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Publication Date

2009-12-12

Peer reviewed

From Control Society to Parliament of Things

Designing Object Relations with an Internet of Things

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ABSTRACT

This article discusses ways of framing Locative Media through critical theories of new media, particularly Giles Deleuze's "control society hypothesis" and Bruno Latour's "parliament of things". It considers artistic practices that combine data visualization and location-awareness in order to represent public space. If Locative Media largely reworked the Situationist practice of *psychogeography*, in which the city was the primary site of contestation, the article looks at practices which contest ideas about *Nature*, in order to create "structures of participation" to address a "crisis in political agency" (Jeremijenko). The conclusion shifts Latour's discourse on networks of non-human agency to the cognitive level in order to consider the potential impact of ubiquitous technology in terms of *being*.

Categories and Subject Descriptors

F.m [Theory of Computation]: Miscellaneous

Keywords

media theory, cultural criticism, Locative Media, control society, parliament of things, Situationism, ecology, Relational Aesthetics, circulation, design thinking

1. INTRODUCTION

The term "Locative Media" was initially coined during a residency by myself and Karlis Kalnins in 2002 at the RIXC New Media Center in order to describe our project Geographiti to the European media art world. A mobile media project for spatial annotation, Geographiti used a combination of networking and location awareness to "make the planet into a digital canvas" [32]. The term was then promoted through a series of publications, conferences and workshops produced by myself and RIXC, bringing together artists and researchers working with the idea of location and technology, specifically Global Positioning System technology. Over the course of the next few years Locative Media expanded beyond the European new media circuit, culminating in 2006, when

William Gibson used it as a central trope in his novel "Spook Country", referring to a cyborg head-mounted technology used by artists to create parallel augmented realities crawling with Mongolian Death Worms [20]. Today, the dominant vision for the future of Locative Media is articulated by long-term forecasting research center Institute For The Future (IFF), in terms of embedded and location-aware interactive information systems. These systems are said to fundamentally transform our experience of the city as the digital virtual becomes increasingly overlaid onto the analog actual [30]. Since its inception, however, Locative Media been also been a favorite straw man argument for new media theorists to attack. In response to this partial reading of the medium, this text seeks to consider how artists create Locative "design fictions" for information intensive environments, referred to as the "Internet of Things", compelling visions for networks of relations between subject and object, science and nature. In this context the article propose the conceptual framework of Bruno Latour's "parliament of things" as a way to consider a set of practices at the intersection of art and design that envision alternate models for human-computer interaction in information-intensive environments. To what extent are these quasi-objects, as Latour calls them, capable of catalyzing a transformation in our own self-understanding?



Figure 1: Karosta Real Time map from inaugural Locative Workshop, 2003, Pall Thayer

At the height of my own involvement with the Locative Media movement in 2004, Andreas Broekman, director of the Berlin Transmediale media arts festival, characterized Locative Media as an "avant-garde of the society of control" [11].

The text to which he was referring, “Postscript on a Control Society” sought to periodize the paradigmatic shift from the Foucauldian era of bureaucratic institutions to one of decentralized mobile control [15]. In referring to Gilles Deleuze’s description of the contemporary regime of power, Broekman was articulating a specific critique dominant amongst the European media art establishment by suggesting that Locative Media practitioners, like the Net Artists who preceded Locative Media, should address the technologies of surveillance and control upon which the medium was apparently based. Mark Poster has however questioned the reception of “Postscript on a Control Society” by media studies, characterizing the text as overly reductionist beyond its central observation regarding the absence of major spaces of confinement [48]. Alex Galloway has built upon Deleuze’s underdeveloped text with his notion of “protocol” as “a technique for achieving voluntary regulation within a contingent environment” [19] (page 7) folds the control society hypothesis back into Foucault’s 18th C idea of biopolitics [17], by arguing that the processes by which statistical knowledge produces bodies simply occurs in more heterogenous environments due to contemporary network technologies. For Poster, Galloway’s crucial corrective to Deleuze’s thesis is to acknowledge that, in as much as new media technologies may remain structured around models of command and control, they also bias equally anarchic forces, which Galloway argues can be framed in broadly political framework around issues of environmentalism and social justice, for instance, in terms that contemporary artist Natalie Jeremijenko refers to as “structures of participation” [19] (page 16).

