usership (cross platform, her home). Finally, *Home* acts as a charged pathway within the

---

[2] Because *Home* is not concerned with worldlessness, and Herndon is the user-entity becoming-user feels more appropriate than *becoming-user* and will use each accordingly.

[3] RVNG Intl. "…[deals] with forward-reaching artists sometimes categorized as electronic, avant, free, fried, fucked, etc." More about the record label may be found on their website, http://igetrvng.com/info/.

contemporary repositioning of the discourse of home and tangles of citizenship and *becoming*-user.

Theoretical Framework

For Bratton, "…the troubling surveillance armatures associated with the National Security Agency…" is signifies the movement of the state into the cloud (120). He argues this is not the reduction of state to a cloud platform, nor vice versa to cloud platforms enacting typically state responsibilities. Rather, "The state's own pressing redefinition takes place in relation to network geographies that it can neither contain nor be contained by" (Bratton, *The Stack SS*, 142). I propose that these "network geographies" take shape by planetary-scale computation and within cyberspace. Consider again the U.S. Strategic Command's quick redefinition of "cyberspace" to a capture it as a critical infrastructure of global scale and a site rather than merely being described by the use of electronics. The state is embedded within cyberspace, reliant upon it, and a determinant of it. And, cyberspace as a realm is at once a site in its temporal and spatial enwrapping of the planet, as well as constitutionally redefining being and life-determining frameworks within it. This is by turning the world into information and the site of its access, governance, and organization [design-as-infrastructure] inciting "new" geopolitics. Or rather, something different.

Bratton continues,

As cloud-based computing platforms of various scales and complexities come to absorb more and more social and economic media, and do so on a planetary scale, the threads linking one data object to one jurisdiction bound to one geographic location become that much more unraveled (Bratton, *The Stack SS*, 114).

He states that in "follow[ing] those threads," the state transforms into something else (Bratton, *The Stack SS*, 114). As such, what the state provides, secures, is accountable for, as the previous primary life-securing institution, also transforms. This should be considered from many perspectives. Two of which *Home* deals with are how the citizen becomes datafied, in troubling and illegal methodology. And how the datafied citizen transforms into a

more complicated subjectivity (for more on data collection see David Lyon, Gary Marx, and José van Dijk). For Bratton, this might mean mediating across the layers of posthuman as composite-user citizen, economic subject, and platform user, and all combinations, scales, and weights of these- whether complimentary, in contest, or indifferent.[4]

In Herndon's efforts to address the growing pains of this manifestation, she presents the blurred lines of life-making entities (nation-state, economic, cloud platforms via her computer). And both of their and their subjects' outmoded structures for their formulation, jurisdiction, and expectations for life-making extensions through platforms, manifest in the Stack's formation (Bratton, *The Stack SS*). That is, in the dual development of states and economic entities taking form and layered jurisdiction within cyberspace, and the resulting possible datafication of their citizen/economic subjects; comes their relationship troubles of and in this new and yet articulated on presumptions, territory of cyberspace. In this video, the specific misuse at hand is internet surveillance. And, its resulting effects on bio-and geopolitics, materially-oriented designations that no are no longer sufficient by the immaterial, infrastructural, and ontological, turn.

This morphosis of geopolitical institutions by planetary-scale computation is key to Bratton's interest in charting the verticalization of governance. He describes part of this relationship in his definition of "machine as state,"

> The Stack is less a new medium of governance than it is a form of governance in and of itself, less the machine *of* the state than the machine *as* the state. Its agglomeration of computing machines into platform systems not only reflects, manages, and enforces forms of sovereignty; it also generates them in the first place. States and nonstate platforms compete directly not only over the generation of Stack geographies but also for dominion over those spaces once they are mapped (*The Stack SS*, 373).

---

[4] For example, Bratton states that the *"Cloud Polis* in which multiple *User* identities compete, conflict, and overlay without also congealing into a tidy individual *User* citizen-subject. That is, the superimposition of dissensual sovereignties applies to the people as well" (Bratton, *The Stack SS,* 115). And, "The fabrication of the self becomes the primary project of this platform, at least for the *User,* but in time, this general model could take many different forms, as subjectivity and agency are dispersed into nonlocal networks and assignments" (Bratton, *The Stack SS,* 126).

This understanding makes sense with the NSA's redefining of cyberspace as described in my introduction, emphasizing it as a critical infrastructure and territory for the functioning of global powers. Through *Home* emerge the effects of this morphosis within citizen-economic- and platform-User subjects.

I suggest that the video space is a metaphor for the home as sites traditionally accountable for life-making and their infrastructures within cyberspace congeal (nation-state, platforms, corporations, bots…). Herndon uses experimental methods of making electronic music on her laptop to use the content of their betrayal, the data she produces, as the content for her sounds. I find that the content of these textures and fragments made by Herndon using techniques that allow her to literally "…sample her daily digital life, from browsing the Internet and YouTube to using Skype and other applications…"(boomkat.com). And, they create an aural-spatial framing of the ongoing occurrence of the contemporary home. Within this metaphor, Herndon shifts herself from a passive and knowingly betrayed citizen to a user with specific and self-determined force: a site for user agency. The video makes a necessary repositioning of the concepts of personal privacy and state surveillance for these movements. In doing so, it frames a *becoming*-computational-self, data-producing user. *Home* grapples with the traces of this contemporary stage of geopolitics and future of relational politics of the user, not subject, of platforms.

Herndon questions a narrative of life-making as citizen-subject and economic-subject (as both consumer and producer). Instead of reacting solely from a position of outmoded concepts of citizen to nation, consumer-producer subject to economic forces, she finds an agency in the vertical, immaterial shifts of sovereign geographies and subject constitutions. This is not a subversion of the current geopolitical system, but a political action of making-a-local-self as an ongoing becoming from the content of the Deleuzian dividual. And, it is the legitimizing the multiplication of herself within it. This presents Herndon's site of becoming-

user as an affectsphere of her own devices simultaneous to continuing to serve as data-turned-information for unknown use by the state. This is a forceful shift of embodiment that signifies a resituating of the intimate self intertwined with, by, and through our technological relations, and relations made possible by technology.

The Video

Herndon, *Home*

The music video *Home* conducts an immediate charge through its 2D visual space and its tactile, multidimensional aural space. The layering and filters of textured patterns, coupled with chilling vocals, fragmented and spatially disorienting crashing sounds, and some gentle strobe lighting give the video an unusual visual momentum considering there is little actual movement by the three traditional character-subjects of the video. These are the song's creator, experimental musician Holly Herndon, and a shadowed camera with a blinking light indicating recording, and a shadowed figure operating the camera.

Herndon remains mostly centered, shot waist-up, with her face turned towards viewer. Occasionally she becomes shadowed and stands turned at an angle or backwards, with and without using a smartphone. Sometimes Herndon is partially blocked behind a moving shadow with a recording camera (as indicated by blinking red light on the shape of a mounted

camera). This is her surveillor. We see this shadowed figure multiple times in the video and at the end. Her expression is predominantly flat and maintains this sort of bland expression, a lack of emotion, for most of the video. As she stands she mouths select song lyrics. Some of these lyrics are displayed as subtitles in a black box, with a white outline in the bottom right corner that remains throughout the video. Sometimes larger words from the lyrics appear layered in the center of the frame in color and with digital dimension.

The grey backdrop, and lack of 3-dimensional orientation, underscores this visual flatness. Cut from leaked NSA documents, layered and rain-like moving patterns of NSA program logos and icons, some abstracted, move at different paces. A few variants of these icon layers (in size and shape of negative space, color, and texture) are stationary and act as diffusers. Along with a grey backdrop, these layers spatially orient Herndon. The graphics by Metahaven are highly mediated, like the shaking-out out of a weathered rug of corporate and government graphic presets formed an uncanny valley. Additional visual elements include Herndon's change of shirt (black to white with different buttons done) and hair shifts (from gathered on one side to completely down and messy, with sudden changes back and forth between the two, sometimes arranging it herself). The video closes with the shadowed surveillor standing up and exiting the frame and sounds of running and the runner losing breath.

Herndon breaks her steady facial wall in only a few brief instances: a quarter of the way through she cracks a quick smile, close to the end she oddly elongates her mouth, and at the very end she makes a good amount of uncertain and awkward eye movement. In my initial video viewings these breaks in particular made me feel awkward and confused, possibly because they also felt like little lifeboats in the sea of low-pulse anxiousness the video was inducing in me.

