Mediating Affective Atmospheres through Public Wifi Infrastructure

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Amongst the increasingly complex rubric used to articulate the imbrication of digital media in contemporary culture, the idea of a praxeology of data is one that, for me at least, is particularly compelling. When I was first told about the scope of this edited collection, the notion of praxis immediately evoked two overlapping points of reference. On the one hand, it encapsulated those actions whose accumulated re-occurrence proves constitutive of the routines and rituals that collectively shape and actively remake the shifting contours of lived reality in which data-based devices are evermore anchored. But on the other, it steered my attention towards the knowledges, logics and forms of sense-making enrolled into and emanating from the sites where digital media seep into these routines; allowing for rumination on how such media are generative of new ontologies of everyday life.

In this chapter, I read the infusion of data-based technologies into this two-headed rendition of praxis by tracing its expression through, and imprint upon, affective life and the emergence of atmospheres that are coextensive to these affects. Whilst affect refers to embodied forms of responsivity, and perhaps consequently some liminal form of sense-making, that are in continual negotiation between bodies and the wider ecologies they inhabit, atmospheres address how such affects hold in the air: existing in tension as collective feelings, vibes or moods that reverberate through space. Our complicity in such atmospheres reflects our capacity to affect and be affected. We actively contribute to atmospheres, but only through the potential that they unlock and activate for us. Contingent upon the myriad relations that make them up, affects and atmospheres are fluid; being continually made and remade amidst the flux of life.

Bearing ramifications for debates pertinent especially to new media studies, affects and atmospheres are, as Ben Anderson writes, "always already mediated" (Anderson 2014,13). During their invocation, affects reveal their inscription with the trace of the happenings that have preceded them. Affects are shaped by history whilst simultaneously operating as vessels for the sublimation of history into a present. Important for me in this chapter is that, if affects are said to express mediation, we see the heterogeneity of things that act as media too. Rather than solely

referring to data-based devices, a more miscellaneous array of things will mediate the provocation of collective embodied moments in space. Discarded rubbish in a park, sticky floors on a train platform, the smell of baking bread, steam rushing forth from extraction pipes and an endless litany of other things might play their part in mediating affective experiences of space. And in a book about data and praxis, this intersectional and de-centered understanding of mediation allows us to consider digital devices not as isolated entities that mediate. Instead it focuses our attention on how such devices work in concert with a vast array of other things to figure within and actively help to modulate affective atmospheres that, albeit fleetingly, infiltrate, punctuate and surround the space-times of collective life.

I want to understand the political stakes where mediation is so defined, inquiring after how the curation of affective atmospheres via data practices is mobilized within, and indicative of, emergent forms of governance. To be more specific, I want to focus my attention on how digital devices penetrate situations and cultivate new practices therein that are based on an array of sensorial compulsions in pursuit of certain ends, guided by certain interests. Such technologies appear here as agents in what Brian Massumi has evoked as an "ecology of powers" (Massumi 2009, 173) that allows us to see the mediation of broader atmospheres via data practices as executed through an apparatus of power that seeks to "blend in with chaotic backgrounds" (2009, 153) where it operates. Across ecologies, the exercise of power is diffuse, taking place amongst an inchoate backdrop rather than being center-stage. Here is a modality of power that nudges across myriad sites both moving and static rather than dictating from a centralized position. This blending and dispersal, however, affords ecological power a temporality too, one in which those governing "must remain operationally open to unknowns and catch non-linear transversal phenomena" (2009, 154), seeking to adapt to the indeterminate swirl of the bodies and moods it vibrates through.

