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How Locative Media art set the agenda for mobile location aware apps (and why this still matters).

Conor McGarrigle

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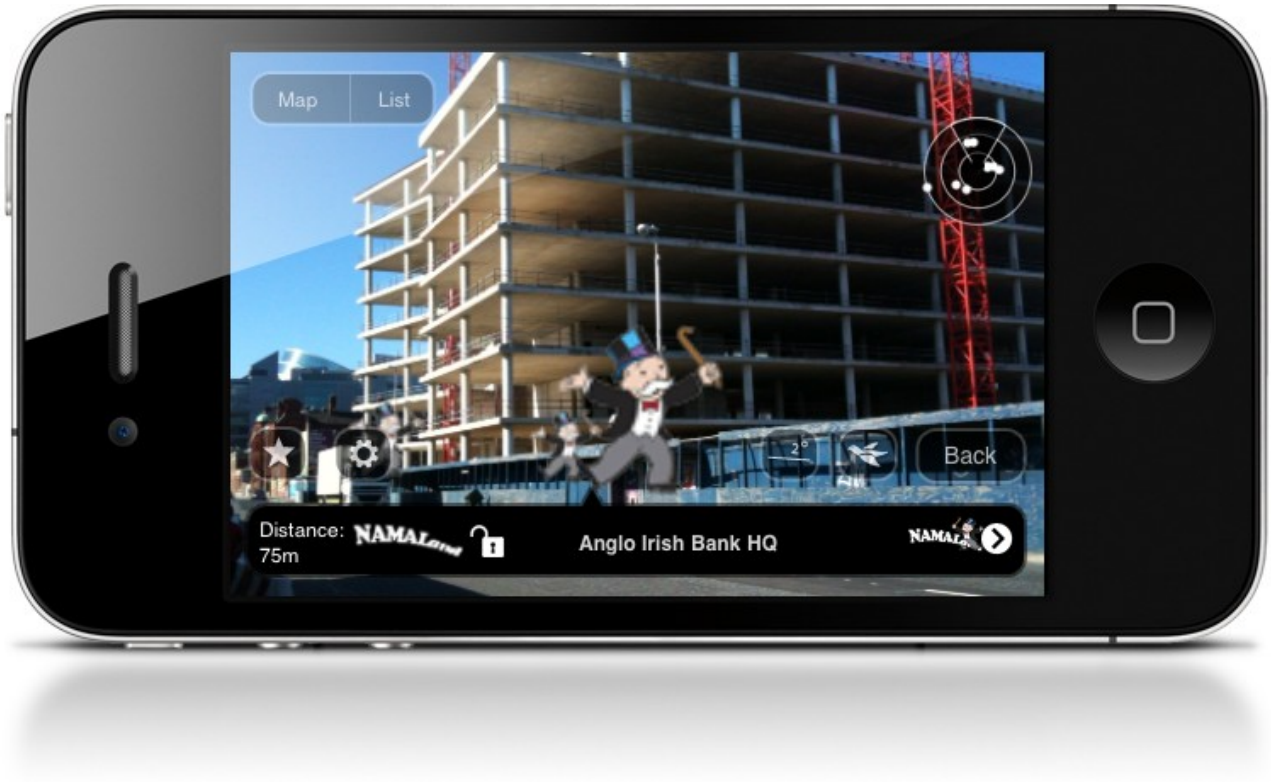

NAMAland, 2010

Introduction

This paper explores the connection between Locative Media (LM) a set of art practices centred on location aware technologies and current Location Based Services (LBS) and applications. To achieve this LM will be traced to the origins of the term and to the originary ambitions driving this unique mode of engagement with emergent location-aware technologies. This involves returning to the first principles of the Karosta Locative Media workshop, its associated texts and to Ben Russell's "Headmap Manifesto" [1] to locate the intentions and ambitions embedded in the term itself.

