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THE FEED: ALGORITHMIC MEDIATION OF *SELF* AND CITY

Abstract

In our network-laden cities abounding with smart technologies, the algorithm gestures toward a material reality wherein we become what we are by making that which in turn makes us. This is especially appropriate upon examination of the feed. One feeds upon their feeds, a sumptuous meal in digital culture: Facebook feeds, Instagram feeds, and newsfeeds—consumed until all experience is first mediated in accordance to the feast of feeds. In terms of the city, whether it is a look at the map or the news, each is mediated by the appropriate feed which is built upon the ubiquity of the algorithm—arguably one of our historical moment's most important concepts. Thus, I would like to suggest that the algorithm is not only an ontic feature of experience, but an ontological one: we no longer primarily rely on the lived experience of a place, but upon the mediation of a place by an algorithm which generates its being. By focusing on the feed of Google Maps' smartphone application and the use of data-driven «predictive policing», the algorithm emerges as the primary interpretive modality of the city with the consequence of emerging as the interpretive modality of the self.

Keywords: Algorithm; Technology; Computation; Ontology; Big data

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O feed: mediação algorítmica do *self* e da cidade

Resumo

Nas nossas cidades emaranhadas em redes repletas de tecnologias inteligentes, o algoritmo aponta para uma realidade material, na qual nos tornamos o que somos fazendo o que, por sua vez, nos faz. Isto torna-se particularmente pertinente quando se analisa o feed. Todos se alimentam dos seus feeds, uma refeição sumptuosa de cultura digital: feeds do Facebook, feeds do Instagram e feeds de notícias - consumidos até que toda a experiência seja mediada, em primeiro lugar, de acordo com o banquete dos feeds. Em termos da cidade, seja quando se dá uma olhada num mapa ou se passa pelas notícias, cada um é mediado pelo feed adequado, que se constrói com base na omnipresença do algoritmo – possivelmente, um dos conceitos mais importantes do nosso momento histórico. Assim, gostaria de sugerir que o algoritmo não é apenas uma característica ôptica da experiência, mas ontológica: deixamos de depender da experiência vivenciada de um lugar, para passar a vivenciar um lugar com base na mediação por um algoritmo que gera o seu ser. Ao concentrarmo-nos no feed da aplicação de smartphone do Google Maps e no uso do «policiamento preditivo» alimentado por dados, o algoritmo surge como a principal modalidade interpretativa da cidade, com a consequência de emergir como a modalidade interpretativa do *self*.

Palavras-chave: Algoritmo; Tecnologia; Computação; Ontologia; Big data.

Introduction

If you subscribe to the *MIT Technology Review's* daily digest, *The Download*, perhaps you have noticed that the aggregated content is often sponsored by the Siemens Corporation. In *Radical Technologies*, Adam Greenfield also quotes this multi-national technology vendor making its vision of the future explicit: «Several decades from now cities will have countless autonomous, intelligently functioning IT systems that will have perfect knowledge of users' habits and energy consumption, and provide optimum service»¹. When I drive to work, I can see one branch of Siemens' North American headquarters—a milky-colored mainframe tower reaching toward the sky. Who could have guessed that I was driving by a repository of perfect knowledge? In this paper, I wish to speculate on the ontological implications of the mechanism which enables Siemens' claim to perfect knowledge—the selfsame mechanism which enables Google Maps' mission to take all your questions and turn them into answers, and predictive policing's solution to criminal activity. The

¹ Greenfield, Adam, *Radical Technologies: The Design of Everyday Life*, Verso, New York 2017, p. 52.

artifact under consideration is that which declares that the world is perfectly knowable and capable of being inscribed upon a technical system: the algorithm.

Yuval Harari writes in his best-selling book *Homo Deus*, «(The) Algorithm is arguably the single most important concept in our world»². Yet, this most important concept can be described very simply as a method used to make a decision. An algorithm is not some particular calculation, but a general method to be followed when making a calculation with a desired result. For example, a recipe for a salad is an algorithm where one picks out a base like lettuce, dices tomatoes, adds bacon and sliced hardboiled eggs followed by ranch dressing. This algorithm can be followed using a variety of different ingredients, cook times, and implements, and though each will result in a different salad, it will nevertheless be a salad. One way that the algorithm works can be seen through the lens of a smartphone—the most capable feed-er of information built upon machine learning algorithms. How does an algorithm present a mediated world? One way is via the map. In order to find my way around Porto, I consulted my iPhone's Google maps application. This app presents data to me in real time as a map interface which feeds me updates from other users and sources such as weather sensors and traffic monitors which allows me to negotiate (in theory, at least) the city with the aplomb of a lifelong resident. The feed of data is not limited to maps, however. We are constantly being fed through our feeds—a cascade of data, likes, comments, and reviews consumed until all experience is first mediated in accordance to the digital feast. This feast is served up by a cook who hides their identity in the assumed impartial objectivity of the algorithm. But, as Langdon Winner reminds us, artifacts have politics, and as this paper wishes to demonstrate, algorithms work because of a forced perspective that narrows the possibilities of being.