Whilst providing important precedents for considering how data practices furrow into atmospheres, recoding their affective intensity, an ecology of powers instigates careful re-appraisal of how perception, a key facet of affective life, figures in data practices oriented towards political ends. Perception addresses a whole manner of faculties used to sense surroundings. In some accounts, such sense-making is understood to be enacted on the basis of a cut that dichotomizes experience into binaries; of the imperceptible from the perceptible, say, or the visible from the invisible. But in this chapter I want instead to follow the path laid by Jenny Edkins in her traversal of such binaries (2019). An example of such a moment, according to Edkins, is the tension stoked between absence and presence in cases of missing people. Even though physical bodies may be categorized and treated *in absentia*, in other ways that person continues to imprint on spaces through sites they inhabited, objects that represent them or the memories of others. Even in their supposed absence, then, people remain present. Expanding this line of thinking and in con-

trast to some accounts (van Es and De Langa 2020), the vocabulary of affect and atmospheres enables a rethinking of the materiality of data in relation to the lived experience of urban life. The handprint that data practices leave in cultivating and modulating atmospheres do not conform to the language of perceptible/imperceptible, visible/invisible, absence/presence and so forth. Data-mediated atmospheres are, from the perspective of our bodily immersion within them, experienced on a precipice; constantly oscillating and undulating in their variance of intensity. Atmospheres will at one moment be strongly felt and, at another, hum lightly in the background. But never are they entirely evacuated from our collective sensorium.[1]

LinkNYC as Wifi Atmospherics

These conceptual reflections were provoked through research into LinkNYC: a public wifi infrastructure that has taken root and grown throughout New York City in recent years. An attempt to deliver on Mayor Bill De Blasio's 2012 pledge to widen access to the internet, the infrastructure is being developed through ongoing coordination between several public offices in New York and a conglomerate of for-profit companies that have taken CityBridge as their collective moniker for the project. The infrastructure supplies millions of denizens and tourists alike with a wifi connection that does not cost cash money, usually through their personal smartphones. In exchange, various sorts of data, outlined later, are extracted from users.

Like all infrastructure, Link is an assemblage composed of a litany of different agential materialities that entangle with one another in complex, and at times unpredictable, ways; serving different purposes. And with time these material forces have enveloped further still into the broader myriad constituents of urban milieus. The most visible manifestation of Link comes in the form of 10-foot kiosks that, in some parts of the city, stand at 150-metre intervals from one another up, down and across city blocks (see figure 1). These kiosks contain a tablet on which a limited number of web-based services can be accessed immediately. On either side of these kiosks are 55-inch screens displaying a catalogue of ever-changing adverts and a

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1   Perhaps such an endless perceptivity is implied more widely by the technological changes that have accrued in recent years. In the smart city, reams of Big Data are constantly produced through a network of devices collectively paving the way for computing that is ubiquitous and cognition that is distributed. These are phenomena from which it is increasingly difficult to disengage. Data practices thus open up to consideration how digital infrastructures infiltrate and modulate affective atmospheres, steering their excess and ethereality towards certain ends. In so doing, a mode of governance is enacted that is diffuse, that moves through the spaces that atmospheres shroud and that possesses a certain dynamic: coming in and out of different levels of perceptive intensity.

few public announcements, related for instance to the dates of elections, community boards or emergencies (O'Grady 2021). But the further one furrows into its operation, the more diverse its components appear. It relies on an abundance of fiber optic cables running throughout the city. And of course, it incorporates human bodies, and the smartphones through which they connect to the internet, into its daily life too.

How, then, might that work outlined on affect and atmospheres, along with its reconceptualization of mediation and consequent effects for the perceptibility of data practices, make sense of the life of this digital infrastructure? Extending this question to its effects, what ramifications does it bear for our thinking about the fraught junctures between data practices, the governance of space and the movements therein? Below, I explore the repertoire of data practices that emanate where LinkNYC intersects with the broader corpus of people and things continually reshaping city life. Following these practices, I stay with the means through which LinkNYC infiltrates experience in and of the city whilst making this experience anew. As stated in strategic documents, it is by taking these experiences as its target that Link designers seek to make the infrastructure a so-called "native" element of the metropolis' quotidian. The chapter first expands on what it means for Link to strive towards nativity across urban scenes and the practices inaugurated in an attempt to reach this goal. In turn, I show how these practices invoke different affective responses at discrete points within the multitude of flows taking place through the city. These responses accumulate, becoming emblematic of the cultivation of new atmospheric conditions for urban experience, as mediated by data practices and all they encounter.

