Writing the Smart City: "Relational Space" and the Concept of "Belonging"

Abstract

This paper explores McQuire's concept of "relational space", a term he uses to describe the transformed horizon of social relationships within the smart city. Although there is no exact definition, the smart city is predicated on both the rise of digital technology and ubiquitous wireless connectivity. The city, of course, has always been intimately connected with technology. Yet it is clear that this most recent innovation constitutes a significant reconfiguration of the urban experience. Possibilities abound in terms of how citizens might interact with services, the environment and each other. Yet, this paper argues that these transformations are intimately linked to wider changes in thought and experience. As post-industrial cities become more complex, and their communities more dispersed, questions such as "where is home?" and "where and how do I belong?" become increasingly pertinent for a deeper, more sustained understanding of "relational space" and its impact on how we might experience our lives. This paper, drawing on the outcomes of a small project, argues that creative writing can play a fundamental role within the development of the smart city, empowering citizens to redefine "relational space" in terms of our deeper need for "home".

Keywords: Creative writing, smart cities, digital technology, social media

by the author.

Introduction

It was only until the early twentieth century that city living became a predominant

characteristic of modernity (Mumford, 1973, p. 40). The growth of cities was most

evident in the United States, where the percentage of those living in the countryside fell

from 50 per cent in 1920, to below 3 per cent in 1980 (Short, 1991, p. 104). This trend

looks set to dominate the twenty-first century. According to the United Nations

Population Fund (UNFPA, 2007), 2007 was the first time that more than half the world's

population was classed as living in cities; they estimate that by mid-century this will

have risen to two thirds (2011).

As a consequence of this, cities are also getting bigger and more complex. By 1950

only London and New York had populations of more than 8 million; by 2002 there were

22 "megalopolises" of this size (McQuire, 2008, p. 16). According to its National Bureau

of Statistics, as of 2011, China has 160 cities with a population of over a million. Of

these, five have metropolitan areas with more than 10 million people. Yet, as the

UNFPA recognise, population growth will be greatest in smaller towns and cities,

predominantly based in Asia and Africa. The picture is certainly complex; yet it seems

one thing at least is clear - the rise of cities and the increasing ubiquity of urban life is

already one of the world's most pressing issues (UNFPA, 2007).

The Smart City

Historically, the growth of the urban environment has always been intimately connected with technology. As important nodes within commercial and communication networks, large towns and cities became the natural site 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" (McQuire, 2008, p. 18).

These alterations to the urban form manifested profound changes for those living within the city itself. 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. As Jane Jacobs noted, writing in the early 1960s, "...cities are, by definition, full of strangers. To any one person, strangers are far more common in big cities than acquaintances" (Jacobs, 1961, p. 40).

Alienation and estrangement, then, have become key characteristics 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, 1991, p. 13), modern cities came to be characterised more by their *lack* of identifiable centres: "We live ... in an exploding universe of mechanical and electronic invention ... This technological explosion has produced a similar explosion of the city itself: the city has burst open ..." (Mumford, 1973, p. 45). Fishman is even more

dogmatic: "The new city … lacks what gave shape and meaning to every urban form of the past: a dominant single core and definable boundaries" (Fishman, 1994, p. 398). The result is a new kind of space, neither city nor countryside, what Ferrarotti calls "an urban-rural continuum" (1994, p. 463), a city without a place, "ageographical" to use Sorkin's description (1992, p. xi), or Soja's "postmetropolis" (2000, p. 95). Koolhas adopts the neologism *junkspace* to refer to this new phenomenon: "junkspace is what remains after modernisation has run its course … Modernisation had a rationale program: to share the blessings of science, universally. Junkspace is its apotheosis or meltdown ..." (2004, p. 161).

For many of these theorists, the role of electronic media is an iniquitous one, a key feature of late capitalism and postmodernity. Virilio sees a loss of coherence as central to this process, a growing urban illegibility (1991, p. 30), a process reinforced by electronic media in the creation of "accidental, discontinuous and heterogeneous space" (1991, p. 35). Yet other theorists see a more complex picture. In Castells' "informational city", digitisation does not simply eradicate existing urban space but combines with it to produce new forms and structures (1989, p. 6). McQuire celebrates this "emergence of new spatial ensembles" - "augmented reality", "mixed reality", "augmented space" - in his own vindication of what he calls the "media city" (2008, p. 21).

