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Amazon Web Services, the Lacanian Unconscious, and Digital Life

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"Amazon Web Services, the Lacanian Unconscious, and Digital Life"

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Abstract: In late 2011, ex-Amazon developer Steve Yegge's rant about his former company described Amazon's rapid transformation from an online bookstore to a web-services entity with a ruthlessly unified platform, all guided by the idea that the company's effort to streamline its internal efficiency could be monetized, and the resultant software products sold through Amazon Web Services. The media consumerism that fed Amazon's early years funded a surveilling behemoth, one that everyone feared Microsoft would become. As such, AWS has become a manifestation of the internet's Lacanian unconscious (even providing the services and hosting for Reddit), structured around the optimization of Amazon's business model, built line by line with the labor of easily discarded programmers. In this article, we shall examine the subtle and far-reaching effects of Amazon Web Services platform on the Amazon storefront, "cloud services," and social media, as well as the origins of AWS in theories of programming grounded in neural network theory and "artificial life," as opposed to AI. In the end, AWS will be shown to be its own unique entity, a platform infinitely extensible, inexhaustible, and a monument to the circumlocutions of cybernetic capital.

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Marshall Needleman ARMINTOR

Amazon Web Services, the Lacanian Unconscious, and Digital Life

In late 2011, ex-Amazon developer Steve Yegge's rant about his former company described Amazon's rapid transformation from an online bookstore to a web-services entity with a ruthlessly unified platform, all guided by the idea that the company's effort to streamline its internal efficiency could be monetized, and the resultant software products sold through Amazon Web Services. The media consumerism that fed Amazon's early years funded a surveilling behemoth, one that everyone feared Microsoft would become. As such, AWS has become a manifestation of the internet's Lacanian unconscious (even providing the services and hosting for Reddit), structured around the optimization of Amazon's business model, built line by line with the labor of easily discarded programmers. In this article, we shall examine the subtle and far-reaching effects of Amazon Web Services platform on the Amazon storefront, "cloud services," and social media, as well as the origins of AWS in theories of programming grounded in neural network theory and "artificial life," as opposed to AI. In the end, AWS will be shown to be its own unique entity, a platform infinitely extensible, inexhaustible, and a monument to the circumlocutions of cybernetic capital.

Of all the cloud computing platforms—Azure, Salesforce, Google—Amazon Web Services, the oldest and the one with the broadest reach, best exemplifies the all-encompassing iron grip of technology on the management of everyday life, both in its origins and continued dominance. Even a rapacious technology giant like Oracle has nothing on the sprawling, capital-saturated feedback loop that is AWS, given the former's origin in locked-down databases and highly proprietary hardware; AWS maintains a ubiquitous infiltration of the technosphere stoked by the desires of the garden-variety consumer. In psychoanalytic terms, the highly networked nature of AWS and its registry of services strikingly recalls the very concept of the unconscious, a concrete yet virtual manifestation of the Internet's ocean of content, responsive to desire. In terms of its presence alone, the Amazon cloud apes the venerable conception of the unconscious: persistent, waiting, already-there, with a life independent of the consumer's waking thoughts. The services software developers can find on AWS are a manifestation of Lacanian fantasy, a meeting point of desire and reality where elements are present "prêt-à-le-porter" (as described in the initial meeting of Seminar XIV). Yet the existence of AWS, the undergirding of Amazon's technological framework, is also the "other side"—the Lacanian lining of an algorithm designed to support the desiring network of the Amazon storefront itself.

Why is psychoanalysis the vehicle to interpret a platform like AWS? The recent hand-wringing over the concept of artificial intelligence and its place with regard to human subjectivity and the transhuman typically has, as a base assumption, the core concept of rationality as a marker of human identity. This is a clear canard. When speaking of the (all-too-human) subject, the nature of decision-making, and desire, psychoanalysis remains an indispensable tool of interpretation in its invocation of non-rational association, an idea found in the first stirrings of neural networking. D.O. Hebb's 1949 treatise The Organization of Behavior appeared in print the same year as Lacan's lecture on the "mirror stage." Hebb's famous rule avers that "that any two cells or systems of cells that are repeatedly active at the same time will tend to become associated" (70), often reduced to the motto "synapses that fire together, wire together." Similarly, the often-ignored dictum of Lacan, present at the very beginning of the mirror stage text, that his outlook on psychoanalysis is "at odds" with the Cartesian cogito cuts across every last sentence of Lacanian thought (*Écrits* 75). This fundamental Lacanian idea—that even the idea of identity in the mirror of language is to be distrusted, given that it splits the subject from realizing its desires—also aptly describes how the subject's desire always stems from *méconnaissance*. If AWS and everything else that Amazon does seems outsized and unthinkable in terms of the human scale (even the human scale of desire), this is because the unconscious is lacking an end or purpose, instead pulsating with desire, ready-made to meet the subject. In this sense, the interaction of the subject and the unconscious is all about Hebb's "firing," combined with the attendant "wiring."