## Local and Global Occurrence of Home

The most immediate visualization in the video is a metaphoric power structure: we watch a shadowed figure, a spectator, setting up a camera that not only sees but also records and knows Herndon. This visual staging occurs alongside the initial lyrics, which we hear as well as see within the word box: "I CAN FEEL YOU IN MY ROOM…WHY WAS I ASSIGNED TO YOU." Simultaneously, large, heavily geometric, multi-colored, and layered sans serif letters enter the frame. Some are cut in half and vary in opacity. They overlay each other in the middle of the recorded content, where "HOME" is at first only partially decipherable but then the layers fade completely except for the cut-off spelling of "HOME."

This indicates the playing field of the video as a metaphor of the contemporary home, whose walls are the compilation of technological platforms at the intersecting site of a surveilled User and a surveillor. As David Lyon argues in his book *Surveillance after Snowden*, big data is oft argued to be in service for the security of citizens. But, he goes on that in practice its actors become increasingly invisible and unaccountable as its subjects become increasingly exposed. And, that data collection and platforms and methods are indeed not neutral. The relationship of surveillance and reorientation of being within it are crucial for understanding the how home, meaning a social-political-personal life, may be constructed within an immaterial and materially chartered world. As cyberspace increasingly grows as the site of life-making, determinants of home, and its governance and therefore accountability is confused, how does the immaterial citizen-subject understand their current and future positions? In particular when the citizen-economic-user subject is at once locally and globally situated beyond their knowledge.

For example, while Herndon travels across continents regularly for her work. As being merely present in a physical location, as well relying on life-making platforms (such as Google, Facebook), she has an data-identity (though this is not necessary to be a

computational entity via GPS as I described in the first chapter). Considering the combined

developments of globalization, mass immigration, and electronic media, what makes a

locality is "…now primarily relational and contextual rather than scalar or spatial," argues

anthropologist Arjun Appadurai in *The Production of Locality* (178). As such, Herndon

represents Appadurai's local-global co-constitution.

Affective Proximity between the Immaterial – Material
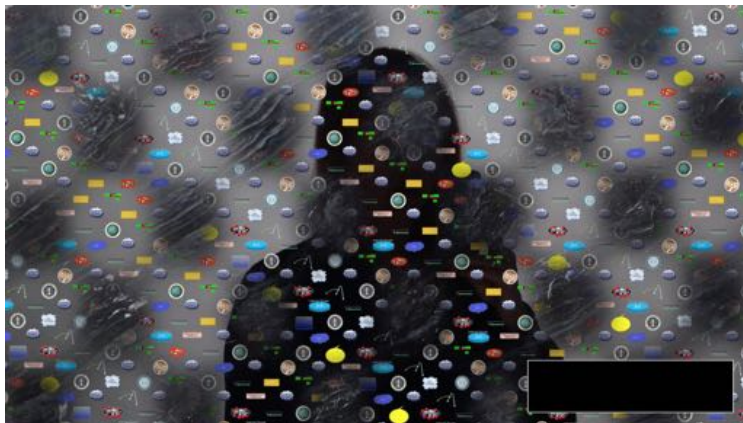
Herndon, *Home*

In addition to relying heavily on her laptop for composing, her laptop enables her

world. The laptop makes a personal and physical interface for Herndon. It is the uniting site

and material object for her relational and contextual locality, developed as a user on

platforms. Bratton articulates the extent to which platform infrastructures orchestrate the

user's world:

> …contemporary Cloud platforms are displacing, if not also replacing, traditional core
> functions of states, and demonstrating, for both good and ill, new spatial and temporal
> models of politics and publics. Archaic states drew their authority from the regular
> provision of food. Over the course of modernization, more was added to the intricate
> bargains of Leviathan: energy, infrastructure, legal identity and standing, objective
> and comprehensive maps, credible currencies, and flag-brand loyalties. Bit by bit,
> each of these and more are now provided by Cloud platforms, not necessarily as
> formal replacements for the state versions but, like Google ID, simply more useful
> and effective for daily life. For these platforms, the terms of participation are not
> mandatory, and because of this, their social contracts are more extractive than
> constitutional (*The Black Stack*).

For Herndon, this digital locality maintains an affective proximity: she states,

"I…[communicate] an intimacy with my laptop. It is my instrument, memory, and window to

most people that I love. It is my Home" (boomkat.com). And, it is specifically a vessel through which she becomes datafied. This object connects her to the extractive relationship in her life-making actions by the platforms of their occurrence and beyond.

By the computer's functional development in objecthood (small, portable, fast, affordable), it is also the object that makes the proliferation of such life-making platforms possible. It is the explicit object that gives access to life-making platforms for communications with family and work, calendars, banking, information for world-defining views, purchases. And, the computer is the mobile material-connection (as object, interface, platform, itself) for Herndon- not only on her end as what enables her life, but from what makes her visible to her life-making institutions (i.e., whatever data is pulled and however it is organized from the surveillance- whether by the state or corporations). The mobile laptop is the material interface to cyberspace and cloud platforms ("When I log in to Gmail, my laptop becomes, for a moment, a peripheral device of that larger Google metamachine spread across the world"), and the immaterial tracing of her life by state, nonstate, platforms alike (Bratton, *The Stack SS,* 118).

Herndon confronts this new dynamic between interfaces, platform, home. She moves her head so the camera no longer blocks her face. She peers out to the spectator and seems to acknowledge and accept by returning to the position directly in front of the shadowed camera. In this position she visually morphs with the surveillance. These motions signal an activated power structure with the shadow figure and camera, signifying the invisible NSA/conglomerates and data collection of an exposed individual in a non-specified location. Against the flat grey backdrop representing the non-place, her home (i.e. her laptop), Herndon seems to settle into her observed position and commences an engagement with her cohabitants.

The Occurrence of Home

The spectator moves in and out of the frame, always returning until their final departure marks the end of the video. This is accompanied by cross-tense lyrics: "I CAN FEEL YOU IN MY ROOM…I KNOW THAT YOU'VE BEEN AROUND…STILL AROUND." There is an acknowledgement of surveillance as a continued practice. Herndon's body continues to morph with the shadow figure and spectator throughout the video and maintains an output of self-exertion as a subject. Herndon recognizes the relationship with her surveillance is an inherently uneven power structure as the shadow is never exposed and Herndon is always seen, including versions of her she is unaware of via her collected data. These unknown Herndon-versions can be read visually in the shots when the shadowed surveillor, camera, and Herndon morph into a single stacked subject.

This ongoing 3-way engagement activates the site of Herndon's home, signifying a shift of *a* home to the *occurrence of* home, manifesting through this inescapable relationship of her data collection. Home was once an achievable grounding associated with a physical and personally owned, intimate and private, site for life-making activities by a citizen in a nation-state of their belonging. Such signifiers of the discourse of home, though, are less and less attainable due to economic collapse and capitalism, and less desired due to generational differences and general ease and access to global mobility.[5] Simultaneous to the economic impact and mobility, "…cloud platforms (Google, Facebook and others) begin to take on more and more services and functions that were previously provided by the state: cartography, currency, legal identity, even leading to brand patriotism, etc., as the cloud platforms begin to take on roles of the state, the states themselves are evolving into cloud-

---

[5] Likewise, the desiring and pursuing of these "traditional" signifiers of home are more and more likely to constitute a relationship of a Berlantian cruel optimism, in which the dream of this kind of home "actively impedes the aim that brings [us] to it initially" (Berlant, 1). This relation of cruel optimism is the social hinge of the economic subject to the marketized state, and the (outdated) dream of home, as representing the constitution to human-citizen-subject life, that plays screw to securing these intimate identities ironically animated and worsened the effects of the recent economic collapse.

platforms" (Bratton, *The Stack and the Post-Human User: an Interview with Benjamin Bratton*). The consolidation of life-making movements and trivialities (from bank accounts to selfies) to 0s and 1s on a few devices (computers, smartphone) abstracts where and how life is constructed, and according to whom. The ease and fast pace of this transition becomes tinted in irony by ever-present "old world" practices and conceptions of life.[6] Coupled with the nation's betrayal of illegally collecting its citizens' data, the nation disavows what constitutes its relationship with its citizens and confuses where accountability lies and between/on what/whom.