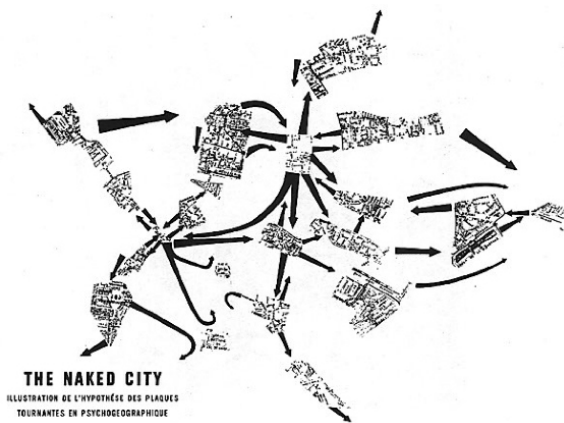


Figure 2: Naked City, 1957, Guy Debord

Tuters and Varnelis noted that Situationism has frequently been claimed as a precursor to the Locative Media movement [61]. Under the umbrella term of unitary urbanism, the Situationists developed theories and practices to counteract the perceived degradation of creative existence in the capitalist city by forces of mass media and advertising, practices which were increasingly conceived in terms of process and code. They argued that locative projects could for example be framed in terms of the Situationist practices of the *dérive* (psychogeography) and *détournement* (mash-up), either digitally annotating or tracing space, as a medium for the electronic public artist. Having itself played a crucial ideological role in the movement of May '68, Situationism represents something of a sacred cow for the New Left,

which explains the reaction by, for instance, media critic Brian Holmes against the “Geographiti” project as having, in his opinion, debased the genuinely emancipatory promise of Situationism by using its ideas as the content for gadgets built on a substrate of technologies of surveillance and control [31]. Indeed, Varnelis has himself subsequently critiqued Locative Media for the narrowness of its theoretical underpinnings when artists cite to Situationism as the basis for augmenting the city [62]. The philosopher and labour historian Jacques Rancière has, however, characterized the influence of Situationism on criticism in terms of art’s “fatal capture by discourse”, “after the proclamation of the end of political utopias” in which “the tradition of critical thinking has metamorphosed into a deliberation on morning” [50] (pages 9-10). Indeed, locative practice based around the *dérive* and the aforementioned neo-Situationist criticism of the former are paradoxically similar in that they share a certain nostalgic vision of the city as the primary site of contestation in contemporary society. This article contends that the Situationist critique and the control society hypothesis are insufficient in the face of current “matters-of-concerns”, especially ecological issues. As opposed to *the city* as the site for Locative Media this article proposes *Nature*. Following the science and technology studies theorist Bruno Latour it refers to practices *beyond Locative Media* as assembling and designing relations between and amongst the worlds of networked *Things*.

2. PARLIAMENT OF THINGS

In contemplating the crisis of criticism in a pragmatist post-9/11 world, Bruno Latour argues for re-framing debates around what he calls “matters-of-concern” [34]. For Latour, “The critic is not the one who debunks, but the one who assembles” [34] (page 246), someone who *adds to* rather than *subtracts from* the reality of matters-of-fact. “Reality”, for Latour, “grows to precisely the same extent as the work done to become sensitive to differences.” [40] (page 85). This not, however, the politics of difference in the post-Marxist sense. Latour’s project is focussed on what draws and holds things together, rather than what separates and keeps them apart. In an important sense Latour’s criticism is capable of engaging in a productive dialogue with the trend of evidence-based “design thinking” that is being applied to ever larger organizations and systems. Design thinking augments purely analytic thought with close observations of day-to-day experiences from the field of ethnography, an empirical basis which resonates with Latour’s own approach. His thinking is representative of a shift in the philosophy of design away from metaphors of the object and structure towards those of atmosphere and thermodynamics which see design as a political activity. In this sense his thinking differs significantly from the post-modern semiotic turn in the field and design which is either concerned with merely formalist issues or treats politics in terms of representation. His thought grounds the non-foundational concerns of French post-structuralist philosophy within the more qualitative empirical methods of the largely Anglo-tradition of science studies. It is thus possible to envision how Latour’s quite radical thought could have genuinely impacted beyond academic discourse and art practice, through design disciplines, particularly human-computer interaction design for ubiquitous environments.

