



DIAL STORIES: THE HYBRIDISATION OF SITE USING RADIO AS A LOCATIVE TECHNOLOGY

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This paper seeks to explore how FM radio technology can combine with social and phenomenological interactions to mediate, hybridise and perform a given physical site. Methodologically we propose a novel experimental methodology of creative writing workshops incorporating FM transmitters to stage those interactions. We argue that this workshop may be understood as an act of collective making, exploration and reflection offering a rewarding way to explore and enrich socio-technical ontologies and experiences. Our findings highlight spatial interactions of radio signals with physical and social elements of site as well as participants' self-identification with technological objects.

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INTRODUCTION

We have come to understand technology beyond its manifestation as technical artefacts but rather as complex socio-technical entities that are embedded and co-evolve with social practices and activities. Generally speaking, technology is embedded in organised social activities, such as work, entertainment, communication and so on. Each of these social contexts provides a ‘stage’ for the technology to be used while the technology also shapes these contexts (Williams and Edge 1996) and performs our understanding of them.

In regards to technologies which express location, and more specifically, the social context of technology, use is deeply intertwined with the physical and material aspects that determine location. Mobile technologies, for example, in their capacity as locative technologies, are most commonly understood as connectors of distant places. However, we are also familiar with how they intervene in our social relationships and help shape the places we inhabit, through navigation, location-tailored advertising and geotagging on social media.

Location, then, which we conceptualise in this paper as ‘sites’, is not limited to our physical surroundings, but also exists through our social relationships and interactions as they are mediated by locative technologies and also as experienced in person.

In our effort to define and understand locative technologies, we argue in this paper that the focus should not be on studying technology simply as a mediator of physical location (connector) but rather on exploring the sheer breadth of possible and complex ways in which locative technology can interact with and create sites. We understand this complexity as existing across both the semantic content associated with site, and the particular material and infrastructural affordances of the operation of a given technology within a site.

Within this dual semantic and infrastructural framework, radio has the potential to operate as a locative technology. For example, we may understand the cultural soundscape of a given city through the content we can hear on a car radio as we drive. In London different local radio signals can be heard in different parts of the city, giving each area its own particular sonic identity. Radio has the potential to provide more localised understandings of spaces when placed within a deliberately short transmitter range. Here a radio transmitter can act as a beacon tied to a particular point within a set physical topography. At this point radio moves away from being a form of mass media with blanket coverage and begins to echo the specificity of more recent locative technologies.

Within this paper we approach radio through the creation of such a system of short-range transmitter nodes. The system is explored through a walking exercise where participants move through the radio field while holding FM radio receivers. The participants of the walk were also involved in authoring the transmitted content and choosing the position of the transmitters. The data which forms the outcome of this project comes from the participants' reflective group discussion.

The paper begins with a brief overview of the links which have been drawn between locative media and theories of performativity. This is followed by a justification of the use of the term 'site' over 'space' or 'place'. We then explain the workshop structure, placing it in a methodological context with similar practice-driven approaches. Finally, we present an account of the focus group discussion and our analysis.

LOCATIVE PERFORMATIVITY AND SITE

Considerable work has been done on the relationship between geographic points and their wider meanings in smartphone-driven locative media. Here, location has been understood as the bare bones of a place, with meaning being hung dynamically on a set of co-ordinates by location aware interfaces (de Souza e Silva and Frith 2014, Timeto 2015). In this way the media relevant to a particular location does not represent it, but rather constructs or performs it. It does this both through its deployment at the place in question and through its connections across a network. In practical terms, we often understand a given place through the semantic content attached to it, be that the user's position on a map, nearby yelp reviews, geo-located instagram posts, or the availability of uber drivers. Through establishing transmitter nodes with a limited range, radio can offer similar performative affordances. The media transmitted from a particular location could be understood to be creating meanings and identities connected to that point in space.

It has been argued that performances can take place as linguistic acts, where saying something makes it so. This mode of performativity was famously suggested by J. L. Austin (1962). A key example used by Austin was the point in a marriage ceremony where the priest pronounces the couple to be married. Performance can also be understood to take place at a deeper level, born out of and activated across social, cultural and political conditions (Bourdieu 1991). This more structural notion of performativity realises complex interactions with the sited contexts in which an action takes place. For example, in a park on a summer's day a group of people are sitting together having a

picnic. They may or may not be drinking alcohol depending on whether the laws which govern the park allow outdoor drinking (and their own readiness to contravene those laws). The park's existence may be the result of a combination of the decline of a previous use of the site (such as a docks or a canal) and the institutional decisions which allowed for the park to be constructed. When understood this way, the act of having a picnic with friends becomes a performance of a series of social, legal, physical and political contexts. When added to the mix, technology has the ability to emphasise, contravene, hybridise and re-assemble these contexts, altering the performances which make up the site.