Figure 1: Example of a Link kiosk

Source: author's picture

Going Native

By insisting on atmospheres as space-times that undulate through changing registers of perceptive intensity, I follow ongoing reappraisals of the relationship between perception and the processes of individuation that always accompany the exercise of governance (see Simondon 1992). The act of perceiving represents a juncture at which individuals are carved out of, and gain some degree of autonomy from, a background situation to which they are bound; perhaps allowing a sense of self to arise in alignment with a broader set of power-relations. Massumi expands on such a process through elaborating on the notion of affective attunement (Massumi 2015). Here governance is inscribed in the processes through which, however gradually, humans begin to perceive themselves and the myriad things in their cir-

cumference as separate and distinct. Perception involves the exercise of various embodied capacities to distinguish objects from one another. And as these processes actualize evermore in the throes of the everyday, one becomes further and further integrated into homogenized modes of affective regulation. Surely, we are not yet so far beyond modernist ontologies that the idea of perceptual individuation, and its linkages to sovereign subject-hood, have entirely collapsed. Nevertheless, it does seem to be on its way out and I want to give it a little bit more of a push by suspending, perhaps temporarily, the notion of the imperceptible. In its wake, emergent practices of governance, that operate beyond renditions of the individual, can be said to incubate in the cultivation of atmospheres premised on fields of diffuse, ever fluctuating movement through moments of shared perception.

This invocation of post-individual spatiality and subjectivity is central to theories of atmosphere and affect more generally. We could, for instance, return to Anderson's unpacking of atmosphere and his conceptualization of them as irreducible to the sum of their parts. Atmospheres figure here as embodied moods that exceed and produce something novel beyond the relations that form the conditions of their possibility in the first place. They obfuscate archaic boundaries, blurring "the line between individual and collective" (Anderson 2014, 105). In his other work on the topic, Anderson extends this line of thinking, arguing that atmospheres render indistinct segregations between phenomena usually treated as oppositional, such that "to attend to affective atmospheres is to learn to be affected by the ambiguities of affect/emotion, by that which is determinate and indeterminate, present and absent, singular and vague" (Anderson 2009, 80).

Erin Manning has elaborated on what such a conflation of old dichotomies implies for perception specifically in her development of the idea of "autistic perception" (Manning 2016, 14). Adopting a post-individual vantage point to encounter the reality in which one is immersed, autistic perception "creates ecologies before they coalesce into form" (2016, 14). Environments are beheld here as an indiscriminate intermixture of things altogether in which the succession to archaic categorization is deferred, with "as yet no hierarchical differentiation" (2016, 14), for instance, "between colour, sound, light, between human and non-human, between what connects to the body and what connects to the world" (2016, 14). Bodies do not only simply sense, though. Instead they actively help to create that ecology via their sensorial responsiveness. Perception here does not individuate but is shared and affected across space. And if this is the case, all that mediates atmospheres, all that contributes to its continual remaking, brings with it a continual capacity to be felt at least on some register. This capacity to be felt might at times be latent but it nevertheless bears potential and, as such, weighs upon and reflects a situation by framing its virtuality; being emblematic of a possible trajectory for a future state of affairs that might arise and its conditioning in the present.

I want to suggest that LinkNYC operates within such a rendition of environments and post-individual subjectivity when it is deployed to make itself "native" within urban milieus. By making itself native the infrastructure looks to embed itself both materially and experientially in the city. Sometimes it will take the foreground in urban encounters and at others it will furrow into the background. But in either case it seeks to mediate and influence experiences in different ways. Inculcating itself as native involves (at least) two complimentary and interrelated practices. On the one hand, Link finds ways to enter and infiltrate pre-existing atmospheres. On the other, it also must continually readjust its function to the broader atmospheric flows it seeks to act in concert with. And these practices align to and actualize different registers of perceptibility of a broader atmosphere that Link mediates. For the rest of this section, I want to elaborate on each of these practices in turn.