From its inception at the locative media workshop in Karosta, Latvia in 2003 it can be said that LM has set itself the task of defining modes of operation for emergent locative

technologies. These emphasise the technology's ability to augment space through revealing layers of meanings and associations which act to foreground the rich lived experience of place. With the growing ubiquity of locative technologies I propose that LM exerted a significant influence on these unfolding technologies shaping the application of the technologies resulting in a more user centred experience which opens the technology to a wider constituency beyond the realm of specialists. This influence goes beyond the specifics of similarities in approach between particular applications and artworks, representing a more fundamental conceptual shift in thinking about location which has far reaching implications for the future of locative applications.

The ambitions of LM

The term "Locative Media" originated at the "Locative Media Workshop : Mapping the Zone" event which took place in Karosta, Latvia in July 2003. The term was originally employed to distinguish the questioning artistic uses of locative technologies from their instrumentalised commercial and military uses. The proposition was that locative technologies, which had at this point only recently become widely available for civilian use, represented a fundamental shift (or the means to bring about such a shift) in our perception of geographic location. That the artistic uses of these technologies not only represented a new artistic form but had an important role to play in the opening up of the possibilities of these media to everyone. It was the embodiment of Ben Russell's prescient predictions in the Headmap Manifesto, "what was once the sole preserve of builders, architects and engineers falls into the hands of everyone: the ability to shape and organise the real world and the real space" [2]. Russell's is an unashamed utopian view but one which correctly identifies the potential of the convergence of high bandwidth mobile internet and location awareness in mobile devices to overlay real space with a geographically referenced layer of annotation and context sensitive information. His interest mirrors that of the Ubicomp [3] community of researchers but his concerns focus on the privileging of user-centric practices and the aspiration that these technologies become tools for creation rather then solely consumption. This concern echoes those expressed by the creators of urban annotation project "Urban Tapestries" that practices emerging around locative technologies (in 2003) were "unnecessarily impoverished" [4] a concern which Urban Tapestries sought to address.

LM can trace its origins to the year 2000 when "selective availability", an intentional degradation of the Global Positioning System (GPS) signal accuracy for non-military users, was switched off. GPS, a multi-billion dollar space based positioning, navigation, and timing system established by the US Department of Defence and controlled by The U.S. National Executive Committee for Space-Based Positioning, Navigation, and Timing, then became a system in search of a new commercial market. Ben Russell commented that

hardware manufacturers seem to be producing devices that are as capable and open as

possible, perhaps in the hope that users can tell them what the devices are for. In this sense, they seek grassroots and consumer level interpretation of what these devices are as surely as they seek an answer from corporate users. [5]

LM can be thought of as a range of art practices which sought to reinterpret these emergent technologies as bottom-up rather then top-down technologies [6] . Ben Russell placed it squarely at the convergence of a rapidly unfurling technology and the social and physical spaces in which it is being deployed, describing it as:

a new site for old discussions about the relationship of consciousness to place and other people. A framework within which to actively engage with, critique, and shape a rapid set of technological developments. A context within which to explore new and old models of communication, community and exchange.[7]

It is this sense of a practice which seeks to engage, to shape and to set the agenda for location aware technologies which defines LM. I propose that this engagement takes it beyond a purely oppositional stance confronting what has been seen as the flaw in tactical media which "point out the problem, and then run away" [8]. Through the introduction of novel practices and approaches toward technologies of location awareness, through questioning what this means and what it can mean, LM have in effect become involved in a process of shaping these emerging technologies. Lisa Parks in "Cultures in Orbit" asks "how might Western controlled satellite technologies be appropriated and used in the interests of a wider range of social formations?"[9]. Locative media offers one response.

Practices

I posit that this is due to locative media's influence on both the ways in which locative technologies are employed in an increasing range of everyday situations and fundamentally the way we think about and understand these technologies. This can be attributed to the set of user practices introduced by LM which shifted the meaning of these technologies through the privileging of user-centric modes of operation focusing on space as Lefebvrian *lived space.*

What do I mean when I speak of practice? At one level it can be though of as the ways in which users engage with technology, the usage modes and habits which grow up around new technologies [10]. On a deeper level it is the ways that the technologies are integrated into everyday life which makes them meaningful and therefore useful. Paul Dourish sees the concept of practice as "one that unites action and meaning" describing "how the world reveals itself to us as one that is meaningful for particular sorts of actions". He continues "part of what people are doing when they adopt and adapt technologies, incorporating them into their own work, is creating and communicating new meanings though those technologies as their working practices evolve" [11]. Crucially this process of making

technologies meaningful comes through practice, it is not inherent in the technology nor can it be inscribed by designers being rather contingent on real world situations and revealed through practice [12]. The integration of new technologies into the everyday is dependent according to this account on a "supervening social necessity" [13]. Regardless of how innovative they are, technologies will not be adopted if they cannot be made to be meaningful in the context of the everyday.