Instead, home occurs through immaterial and material intersections by planetary-scale computation turning into a critical global infrastructure. Bratton describes its direct effect on citizenship,

> The assignment claimed by planetary-scale computation is then not only to challenge the state's monopoly on legitimate *citizenships*…the fate of every location, and person and *User*, is overlayered with multiple, asymmetric, and irreconcilable platform allegiances, rights bequeathed and values extracted. That layered patchwork is the result of both the global circulations of "citizens," understood as a mixture of people and things, as well as of the fractured ability of any one imagined community to incorporate the lives of its adherents when it must share space (and *Users*) with multiple simultaneous alternatives (*The Stack SS*, 42).

For Herndon, it is the revelations signifying the state acting in a way not yet "updated" to reflect the state-to-cloud, cloud-to-state turn (nor the state-to-acting-as-cloud-platform in which cognitive labor is traded for use), that inflamed a response for rethinking presumptions of state-security and accountability. She states, "The ongoing NSA revelations have fundamentally changed this relationship [between her and her computer as her home]. I entrusted so much in my device. To learn this intimacy had been compromised felt like a grand betrayal" (hollyherndon.com).

The energy in these early moments does not feel urgent, but rather by acknowledging each entity's presence within the space she considers her home, Herndon legitimizes the

---

[6] Again, I refer the reader to Bratton's Tedx talk *New Perspective's What's Wrong with Ted Talks* available here: https://www.youtube.com/watch?v=Yo5cKRmJaf0.

power dynamic and intersection between herself, the shadowed surveillor, and the camera. Yet, Herndon's engagement denies complacency in the intersection of entities as site and the ongoing tracing(s) of her home.[7] This conceptual turn of home (from material and private and secured by institution[s] to immaterial and exposed and unaccounted for) is integral: it is an affirmation and acceptance of home as a *becoming-by-through*, an occurrence.

This is a veering in ontological orientation in life-making.[8] This shift opens a movement for the betrayed citizen to detach from outdated, nostalgic concepts of identity-privacy-home and purposefully inhabit the very real constitution of geopolitical user-intrinsically-making-site. This is a site of germination of to-be-realized agency that simultaneously holds its full fruition (which I believe Herndon realizes as described in coming sections) as developed agential force in the site as ongoing, relational-contextual locality.

Home as an intersectional site and another form of becoming- computational agent broadcasts an in-between moment comparable to theorist Lauren Berlant's impasse:

> …a stretch of time in which one moves around with a sense that the world is at once intensely present and enigmatic, such that the activity of living demands both a wandering absorptive awareness and hypervigilance that collects material that might help to clarify things, maintain one's sea legs, and coordinate the standard melodramatic crises with those processes that have not yet found their genre of event (Berlant, 4).

What Berlant suggests is the legitimization of affective site within a world in which crisis is, and for the foreseeable future will, remain ordinary. My use of crisis ordinary here is meant to highlight the displacement of accountability between the citizen-subject to their nation. And, how that effects where to place one's constitution in the present moment and the future. As "…practical norms of privacy and participation are worked out by both everyday habit

---

[7] In the Cloud Layer chapter in *The Stack SS* Bratton discusses the various ways in which utilities may likely be increasingly connected to this datafication, considering Google Energy, Nest: see the chapter for more.
[8] This becoming as emergence have many references including to Deleuze and Guattari as Pig Simulator Chapter references, or intra-activity by Karen Barad, among others. The basic idea is that it is an emergence, is not a dichotomy.

and deliberate predation…the *Cloud* absorbs assignments of sovereign identification. Data centers and large switches also continue to operate under some normal authority, such that each Westphalian state claims (contested) rights over data within its geographic loop (Bratton, *The Stack SS,* 122-3). The datafiction of citizen-subjects, and their material and immaterial locals, cross biopolitical and geopolitical conceptions. And, the future lies only within them, as cyberspace, or us and surroundings as information. This information constitutes the location of cyberspace as the territory for the future (in the end of material territory to impose upon).

For Berlant, these moments of "suspended animation" are legitimized by, even in their very far removal from and harmful effects of, the idea of a certain kind of (stable) life promised to them by their world-making entities (their country and society). For citizen-economic subject as computational user, this idea is the promise of something better, a "good life," that lies in the imagined potential future, even as a remembered past. In the wake of planetary-scale computation where future collapses upon us, rather of a site ahead of us, there is the loss in a distinct promise (even if a false one) to make a relationship with. The structures in which accountability for securing life are confused and based in outmoded relational contracts, which keeps open a large gap in which "big data" can still be defended at large as a security mechanism rather than a biased life-mining utility.

Affectsphere from Self-Data as Creative Force

Herndon calls out this gap, and while she remains within its ambiguity without an imaginable even if removed future or image of a "good life" for which to hope. But, she makes a unique step into herself as user from her own constitution by her way of using her data as sound. Herndon captures the sounds of her intimate and quotidian moments and movements, such as checking email or updating a calendar, browsing YouTube or downloading music, Skyping others, through a range of techniques and collaborations. She

makes her own patches from her Internet browser and uses induction microphones that pick up the laptop's output signals.[9,10] In juxtaposition to the 2D framework of exploitative power structure, the soundscape of *Home* has a particularly spatial quality, to the extent that the sounds feel like they create a room—a space with walls and floors that contains a person and things, quite unlike the flat visual frame of Herndon against an unmarked background.

Throughout the song you can hear things that sound like skinny sticks and weighted objects clacking, hitting, crashing; tapping balls on the ground, the bass bouncing off walls and her voice echoing off of them; feet and/or other objects rolling across the floor from one side, gathering, and then rolling back to the other side; a different kind of more clacking-running, then sneaker running, at various paces and weight of foot. Her vocals skip, are clipped and cut off, in a way that seem to stop right in front of each other like opposing sides of magnets, creating walled-moments, and the range in pitches seem to come from different sides and corners of the space. At 3:20 there is tape being pulled out and stretched, more extreme glass breaking, balls rolling, objects rustling, lasers being shot, like someone is breaking in. Herndon distorts her breath so that it feels like it's pulling back, gasping, retreating in a vacuumed space. At 5:10 is another extreme gathering of sounds, and towards the end at about 5:40, *Home* retreats to a more minimal moment, to just an empty room with someone running try to escape, gasping for breath.

The spaces and textures of Herndon's work are crucial because they indicate a materiality and spatiality that maintain the link between the physical and immaterial self. The is part of the core of what is so confusing in the how to deal with the computational turn, the post-anthropocene, the datafication of the self and cyberspace as immaterial site of the future;

---

[9] Herndon builds this aural framework from the re-materialization of her data, a sort of boomerang effect to Friedrich Kittler's assertion that "Inside the computers themselves everything becomes a number: quantity without images, sound, or voice. And once optical fiber networks turn formerly distinct data flows into standardized series of digitized numbers, any medium can be translated into any other" (Kittler, 1-2).

[10] Clips of Herndon using induction microphones that pick up the laptop's outputting signals can be seen in a Pitchfork video here http://pitchfork.com/tv/11-pitchfork-weekly/600-holly-herndon-defends-laptop-musicians/. Skip to 3:00 to hear her explain and execute this particular process.

and existing domain of semi-chartered territories by inappropriately determined (that is determined from modernity/coloniality materially-oriented modes of governance).

In becoming a simultaneous local-global user, human subjects' turned user-entities take on a co-constituting yet not directly correlating immaterial-material selves. As well as with the objects and other user-entities that help make this connection (for example, Herndon's laptop). Herndon's juxtaposed textures visually and aurally reinforce the affect, the bodily charge, as fundamental component in the computational-entity turn. It reinforces the necessary adjustment to the transformations of these charges into reactions within spheres of their manifesting. Again, this is instead of bringing privacy expectations defined in an era in which cyberspace as a critical infrastructure, site, and life-making arena did not exist.

I suggest that Herndon's technique of self-data collection and the turning of this data into audible materiality (and a textural basis of her creative career and livelihood) makes possible a language between entities, and the differently constituted multiplications of herself. The richly textured aural architecture of *Home* is a moment of reflexivity and employment of affect to incite embodiment with our datafication. It is an easing into the acceptance of multiplication of the self (through our data production). And, into recognizing the self as an ongoing *becoming-through-by* the immateriality that is connected to one's discrete agency as much as the agency of the other entities that also interact with it (think Herndon, her data self, the platforms in which the dataself is enacted within). This is the interoperability intrinsic to a user-entity and platform as constituents of life-making and intrinsic to planetary-scale computational infrastructures.[11]

While this song is considered one of her more traditional pop-informed tracks, *Home* is not likely to be felt as conventional. It has an impact of anxiousness through its aural physicality, particularly in the juxtaposed 2D video space. The materiality and spatiality of

---

[11] While for a different essay, it could be interesting to consider interoperability of agents with Karen Barad's concept of "intra-activity."

