Hacking the streets: 'Smart' Writing in the Smart City

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Abstract

As cities become more complex and their communities more dispersed, questions such as 'where is home?' and 'where and how do I belong?' are increasingly pertinent. If urban space is a system, then it can be challenged through the spatial practice of its citizens. This contestation is examined as a form of hacking, an activity McKenzie Wark defined as the abstraction of new worlds. Drawing on the outcomes of a research project, this paper argues that digitally-enabled creative writing can play a fundamental role within this process, enabling the reappropriation of the smart city by its citizens.

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Introduction

Cities have always been intimately bound up with technology. As important nodes within commercial and communication networks, cities became centres of sweeping

industrialisation that affected all facets of life (Mumford, 1973). Alienation and estrangement became key characteristics of modernity, Mumford famously noting the “destruction and disorder within great cities” during the long nineteenth century.¹ The increasing use of digital technology is yet another chapter in this process, exemplified by the rise of the ‘smart city’. Although there is no agreed definition, smart cities are understood to be those in which digital technology helps regulate, run and manage the city (Caragliu et al, 2009). This article argues that McQuire’s definition of ‘relational space’, what he understands as the reconfiguration of urban space by digital technology, is critical here (McQuire, p. 21). Although some see the impact of digital technology on the urban environment as deepening social exclusion and isolation (Virilio, 1991), others, such as de Waal (2014, p.11) perceive digital technology in a more positive light. What is certainly clear, however, is that the city is once again undergoing rapid change. As Varnelis and Friedberg note, “place...is in a process of a deep and contested transformation”.²

If the potential benefits from digital technology are to be maximised it is necessary that the relationship between the individual and the city is understood. This article examines how digital technology can support and augment what de Certeau calls spatial practice, specifically in terms of constructions of ‘home’ and ‘belonging’ (de Certeau, 1984). The very act of walking is itself an act of enunciation, a process by which the city is instantiated; yet, as de Certeau and Bachelard remind us, the city is also wrought from the stories we tell, the narratives we construct about that space (de Certeau, 1984; Bachelard, 1994). The city is thus envisioned both through physical exploration but also

¹ Mumford, 1973, p.509.

² Varnelis and Friedberg, 2012, p. 39.

language. And as Turchi has shown, the creative stories we make on these voyages can be understood as maps of that world and those we meet (Turchi, 2004). If, as the Situationists Kotányi and Vaneigem stated, “Urbanism is comparable to the advertising propagated around Coca-Cola - pure spectacular ideology”,³ there needs to be a way by which the hegemony of the market, Benjamin’s phantasmagoria, can be challenged (Benjamin, 2002, p.12). This would wrestle control from the market forces that are seen to have overwhelmed the high street, and allow a refocusing on the needs of both the individual and the community.

This article argues that, though anachronistic, some of the Situationists’ ideas persist within hacking, what Himanen identified as the ‘hacker ethic’ (Himanen, 2001). As Taylor argues, although hacking is intimately connected to the world of computers, it can refer to the unorthodox use of any ‘artefact’, including social ‘systems’ (Taylor, 2000, p. xii). In this way, de Certeau’s urban itineraries, the spatial practice of each citizen through the city, can be understood as a form of hacking. As Wark states, “We do not lack communication. On the contrary, we have too much of it. We lack creation. We lack resistance to the present.”⁴ If the city itself is called into being through our physical journeys, in what de Certeau’s called ‘spaces of enunciation’, then new configurations and possibilities abound. The walker becomes hacker, Wark’s “abstractors of new worlds”,⁵ and the itinerary a deliberate subversion of an urban system, the dream houses of Benjamin’s arcades (Benjamin, 2002, p.406). The article examines one small research project, *Waterways and Walkways*, in its investigation of a digitally-mediated exploration across Cardiff, the Welsh capital. The article concludes by

³ Kotányi and Vaneigem, 1961, p. 17.

⁴ Wark, 2004, [130].

