

The Locative Dystopia

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2004 opened with the cancellation of a number of commercial airline flights at the bequest of the US administration. This serves as a reminder of the mundane and arbitrary operation of power ("Its got to the point where if there's anybody called Mohammed aboard, your flight's got a problem" - senior airline source, quoted Guardian, 3 January 2004), and also of the renewed focus on surveillance and the ability to accurately locate potential suspects (1).

This is an obsession shared by Locative Media, albeit in another name. Locative Media uses portable, networked, location aware computing devices for user-led mapping, social networking and artistic interventions in which geographical space becomes its canvas. It gestures towards a near future in which virtual and geographical space converge - towards the Internet of Things, a location specific internet that is organised semantically and accessed via mobile networked devices - and the course it plots towards this future demands not only that data be made geographically specific but also that the user, if not defined by their location, at least offers up their location as a condition of entering the game. In this respect, not to mention its choice of tools - which bring with them an unprecedented capacity to pinpoint and to connect the individual to ever proliferating databases that are the new repositories of power - the course Locative Media plots parallels the neoconservative agenda of Total Information Awareness. It operates upon the same plane as military tracking, commercial and State surveillance, its concern for pinpointing and positioning - rendering the world readable and known, or in this case placed - shared with coercive forms of social control. Technology is taking another lurch into the unknown, with consequences that should not be seen as simply good or bad, to be celebrated or feared. But in the rush towards the Internet of Things the phrase 'internet security' takes on new dimensions, forcing a consideration of the critical context of Locative Media, and of how it might challenge, or be complicit with, the operation of power.

Locative Media is in a condition of emergence, its own territory still being mapped. It is here understood here to refer not to positioning technologies, such as GPS, so much as the critical art or social movement that engages with them, and to the independent networks of artists, technologists and theorists that make up this movement. The need to deliver contextual information within wireless environments, or to engage in proximity and co-location, has meant that rather than distance becoming irrelevant, the ability to determine location has become central for a wide range of applications. A number of initiatives, such as the Mobile Digital Commons and Pervasive and Locative Media networks, are exploring collaborative links between independent cultural producers, university research labs and industry. But while much industrial and academic research remains tied to old metaphors, it is currently these grass roots networks that are often doing the most original work, opening up horizons not foreseen by the marketers of the corporate technology push.

Mobile Digital Commons Network

<http://mdcn.ilesansfil.org/>

Pervasive And Locative Media Network

<http://www.pal-network.org>

In an elegant metaphor for the exploratory movements of Locative Media, Teri Rueb compares the digital annotation of space with trails left in freshly fallen snow: "The steady, silent accumulation of snow, weightless and ephemeral, stills the echoing canyons of endless

traffic and tumult. A hush covers the land that waits now, like a blank slate, to be written upon by so many footfalls and improvised architectures.” Here different rules apply, it is a “fluid space of overlapping fields and frequencies, ... [it] is characterized by connectedness as opposed to the discrete boundaries and territories suggested by physical architecture and visually based constructions of space” (Syncopated space, Receiver #10, 2004: p.2). This metaphor vividly conveys a sense of virtual space overlaying physical space, a zone both of liminality and of unlimited potential. And there is an inference here that the clean slate offers a new start, capturing the optimism that characterises much work in Locative Media.

Artists are responding to new technical possibilities by asking what can be experienced now that could not be experienced before, in some cases producing more-or-less conventional artistic representations using location data, in others playing with the possibilities of the media itself. Approaches range from the screen-based sketches of GPS Drawing, projects such as Geograffiti and Urban Tapestries that ‘geo-annotate’ space with digital content or interlocking narrative threads, to projects that explore relationality or embodiment such as Hlemmur in C, Sound Mapping and .walk. In Choreography of Everyday Movement Teri Rueb reveals Locative Media’s own conditions of possibility by contrasting the richness of experience and physical presence within geographical space with the reduction of the individual to a point within cartographic space, “movement and physical presence ... reduced to the most basic abstraction.” These projects point to the beginnings of a critical art practice that challenges the top down approach of conventional cartography to open up a manifold of different ways in which geographical space can be encountered and drawn, and looks beyond the reductive understanding of location that comes from GIS - in which place is considered as a set of geographic coordinates or a wireless cell - to explore context, co-location and material embodiment. A loss of opacity and difference is one consequence of convergent processes of globalisation and digitization, and yet difference arises on other levels, between data sets and between bodies and their digital representations. This suggests that introducing play and distortion is not trivial but an important response to the ever encroaching homogeneity of contemporary societies. Locative Media’s associative mapping, localised interaction and its articulation of memory within a plurality of intersecting data trails results not in a singular totalising view, but in multiplicity and the heterogeneity of the local, not in giving everything its proper place but in mobility, opening up rather than pinning down. Where the coordinate system and the coordinates themselves are brought into the frame, the operation of electronic tracking systems is exposed. And in examining location-aware experience or perception and its relationship to the dominant logics of representation, such forms of cultural production can create distortions or moments of ambiguity by which mechanisms of domination become both apparent and less certain.