The concept of an all-encompassing, endlessly configurable network of processes and data has its roots also, most importantly, in a particular abstraction of labor. What makes AWS unique is that its back-end smorgasbord of services was initially developed by Amazon programmers to sell products to the outside world in order to stake a technological claim beyond Amazon's business model as a "general store." AWS was constituted as a farm for human labor, sold to corporate and sometimes academic clients, sometimes at a loss. Amazon's Mechanical Turk—a marketplace where human Amazon users could sell minutes of their time for pennies per task—is also at the beginning of AWS's story. Its paradigm for making artificial intelligence manageable by analyzing a task into different roles dependent on human judgment provided the basis for Amazon's textual search algorithm. The irony of the name

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of Amazon's Mechanical Turk cannot pass unremarked: "MTurk" is a machine made of human-nodal decisions, organized in a crowdsourced assemblage and sold through the Turk's purpose to help clients complete repetitive, onerous tasks. Benjamin's famous invocation of the historical Mechanical Turk in "Theses on the Philosophy of History" uses the example of a chess-playing apparatus being manipulated secretly by a person underneath the table. This itself is a pointed example of the human delusion with the potential power of technology. Benjamin's analogy advances the historical materialist argument that one can fall into the trap of finding false inflection points within history:

He takes cognizance of it in order to blast a specific era out of the homogeneous course of history—blasting a specific life out of the era or a specific work out of the lifework. As a result of this method the lifework is preserved in this work and at the same time canceled; in the lifework, the era; and in the era, the entire course of history. The nourishing fruit of the historically understood contains time as a precious but tasteless seed. (263)

With the cloud, the place of work and the instruments of work have been reduced to a fog-like entity, occluding the material dimension of computer hardware. The "tasteless seed" is that of a platform where abstracted work is designed to serve desire, repurposed to fill other possible unrelated desires for others; human work reified (or ar-ray-ified) into desire-serving circuits, retaining the residue of the human while evacuating it. AWS is not the hive mind, but rather consists of the hive itself. More than anything, AWS at the present moment represents the *mise-en-abîme* of the internet at large; even now, as in Philip K. Dick's *The Three Stigmata of Palmer Eldritch*, the platform has adapted itself to become anything, to conform itself to the shape of users' discrete desires, while at the same time providing the space to develop and extend that very same platform. Not content merely to be everything to everyone, AWS has positioned itself to become everything *in toto*, and also to remain anonymous in the position of the unconscious, speaking the language of the desires located in the Other.

By now, Amazon Web Services is simultaneously the most ubiquitous and unknown entity in the digital world. Its commercials pop up during NFL games, scientific papers are written about its efficacy for conducting computational research, and popular apps such as Reddit, which has a distinctive corporate identity all of its own, "live" on its platform, unbeknownst to the average Redditor. The functionality of AWS is only made apparent to the public at large when outages occur: university web pages go blank, and crucial storage resources for high-profile media companies evaporate. Over the past 15 years or so, AWS has thoroughly permeated the perceived domains of other websites, especially those of colleges and universities, which depend on AWS for storage and other services. As noted by Emily Waltz, the convenience of sorting and analyzing data in the AWS cloud outstrips the capacity for most academic IT infrastructure to handle the load, not to mention the bandwidth to download and share masses of data "without any risk to company firewalls." Given the crucial role of security as an IT concept, putting all one's eggs in the AWS basket symbolizes an ultimate outsourcing of trust.

In thinking about the special situation of AWS, critiquing its implications becomes a task nearly ontological in nature, drilling down to the very idea of virtual work, software infrastructure, and the expectations of the end user for the permanency and stability of data. It is as close to the way we live now as our dependence on sunlight, water, and electricity. A prime example of the vertical accumulation of capital, AWS represents the expansive bottom of the iceberg, the commodified by-product of enterprise programming, all accomplished through deliberate calculation. In the end, AWS has itself become a wholly organic simulation of life yet forever other, an organism unto itself, and a monument to the decentralization of coding work within the context of a platform.