1. Maps and the Narrowing of Possibility

The narrowing of possibility is most evident in the city where we rely on our algorithmically-derived feeds most of all. Whether it is a planned visit to a restaurant, a trip to a museum, a look at traffic or the weather—each is mediated by the appropriate feed to inform us of opening and closing times,

² Harari, Noah Yuval, *Homo Deus*, HarperCollins, New York 2017, p. 83.

blocked streets, and shops in the area. The algorithm emerges as the primary interpretive modality of the city not only for the tourist or citizen, but also for the state. With an emphasis on Google's Maps application and the emerging enterprise of predictive policing, the algorithm is seen to not only be an ontic feature of experience, but an *ontological* one: we come to rely not on the lived experience of possibility, but upon an algorithmic probability, yet fail to consider the equivocation. This failure points toward Heidegger's admonition that every technology performs an act of revelation that is also a concealment. What the map conceals in its presentation of the city is that it only *seems* to be an impartial, objective account which portrays itself as able to fully account for all locations—but this is not the case. It is simply not feasible to label every single street, café, and shop on the map. Thus, in the maps feed, decisions have to be made about which features to identify. These decisions are driven by algorithms which use previous behavior as leverage—where we have been in the past, the websites we have surfed, our search queries, the apps we have installed—each is weighted in the algorithm in order to make a highlight on the map seem very incidental, but it most certainly is not: 4 out of 5 consumers use the map app to make searches near their location, and 1 out of every 5 of those results in a sale³.

The purpose of the algorithm calls into question the objectivity of the map by suggesting that its primary purpose is not navigation, but consumption. The map feed being shown is meant to present possibility, but this possibility has been reduced to an algorithmic probability by a human being who designed it for that purpose. What this means is that algorithms have migrated into the realm of ontology. Algorithms are the material out of which buildings, infrastructure, shops, streets, and services are presented to me—they are the new architecture. As Luciana Parisi states, «Algorithms are thus actualities»⁴. In other words, as I generate data through my likes, my searches, my walks through town, this data is chopped up—I am chopped up—with a set of swords called algorithms which hack me into marketable, governable, and consumable categories. After the slicing and dicing, the data is then sold back to me as points of interest on a map. And yet, this means that not only does my friend's phone have a different map than I do, the police have a different model of me than my university, my insurance has a different me than my bank. I am forced to rely on these perspectival algorithms as presenting

³ Greenfield, *Radical Technologies*, op. cit., p. 24.

⁴ Parisi, Luciana, *Contagious Architecture*, MIT Press, Cambridge 2013, xii.

ontological indicators of my presence. What this forced reliance results in is a near-seamless ontological shift: I come to think of myself as data first—all other considerations are secondary.

At any given moment, I am an IP address, I am a download history that I do not want anyone to see. I am an app purchase, a social security number. I am a WiFi hotspot, a banner ad. Data is the house of being, and the algorithm is its architecture. Perhaps we are all too willing to sacrifice some measure of human agency to the algorithm, to trade possibility for probability, because on the whole it seems benign. My own patterns that I take to be emblematic of my free will could be understood as algorithms—so, maybe there is no harm as we feed on what we truly are: data-generating-pattern-machines. However, a vast surveillance apparatus calls that harmlessness into question—hungry as it, too, is to feed on data through analysis. First, let us agree that data is a set of facts about the world. Seeing a population as data to be controlled is the basis for predictive policing which itself is based upon two ideas, one explicit and one implicit. The explicit idea is that with a sufficiently rich data set, police can predict locations that crime is likely to occur and that criminals are likely to inhabit. The implicit idea is that utilizing the right algorithms with the right data set, all crime is preventable.