Speculative realist philosopher Graham Harman characterizes Latour's thought as "object-oriented philosophy" [26], a type of metaphysics based on the fundamental principle that the world is made up of objects which gain strength only through their alliances, which are linked through translation, and that "nothing is, by itself, either reducible or irreducible to anything else" [36]. As a foundational figure in science studies' "actor network theory", Latour's philosophy as well as his politics emerge from the micro-social level in his careful studies of the role of tools and mediation in practices. By mapping the relations between things and ideas, actor network theory makes the controversial claim that non-humans can, in fact, also have agency. At a certain level Latour's networks are however transient, relying on actors to repeat the performance of their relations in order to sustain them. Referencing Heidegger's notion of *das Ding* (the Thing) as "a gathering", Latour speaks of material things in terms of webs of associations which the philosopher of science traces, what he likes to call "quasi-objects" or "matters-of-concern". The role Latour ascribes to semiotic networks in relations to material reality relates to the annotative-practice of *Locative Media* as the performative dimensions of Latour's project relates to *dérive* type practices. As Latour has become more involved with art and design, he has developed the idea of a *Dingpolitic*, based on the notion that there exists a strong connection between things and quasi-judiciary assemblies in European languages (notably the oldest parliament is Iceland's so-called *Thingvellir*) [34]. In terms of this political project Latour, in fact, sees an increasing role for new media and design, a relationship this text will explore.

Following the model of science and technology studies, which traces the social-contingent genealogies of scientific experiments, Latour advocates a radical political philosophy of "collective experimentation", and transparency, in which scientific matters-of-fact are rhetorically constructed so that they may be debated and decided upon for entry into the public sphere. For Latour "Democracy can only be conceived if it can freely transverse the now dismantled border between science and politics, in order to add a series of new voices to the discussion, voices that have been inaudible up to now... the voices of non-humans" [40] (page 69). Emphasizing a kind of transparency of process, Latour advocates a politicized approach to the design of public space, "The more instruments proliferate, the more the arrangements become artificial, the more capable we become of registering worlds." [40] (page 85). For Latour "[h]alf of public life is found in laboratories; this is where we have to look for it" [40] (page 69) thus politics should learn from scientists whom "have invented speech prostheses that allow nonhumans to participate in the discussion of humans, when humans become perplexed about participation of new entities of collective life" [40] (page 67). Following several "thought experiments", collaborating with curator Peter Weibel at the Center for Art and Media in Karlsruhe Latour's work has increasingly turned towards the arts, to which he looks to develop new technologies and techniques as part of what he calls "new eloquence" by which we may assemble a "parliament of things".

In terms of pressing "matters-of-concern" in global politics, such as climate change, Latour is interested in how we can design technology to integrate the natural world within the

political sphere. To this end he criticizes the "Green" ideology of mainstream ecology as using a romantic vision of nature apart from technology to in fact abort politics. Following Latour, we can think of ubiquitous design in terms of ecological design, where nature is a set of interrelated systems in which the work of design starts from an analysis of those contingent relations and scales-up to include the entire atmosphere which sustains them. To this end, Latour's work increasingly resonates with that of philosopher Peter Sloterdijk who also frames contemporary social and political concerns in terms of "design". Whereas Latour is principally concerned with tracing networks that connect human and non-human actors, Sloterdijk's spatial thought, also highly relevant to theorizing *Locative Media*, is expressed in terms of designing inhabitable mobile "spheres" which support a kind of immunity from each other while having transparent and flexible boundaries [52]. Latour claims that Sloterdijk's spheres, conceived as foam in complex social systems, offers a materialist idiom for redesigning the planet beyond humanism in which these artificial life supports become the key site of politically minded investigation, a "necessity of redoing everything once again in a strange combination of conservation and innovation that is unprecedented in the short history of modernism" [41] (page 11).



Figure 3: PigeonBlog, 2006, Beatriz da Costa

The potential of locative technologies to make visible the relations between people and things presents a way out of the deadlock of the control society critique. The iconic *Locative Media* project of this type, within the context of new media, is Beatriz da Costa's *PigeonBlog* project exhibited at ISEA 2006, in which the pigeons were equipped with GPS enabled electronic air pollution sensors in order to remotely map the air quality of the city in real time [12]. Varnelis and Tuters proposed how to read this type of work, "beyond *Locative Media*" through Latour's actor network theory, as well as science fiction writer Bruce Sterling's idea of "spimes" to show how ubiquitous computing is giving non-human's the ability to comment on their own environment, thereby effecting our behaviour and gaining a measure of agency [61]. For his part, Sterling's "spimes" constitute a complete dematerialization of designed objects into the network, a kind of open-source version of the Platonic metaphysical reality in which the ubiquitously networked material world becomes a shadow of the latest code build [53]. Sterling's science-fiction take on design envision *the Thing* that quite literally speaks for itself, for instance putting itself on Ebay if it has

been neglected by its owner for too long.