The Origins of Amazon Web Services in Artificial Life

The construction of AWS was spurred to a great degree by Jeff Bezos's reading of Steve Grand's popular book on "artificial life," *Creation: Life and How to Make It*, along with the desire to reform Amazon from the inside out as a technology company instead of simply a vendor of goods. As a precursor to AWS, Brad Stone describes the evolution of the Amazon search engine between 2003 and 2005, and crucially, its development branch, the crowdsource service Amazon Mechanical Turk (195). The initial project sought to construct a mechanism for "searching inside" books advertised on the Amazon web site, when the company was primarily known as a book vendor. The engineer who had initially proposed it, Udi Manber, also called for the creation of a search mechanism separate from Google, resulting in the introduction of the A9 engine (200). Such a project required a technology that did not exist quite yet: the ability to describe the content of printed text that could not be rendered into machine-readable characters automatically, leading to the creation of Amazon's Mechanical Turk. A service that divided up complex tasks into shorter and simpler ones, the Mechanical Turk was at first used to provide content

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for the sample text search function; it distributed the work piecemeal in order to supply information about the product images, making the images of the text "readable" (Stone 219). As would happen later for a number of in-house projects, "MTurk" would eventually become externalized and made available to the average user, both for companies to assign distributed labor to salaried employees, and as a way for average Amazon users to perform tasks for small amounts of money. Many of these "human intelligence tasks" would involve decoding or describing pictures in order to classify image data, out of the reach of machine intelligence for that time. Bezos termed this approach "artificial artificial intelligence." In addition to image description, the user could also take on other tasks, such as writing summaries for film sites or, amusingly, filling out questionnaires for university-sponsored psychological experiments, which, obviously, machines should not perform.

The distinctive character of the development of AWS (as well as its quiet agenda to build a new platform piece by piece by renovating Amazon's software infrastructure) was accidentally documented by developer Steve Yegge, who was at Amazon in the early 2000s. A leaked and soon-to-be-infamous internal rant directed at his fellow Google employees in 2011 aired his concerns that Google failed to understand the idea of the platform integrity. In the open letter, he described the evolution of AWS as a concerted effort to build an externalizable platform to sell to clients. Yegge's description follows Bezos's intent in depicting software authorship and labor as being an assemblage of "primitives," instead of a highly centralized program or database containing a repository of information and transactions (Stone 212). The issue with any "service-oriented architecture" is that in order to keep the entire system in check, every service is monitored by a central register in order to, among other things, keep the traffic to a minimum and avoid bottlenecks. At the time, Amazon's system for processing orders had been entirely jury-rigged since the early 1990s, with individual transactions being relayed between as many as 20 separate servers before completion. The company's legendarily high employee turnover rate clearly had not helped matters in this area, and as much as anything, the IT group needed to start writing integrated, coherent documentation for Amazon's inner workings from scratch. As recalled by Yegge, Bezos's memo also suggested a possibility for repurposing the technology elsewhere, reflecting a clearly-defined changeover to a distributed service-oriented architecture, as opposed to that of a "monolithic" server-based system: "All service interfaces, without exception, must be designed from the ground up to be externalizable. That is to say, the team must plan and design to be able to expose the interface to developers in the outside world. No exceptions" (Yegge).

Yegge's stated concern for Google in 2011 was that it had no idea how to conduct itself as a platform, especially because Google had deluded itself into identifying with its main product, the search engine. On the other hand, Amazon was able to express its clandestine power through other products (A9, AWS, MTurk), without its being identified solely with those brands. The role of Andy Jassy in the evolution of Amazon Web services was to define AWS as providing computer infrastructure storage, databases, and raw computing power. AWS eventually would end up supporting Pinterest, Instagram, and Reddit along with government entities such as NASA and the CIA (Stone 211); in addition, its Simple Storage Services competed with Google Drive, and did so purely as a "loss leader" to gain market share (221). Yegge observed that the need for Bezos to turn the company outward-that programming labor itself would become a reified, "hardened interface" that others could purchase-became a necessity in that Bezos saw he could not suss out the future whims of a market in the chaotic consumer-driven world of information technology: "I'm not really sure how Bezos came to this realization-the insight that he can't build one product and have it be right for everyone. But it doesn't matter, because he gets it." Thus, this was a sort of anti-marketing gesture; the specific name that Yegge gave to this guiding idea was "accessibility...the most important thing in the computing world," the opposite of which is the very idea of "security." The opening of proprietary technology in this way, following Microsoft's example of using their own retail products in the company's operations, inverts the concept of creating and the implanting of desires within consumers (as Apple's highly aestheticized marketing does) to build a model platform, coding in desiring-circuits.