GPS Drawing

<http://www.gpsdrawing.com/>

Geograffiti

<http://www.gpster.net/geograffiti.html>

Urban Tapestries

<http://urbantapestries.net/>

Hlemmur in C by Pall Thayer

<http://130.208.220.190/hlemmC/>

.walk by Wilfried Houjebek

<http://www.socialfiction.org/dotwalk/>

Sound Mapping by Iain Mott

<http://www.reverberant.com/>

The Choreography of Everyday Movement

<http://userpages.umbc.edu/~rueb/trackings/>

Some find in Locative Media a transformative potential and the basis for an emerging sociality, a means to create a better world driven not by marketing but by networks of reciprocity and trust. Locative Media builds open source architectures that may be used to share, deposit and access contents across location-aware, peer-to-peer networks. It offers communities the opportunity to map their own environment, and to combine local memory with social network maps and responsive environments, creating 'social interfaces' to the built environment and new possibilities for collective action and community organization. With the focus on the grass-roots and the social, on the user-led and collaborative, on social computing and open tools, the emphasis is placed on building these possibilities from the ground up. Surveillance too is a social project, but by appropriating and refunctioning military technologies such as GPS, and dispersing code and skills outside of a command and control infrastructure, Locative Media transforms a system of domination into a participatory milieu. Creating new visions and worlds is perhaps the most vital intervention in the face of the crushing realities of the post 9-11 world. And the optimism currently generated by Locative Media provides an antidote to our fears about ever encroaching forms of surveillance, and an important answer to the politics of fear. In place of an oppositional stance towards surveillance, or a conventional politics of dissent, Locative Media suggests a politics that is "collectively constructive rather than oppositional" (headmap.org), offering the opportunity to build another world, to create a space that can stand up as an alternative, a localised utopia.

Headmap

<http://www.headmap.org/>

Locative Media Lab

<http://www.locative.org>

The claim is often made that Locative Media at once exposes the operation of surveillance technologies, and reverses, multiplies and diffracts the gaze by giving people the opportunity to take ownership over the tools and the data generated. And yet comments occasionally appear on lists extolling the potential security applications, and more generally ideas can be appropriated, information misused and trust networks abused, as previously marginal practices are incorporated, the greater the transgression the greater the potential market value. In competing with the corporates in the race to produce a locative operating system, a location-aware internet or geo-repository Locative Media risks being just another player in the Location-Based Services market. And in opening up new ways of understanding the technology and its social implications, and in contributing to the development or testing of real-time sensing and mapping techniques as well as to ever growing data banks of personal information, such independent networks risk acting as a voluntary RND lab for the corporate sector and a proxy vanguard for the military-industrial technology push. It faces being swept away by the corporate juggernaut in what Rueb describes as "the 'land rush' moment in location-based content delivery" (*Syncopated space, Receiver #10, 2004: p.4*), perhaps even that applications developed for community activism are repurposed by the military or as tools of coercive control, its appropriation of military technologies reversed; 'hoisted by its own petard.'

Before we can identify the point at which Locative Media and surveillance diverge, or that marks Locative Media's critical distance to systems of domination, we need first to see how the nature of surveillance and control have themselves changed. Surveillance is no longer the exceptional fate of the few, a state sanction requiring an extensive network of agents, or requiring the covert installation of costly and sophisticated, specialist instruments. In recent years there has been an exponential rise in new forms of surveillance, and a proliferation of ways in which information about individuals may be generated, filtered and retrieved. This is illustrated by the use of RFID tags to track products beyond point of purchase and the mining for consumer profiles, as well as by mobile phones which, unlike GPS which is passive