⁵ Wark, 2004, [002].

showing just one small way in which digital technology can play a role in facilitating the reconceptualisation of our cities.

Cityspace / 'Relational Space'

Historically, the growth of the urban environment has been intimately connected with technology. Large towns and cities became natural sites for innovation and adaptation (Mumford, 1973). Rapid industrialisation from the mid-nineteenth century onwards saw the growth of new transport and communication technologies which furthered the pace of change. "The modern industrial city replaced medieval walls with new forms of circulation: boulevards, railway tracks, telegraph wires and telephone lines".⁶

This adaptation of the urban form manifested profound changes for those living within the city. Simmel saw the modern metropolis as being characterised both by strangers and by the experience of 'shock' (Simmel, 1997). He argued that the growing hordes of rural labourers into factories throughout the nineteenth century was accompanied by the increasing depersonalisation of social relations under capitalism. This phenomenon was not lost on Debord who commented that "urbanism renders alienation tactile".⁷

Alienation and estrangement remain key features of modern urban life. This decenteredness is mirrored in the form of the city itself. Whereas, historically, cities were seen as having a clear centre around which the urban form radiated (Sassen, p. 13), modern cities came to be characterised more by their *lack* of identifiable centres: "The new city ... lacks what gave shape and meaning to every urban form of the past: a

⁶ McQuire, 2008, p. 18.

⁷ Debord and Jorn, 1959, unpaginated.

dominant single core and definable boundaries".⁸ The result is a new kind of space, neither city nor countryside, what Ferrarotti calls 'an urban-rural continuum' (Ferrarotti, 1994, p. 463), a city without a place, Soja's 'postmetropolis' (Soja, 2000, p. 95).

For Varnelis, contemporary society has been dominated by what he terms 'network culture', "the superstructural effect of a new wave of capital expansion".⁹ Castells argues that there remains a fundamental division between the individual and network culture (Castells, 2000). He quotes Alain Touraine: "it is the defence of the subject, in its personality and in its culture, against the logic of apparatus and markets, that replaces the idea of class struggle".¹⁰ This 'logic of apparatus and markets', indeed, the very hegemonic basis of network culture, permeates both the form and the function of the city. The market economy, then, what Jameson termed the cultural logic of late capitalism (Jameson, 1991) is at the heart of this process.

With the proliferation of ubiquitous computing, wi-fi and mobile technology, it can be argued that network culture is becoming entrenched into the very fabric of our society, and with it what Deleuze sees as forms of control and regulation inherent within it (Deleuze, 1990). These issues are magnified by what have come to be termed 'smart cities'. As the recent UK Government Background Paper states: "a Smart City should enable every citizen to engage with all the services on offer, public as well as private, in a way best suited to his or her needs. It brings together hard infrastructure, social capital including local skills and community institutions, and (digital) technologies ..."

⁸ Fishman, 1994, p. 398.

⁹ Varnelis, 2012, p. 159.

¹⁰ Quoted in Castells, 2000, p. 22

(BIS, 2013, p. 7). Although there is no agreed definition, central to the smart city is how it gathers and then uses networked data (Townsend, 2013). For the individual, the key piece of technology in the smart city is the smart phone, “the megacity survival kit, a digital Swiss Army knife”.¹¹ Tourism and leisure organisations have not been slow in producing apps that enhance what Warnaby calls “place marketing activity” (Warnaby, 2015, p. 201). Yet, as this article demonstrates, the technology can be used against such an agenda, one that is community generated rather than imposed by external organisations. As Solnit notes, “behind every map’s information is what’s left out, the unmapped and unmappable” (Solnit, 2006, pp. 161-2). de Waal compares the mobile phone to an intelligent compass, “guiding the city dweller through the bustle and chaos of everyday life”.¹² He proposes two ways in which the smartphone can encourage engagement with the city. The first is that it can act as what he terms ‘experience markers’, allowing individuals to record their urban experiences and then share them through social media (de Waal, 2014, p. 19). The second is as ‘territory devices’, influencing the experience of a specific urban area.