How we conceive of site also requires considerable unpacking. The fields of geography, sociology, architecture and cultural studies all have extensive, complementary and contradictory literatures devoted to the relationship between space and place. We have chosen to use the term site here, primarily because of its connections to site-specific art. Although practices within this field vary wildly, a site-specific piece of work will often refer to particular histories, contexts and affordances relevant to a set of locations. There is also some overlap here with the discipline of archaeology. As Galloway and Ward point out, "In archaeology as with locative media nothing is considered more important than context" (2006). What is shared is how one situates and understands the site. However, contexts need not be understood as given and contained entities lying out there waiting to be discovered. Research continually creates and defines contexts according to the interests of researchers and what values they want to extract from the work (Dilley 1999, Goodwin and Duranti 1993). Science, Technology and Society scholars may understand concepts as technology, sociality, context and site as fundamentally unstable and constantly emerging across a network of interactions (Law 2004, Law and Urry 2005).

In this project our object of inquiry was the interplay between physical, social and transmission contexts. These foregrounded contexts (which could also be understood as sites in themselves) are in turn constructed from a rich and fluid layer of institutional, economic cultural and historical contexts, which are constantly altering each other.

The richness and fluidity of this understanding of site is reflected in the nature of radio space. At any one time we are surrounded by multiple electromagnetic signals both naturally occurring and emerging from communications infrastructure. Late 19th century radio pioneers such as Sir William Crookes understood radio as an etheric realm of communication between hidden voices without bodies. In this realm even speaking to the

dead might be possible (Peters 1999, 104–105). More recently Anthony Dunne has spoke of using design to rediscover some of the rich metaphoric possibilities around the electromagnetic realm, calling for objects that explore “the links between the material and immaterial that lead to new aesthetic possibilities for life in an electromagnetic environment” (2008, 80). This etheric richness can be easily produced by the listener through the simple act of tuning through a radio dial looking for a given signal and coming across unstable static, snatches of voices and fragments of music. The affective power offered by radio in this way gives it particular affordances which may be lost on other forms of locative media.

MOTIVATION AND STRUCTURE OF THE WORKSHOP

Dial Stories was a one day workshop hosted at X Marks the Bokship / Matt’s Gallery in London in June 2015. The gallery approached us to do this project because of an ongoing collaborative relationship with the curators. The use of an open call was decided in collaboration and stemmed to some extent from their desire to produce work which could help build a community of interest in their programme. While this aspect of the process meant giving up some control over the research process, we understood Dial Stories as being at once a form of research and an artistic exploration of site. The positioning of the project in collaboration with the gallery was therefore important. Eight participants answered an open call via the gallery mailing list. The majority of them were artists from various disciplines (sound, sculpture, performance) alongside two researchers and one writer. Around half of the participants were familiar with the area surrounding the gallery, with two walking through it on a daily basis. Despite the lack of control in selection, this sample group proved useful because of their academic and professional training in thinking reflexively about site and performance. The site in question was Mile End park which lies next to the gallery. The park was chosen because it allowed a particularly rich social environment in which to stage the project. The presence of people not initiated into the workshop allowed potential for complex and surprising interactions as well as a sense of implicit performance.

The day began with a walk around the park to allow participants to explore the site. The group were split into pairs with one person tasked with showing the other a location they had found interesting. Each participant then wrote a piece of freeform creative writing in response to the location they had been shown.

This step allowed the writing to be a social as well as a phenomenological interaction with the site. The writing was then spoken, recorded and uploaded to a collection of short range FM transmitters built from modified Raspberry Pis. The Pis were modified before rather than as part of the workshop because of time constraints. The participants then each took their transmitter (all transmitters were set to the same frequency) containing their speech and placed it at a location within the park. Once the transmitters were in place, the group conducted a walking exercise with handheld FM radio receivers, moving around the park in a loose formation from transmitter to transmitter. The radio sound was amplified from the radio receivers via the built in speakers and was audible to the other people sat out in the park. The day ended with a half hour long group discussion about the workshop and performance. The data and analysis in this paper is primarily taken from that group discussion.

We gave the participants some constraints over where in the park to put the transmitters because of transmitter strength (60-80 metres broadcast range). By giving control over the placement of transmitters to participants within this area, we aimed to involve them in the structural composition of the radio space as well as the production of spoken content. Likewise, by using a group discussion to reflect on the process and collect data, we hoped that the group interactions that had driven the day's activities would continue, allowing group reflection and production of meaning.