The smart city can be understood as yet another instantiation of this relationship between urban space and digital media. Originally driven by urban policy makers, the term has come to encapsulate a city in which new media help regulate, run and manage (Caragliu et al, 2009). The ability to learn and then improve its core services is what

makes such a city "smart". 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 ..." (2013, p. 7). Yet the definition of a smart city remains amorphous. For de Waal the focus should be on the experience of the individual citizen. The smart city "is crammed with sensors, software and networks … The smartphone becomes an intelligent compass, guiding the city dweller through the bustle and chaos of everyday life" (2014, p. 9). De Waal sees the smart city as supporting what he calls the "libertarian urban ideal" (2014, p. 11) in which digital media increases individual freedom and choice. If modern cities are indeed liable to become full of Jacobs' "strangers", de Waal proposes that the solution is not too ignore digital media, but rather, in the vain of McQuire, to embrace it as a means of augmenting and potentially reformulating the public sphere: "we must therefore look at the way city dwellers make their lives public on our contemporary 'stages' - from the boulevard to Facebook…" (2014, p. 15).

De Waal proposes two digital applications that should form the foundation of this new "smarter" city. The first is what he terms "experience markers" which can be used to record urban experiences and then share them through social media (2014, p. 19). The second are "territory devices" which influence the experience of a specific urban area. Crucial here is the smartphone, "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" (de Waal, 2014, p. 19).

Relational Space

Despite these perceived benefits, one should not simplify the impact that digital media is and will have on our lives: although a champion of its potential, McQuire notes that the increasing ubiquity of "high speed interactive networks nevertheless constitutes a critical change in urban experience" (2008, p. 20). Others are more overt in their scepticism, arguing that the smart city comes at the cost of social integration. 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?" (2007). With media so central to the production of contemporary life, McLuhan has argued that media constitute an *environment* in themselves. This saturation has reached an apogee with the smart city: "neither home nor street nor city can now be thought apart from the media apparatus which redistributes the scale and speed of social interaction in their domains" (McQuire, 2008, p. 7). This media-rich "environment" has brought with it a new set of issues. While 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 power into fewer and fewer sites, most notably "global cities" (McQuire, 2008, p. 21).

This combination of *dispersion* and *concentration* is manifested in the growing dislocation of "place" from "space". McQuire sees these phenomena as major elements behind what he observes as a crisis in terms of both "home" and "belonging" within the city (McQuire, 2008, 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" (McQuire, 2008, p. 7). He reconsiders Lyotard's postmodern crisis of the "Grand Narrative" (1984) as also a crisis "of boundary, reference and dimension" (McQuire, 2008, p. 7). 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" (McQuire, 2008, p. 11) and the older geographical question "*where* is your home?" is replaced by a more postmodern demand: "what is the *meaning* of home?".

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" (McQuire, 2008, p. 22), breaking down previous restraints of place and time. A critical feature of relational space is the social primacy assumed by technological speed and almost instantaneous connectivity. "Relational space is the social space created by the contemporary imperative to actively establish social relations 'on the fly' … in which the global is inextricably imbricated with the face-to-face" (McQuire, 2008, p. 23).

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" (McQuire, 2008, p. 24). Yet these new centres remain ephemeral and relativistic, leading to a recognised nostalgia

for "home" as a vanishing concept. As Derrida notes, "The more powerful and violent the technological expropriation, the delocalisation, the more powerful, naturally, the recourse to the at-home, the return toward home" (Derrida, 2002, pp. 79-80). 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" (McQuire, 2008, p. 25). 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 ubiquity of global capitalism, has called "time-space compression" (1990, p. 240). 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.

Creative Writing and the City

"But a city is more than a place in space, it is a drama in time" (Patrick Geddes,

1905, p.6)

Creative 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. This is most evident with megalopolises such as London or New York which have accrued significant cultural representation. Yet Prieto also reminds us that "literary representations help us to understand the often misunderstood properties of emergent forms of place" (2013, p.2) such as the edgelands of the Parisian banlieue and the landscape of the post-colonial "other". As Tally has observed, "the literary cartography produced by works of literature are themselves a means of giving form to the world" (2013, p. 50). In this sense, the act of writing can be considered to be a form of mapmaking. Tally notes that both narrative and plot are fundamentally spatial in nature (2013, p. 49) while Jameson argues that narrative is the "central function or *instance* of the human mind" (1981, p. 13).