Herndon's music is a topic in her interviews. She states that she does indeed approach sound

sculpturally and architecturally, in which she conceives of sounds moving across space

visually. Herndon describes shaping sounds to go to a certain spot then move elsewhere and

then bubble up somewhere, as well as considering the actual sound waves in space, how it

will act in a room and hit your ear (Pitchfork, *Holly Herndon Defends Laptop Musicians*). It

is through the combination of this approach with Herndon's self-capturing of her home-

movements as data turned self-defined information, as well as her instrument literally

embodying those movements, that *Home* creates an affectsphere of her own (intersectional)

agency.

Herndon's exposure of the breach of trust between the state turning to cloud platform

reinforces that

> Alternatives must start with an understanding that there is not one "Panopticon" but
> multiple platforms and interfacial regimes competing for line-of-sight advantages
> over one another. Some technologies of panoptic information are public-facing and
> largely out in the open, while others hide their existence, and each provides a different
> but "compete" view of the world (Bratton, *Machine Vision*).

While making her own local alternative and affective language in which to situate

herself, Herndon materializes and legitimizes herself, without a space or site in which to

place hopeful expectations. In this way, the gap and ambiguity is a double bind-necessary to

keep engaged multiple ways of being. While, though, becoming-user-entity stays within a

relationship in which exploitation and accountability may remain displaced.

Her use of data as creative force, manifest in viewing the video through its charge,

reaffirms that her immaterial self is very much connected to herself as a specific material

entity. While the future and political structures remain unsubstantiated, she begins to bridge

the ontological opening for the political subject through the posthuman affirmation of

subjectivity via her data production and reorientation of home. This is through her computer

as the vessel for life-making. Herndon creates a form of *becoming*-user as a self-substantiated, creative, subjectivity as her register.

For *Home,* crisis ordinary is this hazy storm of displaced accountability and material and social identity-hood. Home has become a site of unknown information production: the citizen shares their personal movements with and without consent. Bratton calls this "…the inverse panopticon effect[:] when you know you are being watched but act as if you aren't. This is today's surveillance culture: exhibitionism in bad faith" (*The Black Stack*). The combination of (citizen) user, (citizen) user actions, and the collection of these actions as data by an unknown surveillor constitute the *occurrence of* contemporary home, at the site of Herndon-as-user, felt through and by her computer. The frame Herndon creates from this relationship begins the mental and emotional transformation for the concept of citizen of nation-state to turn to user of (life-making) platforms.[12]

NSA Data Rain and Datafication

Herndon, *Home*

The song shifts at 00:22 towards a materialized rain-crashing-objects-sound. There are the sounds of breathing, desperate, elongated gasping, and feet running in an empty room. Layers of NSA symbols shower on top of Herndon. These layers quickly and subtly deepen alongside blown-out strobe lighting and auditory hits of deep bass, obstructing Herndon's

---

[12] "This new breed of masters is none other than the corporation: an entity which now has a global reach and achieves a planetary colonisation, turning the world into a giant market. The corporation is the 'soul', as Deleuze would say, of modern control societies. However, what we see is not simply the corporation taking over from the government and displacing its traditional role of service provider, but rather the corporation and the government melding together and becoming indistinguishable. Public/private sector 'partnerships' increasingly manage what were traditionally public services and infrastructure; governments and government institutions today are run like corporations, introducing private sector management techniques and free market mechanisms…" (Saul Newman, 109).

visibility. This commencement of moving symbols feels like a change of scene and brings in

a new charge within this flat and metaphorically intersectional site.

While "…The NSA spying on our network may have been tacitly known from reports

going back as far as 2002… the aesthetics of this surveillance were not so known. Code

names, acronyms, icons and graphics from a shadow world designed to never be publicly

exposed" states Metahaven (hollyherndon.com). Metahaven ripped the icons in the video

from documents leaked by former NSA contractor Edward Snowden in 2013. Snowden's

actions "…brought to light a global surveillance system that cast off many of its historical

restraints after the attacks of Sept. 11, 2001…[and] Secret legal authorities empower[ing] the

NSA to sweep in the telephone, Internet and location records of whole populations"

(Gellman).[13]

The "raining" of exposed-NSA document symbols is the two-dimensional spatial

framework for Herndon. These layers simultaneously signify the exposure of betrayal, like

shaking a lipstick-stained collar at your cheating partner, as well as the branding that gives

Herndon's data value, a value unbeknownst to her. The use of these symbols reiterates

Herndon's call for accountability through the distinct visual entities in the video.

As Herndon is unable to ever know exactly what data is collected, what arrangements

of it (from which variety of platforms, and when, or when not) are made and used, all the

sites of its use, and by whom-what, the value(s) of her intimate movements are unknown to

her. In *The Inhuman*, Lyotard states "Any piece of data becomes useful (exploitable,

operational) once it can be translated into information" (Lyotard, 50). Considering this

information is easily moveable, combinable, and usable for infinite purposes by abstracted

---

[13] These disclosures exposed the NSA collecting information of citizens and global communities, companies, and governments unrelated to national security: i.e., violated privacy rights, payments to private companies for access to communication networks, infiltration of tech giants,' like Google and Yahoo, data centers, and the spying of world leaders (Gellman, Elliot and Rupar). More about these disclosures may be found here: http://en.wikipedia.org/wiki/Edward_Snowden#Global_surveillance_disclosures, http://www.washingtonpost.com/world/national-security/edward-snowden-after-months-of-nsa-revelations-says-his-missions-accomplished/2013/12/23/49fc36de-6c1c-11e3-a523-fe73f0ff6b8d_story.html, and http://www.washingtonpost.com/wp-srv/special/national/nsa-timeline/m/

collectors, only the unknown and shadowed spectator determines some of its value(s) and use(s) at particular points.

In the realm of cyber surveillance, datafication is incredibly troublesome when "…the platforms themselves are presented merely as neutral facilitators…[and data is] considered imprints or symptoms of people's actual behavior or moods" (van Dijk, 199) And when "Big Data practices that implicate corporate bodies and connect directly with everyday practices of ordinary internet and cellphone users" (van Dijk, 199). And further when disparate movements are compiled to build narratives that may not, and should not, exist (think racial profiling for travellers) (van Dijk, 199; Lyon, *Surveillance, Snowden, and Big Data,* 11).[14]

Likewise, Lyon makes a point to question the ethics, and importantly, how these ethics may be drawn, when

> Big Data practices in consumer surveillance are (now literally!) co-travelers with those of state surveillance and together produce the kinds of outcomes around which ethical debates should now revolve…[they] cooperate extensively, the one taking methods from the other, with, as discussed above, potentially pernicious results as the ''successful'' methods in one area are applied in ways deleterious of human rights in another (Lyon, *Surveillance, Snowden, and Big Data,* 11)

The data rain marks the confirmed realization that Herndon's citizen-home is the site for data-turned-potential-information through (unknown) use-value for her government and affiliated corporations. It is the abstraction, exploitation, and multiplication, of the citizen-user. Citizens do not know the use of their data in the near future, nor also its imagining for the modes of further collection and orchestration of the site of cyberspace as future.

If we understand that the future lies within cyberspace, and the method of entering it is organizing, it is important to keep in mind that it is also expanding to a certain extent in the further datafication of the existing world, as a key point in not only its accessibility as existing information but its furthering and its detailing, in addition to its organization (as

---

[14] For more on datafication, life mining, and surveillance see van Dijk, boyd, Weerkamp and De Rijke, and Lyon.

design-as-infrastructure). Bratton explains what he describes as a 'to be expected' situation, in which

> Each platform fights over the ability to identify the "shape of the space" they are fighting over in the first place…Some regimes are State-based and others are non-State based, but for both "governmentality" evolves in relation to what it can *see*, and the advent of planetary-scale computing allows governance (not just govern*ments*) to see and extract value from new flows, namely data…It's simply not possible to understand this overlapping of multiple "panoptic" platforms through a zero-sum heuristic of States and Platforms vs. the Individual. Structural disparities of power in relation to information regimes are *structural* and need to be addressed as such, not one encrypted individual at a time (even as encryption is itself infrastructural) (*Machine Vision*).

As "metadata appear[s] to have become a regular currency for citizens to pay for their [free] communication services and security—a trade-off that has nestled into the comfort zone of most people… on the presumption that they comply with the rules set by publicly accountable agents," we see the "gradual normalization of datafication" (van Dijk, 197-198). Ironically, this dividuation is used as a defense by those surveilling. When Barack Obama defended his administration's policies of mass surveillance…[he said]… that there was "no content, just metadata" involved in the PRISM scheme" (van Dijk, 197-98).