In the first practice, LinkNYC is bound up in operations similar to those expanded on in literature concerning the extension of so-called ambient media through daily life. For Paul Roquet (2016) ambient media operates as a pin to orchestrate relations between heterogeneous, unruly things to actively cultivate a mood. In other words, it might take pre-existent spatialized things, constitutive of already existing atmospheres, and mediate by rearranging these things to create that atmosphere anew. For example, then, New York and its abundant, lively, changing atmospheres existed before Link appeared on the scene. To become native, Link infiltrates itself subtly into these atmospheres and adds to them – necessarily re-tempering their effervescence in the process. According to Intersection, the company behind the advertising campaigns executed through Link, this infiltration has occurred to the extent that they can claim that the infrastructure is now "part of the urban experience, offering media products that natively weave into people's lives as they journey through public space" (Intersection 2017).

But, and to come to the second practice, the dynamic of atmospheric regulation that going native accounts for expands further. Atmospheres, as I have already claimed, are constantly changing, being reaffected by the introduction of new things and how they ripple through space. And in its becoming native, Link's relationship within atmospheres must address this turbulence. Here the nativity that Link seeks draws semblance with the natality evoked in Hannah Arendt's work. For Arendt, natality addresses the miraculous creativity, or potential for such, that streams forth with the injection of every new human into the world. Arendt elaborates: "The miracle that saves the world, the realm of human affairs, from its normal, natural ruin is ultimately the fact of natality… the birth of new men and the new beginning, the action they are capable of by virtue of being born" (Arendt 1958, 247). Though natality is felt as it reverberates as a novel force, it also bears connections to historically entrenched conditions and processes. Labor and work, for instance, are for Arendt "rooted in natality in so far as they have the task to pro-

vide and preserve the world for, to foresee and reckon with, the constant influx of newcomers who come into the world of strangers" (1958, 9); newcomers that "possess the capacity of beginning something anew" (1958, 9). Theorists of affect share this interest with Arendt through their detailing of capacities (Anderson 2014), virtuality (Massumi 2002) and transversality (Deleuze and Guattari 1983). At a finer layer of resolution, all these notions branch away from one another, to be sure. But they nevertheless accentuate that working with affect means to be cognizant of the ever-present potential for change that constantly brims in our encounters in the wider more-than-human milieus we inhabit. The potential interwoven into affects can be extended to the atmospheres they invoke and are shaped by. If affects embody a proclivity to change then they exceed the present situation in which they are performed and felt. Constructed through affects, atmospheres possess a dynamism that reflects their turbulence. "Atmospheres," to return to Anderson, "are always forming and deforming, appearing and disappearing. They are never still, static or at rest" (Anderson 2014, 141).

Natality, along with these later concepts, highlight the excessive character of affect. These are compulsions-cum-feelings that, to be sure, are defined by their very tendency to escape capture. But this does not mean that the force of novelty is not aligned in ways, or indeed mobilized by, practices of governance (O'Grady 2019). For her part, Arendt depicts the bursting forth of natality as something not wholly controllable by the people from whom it supposedly derives. Putting something new into the world, by necessity, means that that thing is externalized and thus shared with, and in part appropriated by, the environments or atmospheres into which it infuses. Arendt sees this loss of proprietorship where natal actions are not claimed through their naming via language. "Speechless action" (Arendt 1958, 179), then, "would no longer be action because there would no longer be an actor, and the actor, the doer of deeds, is possible only if he is at the same time the speaker of words" (1958, 179).

Pre-linguistic novel affects may be enrolled into modes of governance through techniques that witness that affect's occurrence and translate it into the realm of the representative. In so doing, affects rematerialize as operable devices mobilized into processes directed at modulating collective atmospheres. What, I think, we are led to ask here is a quite simple question: what techniques can thus mobilize affects? To find a response, we might look to the forms of data capture LinkNYC deploys to understand its users and how these data are used recursively to change the operation of the infrastructure within urban environments; de facto producing affects anew and remediating urban atmospheres.