The emphasis here is on what people actually do rather then what they are expected to do or are instructed to do. This can be described as tactical where "the imposed knowledge and symbolisms become objects manipulated by practitioners who have not produced them" [14], a form of resistance or subversion. Or in a less oppositional sense as simply part of a "process by which we can experience the world and our engagement with it as meaningful" [15]. In effect it is to be expected that practices can be both, acts of resistance and pragmatic acts of "appropriative assimilation". [16]

The corollary is that practices which add meaning to a technology have the power to reposition the technology from the original intent of its creators, hastening its acceptance through shaping the technology. My proposal is that the work that LM has done in this regard is at two levels; one it has established a set of practices for engaging with location-awareness, with GPS and other location technologies and with the networked devices that are enabled by them and secondly it has caused us to think about location differently, in effect acting to “recode relations” [17].

The first consumer orientated applications of locative technologies which achieved broad appeal were satnav devices, direct descendants of their military antecedents in their approach to position. They orientated around position as points on the Cartesian grid identified by co-ordinates of longitude and latitude with the connection between the satnav unit and GPS satellites ever present. Of course this makes sense in an application designed for navigation, up to a point. As satnav gained a wider user base and became part of everyday situations so to did the anecdotal and media reports of its shortcomings. The familiar accounts of mishaps attributed variously to an over reliance on fallible technology but more cogently to an inability of the technological practices to account for real contingent local conditions. While satnav still has a niche the focus of development for location aware technologies and associated applications has shifted to mobile devices and applications which have a very different character focusing on exploring the individual's relationship with her location and augmenting that experience in a meaningful way. In short drawing substantially on locative media practitioners ambitions for these technologies and their articulation of location as Lefebvrian "lived space".

Position vs Location

LM's articulation of location as lived space as distinct from the cartesianism of position is

central to its approach. Position treats space as points on a cartesian grid identified by co-ordinates of longitude and latitude to be tracked and targeted with locative technologies ; for example as I write this an app on my iPhone locates me at 53˚17' 22.74" N latitude, -6˚8' 15.26" W longitude. Useful information if I were lost at sea, to or to be targeted by a Predator drone but it provides no information about the nature of this place, its history and the layers of association which constitute my relationship with it. In short, it fails to address location as lived space and in doing so fails to build on the potential of the technology to enhance space. Location on the other hand is an “existential, inhabited, experienced and lived place” [18], the space of individuals and communities replete with histories, narratives and layers of association which imbue location with meaning which can be revealed and made visible through the application of locative media. I suggest that locative media's privileging of lived space and development of a rich set of practices building on the affordances of the technologies have introduced a new thinking about location and about how we might use location aware devices.

Tracing Influence: the afterglow of locative media

There is much to be gained in tracing the trajectory of location-aware technologies and their public acceptance from the early GPS-centric satnav to today's smartphone apps and to unpack the nuanced but nonetheless significant differences in how they think about location and place. If location awareness is to be the nexus of mobile internet and the geospatial web then it assumes a pivotal role in the unfolding of these technologies and their integration into the everyday. It follows then that for location awareness the practices which grow up around them are a critical contested space for the future of digitally mediated space. This fact is recognised in the ambitions of locative media practitioners.

I propose that the practices employed by LBS, particularly those which potentially have a wide user base like Facebook Places or which capture the popular imagination like Foursquare, are the agents involved in shifting the balance of these technologies from control space (Deleuze) to enhanced space (Manovich). If we follow the short trajectory of locative technologies as they move from new technologies addressing specialist user groups of military, mariners and surveyors to their current position as emerging technologies tentatively reaching a broader constituency of everyday users employing a burgeoning constellation of devices and applications we find a commensurate shift in the meaning of location-awareness.