Ever the canny futurist, Sterling has subsequently shifted his practice from science fiction to what he and creative technologist Julian Bleecker are now calling “design fiction”, a novel nomenclature for an emerging practice which uses the language and methodology of design to practice criticism in a space traditionally limited by its close relationship with capital. In so far as it materializes ideas through stories, design for Bleecker is about the future in a way similar to science fiction, so design fiction then pushes this practice towards “questioning how technology is used and its implications ... by ignoring disciplines that have invested so much in erecting boundaries between pragmatics and imagination” [7]. Whereas the avant-garde strategies of the '90s generation of digital artists, for instance, developed out of a short-lived elite moment of autonomy, today's generations, whom media theorist Lev Manovich calls Generation Flash, tend to work in the field of design [44]. In the words of media theorist Wilhelm Flusser, “as we lose faith in art and technology”, design takes on an increasingly significant role [16] (page 39).

While Latour espouses design in terms of progressive politics, architecture theorist Benjamin Bratton also uses the metaphor to describe Lashkar-e Taiba, the jihadi group responsible for the Mumbai bombings, for the manner in which their project can be read as the programmatic implementation of a design imaginary through the “specific material techniques” of Locative Media, notably Google Earth. As a “projection or presupposition of some consensual, secular landscape”, Bratton considers Lashkar-e Taiba's reading of Google Earth as a “meta-interface into an archaeological view of the virtual frozen present”, “agnostic as to how anything arrives in its place or why”, and yet this is “the means by which the public sphere is given form”, capable of absorbing “all psychogeographies that might course through it” from “the political imaginings of State... and non-state actors alike” [10]. This is to say that it is important to understand design more generally, and Locative Media in specific, in all its potentially political dimensions that we might then go on to discuss its role in progressive politics, namely in terms of creating what technology artist and activist Natalie Jeremijenko refers to as “structures of participation”.

3. DISTRIBUTION OF THE SENSIBLE

A public dialogue recently occurred between Bratton and the Jeremijenko connecting the potential of Locative Media with Latour's “parliament of things” [9]. In terms of this framing, like Tuters and Varnelis [61], Bratton seems less interested in the *dérive*-based practices of Locative Media than in those artistic practices which develop emergent political models of interrelationship between non-human actors and humans, where the role of the artist is to give representational agency to things “that otherwise would not have a parliamentary representation” [9] (page 36). More than anything else, Bratton and Jeremijenko agree that it is in *the Thing's* capacity to contest the evidence, and to have an opinion, where ubiquitous computation devices can really contribute.

Another key moment in the broader debate around these issues occurred with Julian Bleecker's “Manifesto of Net-

worked Things”, which responded to both Latour and Sterling, stating “Things that matter inflict the course of social debate and discussion, and cannot help inflicting local and global change” [6] (page 9). In the text Bleecker describes a new episteme in which da Costa's blogging pidgeon, in his words, “attains first-class citizen status”, a frame by which we might also consider more recent projects such as hacker Joshua Klein's “Crow Box” that leverages the intelligence of crows in order to get them to collect litter [33] or the wildlife reality television's trope of the “crittercam”, employed arrestingly in the recent film festival hit “The Cove”, allowing dolphins to speak for themselves against human brutality [49]. Indeed, when we consider John Berger's claim that modernity begins when people no longer directly depend on animals and they become symbolic [4], it is significant here that in the arts community the moment of recognition for a Locative-type project came when the Golden Nica (the highest distinction in electronic art) was conferred upon “the MILK project”, which visualized the path of Dutch cheese to its origins from dairy cows in Latvia [46]. Like the locavore and organic food movements, we can thus perhaps consider these design fiction networked objects as allowing us to learn about the world by taking it apart and redesigning what Latour would call its “black boxes”.