These practices of data capture course through different phases. And in different phases, the perceptibility of Link's presence in amongst urban atmospheres ranges in and out of different spheres of intensity for users. Firstly, data are collected about the users of the Link wifi network. After first connection, users no

longer have to give Link permission to gather data from whatever device is connected. Over time, then, the collection process continues in a way that is increasingly interwoven as a taken-for-granted aspect of normal routine, becoming evermore surreptitious across the days, months, years that people connect to the network. A range of technical data are collected, including the MAC addresses of devices, the type of device, the language used by the device and the times between which the connection is sustained to the network (Intersection 2017). This real-time metadata are synced and integrated with wider, open source structured geo-demographic data-sets that estimate how many people will walk past and dwell amidst Link networks and their supposed attributes (Intersection 2017).

From the outset, Citybridge have been at pains to state that all the data they collect are anonymous. But anonymity is not interchangeable with the inability to identify. Nor is it necessarily against their interests to collect anonymized data. Striking a chord with the trans-individual character of affects and atmospheres, data at an individual level would not be that useful to the companies' strategy, whose primary concern is to understand and aggregate the scenes of collective life into which they wish to "become native." Through data collection, companies are able to infer much about network users. It is well documented that MAC addresses and device type data are used to interpret the level of income a person possesses and, perhaps more importantly, what they are willing to spend. Aggregated data on the times at which people connect to the network, when they are mobile and their destinations are considered integral elements to building up character profiles for users. The advertising company behind Link confirms as much, claiming that "we know people are always on the go and that their origins and destinations are strong indicators of who they are" (Intersection 2017). Addressing potential clients for Link advertising, the firm goes on to outline how it:

> takes a data-driven approach, working with… audience data sets to understand the daily journeys of your desired customers and target prospects. Based on that data, we then identify the highest value products for you for an unparalleled suite of urban media (i.e. Link kiosks) to reach exactly the customers you want, at times and places they are most receptive to your message (Intersection 2017).

It is the word "receptive" here that draws Link techniques to the natality Arendt describes and how specifically the infrastructure re-informs the atmospheres that it inhabits. From the data collected, what is called the Gross Rating Point of different people is inferred that establishes where and at what times they are likely to engage with Link screens. On this basis, the companies behind Link identify and seek to work on the potential of users by engaging with them at the specific times and in the specific spaces whereupon they are deemed most open to new forms of encounter; to absorb information projected onto screens and embrace with vim the possibility of new experiences and ways of life that teem within a range of products

– from phones to sportswear, drinks, and watches. With the arrival at adverts on screens, the data practices through which Link enters into and modulates atmospheres have registered at different spheres of perceptive intensity with users. Far from the surreptitious relation forged on the go where data are collected, with its advertising Link's presence is felt very prominently.

Bodies, Spaces and Shifting Perceptual Capacities

Perhaps implicated by these two practices I have described, bodies play a substantial role as sites through which Link pursues its goal of nativity. The embroilment of bodies here forces a reappraisal of how causality might be conceptualized amidst affectively charged atmospheres. Much of the time, affects are treated as embodied states whose arousal acts to reveal processes that have caused them. Affects are a sublimated reflection of some other process that bears less legibility than bodies and what they do. But affects are also revealed to be causal in themselves, getting caught up in mediating the generation of new shared moods. With Link, where atmospheres are tampered with amongst different registers of perceptibility, the causality riven through affects is different still. Affects might arise from the practices by which new atmospheres are brought about. But the practices in which they are enrolled are not registered that forcibly on the bodies that perform them. Causal processes run through, and act to reproduce, affects but perhaps at a lower, more surreptitious, level than has been written of before. Causal processes still take place through and upon the scenes of collective, embodied life but not necessarily to the extent of being registered cognitively. They exist prior to the disruptive violence of thought as Deleuze would have it (Deleuze 2004), whilst nevertheless instigating some perturbation in affects and the atmospheres that are co-extensive.