THE WORKSHOP AS A METHODOLOGICAL TOOL

In this workshop, we intended to produce something approaching a reflexive hybrid ecology (Licoppe and Inada 2012) where participants live in and through locative media which contains an element of themselves. This is understood as a kind of augmented (sonic) reality, but, crucially, a reality which is self-authored. This reflexivity draws attention to participants' socio-technical and phenomenological relationships, taking place between themselves, the site and the combination of the two. In order to achieve this reflexivity and hybridity, the design of the workshop was extremely important. This was done initially through the writing process, by translating interactions between sociality and presence within the site into text. These texts were spoken and recorded in the gallery's small recording studio. Through speech, the texts were re-performed as they were translated from the page into audio. These vocal performances were then translated into radio signals by the transmitters. These signals are re-translated back into speech by the radio receiver. At

this point another implicit performance takes place as the workshop participant moves through the site, looking for the radio signals and receiving a combination of signal and static. Each of these steps is intended as a layering and complexification, with the participant's initial reflections on the site being altered as they pass through each point of translation: from participant to written page to studio to audio to transmitter to radio receiver.

We imposed some limitations on transmitter positioning to make the overlays, seams and edges of transmitter range audible. By having a transmitter with a limited strength, the edges of the signal and the interactions it has with the physical environment and changes in the position of the radio become noticeable. At certain points two signals may overlap, or there may be gaps between participants' signals. This potential layering and unpredictability is useful because it raises questions around the ways FM transmitters interact with each other within a given physical site. This in turn can provoke reflection on how technology can create, hybridise and layer sites and spaces. At some points it was not possible to hear any of the participants' signals. This was not understood as a problem because the aim of the project was not to provide effective blanket radio coverage of the park, but to create a rich and sometimes glitchy radio space to provoke critical reflection.

By using an experimental workshop framework we were keen to explore the meanings produced when the design of a system takes place as part of research. Matt Ratto has referred to this process as Critical Making. He argues that, when a system or object is designed, the real work is being done through the act of making rather than lying in the nature of the finished product (Ratto 2011). The process of making can act as a reflective and pedagogical tool to create a deeper understanding of the workings of a given technology. In *Dial Stories*, time constraints prevented us from offering participants the opportunity to build their own FM transmitter, we instead concentrated on the 'making' of a network of radio signals. Here our concern is with exploring the materiality of radio as a medium and ontological questions surrounding its relationship with ideas of site and socio-technical practices.

Alongside an ontological concern with technology and experience, *Dial Stories* is also interested in how technology can interact with the contexts which compose a site. Context in this case can refer to the built environment, the social environment or the historical, political or economic aspects of the site. All these aspects frequently overlap and co-create each other. They may also shift dramatically in relation to whom is experiencing them. Above all it is difficult to see these contexts as something distinct

from the activity of performing research. Dilley draws attention to the influence of the particular research questions at stake: “contexts are sets of connections constructed as relevant to someone, to something or to a particular problem, and this process yields an explanation, a sense, an interpretation for the object so connected.” (1999, 2). Law and Urry make a stronger claim that methods “can help to bring into being what they also discover” (2005, 395). The interaction between certain contexts can be seen as the centrepiece of the production of meaning. Goodwin and Duranti (1993) argue for the significance of the social person and their context as an interactively generated form of praxis. In *Dial Stories* there was an ongoing tension between the roles of the participants. They were at once discovering and making the site. This took place in both individual and social frameworks as they moved together and alone with radio receivers. They did this both in the focussed state of looking for a particular transmission and the more open state of panning through the FM spectrum to see what signals were present around them. Their actions, both as creators and performers of content, were at once bounding the site of enquiry and opening it up multiple layers and interpretations.

Fig. 1. Workshop participants with FM receivers.



OUTCOMES OF THE GROUP DISCUSSION

The three overarching themes foregrounded during the discussion were: the implicit performance of the walk (especially in relation to people in the park not involved in the workshop); the spatiality of both the park and the radio spectrum as sites; the content being broadcast (through the aesthetics of speech on an otherwise chaotic radio spectrum and through textual overlaps with the physical space and the bodies within it). Issues relating to participants movement and embodiment during the walk were also mentioned several times.