Service-Oriented Architecture, Surveillance, and Sharing

The initial construction of the AWS platform depended on a reversal of Oracle's strategy; whatever Amazon created in order to run its storefront would then be made available, either for a price or for free. With the advent of GitHub/GitBox, for example, AWS has made software development kits for languages such as C++, Go and Java freely available for download. Cloud storage itself is both an example of and repository for desired virtual goods. The proprietary nature of programming tools usually remains secret, but in Amazon's case, these secrets are made external, activating the early Lacanian concept of "extimacy," explored and recovered by Isabel Millar in her recent work on psychoanalysis

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and AI (136). By the same token, service architecture also undoes the idea of computing entities existing in the same space as they might appear to the user.

AWS advertises many processes on its developer page as being "serverless," providing the ability for clients to compile in the cloud, thus taking advantage of the cloud environment's robustness and redundancy. Each service corresponds to the rather simple operation of running an internet forum (such as Reddit). The benefit of microservices is realized by running operations through AWS, which has separated them into primitives, which could then operate independently on different servers, in different physical locations. Such processes could be described as having discrete on/off states, and their independent operation ensures maximum uptime. Developer Jozef Jarosciak remarks that practically any process for any application could be built on AWS using not only the products on offer from Amazon itself, but any element from anywhere in the cloud: "Amazon S3 [Simple Storage Services] by default allows sharing of the stored objects with any third party" ("Cloud Computing"). Average AWS users can select security options for each of their own self-authored primitives, making them freely usable or shutting down access entirely.

In the sense that AWS operates like the Lacanian unconscious, users can feel that a tool or service exists somewhere, and turn to AWS, sure that they will find it. As Andre Nusselder observes, the form in which information appears to the user is freighted with judgements about integrated identity. If indeed the algorithm appears to the user as if it is an anthropomorphic machine granting the user's desire, then it is assumed that the machine is, in AWS's own terms, a "monolith" (77). A great deal of trust is placed in the anonymous server farms; they represent a fragmenting, geographically disparate unknown to the user and are not human traversable (or readable) spaces. The physical substrate of the cloud has become indistinguishable from the computing infrastructure used to operate Amazon, the company.¹ The panopticon of services resembles the mythical register of the unconscious which is, as Lacan declares, structured like a language, as found in the *Écrits* text "Position of the Unconscious": "The unconscious is a concept founded on the trail [trace] left by that which operates to constitute the subject. The unconscious is not a species defining the circle of that part of psychical reality which does not have the attribute (or the virtue) of consciousness" (703). In many of these instances, the stack of services available from AWS (processing, analysis, and storage) becomes at once a record of memory and a ready-made wish fulfillment mechanism for the consumer, the selling of whose data also renders them a product being sold. As presented in McGowan's Capitalism and Desire, the capitalization of the means of production is then indistinguishable from its end, a distinction to which capitalism is profoundly indifferent (162).

Circuits of Desire, Cellular Automata, Equilibria and Jouissance

In "The Uncanny," Freud speaks of the "omnipotence of thoughts" (147), an idea deployed in that work to address the persistence of animistic beliefs. The same sort of idea can be construed as belonging to the same well-honed intuition when executing a search function; for a moment, the mind is seamlessly trained on the realm of hidden function or content. Through AWS, Amazon has turned this uncanniness into the omnipotence of availability, from an endless stream of physical objects in the Amazon store to a platform prodigiously capacious and omni-functional, selling products to consumers in an endless feedback loop of desires met and those yet to be fulfilled through targeted marketing. By the same token, the AWS platform itself is built on the incessant turnover of labor within the company, a process analogous to the perpetual grafting of JSON functions and JavaScript code onto older versions. Though nothing rots faster than code, the existence of the platform, the source and physical substrate of the code, is in every possible sense the institutional infrastructure of Amazon.