As described, affects are transindividual forces; arising amidst encounters between things. But being contingent on such relations, the intensity and significance of our embodied responses to space is continually in a state of flux; changing and shifting as new points of intersection are forged. Link kiosks have the capacity to capture data that reflects these encounters. Sensors can capture environmental data including matters of humidity, air pressure and temperature alongside air-pollutant data. Other data the infrastructure might collect relates to vehicles passing and sound levels. Through this data, Link can establish deeper, more intimate connections with the city and the bodies therein whilst remaining only at the edge of perception. What might be described as low-intensity encounters emerge here that carry on without stifling other ongoing engagements constitutive of daily life. So, for example, on my first trip to research LinkNYC in 2018, I immediately agreed to all the terms and conditions stipulated to connect to the network. On subsequent days I moved through the city; using the subway, my feet, buses and taxis. These

trips were made at different times and for a variety of purposes. I travelled between Manhattan and Brooklyn for meetings in offices, to write up research notes, to eat and drink in bars. I exercised in parks. At all times my phone was on my body. And whilst I didn't interact with it, my phone was connected to the network without triggering my awareness. For large swathes of time my bodily, affect-laden, ever-changing encounter with the city was constantly recorded via the connection with Link, but Link's presence didn't stir any new feelings. Link might attune to what Erin Manning calls minor gestures here; habits and dispositions provoked through our ongoing response to the world that are usually taken for granted and not necessarily problematized. For Manning, however, these gestures are crucial for understanding how bodies become embroiled in the recreation of affectively charged space: "it is the minoritarian tendencies," she claims, "that initiate the subtle shifts that created the conditions for...any change" (Manning 2016,1) that takes place. In their activation, minor gestures embody the ongoing responsiveness of humans to the world; a responsiveness that shifts, no matter how subtly, the atmospheres in which bodies are enveloped.

These low-intensity encounters sit on a continuum alongside moments in which Link's presence is more prominent amidst our ongoing affective responsiveness to the city. Extending thinking on post-phenomenological theory by synthesizing aspects of speculative realism with constructivist approaches, James Ash offers the term inter-comprehension to consider the practices by which "entities relate to each other" (Ash 2020, 182). It is through these relations that material realities and co-extensive ontologies arise. But, says Ash, inter-comprehension is always guided by power relations, meaning that the enactment and ramifications for bonds forged are always distributed asymmetrically across the entities conscripted. Inter-comprehension is thus "actively designed to provoke, guide or otherwise influence the action or capacities of other entities" (2020, 187).

Coming back to Link, these processes of inter-comprehension appear as a designed practice in the calculations made to establish what marketing companies call impressions data. Rather than looking to target specific individual people through data capture, impressions data seeks to render legible the distance at which people's engagement with Link screens will be most intense and overwhelming for their perceptual capacity. Such an optimal distance is derived from the integration of various data that reflects on experiences within environments immediate to Link kiosks, including the type of street on which they are implanted, the size of the adverts they display, the speed of movement and dwell time around kiosks at different times of the day. Such data are synched with "Census population figures, Census population projections, the National Household Transportation Survey and the American Commuting Survey" (Geopath 2017). Once this intelligence is generated, strategization and decision making takes place to think through how adverts might be designed to take advantage of the maximum noting

distance – thus seeking to modulate people's affective encounter with the city around them, orienting them to afford attention to adverts on screens.

Mobility's Collective Sensorium

Link's encounter with bodies is one that fluctuates, constantly oscillating across different registers of perceptual intensity. Perhaps this emphasis on undulating affects reflects a broader underpinning ontological assumption inscribed in Link's strategy to become native. This assumption is that perception morphs as bodies move. The encounters that Link seeks to instantiate conceive of perceptual capacities as they shift in motion. This connection between affect and movement is well established in literature. Such is elaborated by David Bissell in his book *Transit Life* where he argues that, caught up in movement, bodies express their openness to new forms of experience and their capacity to act in new ways as they continuously engage with the world. This dynamism that bodies-in-movement evidence paves the way for further conceptual extension to fathom the connections between bodies and what Bissell calls "ecologies" (Bissell 2018, 163). Figured as a "complex web of relations with other people, places, times, ideas and materials" (2018, xix), ecologies leave a trace on bodies, shaping how they feel, move, and make sense of their surroundings. Amongst an ecology's affectivities, however, bodies impress themselves upon the spaces they inhabit too. These ongoing co-constitutive negotiations reveal that bodies are ever-embroiled in processes of "enablement and constraint" (2018, xxi). By considering how bodies can move and how they cannot, in other words, we can start to consider the ways in which environments figure in the mediation of movement via practices of governance (Adey 2008).