Home's site-as-occurrence of home challenges the too simple divide between abstraction as a backhanded signifier of anonymity and individual data as specific citizen-User. In between this superficial dichotomy is the disembodiment of user-to-data. This is because in its collection, data inherently turns into information and lubricates the language and operations of The Stack as "… a machine that serves as a schema, as much as it is a schema of machines" (Bratton, *The Black Stack*).[15] The legitimization of the data-self is a

---

[15] Despite the shared and problematic practices of states and economic corporations in cohorts, "…this political economy of Platforms is clearly compatible with the contemporary corporate entity, it is also compatible with many other kinds organizational strategies that we have not invented yet. So…[yes, this enables the] promiscuities of State, Market and Platforms: yes, that is quite so…however…Platforms are not reducible to States and Markets, nor vice versa, and yet the key geopolitical intrigue of the coming decades is how each formulates the structures of global society with and in spite of the institutional mechanics of the other" (Bratton, *Machine Vision*).

necessary step as the state and corporate instead make disembodied data within the platforms defining lives.

Multiplication of Self

In the assumption of mass surveillance, the abstraction of identities may be used as a defense. Yet, there is a present-residual affect of the identities of abstraction the citizen-Users must carry because they are inherently being created yet never knowable in their life-making activities. Herndon's multiplication of the self extends what writer and editor of the *The New Inquiry,* Rob Horning, defines as the data self, in which he claims that "…authenticity is shifting, describing not fidelity to an inner truth about the self but fidelity to the self posited by the synthesis of data captured…" (*Google Alert for the Soul*). Horning continues, "we exist only insofar as we are surveilled, and the profile posited by the processing of surveillance data is subsequently the "real" object of inquiry (*Affective privacy and surveillance*).

Horning discusses the individual actor within social media, and thus a more tangible concept of the data self (i.e. compilation of social media profiles). Expanding from this, I find the affect of attachment within a self-positioning to be troubled by *Home* when considering other concepts of identity and data in control society, such as Gilles Deleuze's "dividual." Deleuze states, "The numerical language of control is made of codes that mark access to information, or reject it. We no longer find ourselves dealing with the mass/individual pair. Individuals have become *'dividuals,'* and masses, samples, data, markets, or *'banks'*" (*Postscript on the Societies of Control*). Herndon's *Home* validates the reality of this datafication as multiplication of the self and that she participates in what constitutes her surveilled self, it as an entity of her. The lyrics, "I DON'T KNOW WHICH ME TO BE," "I KNOW THAT YOU KNOW ME BETTER THAN I KNOW ME" complicate the gap(s) in the self-as-data-turned-information-as-platform-language, constantly defining our unique site

(the occurrence of home). This gap is the ongoing felt-disjuncture of the self, a slow motion

scrambling for a stationed position that no longer (or never) exists.

This is an affective-disjuncture multiplication of herself, as it is made through

unwanted terms of relationship of her citizen-Usership at her site of home (on her life-making

platforms). I suggest that this affective-disjuncture multiplication of self is a disembodiment

of the geopolitical subject (when in fact it shouldn't be a disembodiment at all). And, that

makes a kind of double bind. While the NSA serves as a 'classic' geopolitical body, the

conceptual identity of the citizen to this body is split, part of which becomes alien, a phantom

self. This occurs along with the conceptual shift of the NSA as the never-revealed shadow

surveillor as the physical entity, and the NSA symbol rain as the flattened geopolitical

identity.
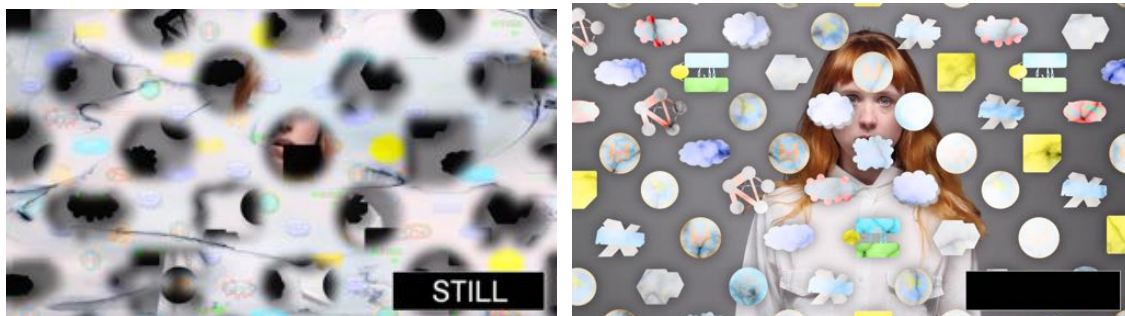
Herndon, *Home*

Herndon's material, and performative self is framed behind both, with the holed-filters

underlining the state and platforms and corporations cohorts' disembodiment of its citizen

(and economic subject). The citizen is qualitatively (conceptually) disembodied from their

geopolitical subjecthood because their geopolitical body (NSA) has created multiples of their

subjects as well as their own constituents (i.e., the never revealed shadow figure is the alien-

multiplication of the geopolitical body, the data rain and symbols of the classic geopolitical

body).[16] This combination of the geopolitical raises the issues of cyberspace being a territory

---

[16] This could be developed further in another essay: to discuss qualitative and quantitative self and or
relationship of surveys and synopticon-based data collection between geopolitical body and subject. Also, the
market priority of quantitative subjects through mass media (good for business = state priority, over qualitative
subject accountability).

and infrastructure. That is, reconstituting material to immaterial, while immaterially a new geopolitical realm.

The video aesthetically frames this schism by keeping visual metaphors of the surveillance and NSA within a 2D framework. The flatness of the 2D space remains in the zone of abstraction and disembodiment, and Herndon bolsters herself from betrayed citizen and metadata'd User into agential-force by scraping her own data (self-surveillance) to make an embodied tangibility from her movements. It is her aural textures and spatiality that create an affectsphere, whose technical construction embracing separation, cutting off, and layering of pieces of data as sound remains true to the working-through of the current messy exhibitionism.

In this affectsphere, I find Herndon authoring a posthuman approach to negotiating the multiplication of the self by the development of planetary scale infrastructures. Posthuman here refers very simply to turn from citizen-subject to computational, datafied-user. Herndon's textures and resulting affectsphere are key in that she intertwines the material and immaterial layers of her subjectivity and life-making movements, conjuring an unreplicable equation of being beyond the traditional biopolitical body but rather amplifying agency to include her multiple, immaterial manifestations. This is a posthuman turn not as concept or discourse, but as de facto. And, without resolution, surfacing an action through the immaterial-material geopolitical confusions between the political body and making, and exploiting, (world) and life-making- made content.[17]

Making an Embodied-Immaterial user

It is important that the lyrics immediately make singular and subjectified, not objectified, identities of Herndon and her spectator. Singular (and local, unique, discrete) is not meant to be literally one thing, but rather a unique site of intersections, becoming by and

---

[17] Citizens have long overlapped as economic subjects to exploit. This also opens up bigger conversations of cognitive capitalism, and an opportunity to discuss the posthuman further as an informational turn, and the future as something to organize. But this is a bigger project for another time!

through surrounding entities. It is a point that may be recognized as a specific entity (multifaceted, compiled, and changing). This action keeps present the affective negotiation of dis/embodiment throughout the video. This singularizing is a direct counter to concepts of her data not being attached to her as a specific, local entity. But rather, she is clumped as "metadata," despite home and her movements being indeed produced by her on her chosen platforms. Accountability between citizen and nation is disembodied in this abstraction and exploitation of Herndon in her illegal data collection. And, the non-dimensional yet comprehendible space between Herndon and the shadowed surveillor takes on this tension of this gap in accountability.

To negotiate this abstraction, Herndon imposes a locality for herself (entity-as-site of intersections) and the same upon the spectator by signifying them as a singular shadow body and within her lyrics of "YOU" and "I," and associating a sensory relation, she can "FEEL" the surveillor's presence.[18] In this action of making-singular, she suggests she and her surveillor both have an authority and a resulting accountability for their actions. Herndon's authority resides in her decisions over her movements and the platforms of their manifestation and crossing (i.e., semi-autonomous determining of the unique site of her home). The spectator's authority resides, most fundamentally but not exclusively, in its presence.