Turchi (2004) goes further, arguing for the centrality of the map as an empowering metaphor within the creative writing process, "To ask for a map is to say, 'Tell me a story'" (Turchi, 2004, p. 11). The urban geographer Kevin Lynch uses the term "wayfinding" to describe the process of navigating through the "vast sprawl of our cities" (1960, p. 12), mentally reimagining the urban form through "the creation of fresh stories" (1960, p. 6). Critics such as Harvey and Jameson have placed cities at the centre of the postmodern condition, seeing them as critical nodes within a techno-capitalist system. From this perspective, old systems of understanding and interpreting the urban form no longer apply. Instead "new forms of mapping are called to make sense of spatial or geographical place and cultural identity" (Tally, 2013, p. 37).

Any "mapping", of course, is as much a physical as a mental process. For Benjamin (1999), the flâneur is the very epitome of the modern city, a woman or man who refuses to be part of the crowd. Building on Baudelaire's ideas, Benjamin's flâneur becomes less like Lynch's wayfinding cartographer and more "an artist or poet of the streets" (Tally, 2013, p. 99), a person able to capture modern life through the representation of "abstract and shifting imagery".

For De Certeau (1984) 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 (1984, p. 100) whereby "the act of walking is to the urban system what the speech act is to language" (1984, p. 97), recalling Wittgenstein's comparison of language to an ancient city (1953, p. 18). De Certeau understands walking as "a space of "enunciation" (1984, p. 98): both are acts of appropriation (the topographical system on the part of the walker, and language on the part of the speaker); both involve a degree of what de Certeau calls "acting-out" (1984, p. 98), either of place or language; and, finally, both imply relations among "differentiated positions". "Stories" are central to this process. For de Certeau, "Every story is a travel story - a spatial practice" (1984, p. 115). In this sense, the city is a story created by the spatial practices of its citizens, their physical movement through the city, what de Certeau calls "itineraries".
Yet, of equal importance, are what de Certeau terms "verbal relics" - superstitions, myths and legends - the remains of previous stories that have accumulated in a place. As Sheringham succinctly says, "A city is a memory machine" (2010, p. 10) and, for de Certeau, the city is built on what is no longer there. In this sense, all places are

"haunted" by the past; in fact, for de Certeau, "haunted places are the only ones people can live in" (1984, p. 108). As de Certeau goes on to state, it is this very haunting of space by stories and legends that allows a place to become "home" (1984, p. 106); without them the habitable city becomes annulled.

For Bachelard too, "home" is the most important space of human activity. Like McQuire, Bachelard does not limit "home" to the physical construct of a house: "all really inhabited space bears the essence of the notion of home" (1969, p. 5). 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: "...memory and imagination remain associated, each one working for their mutual deepening" (1969, p. 5).

The "home", then, is "not experienced from day to day only, on the thread of a narrative, or in the telling of our own story". 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 has shown, the impact of digital technology has fundamentally changed the way both "space" and "home" are experienced. Bachelard alerts us to two things in relation to this: first, the psychological complexity of our experiences of intimate space; and secondly, the primacy of creative writing as a means (*the* means) of both representing and interrogating this phenomenological condition.

Bachelard named this process "topoanalysis" (1969, p. 8). In many ways it calls to mind what has come to be known as "psychogeography". Based on the Situationist idea of the *dérive*, psychogeography attempts to "explore and extend the imaginative, experiential qualities of urban and other landscapes" (Keiller, 2013, p. 133). MacFarlane provides a recent exegesis, neatly capturing psychogeography's own taste for the literary:

> 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. (MacFarlane, 2005, p. 3).

This interplay between reportage and creative fiction has become a key part of pyschogeography'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. In these "excursions", Sinclair argues that the flâneur has been replaced by the stalker, "walking with a thesis. With a prey … The stalker is a stroller who sweats, a stroller who knows where he is going, but not why or how" (Sinclair, 2003, p. 75).

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", what Bailly calls "a generative grammar of the legs", then

psychogeography is an invitation at transgression, sidestepping official interpretations, and instead recasting the city "in our own image, a micro-history of personal trajectories …" (Sheringham, 2010, p. 12).

Clearly, then, the relationship between the city and creative writing is both complex and intimate. The very act of walking is a creative act, a performance by which the city itself is instantiated. Despite the postmodern city's increasing homogenisation, Debord's banalisation (1983, p. 165), the importance of "past" and "memory" to our own experiences are still paramount. Jameson's "cognitive mapping" remains apt here, offering the possibility of a re-engagement with the ideological "hauntings" of our most complex spaces.