and so does not betray the user's position, have created an unprecedented capacity for tracking and monitoring individuals (2). The mobile phone puts the Panoptic eye in your pocket and places the body within the circuits of dataveillance, not only extending the reach of surveillance but also changing its form. With the arrival of Location-Based Services control mechanisms are marketed as consumer products, such as services that enable parents to track the movements of their children 24 hours per day, without consent if the child is under fifteen, even if with often unpredictable results (3). These - like the use of picture phones and the rise of 'cellphone vigilantes' (Mitchell) - highlight the arrival of lateral or 'synaptic' surveillance, in which the top-down model of State-sponsored surveillance is displaced by a situation in which contents are generated within and circulate across horizontal networks, and it is increasingly difficult to distinguish the subjects of surveillance from its agents.

The nature of control is also changing. Deleuze has argued that the disciplinary society of factories and prisons has given way to the control society, where mechanisms of domination are less evident but far more pervasive and operate through codes and passwords, not restricting or regulating behaviour but modulating and organising it. Here control is seen less a means of controlling deviancy, crime or terrorism, more a way of managing consumption and the smooth flow of goods and desires, producing not docile subjects so much as better consumers. It is not imposed but embraced for both business and pleasure, a system of power spread through marketing and accessed through subscription services. This too is illustrated by Location-Based Services, where control mechanisms are transformed into consumer products, deployed for cell based marketing or remodelled as entertainment and a source of pleasure (4). As with the spectacular success of Big Brother, surveillance and control here become cultural entities in their own right, in which the locative capacity itself is embraced and consumed like any other service, as a form of culture or leisure.

To the extent that it simply celebrates the ability to locate all things at all times, a politics of pleasure locked within the surveillant machine, Locative Media might be seen as little more than a marketing wing for this branch of the control society, its autonomous space but a rebellious younger sibling in a post-Big Brother world. As a cultural project it helps to create the conditions for the agenda of Total Information Awareness to be realized. And the peer-to-peer networking of Locative Media could be described as a test bed for new forms of synaptic surveillance, its circumvention of the centralised telco model only serving to expand their power and reach (5). Locative Media's critical distance to the mechanisms of the control society is precarious, a parallelism characterised by interchange and mutual implication rather than any kind of hermetic seal, with the possibility of incorporation never far away. We might compare this with the case of Free Software, which has grown alongside proprietary code as its double and other. Open Source has succeeded in part because it could be adopted by different people for different reasons, some seeing in it the basis for a fairer world, others simply greater efficiency. Crucially it has remained disruptive because, even when turned to the pursuit of profit by IBM and the corporate world, its discontinuity with the proprietary model endures. It is not clear that the same may be said for Locative Media. For unlike Free Software there is no fundamental discontinuity between Locative Media and its troubling big brother; while the method and motivation may vary, grass roots cultural production and coercive control applications occupy the same plane. If its autonomous space is to persist and affect change, Locative Media, alongside other techno-social projects such as the Free Networks and Free Software movements, needs to continue to develop social protocols of sustainable self organisation (Medosch) as well as models of remuneration and exchange (Russell). But - perhaps more than is so in these other projects - Locative Media needs also to examine its own critical context, to know when to push the accelerator and when to develop countermeasures. Crucially it needs to engage in and seek to influence wider research and development agendas, to help to embed in new technologies and standards social values that are developed from below. One example might be to show how encryption may be used to create safe zones in wireless environments before this possibility is foreclosed by the drive towards maximising openness to the potential commercial applications of the future, a Windows moment for the Internet of Things.

The outlines of control are becoming harder to discern, and yet we might say that this presents a paradox that is not there to be resolved, but which is productive of the conditions of emergence for a location-aware information society. An intersection of cultural production and coercive power is not new. The invention of the chronometer in the eighteenth century as an on-board ship location device gave rise to new ways of exploring our relationship to the world, new forms of representation, and a new form of global power: here power and representation intertwined, navigation enabling the projection of naval force, the mapping of new territories the first stage in their conquest. As with the maps of the eighteenth century, locative repositories might be both important cultural representations and instruments of power. Drawing maps has always been political, and what is always at stake is not just the contours of cartography, but also contours of control. Another term, that speaks neither of utopia or dystopia, and which holds this paradox open, might be *embedded media*. Like 'ambient technology' or 'augmented reality' the term highlights the way media technologies pervade every aspect of the social domain, while its other meaning, signifying the placing of journalists in military columns during the war in Iraq, serves as a reminder of an inherent complicity in the operation of power. As a descriptive term it would highlight the way in which Locative Media is embedded not only in geographical space but political and cultural space as well. And as a metaphor it might be reclaimed as a rhetorical strategy for inhabiting this ambiguous and conflictual space, for intervening in the membranes of the multifarious datastreams (of military surveillance, criminal databases, immigration authorities, financial transactions, etc) that constitute the invisible threads of an emerging social fabric. To stretch the analogy yet further, we might say that a critical engagement in Locative Media would seek where the 'pockets of resistance' might lie, the moments of disturbance or sites of interruption not of the telos of technological war, but of social control.