Herndon's flat expression is matter-of-fact and calm, firmly presenting herself to her two audiences (seen and unseen). She does not exude panic or fear. Her blouse and hair changes show that she maintains subtle, private movements despite declaring "I KNOW THAT YOU'VE BEEN AROUND…STILL AROUND. STILL I…" She makes a clear command to her offender that would adjust the power dynamic of their territorialized cohabitation: "I WANT YOU TO SHOW YOUR FACE." These designed moves are the

---

[18] I intertwine a sense of new materialism with Bratton's description of "User" for my concept of accountability and entities as afforded by technology here.

attempt to capture visually what Metahaven finds the track to do: "…[grasp] a balance between vulnerability and control" (Metahaven, hollyherndon.com). It is integral to remember that video viewers (via YouTube, Vimeo, her website, and all of its iterations) are also a part of her unknown audience. She is performing within the realm of what falls into the concept of the synopticon by sociologist Thomas Mathiesen, in which the *many* watch the *few* thanks to mass media like television.

As such, her actions are addressed by and to the surveillance state and surveillance society. In this, her actions directly address surveillance culture as the common culture of users: this acknowledges that "Surveillance is not just practiced *on* us, we participate *in* it" (Lyon, location 255, italics in original). While the constitution surveillor is unknown, her technique of making an entity of them is a brazen demand for expectation of accountability as necessity within this currently inevitable relationship: between entities no matter their matter. She has accountability as a citizen and platform-user to participate in the life-making systems to which she belongs. And, the sites of belonging have accountability for upholding agreed upon terms of relation with their citizens-users.

Through the video's tight aesthetic framework, Herndon stabilizes and legitimizes the contemporary home as a constitution of intersecting entities (platforms, herself, controlling powers of these platforms whether nation-state and/or corporations) and home's manifestation through their interactions (currently involving illegal surveillance). In doing so, she strengthens the impasse through this new territory for revitalized expectations within the scenes of life-making in the posthuman and planetary-scale computational world.

Closing

Herndon openly discusses her dedication to exposing the "humanness" of technology. She states that, "I'm trying … to get at the crux of the intimacy we have with our technology, because so many people really cast it in this light of the laptop being cold…I don't

understand what would be more human…[than] something that was also created by humans, for humans" (Dummy, *Holly Herndon Interview: Computers Compute*). While Herndon references "humanness" as an orientation for understanding technology, I find that her actions suggest something much further. *Home* proposes a focus on her intentions for intimacy and grasping for the possibilities for our relationship with technology beyond the (still) colonized language of operating systems and platforms that we use.

I use the term "colonized" to point towards the few companies producing the language and functions of the globally dominant operating systems and platforms. This extends to nearly all elements related to technology and its extensions (including physical, such as Apple holding the copyright law to the "swipe" and "natural scroll" gestures used by its products' screens/track pads). The global legitimization of citizenship-usership is constituted by a literacy in navigating these interfaces, platforms, operating systems, search engines determined by the exploiting powers as represented by the NSA and conglomerates in *Home*. Herndon challenges this literacy by making unique technological functions outside of and/or splintering to make something new from this language, as a becoming-user instead of assuming Usership. In this action, she appropriates the exploitation of her multiplied self into an embodied site, her own tactility of sound.

Herndon thickens her empowered moves of embodiment by making aural textures from the intersectional site of home by her use and development of sound-making tools, including collaborations. And also does so with her use of the popular applications and platforms that enable communications and reaching audiences. This retains an ongoing tension, reflective of reality as well as retaining the political possibilities for the video's affect. This is visualized throughout the video, as well as self-reflexively in the video as performance shared on popular media sites. This retained tension suggests an authentic stretching and challenging of

the evolving relationship within, between, and through technology as entity, human as entity, nation as entity, and so on.

Each of these entities poses as a potential composite User (an entity), in which, Bratton suggests that the questions "Is there a person behind this machine, [or is this machine human?] and if so, how much?" wane; and "…the postulation of human (or even carbon-based life) as the threshold measure of intelligence and as the qualifying gauge of a political ethics may seem like tasteless vestigial racism, replaced by less anthropocentric frames of reference" (*The Black Stack)*. Where Bratton makes light of relations between oneself and another, I propose that in the project for the "…fortification of the User as geopolitical subject…" is embedded in the questioning of what the disavowed citizen and platform user of *Home* is to do. Herndon's use of her own data as the content and creative force shows the acceptance and taking ownership of the multiplication of the self as *Home* (*The Black Stack)*.

This is the site for a change in discourse of citizenship starting from the redefining how the self is constituted within life-making sites (home). In doing so, it makes the first step conceptually and stakes a claim in its practice in recognizing power structures. That is, calling out a problem, creating a space for interrupting the functional narrative (creating the impasse), marked by the plural, multiple, and composite site thus refusing a binary and extending an ontological reorientation for new subjectivities to enter. And to not suggest dropping out from life (as currently narrated by matrixes of power currently paving computational infrastructural design) but a repositioning within it as on-going emergence between immaterialities and materialities of life-making.

So, to get to the capacity for less anthropocentric frames of reference between life-making interactions, it is necessary to take a less (or non) anthropocentric presumption in understanding what constitutes the self-self/home as intersectional site, self/home as occurrence between-through-by relations with technological entities. In each of the analyzed

elements in this chapter, Herndon creates a stage for herself as the violated yet equally present entity. Finding agency derived from this dynamic and local vantage point, she brings to the fore the multiplication of the self and redefines possible platform frameworks, both as result of and mediated within the emergent Stack. Alternatively, citizens' as data remain as digital shadowed *othering* (by citizens themselves and the nation-state), and perpetuate the colonizing of the language of operating systems, networks, and global infrastructures at large.

Herndon's *becoming*-user is simultaneously unique and globally situated (as an intersection) and is bound to itself as an embodiment (like Peter Pan sewing together his and his shadow's feet). Action from this embodied position provides an ethical calibration within what Bratton suggests is the

> …redefinition of the political subject in relation to the real operations of the User, one that is based…on composing and elevating sites of governance from the immediate, suturing, interfacial material between subjects, in the stitches and the traces and the folds of interaction between bodies and things at a distance, congealing into different networks demanding very different kinds of platform sovereignty (*The Black Stack*).

By analyzing the video's 2D visual elements juxtaposed with the song's aural tactility to unfold this agency. I argued that through *occurrence* of home, multiplication of the self in its datafication, and by making her own language from exploited content on the site of their relations, Herndon pressures the current role of the user and existing yet misaligned narratives of the computational infrastructures. Her use of her own data as way of dealing with the immaterial and material in the form of an affectsphere, reinforces the possible multiplicity of subjectivities, which echoing the expressions of *Pig Simulator*. And, in these actions, Herndon exposes a different frame of what it might *becoming*-user might mean as an emergence of being interoperable entity. That is, not only through other posthuman, post-anthropocene-entities like in *Pig Simulator*. But, being an interoperable and legitimate entity with one's own data production as partial constitution of being in life-making relationships-and the platforms upon which this life-making production manifests.

Herndon exposes the opening for engaging with this emergence by way of planetary-scale computation, and therefore keeping open an ambiguity and multiplicity in her local and global narrative. While this is staged in the current design of the Stack, my analysis of *Home* is meant to contribute to the development of a more adequate language and design for the world-and-life-making structures to come. That is, for their supporting the orientation of user-entity in cyberspace, as current terrain and site of the future.

Bibliography

"The "Anthropocene"" *Global Change Newsletter: The International Geosphere–Biosphere Programme (IGBP): A Study of Global Change of the International Council for Science (ICSU)* 41 (May 2000): 17-18. Print.

Appadurai, Arjun. "The Production of Locality." *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis, MN: U of Minnesota, 1996. N. pag. Print.

Avanessian, Armen, and Suhail Malik. "The Speculative Time-Complex." *Dismagazine*. Dismagazine, 12 Mar. 2016. Web.

Barad, Karen. "Queer Causation and the Ethics of Mattering." *Queering the Non/human*. By Noreen Giffney and Myra J. Hird. Aldershot, Hampshire, England: Ashgate, 2008. N. pag. Print.

Barad, Karen. "Intra-Actions." Interview by Adam Kleinman. *Mousse Magazine* June 2012: 76-81. Print. Issue 34.

Barad, Karen. "Queer Causation and the Ethics of Mattering." *Queering the Non/human*. By Noreen Giffney and Myra J. Hird. Aldershot, Hampshire, England: Ashgate, 2008. N. pag. Print.