In terms of a theoretical framework for conceptualizing Locative Media, Bratton brings in Jacques Rancière (a thinker whom shares Latour's association of politics with the arts), for his notion of “the distribution of the sensible” [50]. Rancière claims a historical constancy with respect to “the ways that figures of community are aesthetically designed”, specifically “the level of the sensible delimitations of what is common to all community, the forms of its visibility and of its organization” [50] (page 18). Rancière's distribution of the sensible reserves a special role for “the police”, which is not one of repression, as it was understood to be in '68 (and to which Situationism was responding), but increasingly *organization that divides communities* [50] (page 89), the essence of which is captured in the clichéd injunction “move along, nothing to see here” (associated in pop culture, for instance, with South Park's Officer Barbrady character). Similarly to Latour, for Rancière the essence of politics comes from supplementing this distribution with actors that have no part in the perceptual coordinates of the community [50] (page 3). Bratton thus envisions a redistribution of the sensible in which Locative Media as well as info-graphics “become part of the way that the commons understands and narrates itself... a tool for a politics that doesn't yet exist” [9] (page 37)



Figure 4: The MILK Project, 2005, Esther Polack

A practical vision for how Locative Media could be used in redistributing the sensible might come from journalist and renowned food activist Michael Pollan, who promotes the power of transparency in regards to reforming agriculture, calling for a new food labeling system that would feature a second barcode on packaging, linking consumers directly to the means of production, via, for instance, a video feed of the slaughter-house. At the same time, is there not some ideological dimension present within this project to transparently tracing, or cognitively map, the logistical networks of production. It is interesting to note, for instance, that the artist behind “the MILK project”, Esther Polak, chose not follow the path of the milk to a fast food chain though it led there as well. While this was a perfectly reasonable artistic choice, it speaks to the inherent limitations, to effectively cognitively map multinational capitalism. The design fiction networked object, can thus paradoxically work against transparency, by a public whom desire simple solutions for complex problems. These issues have been addressed by Harvard law scholar and free culture activist Lawrence Lessig in the context of the movement by the Obama administration to open up United States government data, which Lessig condemns for having encouraged superficial readings, on behalf of the public, whom lack attention [42]. In the Control Society we are not longer speaking of manipulation in terms of the passive consumer of the Situationist spectacle, but in terms of interactive prosumers, whose niche-market desires are how the sensible is delimited. While this paper has argued that digital artists can envision new kinds of public space, if our ambitions are more populist, in terms of design, it is crucial we look at least briefly and what keeps people apart as well, the role of desire, as Rancière would put it, to always keep things moving.

Lest we take Bleecker’s claims for the citizen-status of networked things too seriously, we should always remember that while non-human agency can exist, humans remain the arbitrators for entry into the “parliament of things”, and, as such, our own vulnerabilities and proclivities towards certain experiences may cause problematic biases –which animal’s story would people tend to prefer to hear, for instance, that of the aforementioned crow or the dolphin? As such, if as designers we are to take seriously the work of assembling this Latourian “parliament of things” we must contend with and produce theory that can account for populist tastes in all their often-times conservative or irrational dimensions.

Humans have long-since left the imprint of our drives on the non-human world. Consider, for instance, the Heikegani crab native to Japan, which were thrown back by fishermen for their resemblance to a Samurai mask thereby creating, unintentionally reinforcing this unintentional pattern on their shells over time. While the Heikegani crab may, from the point of view, for example of Germanic metaphysical analyses of will and drive, be seen as a glimpse of *the thing-in-itself*, these theories seem wedded to a Romantic anthropocentrism. Networked things are rapidly becoming a reality in cities such as Tokyo, where cheerily subservient household appliances, for instance give us a glimpse into a potential *cute parliament of things*, a kind of “object relations theory” which the Japanese refer to as as “kawaii” – based on the evolutionary artifact of neoteny in which child-like traits are used by helpless juvenile animals to evoke to

elicit non-threatening behavior. By exploiting this artifact of desire in designing the “parliament of things”, are we potentially overlooking the inherent agonism at the base of any political assembly?