Others, however, are less sanguine about mobile technology. For Goldberger, walking the street with other pedestrians should be the ultimate urban experience, “but what if half of them are elsewhere, there in body but not in any other way?”.¹³ And as McQuire notes, although digital networks have allowed the breakdown of spatial limitations, theoretically globalising the public sphere, they have also facilitated a conversely centripetal phenomenon which has seen the consolidation of economic and political

¹¹ Townsend, 2013, p.6.

¹² de Waal, 2014, p. 9.

¹³ Goldberger, 2007, no pagination.

power into fewer and fewer sites (McQuire, 2008, p. 21).

McQuire sees this combination of *dispersion* and *concentration* as major elements behind what he observes as a crisis in terms of both 'home' and 'belonging' within the city (McQuire, p. 7). By home, he refers to something more than just a single physical place but rather a wider "sense of cultural belonging and existential shelter".¹⁴ He reconsiders Lyotard's postmodern crisis of the 'Grand Narrative' (Lyotard, 1984) as also a crisis "of boundary, reference and dimension".¹⁵ The home has become an interactive node, permanently online, leading to its de-territorialisation, blurring the boundaries between place and experience, self and stranger. "In this context, concepts such as distance, proximity and locality ... take on a range of new meanings" and the older geographical question "*where* is your home?" is replaced by a more postmodern demand: "what is the *meaning* of home?".¹⁶

This reconfiguration of urban space by digital technology has led McQuire to adopt a new term, what he calls *relational space* (McQuire, 2008, p. 21). Relational space refers to "the contemporary condition in which the horizon of social relationships has become radically open", breaking down previous restraints of place and time.¹⁷ However, for McQuire, the effect of relational space on the 'home' is intrinsically ambivalent and contradictory. Although de-territorialisation and 'loss of centre' is evident, technology also provides for "the invention of new continuities and new processes of cultural affiliation across interlinked domains".¹⁸ Yet these new centres remain ephemeral and relativistic, leading to a recognised nostalgia for 'home' as a vanishing concept.

¹⁴ McQuire, 2008, p. 7.

¹⁵ McQuire, 2008, p. 7.

¹⁶ McQuire, 2008, p. 11.

¹⁷ McQuire, 2008, p. 22.

¹⁸ McQuire, 2008, p. 24.

Relational space, according to McQuire, is necessarily *other-orientated*, in the sense that the technology prioritises access to *other* places and people, while leading to a more open and porous 'here'. Yet also critical is the foregrounding of heterogeneous *temporalities*: "learning to inhabit mediated space *differently* is as much a question of speed as it is one of ownership or content".¹⁹ By speed McQuire refers to what he sees as one of the most important features of contemporary life, namely the differing 'velocities' of lived experience, from the biological speed of the human body, the mechanical speed of vehicles, to the electronic speed of digital technology. Alongside more traditional interactions, those mediated through digital technology will be variable and impermanent.

Relational space, then, remains a key characteristic of postmodernity, an aspect of what Harvey, commenting on the spread of global capitalism, has called "time-space compression".²⁰ Its key features, those of spatial dislocation and the foregrounding of heterogeneous temporalities, are a direct product of the growing symbiosis between digital technology and the urban form. Developing strategies to deal with this phenomenon will be a key task for citizens of the smart city.

Writing the City

Writing and the city have a long and intimate association. One could even argue that how cities have been understood and experienced has been driven by their literary representations. Tally states that any writing produces what he calls a "literary

¹⁹ McQuire, 2008, p. 25.