That a desiring subject is compelled to respond to stimuli in the culture, programmed to "work" and "need" in equal measure in the same way an algorithm accomplishes its objectives, is present from the beginning of Lacan's seminars. Indeed, Liu notes in her listing of mid-1950s influences on Lacan that his interest in cybernetics, circuits, probability, chance, and feedback had already worked their way into the first seminar year, and later on, into the seminar on "The Purloined Letter" (296). For Lacan, the interaction with the unconscious could be represented in terms of binary states, hence his interest in having the attendees of his second seminar pretend to play with an imaginary even-and-odd game in order to demonstrate "symbolic inertia" (*Seminar* 189). Liu links this interest in chance binary operations finding "equilibrium" as a possible model for the subject's analytic treatment; this phenomenon of

¹ The physicality of the language AWS itself uses to refer to virtual constructs is telling. AWS offers inexpensive storage options through S3, casually referring to repositories as "data lakes" or "glaciers," which store data in various geographical (real-world) locations, as noted here: https://aws.amazon.com/s3/glacier/

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equilibrium is also mentioned by Lacan in the aforementioned seminar on Poe in tandem with the cybernetic theories of Norbert Wiener and neural networks (Liu 317). As it is, Lacan did not shy away from the idea that the subject was a corporate entity with its own separate functions; it is more accurate to say that the subject and its relations in the intersubjective world are rather made to connect with other subjects in the same fashion as in a cybernetic environment. In "The Subversion of the Subject and the Dialectic of Desire," desire itself is conceived as traveling through a circuit; as expressed through this circuit, we do not arrive at anything like full-blown selfhood within it. Lacan describes this place of the subject within the unconscious as meeting an expression of desire that does not stem from the subject, "not to mention that there are signifiers that differ from I, and not only those that are inadequately called cases of the first person singular, even if we add that it can be lodged in the plural invocation or even in the Self [Soi] of auto-suggestion" (Écrits 677). The identity of the desiring subject, or identification with that desire, is disengaged from the personal, as the unconscious subsumes and subtends intersubjective relations where those desires are answered. Johnston observes that the selfcorrecting mechanism discovered by von Neumann was promulgated to foster reliability in a network or Turing-style machine (173), and much as the idea of the unconscious can be said to have a real-life analog, this feature alone establishes the idea of the unconscious as a permanent, ever-present repository for desiring data.

The unique status and origin point for Amazon is that of artificial life, rather than artificial intelligence; such entities are programmed to mimic need. In this instance, the proliferation of algorithmic behavior responds to the needs of the organism's survival. In Creation, Steve Grand noted that there is no such thing as "half an organism"; an organism is either whole or it cannot work (139). The broad myth applied to human behavior is that the complexity of the human subject cannot be reduced to a set of simply expressed needs. The opposite is also assumed, that with artificial life, the active elements in a simple task cannot represent the whole subject at a given moment, and besides, they can be far too numerous to model. Grand answers this objection by asserting that artificial life does not need complexity to produce a response, or be satisfied. Even with sensory data being expressed as on/off states, a virtual creature limited to 128 inputs could realize a staggering number of complex, unique sensory conditions: "We would need as many neurons as there are atoms in a thousand million tons of hydrogen gas" (161). The upshot is that programming in "intelligent" behavior is not a precondition to simulating life, but the aim is rather to recreate the conditions in which rationality and goal-based behavior could be realized (147). The seemingly anarchic method of problem-solving Mturk embodied, based on Grand's concepts, eventually found wisdom and even direction from a mob of users, working every seemingly random end of a problem until a satisfactory completion state was reached.

There is also the intriguing problem of "human-readable" programming in computer-driven software authorship; it is an open question as to what kind of "other" an edgeless platform like AWS can be. Kevin Kelly's seminal work on artificial life, Out of Control, describes the problem of self-correction and early automated programming, as opposed to Grand's simple algorithms which are supposed to imitate self-governing life. Through the concept of "genetic programming," Kelly describes a rather primitive experiment in LISP generated from a few non-linear equations (336), essentially programming through chaos theory. By having a few independent equations run their course and swap branches of autogenerated code, the "adversarial" process can arrive at a cumbrous though operable solution; one example had a computer work out how to balance a broom on top of a skateboard. In Kelly's view, the resultant wildly baroque code mimicked the nervous systems of sea creatures: functional, but lacking in elegance. This "evolutionary" attempt at coding, in programmer Tom Ray's words, was decidedly "inhuman" (338). The same sort of approach with AWS interfaces such as CodeGuru results in the opposite effect; the service is a quality control tool that helps assist humans in rewriting their code to make it more efficient. Though given the limitations of power and time, computers would just as well prefer clumsily written solutions to problems than elegant ones; "human readable" is a negligible goal as such for algorithms, and is ignored by machine-written code. Given the power available to today's platforms, the conservation of both memory and CPU cycles is of negligible concern.