4. STRUCTURES OF PARTICIPATION

Jeremijenko’s work seeks to represent networks legibly for a populist audience, in her own words, “for me it is critical to appeal to the sense-making of the everyman. We are trying to translate these techno- scientific, industrial and political resource allocation issues to be self-evident to the everyman, such that they could act as if they were self-evident” [10] (page 30). For Bratton, however, the very idea of making visible some kind of global agora assumes that political conditions are mutually compatible as opposed to essentially agonistic in that they must always demarcate certain limits. With regards to the aforementioned Lashkar-e Taiba, for instance, Bratton speculates on the prospects of a “Google caliphate”, whereby “truly pervasive computation may demand or activate new forms of agonistic and/or cosmopolitan political capabilities”, “in which and for which the terms of the ultimate constitution are anything but understood” [10]. A similar critique to that of Bratton is put forth by contemporary artist Coco Fusco in her comments on the use of maps and spatial logic within artistic practices such as Locative Media as “suppress[ing] difference, which gave voice to the personal experience of women, the poor and disenfranchised minorities” [18]. Fusco’s critique of Locative Media in turn strikes a similar note to that of art critic Claire Bishop in relation to Nicolas Bourriaud’s use of the concept of “context” in his curation of “relational” artworks. As is the case of Bratton’s critique of Jeremijenko, Bishop values an agonistic notion of community that “demarcate[s] certain limits and sustains a tension among viewers, participants, and context”, whereas for Bourriaud’s “context”, has more to do with revealing hidden networks in human relations. As the exemplary Bourriaudian relational artist Liam Gillick rebuts Bishop thusly: “Things get truly interesting when art goes beyond a reflection of the rejected choices of the dominant culture and attempts to address the actual processes that shape our contemporary environment.” [21] (page 100). From this point of view, the role of the artist or designer is to give voice to the forces which constitute space. From the Latourian perspective the artist is thus something of a rhetorician, tasked with creating compelling if fictional representations of public space –where the difference between fact and fiction depends on the strength of the network. Latour states: “To convene the collective, we shall thus no longer be interested in nature and society, but only in knowing whether the propositions that compose it are more or less well articulated”. [40] (page 233).

Latour does not claim that things speak on their own, rather, like Rancière’s he calls attention “to a phenomenon that precedes the distribution of forms of speech” [40] (page 68) Latour refers to this as a Constitution’. Jeremijenko is perhaps a prototypically Latourian artist, as she sees her role as assembling the interface (what he would term “the Constitution”) of these speaking things, in order to articulate a criticism of east she calls the “crisis of political agency”, whereby environmental activism has become conflated with capital. In contract, for instance, to Michael Pollan’s aforementioned espoused vision of a kind of transparent Loca-



Figure 5: One Tree, 2004, Natalie Jeremijenko

tive consumer activism, Jeremijenko warns us about a view of political agency in which “you can get more information about a product by waving your cell phone near it” [9] (page 38). As Pollen’s vision increasingly brings transparency to the logistics of food production, the role of the “avant-garde of the control society” may thus become one of bringing to the Latourian actor-network perspective to bear on seemingly more stable categories, objects without sensors and actuators, which are nevertheless deeply enmeshed in technoscientific networks. To this end, Jeremijenko’s One Tree project is interesting in how it crystallizes the the aforementioned debates without actually relying on such networked technologies.

In One Tree, Jeremijenko planted genetically identical trees in various socio-economically different neighbourhoods in order to question the logic of genetic determinism. While the trees themselves feature no sensors at all, they effectively “visualize” the locative data of the contingent environment (thriving in rich areas while struggling in poor neighborhoods), thereby critiquing the construction of nature as existing outside a network of relations. However One Tree suggests that the point for Locative Media may be to think more metaphorically, beyond technology design in specific, so as to understand and map the relations between technology, nature and politics. While Bourillaud claims that Relational Aesthetics draws inspiration from models introduced by networked technologies. It is interesting, however, to consider his statement that “[t]echnology is only of interest to artists in so far as it puts effects into perspective, rather than putting up with it as an ideological instrument” [8] (page 67). His claim here is that the most interesting effects of these disruptive technology are first felt elsewhere in the culture. By analogy he offers the initial impact of photography as having first occurred in Impressionist painting. The lesson for Locative Media, from Relational Aesthetics, is thus that the most profound effects of emerging technologies do not occur at the level of *epistemology*, but rather at the very level of *ontology*.

5. THE TECHNOLOGICAL UNCONSCIOUS

Literary and media theorist Katherine Hayles sees the potential of ubiquitous technologies as introducing deep ontological questions about the nature of human agency and meaning in information-intensive environments [29]. For Hayles, epistemological issues are well suited to strategies and tac-