²⁰ Jameson, 1990, p. 240.

cartography ... giving form to the world".²¹ In this sense, the act of writing is itself a form of mapmaking. Tally notes that both narrative and plot are fundamentally spatial in nature (Tally, 2013, p. 49) while Jameson argues that narrative is the "central function or *instance* of the human mind", the fundamental means by which we think and make sense of the world.²² Turchi extends this idea, arguing for the centrality of the map as an empowering metaphor within the creative writing process itself, "To ask for a map is to say, 'Tell me a story'".²³ The urban geographer Kevin Lynch uses the term 'wayfinding' to describe the process of navigating through our sprawling cities, mentally reimagining the urban form through "the creation of fresh stories".²⁴ In the postmodern city "new forms of mapping are called to make sense of spatial or geographical place and cultural identity".²⁵

For de Certeau the city itself is called into existence by the spatial practices of its citizens. De Certeau uses the term 'walking rhetorics' to describe this process whereby "the act of walking is to the urban system what the speech act is to language".²⁶ De Certeau understands walking as 'a space of enunciation': both the topographical system on the part of the walker, and language on the part of the speaker, are acts of appropriation; both involve a degree of what de Certeau calls 'acting-out' (de Certeau, 1984, p. 98), either of place or language; and both imply relations among 'differentiated positions'. 'Stories' are central to this process. For de Certeau, "Every story is a travel

²¹ Tally, 2013, p. 50.

²² Jameson, 1981, p. 13.

²³ Turchi, 2004, p. 11.

²⁴ Lynch, 1960, p. 6.

²⁵ Tally, 2013, p. 37.

²⁶ de Certeau, 1984, p. 97.

story - a spatial practice".²⁷ The conclusion is a simple one - the city is a story created by the spatial practices of its citizens, their physical movement through space. Yet, of equal importance, are what de Certeau calls 'verbal relics' - superstitions, myths and legends - the remains of previous stories that have accumulated in a place. As Sheringham says, "A city is a memory machine", and, for de Certeau too, the city is built on what is no longer there.²⁸ All places are 'haunted' by the past; in fact, for de Certeau, "haunted places are the only ones people can live in".²⁹ It is this very haunting of space by stories that allows a place to become 'home' (de Certeau, 1984, p. 106); without them the habitable city becomes annulled.

For Bachelard, 'home' is the most important space of human activity. Yet he does not limit 'home' to the physical construct of a house: "all really inhabited space bears the essence of the notion of home".³⁰ His book, *The Poetics of Space*, can be understood as a critique of how we experience the familiar and the intimate, including the city space that extends beyond the front door. Bachelard argues that our experience of space is deeply enmeshed in our own psychology. 'Home', then, is "not experienced from day to day only, on the thread of a narrative, or in the telling of our own story".³¹ Instead, it is a complex interweaving of past and present. A 'home', for Bachelard, is primarily a place where memories are housed; indeed, Bachelard argues that temporality itself is experienced as memory rather than through any sense of an externalised flow of time. As McQuire's concept of 'relational space' argues, digital technology is changing the way 'space' is experienced. Bachelard, too, alerts us to the psychological complexity of

²⁷ de Certeau, 1984, p. 115.

²⁸ Sheringham, 2010, p. 10.

²⁹ de Certeau, 1984, p. 108.

³⁰ Bachelard, 1969, p. 5.

³¹ Bachelard, 1969, p. 5.

our experiences of intimate space. And critically, he stresses the primacy of writing as a means (*the means*) of both representing and interrogating this phenomenological condition.

Bachelard named this process 'topoanalysis' (Bachelard, 1969, p. 8). In many ways it calls to mind what has come to be known as psychogeography. Based on the Situationist *dérive*, psychogeography attempts to "explore and extend the imaginative, experiential qualities of urban and other landscapes".³²

Catch the textual run-off of the streets; the graffiti, the branded litter, the snatches of conversation. Cut for sign. Log the data-stream. Be alert to happenstance of metaphors, watch for visual rhymes, coincidences, analogies, family resemblances, the changing moods of the street.³³

This interplay between reportage and creative fiction is a key part of psychogeography's most recent exponents, Iain Sinclair and Will Self. Sinclair follows explicit pathways across the landscape - the River Thames, the M25, John Clare's route from Epping Forest to his home in Northborough, the course of Ronnie Kray's funeral cortege across London. This sense of a world hidden beneath the commercial banality of the city, Debord's society of the spectacle, remains a key aspect of psychogeography. If walking is 'a space of enunciation', a 'generative grammar of the legs', then psychogeography is an invitation at transgression, sidestepping official interpretations, and instead recasting

³² Keiller, 2013, p. 133.