The interactions between the participants and other people within the park was addressed early in the discussion. One participant said that he felt uncomfortable with the act of moving through the park with radios which were frequently untuned. He described the process as “invasive”, saying “it’s a bit problematic bringing noise into other peoples’ space”. This provoked discussion between participants, with several arguing that the response they had felt from the public was more curiosity or amusement than annoyance. For one participant, the act of the group moving together was more important than the content being broadcast. She argued: “I don’t think they would have seen noise and chaos—they would have seen the spectacle of people collaboratively listening to the radio”. What was clear across responses to this issue was that the participants were undoubtedly thrown into a position of implicit performance and this was explicitly addressed by one person who said:

“It’s what kind of receiver you’re being—like in the park—do we look like a load of people who are trying to tune into art stuff—you know what I mean, the role and the receiver and our identities.”

The same participant described a moment when she was trying to pick up a radio signal while avoiding a group of people sitting near the transmitter:

“When people were sitting on the tree stumps—I didn’t want to interrupt them so I was ducking and weaving around the paths so I wouldn’t interrupt them—that was a real performance for me—that’s when I felt like it really happened.”

For her the social negotiations of the walk were where the meaning was being created, where “it” was happening.

The spatiality of the transmissions were also a rich point of discussion. The particular properties and materiality of FM provided a number of interesting interactions with the space. One participant described the way a signal bounces off the trees and buildings in and around the park:

“I was more trying to picture these fields of sound in my mind. It’s interesting with [one particular] piece because I really found

there's a lot of interference from trees and stuff and found there'd be a pocket up here where i could get a signal, but no point around it and there was a point where on three sides I had this kind of wall of other radio stations or static and there was just this bit in front of me where I could hear it. I mean yeah, you just kind of relate to the space differently."

As well as the particular interferences between the signals and the physical environment, there is a topological element to the act of placing transmitters. In the words of one participant: "It's putting another space onto another space onto another space." While the topography enacted by the interface was significant, one participant also commented on the influence of the wider FM dial and, by implication, the city beyond the park:

"It's nice there were so many transmissions going on—it connected us with the outside world and the real world I think. If it had just been our broadcasts it would have been very insular and closed. I really liked having these interruptions of random stations. It reminded you there's life outside the park."

By using the open FM spectrum to broadcast our transmissions we utilised a radio receiver's ability to tap into a broad range of signals, many of them stations clearly local to London. This connected the performance to a wider spatiality. The FM spectrum within London is blanketed with numerous community stations and others acting with various degrees of legality. They frequently provide language and community-specific programming to audiences in London's multicultural population. In this way, radio can be seen as enacting and perhaps spatialising some of the many cultures within the city.

The portability and small size of the radio also gave the technology a particular set of affordances in relation to embodiment and performance. It was carried by the participants in their hands and so it was acknowledged that holding a radio made one officially part of the workshop, different from members of the public who may also be hearing the transmissions, but not implicated in performing them. This was born out by one participant's description of a man who walked with the group for some time, but without a radio and therefore clearly a member of the audience.

The fact that the radio was held also offers a set of possibilities connected to embodiment. One participant described the overlap between spoken transmissions and the possibility of using body position to switch between them:

"The thing that brought me the most pleasure—there were two that were very close and if I moved my body one way I could pick up one and if I moved my body the other way I could pick up the other and there was something really pleasurable about that.

Similarly, I was playing with putting the radio down and picking it up - and you were saying 'inhale / exhale' so there was a really nice synchronicity of text and movement."

The feeling that the technology was responding to the site through the movement of the body was very significant to this participant. She also touches on the possibility of overlaps in meaning between the content of the spoken word and the body and site. Several other participants also commented on spoken word that explicitly referenced roads, trees and water in and around the park. One participant reflected that if she did the project again she would think about using a more direct form of address with the listener, telling them to look in a certain direction or move in a certain way. Also significant was the rhythm and meter of the spoken word. One participant argued that repetition was particularly effective in the writing because, as a technology that utilises the temporality of sound, radio loses a lot of content. Other participants reflected on how different their spoken content sounded from everything else on the dial, one said:

"It made me think of how radio is produced from certain state of mind. and if the mind is a whole palette of sounds or voices, then this [participants'] kind of voice is under-represented."

Three participants reflected that they might have preferred moments where the spoken content overlapped, so that they could move from one voice to the next with minimal radio noise in between. This fed back into the discussion about performance and invasiveness, with one participant saying that the noisy nature of much of the content on the dial probably contributed to that anxiety. She reflected that if we were only amplifying spoken word that anxiety might not have been so strong.

The way in which participants' bodies moved through the park was also commented on, with one person feeling that they had the richest experience when they broke off from the group and explored on their own. This idea was supported by participant observation. The group would frequently splinter into smaller sub groups as participants took to listening on their own or in tandem with another person. A core group of around four alternating participants remained moving around me, having been cast as the workshop 'leader'.