The metaphors of sexuality and life in programming rhetoric also account for, naturally, death. As an extension of the Lacanian ethos, Deleuze and Guattari's notion of the "Body without Organs," an unconstrained being with no limiting structures, sheds light on the continued existence of AWS. Poniszewska-Marańda and Czechowska document that in the use of the AWS development environment Kubernetes for writing software, rules for self-correction ensure that the failure of any one component is to happen such that it fails quickly, and given enough failure, human intervention may be needed (6). The lifecycle and liveliness of any kind of automated process is wholly subordinate to the network at large. In thinking about the primacy of information in the AWS environment, the individual survival of one cellular automaton or another is wholly secondary to the information that it carries. The information

Marshall Needleman Armintor, "Amazon Web Services, the Lacanian Unconscious, and Digital Life" page 7 of 8*CLCWeb: Comparative Literature and Culture* 24.4 (2022): http://docs.lib.purdue.edu/clcweb/vol24/iss4/7> Special Issue *Platform Psychoanalysis*. Ed. Matthew Flisfeder

is then carried forward in code, and written into the registers of the assemblage, outliving the node that generated it. As such, Amazon Web Services enacts both the idea of both cellular automata (with its service architecture) and the concept of strata as found in Deleuze and Guattari's *A Thousand Plateaus*: AWS itself is gigantic plane in which both of these concepts are very much in evidence, all mutually supporting in a vast self-correcting network of desired transactions. The cellular automata of each API form in themselves a double articulation in answering service calls to accommodate a request, embedded within a stratum (the cloud), and each form is an entity unto itself (41). A service is only made meaningful in the context of the relations they form with each other. As such, the operation of any AWS software assemblage signifies through input-output, service failure or fulfillment, and also "life" and "death." In every sense, AWS signifies a paradox of the Body without Organs; even though the BwO represents a "free" state, free from the strictures of authoritarian function, the whole of AWS is nevertheless an equilibrial entity, a body, in all senses, dedicated to and achieving its own survival.

Amazon Web Services as Living Entity Without End, Author, or Other

AWS is a necessary (though largely invisible) resource and substratum of the Internet, a deep symbol of Amazon's gargantuan reach in the technological world. It comes close to being a condition for the existence of virtual connectedness itself, its capitalization and construction driven by the sheer scale of internet consumerism. The idea of the exclusion implied by the archive-its dedication, selectivity, and futural reach—becomes more strained when viewing it with regard to AWS, so pervasive, open, and ever-present to its anonymous users. In the end, AWS doesn't surveil the user as much as it anticipates needs. Though Amazon Web Services was initially conceived as a thrifty consequence of rebuilding Amazon's technological operations, with the code used to build it put initially into service as a marketplace for goods and services, it has become a laboratory, data center, and archive for storage of all kinds. In thinking about AWS as the possible "unconscious" of the Internet, ready to meet prefab desires for work and social media, what does it mean to human culture, in the end? As a thing, how far can an understanding of reification go in thinking about Amazon Web Services as a place, entity, or apparatus? As Horkheimer and Adorno's famous dictum goes, "All reification is forgetting." In thinking about AWS as a place of human industry, a repository of data (some of it personal), a meeting place for forms of social media, there is also the relentless signing and countersigning of the registered services ticking underneath the surface, approximating the unreadable place of the unconscious. AWS relates to the individual only in that it is a record of individual (and collective) endeavors, and possibly a repository for human memory. But this conception still does not make AWS thinkable on a human scale; with its trillions of inputs and connections, it is nigh-impossible to take its measure.

Lacan's insight that desire is the marker around which the subject itself is constituted may give us a clue. The play of the subject with regard to this unconscious is realizing one's *jouissance* in giving over to servitude, which Lacan finds in his highly inflected reading of Hegel (*Écrits* 686). The sticky discursive object that is AWS is one that users turn to for fulfillment, and among the illusions it offers is that of the user *commanding* it, where in the end, AWS both feeds and caters to that laboring subject's hidden desires. The desiring-apparatus that is Amazon Web Services is a breakdown in the symbolic order, as described by Žižek (8); the extimacy initiated by AWS makes it too familiar, too close to be a big Other, such that the subject may assume they have a place of mastery with regard to it. Yet in the end, AWS can only subsume the user into this servitude while all parties enjoy its matrix of capital and desire; AWS is a repository of faith in the promise of new connections, a warehouse with the capability to retain all of the present, an anticipatory columbarium of labor, a monolith of a fashion under its own self-authored law, its own kind of real.

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