³³ MacFarlane, 2005, p. 3.

the city "in our own image, a micro-history of personal trajectories ...".³⁴

Psychogeography brings with it an assumption of subversion, an itinerary against the grain, a stalking of memories and ghosts, a personal trajectory through the twenty-first century cityscape. More generally, this section has shown that the very act of walking is always a creative act, a performance by which the city itself is instantiated. In the face of the smart city's increasing homogenisation, the importance of 'past' and 'memory' to our own experiences remain paramount. Yet questions remain. If relational space is, as McQuire argues, a significant recalibration of the urban landscape, what is the form and nature of the spatial practice that can help us engage with such an environment? And in what way is it different from how we currently live in our cities?

writIN d ciT

Although still in its infancy, a body of work is growing explicitly examining the role that digital technology can play in reconceptualising our cities. *Ghosts in the Garden*, *City Strata* and *I Tweet Dead People*, projects all funded through REACT (*Research and Enterprise in Arts and Creative Technology*, a UK AHRC-funded Knowledge Exchange Hub) are three examples. Such projects have tended to fall into discrete areas, such as digital heritage (including *Linking the Chain: A Network for Digital Heritage in Wales*), narrative and storytelling (*These Pages Fall Like Ash*, for example, by Tom Abba and Duncan Speakman, in which readers are invited to visit certain areas of Bristol, locating digital fragments and uploading their own responses) and historical and spatial exploration (such as *Hackney Hear*, Bristol's *Hello Lamp Post*, and Jonathan Chomko and Matthew Rosier's *Shadowing*).

³⁴ Sheringham, 2010, p. 12.

Social networking platforms such as Twitter offer new ways of both creating and publishing digital stories. Koehler (2013) examines how Twitter stories such as Rick Moody's 'Some contemporary characters' (2010) and Jennifer Egan's 'Black box' (2012) explore what he calls "new ways of understanding craft as a synthesis of readers' affect and participation in an unfolding narrative".³⁵ Bellin's (2012) analysis of Twitter and the American legal concept of 'present sense impression' is illuminating in this context. As a social media platform, Twitter supports a fractured, impressionistic narrative, delivered in real time. Egan's story 'Black box', for example, was published through a serialised sequence of what purported to be 'live' observations by the protagonist.

This article analyses one such digital project. *Waterways and Walkways* was funded by the *Creative Exchange Wales Network* (CEWN) in 2013. It was a collaborative project involving Cardiff Metropolitan University, the University of South Wales and the digital media startup *Fresh Content Creation*. The purpose of the project was to explore how creative exploration, mediated through mobile technology, could help users re-explore their own city, in this case the Welsh capital, Cardiff. The event itself consisted of a digitally-mediated journey, retracing the last two miles of the Glamorganshire Canal, from Cardiff Castle to the Bay (see Figure 1).

³⁵ Koehler, 2013, p. 387.

Figure 1. A Map of Cardiff, indicating the Route

The canal fell into ruin soon after the Second World War and has long since been removed. Only memories and topographical scars remain. Retracing it through the centre of the city involved traversing a variety of terrains, including a large modern shopping centre, before finishing at the location of the Canal's Sea Lock, beneath the A4232 flyover. The event was advertised through social media and twenty participants attended, ranging from young children to the retired. The physical journey was led by

project members; at the same time, the exploration was digitally augmented by Twitter through which further guidance and information was given in real-time. For example, *See the subway behind you? Head there & find the mural. Take a picture (and tweet) something that interests you or that you have memories of.*

The smartphone allowed each participant to upload photographs and commentary to #GlamCan, providing a shareable forum through which each individual itinerary could be recorded. *Dark, cold, wet. Our voices echo in the tunnel.* Embedded within the walk were twelve 'treasures', forming a treasure trail. In this way *Waterways and Walkways* employed real-time gaming and 'play' as a way of enhancing participation and engagement. *Swimming along the canal through tides of shoppers.* Tweets sent by the project team prompted participants to both find and then record the next treasure.