Bateson, Gregory. *Steps to an Ecology of Mind; Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. San Francisco: Chandler Pub., 1972. Print.

Beauchemin, Molly. "Holly Herndon: "Home"" *Pitchfork*. Pitchfork Media Inc., 17 Sept. 2014. Web. 9 Oct. 2014.

Berardi Bifo, Franco. "Cognitarian Subjectivation." *e-flux* 20 (2010): n. pag. *e-flux*. e-flux, Nov. 2010. Web. Jan. 2014.

Berlant, Lauren. *Cruel Optimism*. Durham: Duke UP, 2011. Print.

Boomkat. "Holly Herndon - Chorus." *Boomkat*. Boomkat Ltd., Jan. 2014. Web. 9 Oct. 2014.

boyd, danah, and Alice Marwick. *Social Privacy in Networked Publics: Teens'Attitudes,*

    Practices, and Strategies. *Danah.org*. Microsoft Research, 2011. Web.

Boym, Svetlana. "On Diasporic Intimacy." *The Future of Nostalgia*. New York: Basic,

    2001. N. pag. Print.

Braidotti, Rosi. *The Posthuman*. N.p.: n.p., n.d. Print.

Bratton, Benjamin, and Metahaven. "Transmediale 2014 Afterglow Keynote -- The Black

    Stack." Transmediale. Haus Der Kulturen Der Welt, Berlin. 31 Jan. 2014. Web.

    <https://www.youtube.com/watch?v=3c3jXPBG-NY>.

Bratton, Benjamin. "Benjamin Bratton: Geobiopolitics and Planetary-Scale Computation:

    Sensors, Abstractors, Governors." Sonic Acts Festival – The Geologic Imagination.

    Paradiso, Amsterdam. 28 Feb. 2015. Web.

Bratton, Benjamin. "Cloud Polis and Other Integral Accidents." The Center for Design and

    Geopolitics UCSD, San Diego. May 2013. Web.

    <https://www.youtube.com/watch?v=dGZN2QYoRO8>.

Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. N.p.: MIT, n.d. Print.

Bratton, Benjamin. "The Stack and the Post-human User: An Interview with Benjamin

    Bratton." Interview by Klaas Kuitenbrouwer. *Het Nieuwe Instituut*. N.p., 29 Feb.

    2015. Web.

Bratton, Benjamin. "The Black Stack." *E-flux* 53 (2014): n. pag. Mar. 2014. Web.

Bratton, Benjamin. "Machine Vision." Interview by Mike Pepi and Marvin Jordan.

    Dismagazine. Dismagazine, n.d. Web.

Bratton, Benjamin. "New Perspectives: What's Wrong with TED Talks?" TEDxSanDiego

    2013 - Re:Think. San Diego. 30 Dec. 2013. Web.

    <https://www.youtube.com/watch?v=Yo5cKRmJaf0>.

Bratton, Benjamin. "The Politics of Platform Technologies." Brain Bar Budapest. Budapest.

     1 July 2015. Web. <https://www.youtube.com/watch?v=aeWr70c1_mE>.

Bratton, Benjamin. "The Post-Anthropocene." Evening Lectures. European Graduate School,

     Saas-Fee. June 2015. Lecture.

Bratton, Benjamin. "Some Trace Effects of the Post-Anthropocene: On Accelerationist

     Geopolitical Aesthetics." *Eflux* 46 (2013): n. pag. June 2013. Web.

Bratton, Benjamin. "The Stack: Design and Geopolitics in the Age of Planetary-Scale

     Computing." Institute for the Humanities SFU, British Columbia. 9 Nov. 2015. Web.

     <https://www.youtube.com/watch?v=IXan6TvMqgk>.

Brown, Mark. "Nicaraguan Invasion? Blame Google Maps." *Wired*. N.p., Nov. 2010. Web.

Clark, Krissy. "The GPS Fatally Misleading Travel Companion." *NPR*. N.p., 26 July 2011.

     Web.

Clark, N., and K. Yusoff. "Combustion and Society: A Fire-Centred History of Energy Use."

     Theory, Culture & Society 31.5 (2014): 203-26. Web.

Corbusier, Le. *Urbanisme*. Paris: G. Crès & Cie., 1924. Print.

Costello, Genevieve. "Virtual Embodiment: Beyond the Death of Pig." Editorial. *ArtSlant*.

     N.p., Feb. 2016. Web.

Crutzen, Paul J., and Christian Schwägerl. "Living in the Anthropocene: Toward a New

     Global Ethos." Weblog post. *Yale Environment 360*. N.p., 24 Jan. 2011. Web.

Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*.

     Minneapolis: U of Minnesota, 1987. Print.

Deleuze, Gilles. "Postscript on the Societies of Control." *October* 59 (1992): 3-7. Web.

"Dictionary.com - The World's Favorite Online Dictionary!" *Dictionary.com*. N.p., n.d. Web.

     June 2016.

Dummy. "Holly Herndon - Home." Editorial. *Dummymag.com*. Dummy, 16 Sept. 2014.

    Web.

Dussel, Enrique. "Eurocentrism and Modernity (Introduction to the Frankfurt Lectures)." *The*

    Postmodernism Debate in Latin America (1995): 65-76. Web.

Easterling, Keller. *Extrastatecraft: The Power of Infrastructure Space*. N.p.: Verso, n.d.

    Print.

Elliot, Kennedy, and Terri Rupar. "Six Months of Revelations on NSA."   Editorial.

    Washingtonpost.com. The Washington Post, 5 June 2013. Web.

Foucault, Michel, Michel Senellart, François Ewald, and Alessandro Fontana. *Security,*

    Territory, Population: Lectures at the Collège De France, 1977-78. Basingstoke:

    Palgrave Macmillan, 2007. Print.

Franke, Anselm. "Mapping And Being Mapped. Navigation Systems, Control Environments

    And Cognitive Maps." Bots, Bodies, Beasts. De Brakke Grond, Amsterdam. 10 Apr.

    2016. Lecture. Rietveld Academie.

Fuchs, Christian, Kees Boersma, Anders Albrechtslund, and Marisol Sandoval."Introduction:

    Internet and Surveillance." *Internet and Surveillance: The   Challenges of Web 2.0*

    and Social Media. New York: Routledge, 2012. N. pag. Print.

Gallagher, Sean. "Facebook Tests Full-scale Solar-powered Internet Drone." *Ars Technica*.

    N.p., 21 July 2016. Web. <http://arstechnica.com/information-

    technology/2016/07/facebook-tests-full-scale-solar-powered-internet-drone/>.

Gellman, Barton. "Edward Snowden, after Months of NSA Revelations, Says His Mission's

    Accomplished." Editorial. *Washingtonpost.com*. The Washington Post,   23 Dec.

    2013. Web.

Google. "Company – Google." *Company – Google*. N.p., n.d. Web. June 2016.

Guattari, Félix. *Chaosmosis: An Ethico-aesthetic Paradigm*. Bloomington: Indiana UP, 1995.

    Print.

Guattari, Félix. "The Three Ecologies." *New Formations* 8 (1989): 131-47. Web.

Haraway, Donna, Noboru Ishikawa, Scott F. Gilbert, Kenneth Olwig, Anna L. Tsing, and

    Nils Bubandt. "Anthropologists Are Talking – About the Anthropocene." *Ethnos* 81.3

    (2015): 535-64. Web.

Heidegger, Martin. *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*.

    Bloomington: Indiana UP, 1995. Print.

Hill, David W. "Jean-François Lyotard and the Inhumanity of Internet Surveillance." *Internet*

    and Surveillance: The Challenges of Web 2.0 and Social Media. Ed. Christian Fuchs,

    Kees Boersma, Anders Albrechtslund, and Marisol Sandoval. New York: Routledge,

    2012. N. pag. Print.

Holly Herndon Defends Laptop Musicians- Pitchfork Weekly. Dir. PitchforkTV. Perf. Holly

    Herndon. Pitchfork, 5 Dec. 2012. Web.

Holly Herndon – Home [Official Video]. Dir. Metahaven. Perf. Holly Herndon. *YouTube*.

    RVNG Intl., 16 Sept. 2014. Web. 9 Oct. 2014.

Holly, Herndon. "Home." *Holly Herndon*. N.p., 2014. Web. 9 Oct. 2014.RVNG Intl. "Holly

    Herndon - Home." *RVNG Intl*. N.p., 16 Oct. 2014. Web. 9 Oct. 2014.

"Holly Herndon Interview: "Computers Compute."." Interview by Dummy.

    Dummymag.com.`Dummy, 23 Nov. 2012. Web.