Locative media practitioners operate within this window developing practices which are sometimes experimental and other times eminently practical which establish a mode of operating for location aware technologies which, if successful, remain permanently inscribed. Through augmenting space with location specific narratives, personal annotation, through revealing hidden histories, ludically transforming everyday space into digitally mediated game-space and developing proximity based social networking it can be said that

LM projects foreshadowed all of the key areas of current location aware applications and services. Space doesn't permit a comprehensive detailing of these so I will outline a few examples each indicative of an approach shared by a number of LM works.

Consider Urban Tapestries (UT) the 2002-2004 research project which used location aware mobile devices to allow users to virtually annotate physical space to be asynchronously accessed by others in the locations to which they referred. The project established a rich set of practices which were researched, tested and refined. Envisaged as a public authoring platform UT consciously adopted a position as a counterpoint to what they saw as the "unnecessarily impoverished" prevailing views of the application of location aware technologies seeking to instead find out

> what it was about local places that mattered to people as they went about their daily routines. True daily life is richer and more complex than the traditional view, relying as much on social networks, personal experiences, and chance interactions and connections, so pervasive computing applications should attempt to reflect this [19]

Indeed this could be the mission statement for so many location aware mobile applications. Apps such as Color, Local Mind, Ditto, Whatser, Weddar, Foursquare, Gowalla, GraffitiGeo, SCVNGR, Yelp and Dopplr among many more share the concept of location as a social space defined by relationships and communities of interest through providing user tools for virtually annotating space . Building on the facility to quickly and accurately locate users mobile devices their focus is on location as lived space employing varying approaches and exhibiting an ambition to enhance space through fostering and building location based connections between individuals.

Similarly the practices of urban gaming, the ludic transformation of urban space mediated by mobile devices, introduced in LM projects such as Pacmanhatten and Blast Theory's Mixed-Reality games have pervaded LBS such as Foursquare and SCVNGR which incorporate game elements as well as location-based games such as Gbanga and AR games like Battle:Los Angeles. Proximity sensing familiar from LM works such as “Umbrella.net” (Brucker-Cohen, Morawakawi 2004) and “Aura” (Symons 2004), has become one of the fastest growing areas for LBS with the dating/contact apps of Gaydar, Grindr, Skout and Whoshere standing out in a crowded marketplace. LM projects which overlaid physical spaces with narrative and sound such as “Trace” (1999), “Murmur” (2003), "34w118n" (2004), "Media Portrait of the Liberties" (2004) and “JoyceWalks” [20] have established a genre of their own with any number of location based heritage applications and commercially available apps such as those produced by companies like SoundWalks.

All changed, changed utterly...?

It is important to not overstate the extent of locative media's influence on location aware

technologies or understate the challenges presented by the influx of development money as they enter the mainstream. These changes are incremental changes which insinuate themselves into the logic of the technology through introducing practices and ways of operating which are assimilated. They are however persistent, shifting user understanding of the technology which in turn impacts on the nature of development employing the technology. This is a process being continually renewed and challenged as new location-aware technologies emerge.

This does not necessarily result in a loss of agency for LM artworks. As illustrated by this author's 2010 “NAMAland” an augmented-reality app which overlaid Dublin with a layer detailing patterns of property ownership associated with the Irish banking bailout. The project was a popular success becoming part of the national debate on the financial collapse. From the perspective of our argument here it permanently connected emerging AR technology with activist political critique. There is a sense in LM practice that the introduction of user-centric practices responding to real needs can and have shaped the trajectory. This is backed up by a realisation that as location-aware technologies become part of the everyday they "might have been otherwise" [22].

Conclusions

It is my contention that the engagement of locative media artists with location aware technologies has changed their application in a range of everyday situations and shifted concepts of location from a GPS-inspired instrumentalised vision of positioning to a richer user-centric conceptualisation as lived space. These changes are reflected in an ever increasing range of mobile applications and services. This does not necessarily mean that Locative Media *per se* needs to continue, Locative Media represents a mode of engagement which will evolve with the technology. This mode of engagement, in whatever form it may take, will continue to have agency in shaping locative technologies as bottom-up rather then top-down.

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