Sometimes, as, in the case of the marooned paddle post in the subway beneath the A470, participants were invited to discuss its function (Figure 2). *What do you think made the marks to the left of jack head/paddle post?*

Figure 2. A Marooned Paddle Post

The use of the smartphone within the project recalled de Waal's notion of an 'intelligent compass', a membrane that allows mediation with our urban surroundings "and to regulate in the here and now the presence of absent others or media files".³⁶ This mediation and regulation was aligned to de Waal's concept of both an 'experience marker' and 'territory device'. Each participant recorded their own journey which was then shared in real time across Twitter. The writing was clearly not what might be considered to be a traditional piece of writing, a single block of crafted text. Instead it consisted of a series of tweets (short textual responses limited to 140 characters, including spaces) through which each participant captured their mood and thought but also responses to the pre-planned questions and prompts as they navigated from treasure to treasure. In other situations, the limitations of a tweet might be considered unnecessarily restrictive. Yet, out on the street, amid the hurly burly of city life, the brevity and concision imposed by the medium became a strength. *In shopping centre. Security man asks what we're doing.* Two further aspects of Twitter enhanced the creative responses. First, each individual tweet offered the opportunity to add up to four photographs taken on the smartphone. The tweets gave participants the opportunity to explore the interplay between text and image as they progressed along the path of the Canal, a simple yet powerful augmentation of their creative output. *Custom House looks unchanged. Canal now a busy road.* Secondly, each tweet became part of a single, collective narrative on #GlamCan, a real time amalgamation of over twenty stories that each participant could access alongside their own individual record. *Remember canal*

³⁶ de Waal, 2014, p. 19.

as a child. *Memories of swimming in it.* As ‘territory devices’ the smartphones were able to digitally link stories to the historical legacies of specific sites. In this way *Waterways and Walkways* suggests that perhaps a third, or related, category, ‘temporal devices’, might be useful, in which the participants were able to tag their stories to objects and urban features no longer there. *Discovered graffiti under carriageway - sea lock lives on!* (Figure 3).

Figure 3. ‘Sea Lock’ Memorialised under Flyover

#Street_Hacking

Drawing on the ideas of Henri Lefebvre’s *The Production of Space* (1974) and Foucault’s seminal *Discipline and Punish* (1977), de Certeau was explicit in

understanding his 'itineraries' as transgressive forays across what he saw as an oppressive and hegemonic 'urbanistic system' (de Certeau, 1984, p.100). The city was an extension of socio-cultural power structures, a vast system for the regulation of its citizens. The walk was therefore an opportunity to create a "network of an antidiscipline", de Certeau stating that his book was merely showcasing "the tactical, and makeshift creativity of groups or individuals already caught in the nets of 'discipline'".³⁷

As Taylor argues, the original definition of a hack referred to the "imaginative or unorthodox use of *any* artefact".³⁸ He summarises hacking as "exploration; obsession; and ingenuity/creativity", a definition which resonates strongly with de Certeau.³⁹

The increasing prevalence of terms such as biohacking (McKenna, 2009) and place-hacking (Garrett, 2013) are further reminders that hacking need not be computer-based but can be applied to any systematised set of rules and procedures. de Waal calls the city 'an operating system'.⁴⁰ If the city can be understood as an 'urbanistic system' then it too can be hacked.