Psychogeography too 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. 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 creative writing that can then help us to engage with such an environment? And in what way is it different from our current understanding of creative practice?

Walkways and Waterways

Although still in its infancy, a body of work is growing explicitly examining the role that creative technology can play in addressing our cities' most pressing social issues. *Ghosts in the Garden*, *City Strata* and *I Tweet Dead People*, all funded through REACT (*Research and Enterprise in Arts and Creative Technology*, an 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*, and Bristol's *Hello Lamp Post*). 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" (Koehler, 2013, p. 387). 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 "Black box", for example, was delivered through a serialised sequence of what purported to be "live" observations by the protagonist.

This article reports on one such digital project. *Walkways and Waterways* was funded by *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 be used to help users explore the extant course of the Glamorganshire Canal. The event itself consisted of a digitally-mediated journey, retracing the last two miles of the Canal, from Cardiff Castle to the Bay. It involved traversing a variety of terrains, including St David's shopping centre and Butetown, before finishing at the site 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 through Twitter which participants accessed through their mobile phones. Two project members provided further guidance and information through Twitter. Twitter allowed each participant to upload photographs and commentary to *#GlamCan*, providing a shareable forum through which each individual itinerary could be recorded.

Embedded within the walk were twelve discrete "treasures", forming a treasure trail. In this sense *Walkways and Waterways* experimented with real-time gaming and "play" as a way of enhancing participation and engagement. Tweets sent by the project team prompted participants to both find and then record the next treasure. Sometimes, as, in the case of the paddle post in the subway beneath the A470, participants were invited to speculate as to its function (see image 1).

Image 1   Paddle Post in the subway under the A470

The participants' use of smartphones was clearly aligned to what de Waal has called "experience markers". Each participant recorded their own journey which was then

shared in real time across Twitter. The creative 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 particular, two aspects of Twitter enhanced the creative responses. First, each individual tweet offered the opportunity to add up to four photographs taken on the smartphone. In this sense, 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. 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. In this sense, the smartphones also operated as de Waal's "territory devices" in which stories were digitally linked to the historical legacies of specific sites. *Walkways and Waterways* suggests that perhaps a third, or related, category, "temporal devices", might be useful here, in which the participants were able to tag their stories to objects and urban features no longer there.

Crucially, through the creation of their own stories, and their reading of each others, a "space of enunciation" was created. The participants were simultaneously both "here" on the physical walk and "elsewhere" through a digital "other". The feedback from

participants underlined their own exploration and engagement with a space (the city

centre, for example) which they felt they already knew intimately. Stories emerged on

Twitter but they were also generated verbally as the participants moved along the route.

At one point, beside the extant post of a crane on what would have been the Sea Lock

Pound (image 2), one of the participants began to sing a sea shanty, evoking the life of

the stevedores and bargemen who had worked on the canal. By the end of the journey

the participants had engaged with each other both physically and digitally, reconfiguring

their relationship to the spaces of the city and its citizens.

Image 2 Extant Crane Post in Canal Park

Conclusion

The Centre for Cities 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

service, an environment where, according to the Manchester Digital Development

Agency, "citizens have all the information they need to make informed choices about

their lifestyle, work and travel options" (2012). 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. McQuire has termed this media-saturated environment "relational space". If cities are the stories we tell ourselves, the myths and legends of past lives, and the itineraries we take across the cityscape, then this paper 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 space around us.

Walkways and Waterways was a planned foray into this media-rich environment. Four tentative conclusions can be drawn from it.

The first is that creative writing can play a key role in the exploration of relational space. This paper has shown that narrative holds the key in terms of how we cognitively understand and map the world around us. 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. As Turchi has shown, the creative stories we make on these voyages are maps of that world and those we meet (2004). Twitter proved an effective platform here. The limitations of a tweet was a strength on a walk where there was no opportunity to compose long or sophisticated textual responses. As we've already seen, these tweets captured what amounted to a "stream of consciousness", embracing both text and image before finally being brought together on *#GlamCan*. In this sense, the

Tweets offered a perfect medium to capture the fleeting, real-time observations favoured by psychogeography, or Bachelard's poetic explorations of "home".

For Koehler, developing a critical approach by which the creation of these digital stories can be better theorised remains a key ambition of creative writing studies (2013). As he notes, "Although the figure of reader-as-writer is hardly new to scholarship, the recruitment of technologies that materially require the reader to occupy or construct that duality is" (2013, p. 387).