In holding open ambiguity, and in its constructive collectivism, Locative Media marks both the power and the limit of new forms of surveillance. Locative Media's political moment might not be despite its complicity in mechanisms of domination but because of it, residing in the acceptance of the paradox and occupying the ambiguous space it creates, creating a site of resistance by working from the inside. But at the same time as the creative and transformative potential of new logics is celebrated, there needs to be a corresponding engagement in the economic and political forces that work to reterritorialise this space according to familiar axiomatics of exploitation and control. Perhaps as well as falling snow we might speak of shifting sands, and of the way that time sculpts a desert landscape. When standing in the eye of the storm all that can be done is to stake out some land, to try to ensure that the right points are connected, that by the act of walking and continuing to walk new paths not only emerge but endure. But for this network of interlocking paths to be more than an orchid in the desert it needs not only to respond to the forces shaping the landscape around it, but also to provide new channels that redirect them, new routes along which research and development can flow. And if the shifting sands are not to overwhelm us we need to ensure that when the storm clears we are left with an oasis we can enter or leave.

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(1) Here this takes the form of data-matching between watchlists and airline passenger lists accessed worldwide, something predicted by advocacy group Statewatch many months in advance, as was the application of anti-terrorism legislation against protesters and activists, first seen during the protests and peace camp at Fairford RAF airbase in the build-up to the Iraq War.

(2) Location data from mobile phones is widely in court cases in the UK and by the intelligence services (most spectacularly in the case of the assassination of Chechnya's rebel leader Dudayev by the Russian security services, reportedly with NSA support). Mobile

phones routinely generate location data so that calls can be routed, data which is recorded by the Operators. This is sector based, offering low resolution, and unpredictable results due to reflections and multi-path propagation. Triangulation data is more precise, calculating location to within 25m from the time delay in signals received by different masts, and mobile phones also increasingly incorporate GPS technology. Even pay-as-you-go phones, for which details of owners are not recorded, offer no respite, as they can be easily hacked to obtain their unique EMEI number. And as mobiles and PDAs merge it will not be just location and phone logs that can be accessed, but diaries, contacts, et al. Yet more forms of surveillance are in development that exploit the flood of radiation created by the global coverage of GSM, such as the radar-like Celldar(TM) system, developed by a UK subsidiary of Siemens for anti-terrorism defence, security and road traffic management, which offers the capability to see in real-time through walls or view moving objects hundreds of miles away by measuring deviations in mobile phone radiation patterns.

(3) Initially introduced in Finland, such services have now proliferated. They are extremely unreliable, however, and tests by Duncan Campbell and others have demonstrated that they on occasion locate people in a different town or more 20km away from their true position.

(4) In the place of the internalisation of an external gaze that characterised disciplinary societies, we see the emergence of a complex of control and communication that is no longer externalised in a central command but rather operates on a social and psychological level. Such a shift has been identified in a number of contributions to ZKM's CTRL[SPACE] catalogue: whereas Orwell's 1984 expressed and embodied a fear of the future as a place in which all people and all things would be observed at all times, we now live in a present, it is claimed, characterised by "scopophilia", a mix of voyeurism and exhibitionism, and an ontological need to be observed. While this perspective may have its limits beyond the still-exceptional cases of web-cams and reality TV, with the everyday use of consumer devices such as mobile phones surveillance is being dispersed and also transformed, a technical capacity to locate becoming a tool to help us consume better and a new form of entertainment (CTRL [SPACE]: Rhetorics of Surveillance from Bentham to Big Brother, ZKM, Karlsruhe/The MIT Press, Cambridge, Massachusetts, 2002).

(5) Locative media also parallels the direction this agenda is taking, which is moving away from a single all-encompassing system to multiple, smaller, interconnected systems.