   Such practices of enablement and constraint are certainly present when exploring how Link imbricates itself in the movements that contribute to the atmospheres in which it operates. However, we might add another layer to the terms used here in exploring the practices enacted by Link. In particular we might think of integration as a form of enablement and incorporation as a mode of constraint. Each of these practices bear upon movement across urban space through instantiating specific modalities of relation between bodies in motion and Link infrastructure. Regarding what I have termed integration, this practice is enlivened through modifications that have been made to Link infrastructure to ensure it is synchronized with the myriad flows that in part constitute life in New York. Link has been designed to syncopate with the polyphonic currents whose regularity accumulates to form the overarching waves that shroud the city at different points in the day. Such syncopation is evident when our gaze is drawn towards the ongoing development of the status of Link kiosk's tablets through which users access the internet. When the kiosks first appeared, users could spend unfettered amounts of time on the units.

But after numerous scandals involving the content being accessed on the tablets, the hours some would while away on them and the masses of people that sometimes would gather around, it was suddenly declared that "The LinkNYC tablet is meant to be an on-the-go resource" (Intersection 2017) and that, in a bid to "curb long term use of the kiosk" (2017), tablet interface use for a single session would be limited to 10 minutes and that internet services would be withdrawn after 1 minute of inactivity. Resembling a Foucaultian biopolitics of conducting conduct (Foucault 2008), perhaps the overwhelming rationale for these restrictions was to ensure that Link does not block the circulation of people and things that flow through Manhattan's bustling sidewalks. But the effect of this modulation is to suture and enfold Link infrastructure into routine flows, thus acclimatizing its existence into the rhythms of city life. Such was evermore evident when I discussed the material form of Link kiosks with their designers, who described how their shape, size and position was molded to facilitate egress that brings life to New York's streets. And the further it seeps into the urban milieu's background, the more perceptually normalized Link becomes.

Where movement, mobility and circulation take center stage in our analysis, nevertheless, Link also develops in the reverse direction in relation to its perceptibility. In other words, rather than reshaping its own functions to become part of city life, Link interweaves itself perceptibly into people's daily life through its gradual incorporation into their routine movement. Such a maneuver can be witnessed where Link establishes relations to the sensory capacities of people and orients them towards certain ends, thus showing its investment into what Bernard Stiegler calls a "retentional economy" wherein technologies are deployed to mediate consciousness (Stiegler 2010). Returning to his work, James Ash has drawn on the notion of retention to show how computer game design involves a "series of retentional ecologies and environments… to generate particular forms of affect" (Ash 2012, 7) that work "to capture and hold users' attention" (2012, 6). Link's targeting of retention though is different from that which Ash describes. For Ash, retention is something that will be captured and sustained for a length of time that is strung out. Eyes and bodies might be sealed to screens for hours. Retention is an object that Link seeks to hold, conversely, both more fleetingly whilst also being something it seeks to inculcate gradually over time. It is also something that Link seeks to harness on and off as people move in and out of places, through day and night.

Link's mobilization of retention is evident in the strategy articulated by the marketing company behind the adverts that flash up on Link screens. This strategy is first to understand the context in which movement takes place as ascertained through "data feeds including local weather, events, maps, traffic, social media and more" (Intersection 2017) to identify "the critical data consumers need to inform their journeys" (2017) and then present this data on kiosk screens. Link advertising here creates fleeting encounters between screens and people that are relevant to

people as they move through the city. Over time, these micro-encounters become part and parcel of the normalized perceptual range of people's routine, rhythmic movement through the city. They peer occasionally at screens to attain useful information. However, much of the time when they look at the screens they will not see information on the chance of rain, say, or delays on the subway but adverts for trainers, perfume, holidays and so on. As the marketing company explain themselves: "The digitization of assets in transit authorities has created communication platforms that display emergency service announcements, provide real-time train updates and offer contextual messaging. This is retraining consumers to look at screens more actively, increasing the value of "adjacent advertising." Already, we are seeing brands natively weave themselves into the context of this messaging, providing utility as well as engagement" (2017). As it becomes an increasingly integral source for information on matters considered crucial for commuters, LinkNYC simultaneously infuses into urban atmospheres the interests of companies whose services and products are anything but.