IMPLICATIONS FOR UNDERSTANDING RADIO AS A PERFORMATIVE LOCATIVE TECHNOLOGY

One participant described the listening process as deciding what kind of "receiver" one was being. This linguistic shift was particularly interesting as it meant the participant was becoming self-identified with the technology. This is perhaps unsurprising when, as another participant noted, small bodily shifts had

the potential to alter the position of the aerial and, in turn, what sounds were being produced. Radio is a good way of realising this embodied aspect of user experience. The technology responds in a very fine grained way to the position of the user and their position relative to other physical aspects of the site which may produce interference in the transmission and reception of the signal. Several participants noted this potential of the technology in relation to other physical objects in the site. This point contributed to a wider theme of spatiality, as understood through the site of the radio transmissions, the physical site and overlaps between the two. The fact that the hybridisation of site was done iteratively through a series of tasks made this process clear, with one participant describing the process as “putting another space onto another space onto another space”.

Radio contains an inherent mobility also related to spatiality. One participant picked up on this, noting that it brought in signals from “the outside world and the real world”. The slip here, where the outside world is mentioned with the real world is noteworthy. Both are constructed as distinct from the transmissions taking place as part of the workshop. The transmissions which are being broadcast from outside the park appear to provide a measure of objectivity through their exteriority. They act to bound the radio site. Usually one might understand a radio site as being bounded by an act of re-tuning, the point where the radio station changes as we move through the dial. In this case the bounding is being done through the transmissions’ spatiality. Likewise, the tuning process is re-understood as something which takes place through a spatial act of movement and presence in and through the park.

The theme of the type of content being produced by the workshop was also important. One participant said: “It made me aware of how different our texts were from other stuff that were on those frequencies and it made me think how radio is produced from certain state of mind and how the mind is a whole palette of sounds or voices, then this kind of voice is under-represented.” This reflection also goes some way towards collapsing the distinction between person and technology. The participant began to equate radio content with a state of mind and then go on to characterise the mind as a “palette of sounds and voices”, themselves the raw materials of radio content. This would again suggest that the workshop process produced a situation where the boundaries between person and transmission begin to blur. Through transmission, the radio begins to perform the participant’s relationship to site, both in an Austinian sense of literally using spoken word content, and through the wider affordances of FM technology and the way it emerges alongside physical and

social contexts. This melding of technology and participant was also picked up on at the other end of the signal chain where existing socially with the radio in the space was described as “process of becoming a receiver”. Again, the functionality of the technology begins to blur with more sensory and embodied aspects of being in a given place.

It should be noted that the responses given here are from a small sample group. Eight people cannot give conclusive or widely applicable information about a set of interactions. But what they can do is create deeper insights into potential actions between people and technology within a given situation. The reflection exercise provides another layer of experience to the workshop, creating more value for them as participants. Their reflections can in turn provide technical and reflective prompts and inspirations for interventions in the future, both for the participants’ projects and for the wider research community.

CONCLUSION

The aim of the project was to explore how a given technology (FM radio) can perform and enact a given site. Through the workshop, a site was created which combined technical, reflective and phenomenological versions of the park with the physicality of the objects and bodies within it. Themes of aesthetics, spatiality and performance emerged, through the discussion, as did an underlying sense that the technology was combining with the spatiality of the park and the movement of bodies. Through the mode of interaction, retuning the radio became a fully embodied process; participants walked from one transmission to the next, raising questions about where the boundaries of each voice began and ended. One participant began to slip between technology and phenomenology in the discussion, questioning what kind of “receiver” she was being. In this way, the workshop re-casted radio as a spatial medium and opened up reflection on the way it can operate socially and topographically.

The concerns of this project are also distinctly methodological. John Law has problematised the idea of method as “a set of short circuits that link us in the best possible way with reality”, instead proposing a case-specific methodological approach that “will take time and effort to make realities and hold them steady for a moment against a background of flux and indeterminacy.” (2004, 10). I would combine this understanding of method with Matt Ratto’s focus on the value of the production process to “to use material forms of engagement with technologies to supplement and extend critical reflection and, in doing so, to reconnect our lived experiences with technologies to social and conceptual

critique.” (2011, 253). A project like this one has the potential to bring strangers together and form points of convergence around a given place, exploring the relationship between personal, social and technological realms. The communal writing and construction of the transmitter network allowed a collectively authored layering of the site. This layering interacted with and (at least for the duration of the workshop) redefined the contexts which compose the site. The reflection carried out in the group discussion may not produce hard and fast truths about all sites or every technology’s ability to mediate and construct it, but it serves to inspire further thoughts and thereby “enrich and not only reduce” (Asdal and Moser 2012) the object of study.

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