tics [29] (page 49), an examples of this would be the Institute for Applied Autonomy’s i-See project, which allows one to map out a path through Manhattan that avoids security cameras [3]. The deeper question for Hayles, however, is “how we understand the ontological effects of animate environments” [29] (page 50). She sees the pervasiveness of ubiquitous technologies as calling for a re-thinking of human subjectivity in terms of ubiquitous interaction design. For Hayles the challenge is how to access the “constructive and life-enhancing aspects of these technologies without capitulating to their coercive and exploitive aspects” [29] (page 48). In this sense her thought can be used to relates Latour’s privileging of non-human agency to a more psychological discourse, without necessarily reintroducing fossilized notions of liberal humanism. To this end, Hayles frames the role of the design in terms of a design ethics: “The idea that meaning and interpretation can occur across and between human and mechanical phyla contributes to an expanded sense of ethics necessary when the contexts for human action are defined by information-intensive environments and include relational and context-aware technologies” [29] (page 69). Indeed, Hayles stresses the importance of design to the very notion of subjectivity in a technologized society, by referencing social geographer Nigel Thrift’s idea of the “technological unconscious”, which argues that the unconscious thus has a historical dimension related to aspects of design [59].

If we can see “the Thing” as a gathering, or the art object as a relational network, then we can begin to see the human subject as a collection of habits, technologies and so forth as well. Hayles, for her part sees human behavior becoming increasingly integrated with the technological unconscious “through somatic responses, haptic feedback, gestural interactions, and a wide variety of other cognitive activities that are habitual and repetitive and that therefore fall below the threshold of conscious awareness” [27] (page 140). As actors become integrated into still larger meta-systems, Hayes calls for a new framework that is “multi-layered, context-aware, and capable of generating novel meanings and interpretations” [29] (page 60) in order to shed the misconception that humans alone are capable of cognition, “a proposition already deconstructed with respect to animals and growing shaky with regard to distributed cognitive systems” [29] (page 66). Critical of interaction design, media theorist Mark Hansen’s sees great potential in interactive technologies given what he sees as the “primary” role of technology in what he refers to as the “epiphylogenesis of the human”, or evolution by other means [24] (page 61). For Hansen, digital art addresses the primordial and persistent gap between the biological and the psychic theorized by Kleinian object relations theory. Given its primary importance in creating the human, Hansen thus considers modes of interaction design within the media art’s as alternatives to the dominant motifs of contemporary human computer interaction design in which which “affect” becomes a new form of interface for “contact –any contact– with the domain of information” [23] (page 213).

Latour’s “parliament of things” envisions symbolic representations providing legibility at the social level. But what happens when the building which houses the “parliament of things” is occupied by a deafening cacophony of voices?

With regards to this problem media theorist Jodi Dean speaks about a “fantasy of abundance” in which the specificity of messages are lost online. Following the philosopher Slavoj Žižek’s semiotic-psychoanalytic notion of “the decline of symbolic efficiency”, Dean’s pessimistic critique associates web epistemology (surfing from link to link) with the Freudian drive which seeks to break all continuities. For Dean, the drive of Internet culture towards communication in fact works in precisely the opposite direction of citizenship by preventing the “enchainments” upon which political agency is based, in a sense short circuiting some kind of genuine political engagement with its superficial representation in terms of social networks and the like [13]. Dean is effectively arguing that the rational processes of deliberation upon which politics relies at a molar level is increasingly by-passed by our real experience with technology. Consider for instance the matter of neuroscientist Benjamin Libet’s well known half-second gap, according to which physiology precedes consciousness [43]. According to Žižek, the symbolic order is built upon a “constitutive gap” at the psychological level. From this semiotic-psychoanalytic perspective, the somewhat abstruse question then becomes, to what extent are these Locative-type technologies, upon which Latour’s parliament is based, encroaching on this gap—a gap upon which is based the symbolic authority to speak.

As “standardized space and the ability to track and trace” increasingly infiltrate our bodies at the unconscious level of Libet’s half-second gap, Thrift calls for the formation of a “microbiopolitics of the subliminal” [58] (page 72), a form of political resistance particularly attuned to protocological control. This work addresses the body’s “constantly moving pre-conscious frontier” [58] (page 67) through the vitalist turn in performance studies, feminist theory and what he calls non-representational geography, which Thrift sees as only beginning to work through phenomenology’s insights into the non-cognitive dimensions of embodiment as material orientations opening onto a vast biopolitical domain, what philosopher Giorgio Agamben’s refers to as “bare life” [1]. In contrast however, Dean finds an attunement to a micro-politics of the everyday as, in fact, foreclosing the very antagonism necessary for real politics. As opposed to Habermas’s model for the public sphere in which understanding is a necessary part of the of communicative exchange, she contends that online contributions need not be understood so much as repeated, reproduced, and forwarded. Dean sees psychopathology in the gap between the individual’s perception of the meaningful involvement in communicative exchanges and their aforementioned impotence, what Jeremijenko called “the crisis in agency”. For Dean the blogging pigeon would thus be associated with the technological fetish which “protects the fantasy of an active, engaged subject by acting in the subjects stead” [13] (page 63). Her critique of the “parliament of things” would thus be that it “covers over and sustains a lack on the part of the subject... enabling us to go about the rest of our lives relieved of the guilt that we might not be doing our part and secure in the belief that we are after all informed, engaged citizens” [13] (page 63). The paradox of considering these two seemingly opposed views on microbiopolitics together arguably allows us to go on with the work of consider Locative Media as Hayles put it, in terms of the “life-enhancing aspects of these technologies without capitulating to their coercive and