By tracing the route of an erased canal, *Waterways and Walkways* was a hack of the Welsh capital. The walk was a deliberate 'tactical' and 'creative' re-conceptualisation of the city's topography - tactical in the sense that it was openly transgressive; creative in that it self-consciously harnessed the power of technology. The tweets were able to capture the emotional and physical reaction of each participant to the journey - an

³⁷ de Certeau, 1984, pp.xiv-xv.

³⁸ Taylor, 2000, p.xii.

³⁹ Taylor, 2000, p.14.

⁴⁰ de Waal, p.11.

invitation to both record and reconceptualise the space around them. *Met my husband here - 40 years ago!* In *A Hacker Manifesto* (2004) Wark declared, “whatever code we hack ... we are abstracters of new worlds”.⁴¹ If urbanism is an ideology, suppressing “incidents and places that contradict narratives of authority”, our own journeys through cityspace provide alternative narratives.⁴² And through these stories, the abstraction of new spaces and meanings. As we’ve seen, for de Certeau and Bachelard, ‘home’ is intimately connected with memory, with what is no longer here. *Waterways and Walkways* was based on a topographical haunting, the path of something that had long since been built over. In this context, the smartphone was both compass and pen, a means of navigating the shadowlands and recording a journey ‘home’.

The walk was a deliberate act of transgression, cutting through the new pedestrianised thoroughfares. This sense of deviance was never far from the surface. In a large shopping mall a security guard asked the party to stop taking photographs and leave the premises. He was alarmed by the behaviour of the participants - they were clearly not shoppers. The itinerary took participants across the commercial centre and then out through Butetown, a multi-cultural district with a rich working-class heritage. It was an area of the city many had not explored before. Two disparate parts of the city were threaded together in a way that the topography did not encourage. In this sense the hack was physical, the participants beating against the flow of Saturday shoppers before disappearing into little used lanes and byways. But it was also cognitive, a rewiring of the participants’ own understanding of their home, reinforced by the real-time creation of each tweet. *Timber pond now a car park.*

⁴¹ Wark, 2004, [002].

⁴² Sadler, 1999, p.99.

The approach of the official 'heritage' app was left far behind. *Waterways and Walkways* did not include any recognised heritage location. It's route was as much a meditation on what had ceased to exist as it was on what was now extant. The real-time creative interaction through the use of live tweets was also unique, ensuring that the journey was very much a personal voyage of discovery.

The implications of this approach can be profound. Ben-Ze'ev used what she calls 'mental maps' to explore the disjuncture in the spatial awareness of 190 Jewish and Arab-Palestinian students (Ben-Ze'ev, 2015). She found that localities, villages and towns were understood in isolation to any wider notion of community or country. Ben-Ze'ev notes that "a process of detachment from their geographical surroundings was in full gear".⁴³ Although an extreme example, Ben-Ze'ev highlights issues that have already been discussed, including isolation, detachment and loss of centre. *Waterways and Walkways* offers a possible methodology in terms of how individuals might begin to re-engage with space and place. Indeed, for Jameson (1990), it is only by seizing our role as individual and collective actors that we regain the capacity to act and struggle. Jameson's concept of 'cognitive mapping' remains particularly apt, offering the possibility of a re-engagement with the ideological 'hauntings' of our cityspace (Jameson, 1990).

Conclusion

"Games are forbidden in the labyrinth."⁴⁴

⁴³ Ben-Ze'ev, 2015, p.257.

⁴⁴ Sign outside the *Jardin des Plantes*. Debord, 1985, p.63.

The Centre for Cities, UK, has recently argued that one of the three characteristics of a smart city is enhanced *participation* (2014, p. 2). Within their briefing paper the term is used to define the technology-enhanced partnership between business, community and public services. Yet this paper has argued that *participation* as a concept is far more complex. The increasing ubiquity of mobile technology across our cities amounts to a revolutionary change in the urban landscape, a reconfiguration in the way space itself is both understood and experienced. de Waal notes that a new ‘urban operating system’ is on the rise, instantiated through software code that “can sense individual actions in real time”.⁴⁵ McQuire has termed this media-saturated environment ‘relational space’. If cities are the stories we tell ourselves and the itineraries we take across the cityscape, then this article has argued that the smart city calls for a far more radical understanding of ‘participation’, embracing new ways of storytelling, new ways of making sense of the increasingly contested space that forms our home.