2. Predictive Policing: Algorithms Actualized

Of the current generation of algorithm-driven law enforcement programs, the Chicago Police Department's Heat List is particularly notorious. According to Adam Greenfield's research, the Heat List, or the Strategic Subject List, was developed using a secret algorithm and contains the names of over a thousand people at any given time who the city's police department considers most likely to commit, or suffer, homicide at some unspecified point in the future⁵. Chicago Police, having used the algorithm to identify these individuals, then go out and visit the subjects at their homes, on the streets, at their jobs, or at school using a procedure that is officially called Custom Notification. What, then, are the ingredients of the algorithmic recipe that cooks and serves up these individuals on CPD's feed? The most basic questions about this tool—the recipe of who gets on the list, how one gets off the list—these questions are safe from being raised. The police department's

⁵ Greenfield, *Radical Technologies*, op. cit., p. 230.

legal affairs office refuses to answer them, and cites security reasons in their response to requests.

The ACLU has voiced a concern about the Heat List using race as a weighted category in its algorithmic recipe—an algorithm, one should note, that was developed by Miles Wernick, a medical imaging specialist by trade. The police department has said that race is not one of the 11 variables used to determine a person's ranking on the list. Though it is unlikely that the objectivity of their algorithmic proprietary blend is completely unquestionable—simply saying an artifact is impartial does not make it so. What is emphasized by CPD, though, is that the most heavily weighted variables are prior arrests and conviction records. This implies that the ameliorating balm given to soothe any who may be sensing the Orwellian implications of the Heat List's algorithm is simply that you have no reason to fear if you have nothing to hide⁶. However, the ontological implications of predictive policing are precisely to be found in this aspect of prediction in that it is not a prediction that is being performed by a human, but by a technological artifact, a machine. It is this willingness to transfer thinking and decision-making ability to a program that should be called into question. Does the algorithm's theoretical promise to predict and prevent future violence justify the ontological cost? Namely, does the deterministic trap of algorithmic pre-emption, where the reduction of a person to a dataset in the name of preventing future harm is justifiable? Only if we accept an ontology where I am first my data, and a human being afterward. Such an ontology is the enactment of capturing the possible and mutilating it into mere probability—then enforcing that probability as necessary through euphemistic concepts like pre-emptive control.

3. Algorithmic Mediation to Algorithmic Migration

It can be argued that this digital ontology has been at work at least since the inception of the internet as data has been continually making the transition from the screen into different states of matter⁷. Today, it incarnates here as a crime waiting to be committed, as criminals perpetually poised to be captured and charged, and as a police force proactively engaging in this procedure on the basis of a desire to trade an ability to think to the cold, calcula-

⁶ Greenfield, *Radical Technologies*, op. cit., p. 231.

⁷ Steyrl, Hito, «Too Much World: Is the Internet Dead?», *E-Flux Journal: The Internet Does Not Exist*, Sternberg Press, Berlin 2015, p. 12.

tions of an algorithm. Borrowing from Klee, Merleau-Ponty suggests in *Les Temps Moderne* that art no longer imitates visible things; it makes things visible. Art is the blueprint of the genesis of things—paintings show how things become things and how the world becomes a world. Similarly, algorithms show how things become things when consciousness gives way to pattern recognition, and possibility becomes probability. While it is true that algorithms provide us with convenience, it is nevertheless the convenience which reduces humans to things. The convenient is a sign that the possibilities of life—the possibilities of being—are forcibly narrowed down into probabilities. This distinction between the possible and probable is not innocent—the openness of possibility is traded for the certainty predicated on the predictive power of algorithmic probability as seen in maps applications and predictive policing.

One might follow Merleau-Ponty insofar as he is attempting to reflect upon and draw a distinction between a world of experience and a world of science which, in this case, is none other than a techno-mediation via the algorithm of the most basic features of existence. Such a reflection occurs in the preface to the *Phenomenology of Perception* where he notes, «The entire universe of science is constructed upon the lived world, and if we wish to think science rigorously...we must first awaken to that experience of the world of which science is the second-order expression. Science neither has, nor ever will have the same ontological sense as the perceived world for the simple reason that science is a determination or an explanation of that world. I am not a 'living being,' a 'man,' nor even a 'consciousness'...Rather, I am the absolute source»⁸. I would like to end by suggesting that to interpret Merleau-Ponty's claim to be the absolute source is to stake a claim in rescuing possibility from probability—to wrest the programmer away from the programmed, the determination away from the determiner, to become aware that the feed-er is also the fed-upon. When we trade our perception for the algorithm, we give a silent affirmation that the aforementioned perfect knowledge is realizable for the price of dehumanization.

⁸ Merleau-Ponty, Maurice, *Phenomenology of Perception*, trans. D. Landes, Routledge, New York 2014, xxii.

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