Holly Herndon - Parts 1 & 2. Dir. Chromavision. Perf. Holly Herndon. *Dummymag.com*.

    Dummy and Chromavision, 13 Aug. 2013. Web.

"Holodeck." *Wikipedia*. Wikimedia Foundation, n.d. Web. 29 July 2016.

Horning, Rob. "Affective Privacy and Surveillance." Weblog post. *Marginal Utility*. The

    New Inquiry, 30 Apr. 2013. Web.

Horning, Rob. "Google Alert for the Soul." Editorial. *The New Inquiry*. The New Inquiry, 12

    Apr. 2013. Web.

Horning, Rob. "Selfies without the Self." Weblog post. *Marginal Utility*. The New Inquiry,

    23 Nov. 2014. Web.

Isermann, Stephan. *Pig Simulator*. Computer software. *Www.pigsimulator.com*. N.p., 2016.

    Web. 2016.

Kirby, Vicki. *Quantum Anthropologies: Life at Large*. Durham: Duke UP, 2011. Print.

Kittler, Friedrich A., Geoffrey Winthrop-Young, and Michael Wutz. *Gramophone, Film,*

    Typewriter. Stanford, CA: Stanford UP, 1999. Print.

Luisetti, Federico, John Pickles, and Wilson Kaiser. *The Anomie of the Earth: Philosophy,*

    Politics, and Autonomy in Europe and the Americas. N.p.: n.p., n.d. Print.

Lyon, David. *Surveillance After Snowden*. N.p.: n.p., 2015. Kindle.

Lyon, D. "Surveillance, Snowden, and Big Data: Capacities, Consequences, Critique." *Big*

    Data & Society 1.2 (2014): n. pag. Web.

Lyon, David. "Facing the Future: Seeking Ethics for Everyday Surveillance." *Ethics and*

    Information Technology 3 (2001): 171-80. Web.

Lyotard, Jean-François. *The Inhuman: Reflections on Time*. Stanford, CA: Stanford UP,

    1991. Print.

MacCormack, Patricia. *Posthuman Ethics: Embodiment and Cultural Theory*.

    Farnham,Surrey, England: Ashgate, 2012. Print.

Marx, Gary T. "What's New about the "new Surveillance"?: Classifying for Change and

    Continuity." *Knowledge, Technology & Policy Know Techn Pol* 17.1 (2004): 18-37.

    Web.

Mathiesen, T. "The Viewer Society: Michel Foucault's `Panopticon' Revisited." *Theoretical*

    Criminology 1.2 (1997): 215-34. Web.

Massumi, Brian. "The Autonomy of Affect." *Cultural Critique* 31 (1995): 83. Web.

Mattern, Shannon Christine. *Deep Mapping the Media City*. N.p.: U OF MINNESOTA, 2015. Print.

Mattern, Shannon. "Infrastructural Tourism." Infrastructural Tourism ASCA Masterclass. Singel Library UvA, Amsterdam. 13 May 2016. Lecture.

Mattern, Shannon. "Infrastructural Tourism." *Places* (2013): n. pag. Web.

McHugh, Gene. *Post Internet: Notes on the Internet and Art, 12.29.09 09.05.10*. Brescia,:LINK Editions, 2011. Print.

Mignolo, W. D. "Citizenship, Knowledge, and the Limits of Humanity." *American Literary History* 18.2 (2006): 312-31. Web.

Mignolo, W. D. "The Geopolitics of Knowledge and the Colonial Difference." *South Atlantic Quarterly* 101.1 (2002): 57-96. Web.

Mignolo, Walter. *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Durham: Duke UP, 2011. Print.

Mignolo, Walter. "Delinking." *Cultural Studies RCUS Cultural Stud.* 21.2 (2007): 449-514. Web.

Moore, Jason W. "The Capitalocene Part II: Abstract Social Nature and the Limits to Capital." (n.d.): n. pag. Web. June 2014.

Newman, Saul. "Politics in the Age of Control." *Deleuze and New Technology*. By MarkPoster and David Savat. Edinburgh: Edinburgh UP, 2009. N. pag. Print.

Povinelli, Elizabeth A. "The Rhetorics of Recognition in Geontopower." *Philosophy & Rhetoric* 48.4 (2015): 428. Web.

Povinelli, Elizabeth A. "The Three Figures of Geontology." *Geontologies: A Requiem to Late Liberalism*. N.p.: n.p., n.d. N. pag. Print.

Povinelli, Elizabeth. "Interview With Elizabeth Povinelli By Mat Coleman And Kathryn Yusoff." Interview by Kathryn Yusoff and Mat Coleman. *Space & Society* Mar. 2014: n. pag. Web. <https://societyandspace.com/material/interviews/interview-with-elizabeth-povinelli-by-mat-coleman-and-kathryn-yusoff/>.

Régine Debatty, Interview with Marisa Olson. *We-make-money-not-art*. N.p., 28 Mar.2008. Web. 29 Nov. 2014.<http://we-make money-not-art.com/>.

Rosello, Mireille. "Rudimentariness as Home." *A Companion to Comparative Literature Behdad/A Companion to Comparative Literature*(2011): 312-31. Web.

Schmitt, Carl, and Gary L. Ulmen. *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum*. New York, NY: Telos, 2003. Print.

Srnicek, Nick, and Alex Williams. *Inventing the Future: Postcapitalism and a Worldwithout Work*. N.p.: n.p., n.d. Print.

Steffen, W., J. Grinevald, P. Crutzen, and J. Mcneill. "The Anthropocene: Conceptual and Historical Perspectives." *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 369.1938 (2011): 842-67. Web.

Steffen, W., J. Grinevald, P. Crutzen, and J. Mcneill. "The Anthropocene: Conceptual and Historical Perspectives." *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 369.1938 (2011): 842-67. Web.

Steffen, Will, Paul J. Crutzen, and John R. Mcneill. "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature." *AMBIO: A Journal of the Human Environment* 36.8 (2007): 614-21. Web.

Steyerl, Hito. "Politics of Post-Representation." Interview by Marvin Jordan. *DIS* 2014: n. pag.Web. Jan. 2015.

Steyerl, Hito. "The Spam of the Earth: Withdrawal from Representation." *e-flux* 32 (2012): n. pag. *e-flux.com*. e-flux, Feb. 2012. Web. 30 Nov. 2014.

Unpatentable Multi-touch Aerobics. By Liat Berdugo and Phoebe Osborne. Haus Der

    Kulturen Der Welt, Berlin. 4 Feb. 2016. Performance. transmediale/conversationpiece

U.S. Strategic Command. *The Cyber Warfare Lexicon: A Language To Support The*

    Development, Testing, Planning, And Employment Of Cyber Weapons And Other

    Modern Warfare Capabilities. N.p.: n.p., 2009. Version 1.7.6. *Public Intellince*. Web.

Van Dijk, José. "Datafication, Dataism and Dataveillance: Big Data between Scientific

    Paradigm and Ideology." *Surveillance & Society* 12.2 (2014): n. pag. Web.

Vickers, Ben, Sarah T. Gold, Ola Möller, and Carina Namih. "Exploring Planetary Scale

    Design." *2016.transmediale.de*. Transmediale, 2 Feb. 2016. Web.

Vierkant, Artie. "The Image Object Post-internet." (n.d.): n. pag. *Art Lurker*. 2010. Web. 30

    Nov. 2014.

Wark, Mckenzie. "What the Performative Can't Perform." Web log post. *Public Seminar*.

    N.p., June 2016. Web.

Weerkamp, Wouter, and Maarten De Rijke. "Activity Prediction: A Twitter-based

    Exploration." *SIGIR 2012 Workshop on Time-aware Information Access: #TAIA2012*

    (2012): n. pag. *UvA-DARE*. Web. <http://dare.uva.nl/record/1/381106>. Microsoft

    Research. conference contribution. Faculty of Science, Informatics Institute (II), UvA.

Wikipedia. "Edward Snowden." *Wikipedia*. Wikimedia Foundation, 2013. Web. 20 Jan.

    2015.

Young, Eugene B. *The Deleuze and Guattari Dictionary*. N.p.: n.p., n.d. Print.

Yusoff, K. "Anthropogenesis: Origins and Endings in the Anthropocene." *Theory, Culture &*

    Society 33.2 (2015): 3-28. Web.

Yusoff, K. "Anthropogenesis: Origins and Endings in the Anthropocene." *Theory, Culture &*

    Society 33.2 (2015): 3-28. Web.