This article has shown that narrative holds the key in terms of how we cognitively understand and map the world. The very act of walking is itself an ‘act of enunciation’, a process by which the city is instantiated; yet, as de Certeau and Bachelard remind us, the city is also wrought from the stories we tell, the narratives we construct about that space. The city is thus envisioned both through physical exploration but also language. And as Turchi has shown, the creative stories we make on these voyages are maps of that world and those we meet (2004). *Waterways and Walkways* proved that Twitter was an effective platform here. The limitations of a tweet was a strength on a walk

⁴⁵ de Waal, 2011, p.11.

where there was no opportunity to compose long or sophisticated textual responses. The tweets captured what amounted to a 'stream of consciousness', embracing both text and image before finally being brought together on *#GlamCan*. Twitter offered a perfect medium to capture the fleeting, real-time observations favoured by psychogeography, or Bachelard's poetic explorations of 'home'.

During the exploration of the Glamorganshire Canal, the smartphone acted as both de Waal's 'territory device' and 'experience marker', allowing participants to create and read each other's responses, as well as mapping those responses to particular geographical positions. *Old canal bollards in park*. Each participant had to negotiate simultaneously a physical and a digital interface. McQuire sees these 'different velocities' (the speed of the digital world compared to the speed of the non-digital world) as a key characteristic of relational space (McQuire, 2008, p. 23). *Waterways and Walkways* suggests that each participant found their own 'fixed point' within these divergent velocities, what might be termed a 'relational equilibrium' through which the city was then experienced, both physically and digitally. 'Relational space' became an unproblematic environment, a phenomenological construct unique for each participant. It was here, in this nexus of the physical and the digital, that cityspace was remapped through both the physical journey but also the creative responses on Twitter. *Happy memories of old sea lock hotel - long gone!* The route itself was simply the context for this process.

Gordon notes that 'local knowledge' is critical in the formation of what he terms a 'placeworld', a shared world of experience: "Sharing information about the secret

cemetery entrance, for example, is communicative action that results in a placeworld. It is the product of local knowledge".⁴⁶ In the digitally-enhanced world of twenty-first century smart cities, the stories we tell each other will remain crucial to our own sense of 'home' and 'belonging'. Through the physical walk but also the creative engagement on Twitter, each participant was telling a new and different story about their city, and each other. *Waterways and Walkways* has shown that the inherent qualities of 'relational space', its 'other-orientation', its ability to provide 'new spatial ensembles' (McQuire, 2008, p. 21) provides an opportunity to engage with representations of the 'past' and 'home' in innovative ways.

This process has been presented as a particular form of hacking. de Certeau and Foucault are not the only commentators to describe the city as a system of control, or indeed a linguistic code. In Auster's detective novel *City of Glass* (1985), it is Quinn's perambulations across New York that encode transgressive messages into the very fabric of the city. By deviating from established pathways, the individual creates their own story and through that, a 'space of enunciation' in which the city is reconceptualized, reclaimed from the phantasmagoric spectacle of the high street. It is in this process of abstraction that the individual reconfigures their own relationship to space. Engagement with the urban environment, or the use of creative writing, does not require digital technology, of course. Yet, as Gordon concludes, "embodied practices are never outside information flows".⁴⁷ The smartphone in that sense is simply "a medium to address much wider cultural changes around what it means to occupy space, to be with others, and to be local in a world where everything from the

⁴⁶ Gordon, 2008, np.

⁴⁷ Gordon, 2008, np.

spectacular to the mundane has global reach”.⁴⁸

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⁴⁸ Gordon, 2008, np.

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