exploitive aspects”.



Figure 6: Traces, 1998, Simon Penny

Placing the “parliament of things” in tension with the “control society” suggests a rethinking of the notion of political agency in terms of perception and embodied experience through the tools of human-computer interaction design. While applying such a critical framework seems relatively new to interaction design, art practitioners like Simon Penny, for instance, have advocated the design of “ethical” ubiquitous systems modeled on a understanding of the human that is relational, taking embodied experience as a starting point [45] (page 78). Years before it was being used by the game industry, Penny’s project ‘99 project Traces, for instance, brought built a virtual reality experience around the body via camera-based motion tracking and an immersive CAVE interface. Far from being an artifact of meatspace, the body is the content of Traces. If we take this approach to the cognitive level, as designers we can think in terms of designing interfaces which situate our selves as political actors in relation to our perception. Whether this is identified with Locative Media is of little relevance, but in terms of the “avant garde of the control society” it seems important that artists map this terrain. In this context, we can, for instance, imagine the potential relevance to human-computer interaction design of Libet’s Conscious Veto. According to Libet, unmediated conscious can be scientifically observed to intervene in the world, only in the context of actions that were non instigated by the subject [43] (page 123-156). For Žižek this is evidence that the negative dialectic underpins human thought [63] (page 202). In terms of human-computer interaction design, however, this means that no matter how much we are enmeshed in distributed networks, *free will* exists, in so far as we should have the power say “no!” which leads Nokia’s head of design direction for user interface and services Adam Greenfield to claim that ethical ubiquitous interaction design systems should always offer the option to opt-out [22]. In an environment in which, according to Dean “communication functions symptomatically to produce its own negation” [13] (page 58), it behooves designers to understand how ontologically reductionist models of (user-centered) design may, lack both imagination and ambition. We have it in our power to create human computer interfaces well below the level of the user, and well above the category of the human, however, designer will needs to take seriously the degree to which they are, in

fact, now designing nature itself.

6. CONCLUSION

While this article started by questioning the value of continuing certain elitist discourses, it has attempted to assemble recent thought and practice from digital art and design, philosophy and criticism in order to demonstrate how to read, and write space, and indeed ourselves through digital and Locative media. Jeremijenko's One Tree, da Costa's Pigeon-Blog and Polak's Milk Project suggest context-aware ways of being in relation to a world of networked objects within which we are deeply enmeshed. These design fictions attempt to address ongoing "matters-of-concern" for Locative Media, by recast the idea of public space, often in terms of political agency, and shifting the site of contestation from the city towards Nature, a concept which, as Latour reminds, traditional societies were unacquainted with [40]. As science and technology studies has demonstrated, this concept of Nature has long been used to maintain the boundaries between the humanities and the sciences, a boundary which these art-science practices flagrantly violate.

Well intentioned though these design fictions may be, networked communications technologies bias forms of relations at given levels which may not be consistent with such forms of organization. The article has nevertheless claimed that, read against Deleuze and psychoanalysis, Latour's metaphysical approach to networks helps us to structure a debate on ethics and politics in regards to the potential of emerging ubiquitous mobile technologies, that we might imagine a different organization of sensory coordinates.

For Latour we never were modern to begin with [37]. He wants to do away with all dualisms between the subject and object, and between nature and culture. From this radical context, the paper thus considered how art and design practices might perform pre-modern types of relations with the *Things* that help constitute and support our very being as networked *quasi-objects*. Ideally these design fictions could function like cognitive scaffolds that are gradually removed over the course of construction, allowing us to internalize their effects that our subsequent performance of these relations might give rise to strengthened public networks and public spheres.

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