Conclusion: Choreographing Affects for a Fluctuating World

In this chapter I have expanded on data practices by tracing their entrance into and modulation of the turbulent maelstrom of affects that arise from and cast themselves, however momentarily, across the space-times of urban life. Synchronized with flowing affects, the modes of mediation that data practices are enveloped into are wholly decentered from any point of technological interface with a specific, singular device. Mediation is instead a process continually negotiated amidst multiple heterogeneous material agencies out of whose infusion arise fleetingly coherent spatial ensembles that might be known by various names; whether ecologies, atmospheres, environments or milieus for example. Manifest by its inscription onto bodies and their capacities, the forms of mediation that data practices enact and become enrolled in follow a particular choreography. Bodies affect. Before any point of conscious revelation, they operate as vessels bringing the situation from which they have arisen to bear on other spaces, thus mediating new situations entirely. But at the same time, bodies are affected. Upon ever-shifting registers of perception, affects bear the imprint of the modes of mediation that bring them about and, in so doing, express their shaping through forms of governance. Extending Massumi's work, affects show that data practices help to undergird an ecology of powers that infiltrates and recursively nudges forms of encounter that characterize our experience of urban scenarios. Such is evident in this chapter by the proprioceptive repertoires of bodies across the city: from shifting eye trajectories to changing relations to smart phones that rest intimately on our bodies.

But in their affectation, such repertoires end up affirming and in turn actually modulating new forms of knowledge and rationalities that have developed to sustain these ecologies. Bodies thus speak to the very strategies that seek to suture them into environments molded by data practices. At the same time, it is important to remember that such knowledges are reflexive, they learn from and adapt to the modes of encounter that bodies register in these environments and the range of perceptive capacities actualized in tow. These knowledges mirror the emergence of new processes of subjectification that do away with the idea that an individuated subject can be identified and constituted as such by its inheritance of sensory detachment from wider environments. Affects are trans-individual – emanating from and rebounding through spaces prior to the setting in motion of forms of attunement through which people are taught to extricate themselves from environments via learnt modes of cognition. Considering bodily capacity as its target-object, governance that seeks in some way to address affects looks not towards individuals, then, but to the intersections between entities that encounter one another in and through space.

Building pathways to attend to the integration of data practices into affect-laden space-times and their mobilization as an object of governance presents some serious methodological challenges whose difficulties far exceed this chapter. But some of the questions that might be asked can at least be formulated here. How might we evoke the felt permutations that fluctuate as encounters are renegotiated through the presence of data practices? What efficacy would our commentary hold by attempting to bring into focus modes of mediation that are shared, diffuse, decentered and eminently "ecological"? Is it not folly to grasp for and represent experiences whose liveliness is constituted by the fact they exceed representation? Perhaps some promise to finding a response to these questions might lie in developing further Maria Puig de la Bellacasa's call for a poetics of infrastructure. Inspired by Susan Leigh Star's work, such a poetics involves making sense of practices that have become routine by engaging with what has been erased through their very stabilization, thus expressing "other possible worlds hidden or silenced in marginalised spaces" (Bellacasa 2016, 49). Whilst such a poetics orients our focus to things that exist beyond the scope of this paper, LinkNYC does show us that affects we may not even register might nevertheless be enrolled into data sourcing, meaning their silence is not ensured. Indeed these barely perceptible affects figure in practices crucial to the infrastructure's operation. So perhaps what poetics needs to be supplemented by is a sense of the ever-present existence of these alternative worlds and the potential they bear for redressing the implications that data practices bear upon everyday atmospheres in the city.

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