Secondly, the project suggests that smartphones can support this creative engagement. By using digital technology, what is commonly understood as creative writing is reconfigured for relational space. During the exploration of the Glamorganshire Canal the technology acted as both de Waal's "territory devices" and "experience markers", allowing participants to create and read each other's responses, as well as mapping those responses to particular geographical positions. Each participant therefore had to negotiate simultaneously both a physical and a digital interface. As we've seen, McQuire sees these "different velocities" (the speed of the digital world compared to the speed of the non-digital world, for example) to be a key characteristic of relational space (McQuire, p. 23).

McQuire highlights "velocity" as a potential issue for those experiencing it. Lefebvre on the other hand, in his study of the divergent "rhythms" of everyday life, underlines their *relativity* (2013, p. 96). This more sanguine approach is in keeping with the experiences of *Walkways and Waterways*. Here, each participant found their own "fixed point" within divergent velocities/rhythms, what might be termed a "relational equilibrium" through which the city was then experienced, both physically and digitally. "Relational space" in

this sense quickly became an unproblematic environment, a phenomenological construct unique for each participant. It was here, in this nexus of the physical and the digital, that the cityspace was remapped through both the physical journey but also the creative responses on Twitter. The route itself was simply the context for this process.

Image 3 A bollard in Canal Park

Thirdly, the project tentatively suggests that digitally-enhanced itineraries across the cityscape can help address key societal issues such as alienation and estrangement. 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" (Gordon, 2008).

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", both as individuals but also as communities within an increasingly complex environment. The walk allowed participants to experience the city in a new way, to fleetingly become a

bargeman or stevedore. In this sense the itinerary was also an act of transgression, both temporally and spatially. 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.

Both de Certeau and Bachelard make explicit the connection between "home" and "the past", what the former saw as the necessary haunting of place through memory. *Walkways and Waterways* has shown that the inherent qualities of "relational space", its "other-orientation", its ability to provide "new spatial ensembles" such as "augmented reality" (2008, p. 21) provides an opportunity to engage with representations of the "past" and "home" in innovative ways.

Fourthly, the project demonstrates the utility of structured itineraries, augmented with simple gaming techniques, in this case a treasure hunt. De Waal is adamant that a smart city needs to find ways that help people re-explore their environment: "Programming is needed that actually encourages interaction, such as an interface design that ... rouses curiosity" (2014, p. 175).

For de Waal, the designer's task therefore becomes one which encourages a "seamful design", "a design approach that actually makes the city dweller aware of the fault lines in and the interfaces with their surroundings" (2014, p. 175).

Apperley and Leorke (2013) have shown that location-based gaming still has some way to go in terms of "renewing and redefining the urban experience". They found that location-based gaming apps, such as *Shadow Cities* (Grey Area, 2011), can actually lead to further isolation by the simple requirement that participants had to buy the app before they could engage with the interaction. Apperley and Leorke go on to state that

such apps "remove the element of chance and contingency that many theorists argue is fundamental to play in public and which is central to contemporary understandings of the 'right to the city'".

If *Walkways and Waterways* has a lesson here it is that location-based gaming need not necessarily require a special app, such as *Shadow Cities*. Freely downloadable social media platforms such as Twitter are more than adequate. Such platforms offer the opportunity of hosting events through which "strangers" are brought together. The degree of "play" itself within the walk can be reconfigured. A further iteration of *Walkways and Waterways*, for example, could embrace role-playing where participants are allocated specific roles (bargemen/women on different vessels, for example, or lock keepers).

Issues of obesity and well being are now important agendas and such augmentation could extend the audience of those willing to engage with the physical exploration of their community. More fundamentally, *Walkways and Waterways* has shown that creative writing can embrace a far wider range of activity than Bachelard or de Certeau envisioned. The utilisation of smartphones has more in common perhaps with the Situationists' deployment of walkie talkies in their *dérive* across Amsterdam in the 1950s (Sadler, 1999). Yet the use of both image and text in real time through social media continues to push the boundaries of what we understand creative writing to be.

In conclusion, then, *Walkways and Waterways* offers tentative insights in terms of how we could begin to re-image the city, a process through which each of us might re-engage with our own sense of "home" and "belonging". The "stalking" of the Glamorganshire Canal, the capturing of the way it still scars the topography, and the

individualised responses to that "haunting", allowed each participant to see the city in a new way, reconfiguring their own relationship to that 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" (2008). 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 spectacular to the mundane has global reach" (Gordon, 2008).

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