The short film is posted on the *Digital Cities* edublog website and available here:-
http://blogs.brighton.ac.uk/digitalcities/
The video (.mp4) file is an embedded URL. The original video is hosted by vimeo and can be found here:-
https://vimeo.com/96730475

It is recommended that the video is viewed using the HD option with the latest browser. In the following pages is a written analysis that grounds the work in the module's theoretical framework.

Appendices and Field Notes
https://oneill2014.wordpress.com/

"I am lost in the crowd, I am anonymous.
In my phone, in my space, I matter."

(**Bassett**, 2003:350)

This finalised piece is a short film that uses geolocative augmented reality (AR) to illustrate the mutual constitution of software and socio-spatial practice. It could be argued that the immersive seduction of a digital co-presence mediates and re-codifies urban space through a process of negation and investment in an economy of sustained attention. Ubiquitous and pervasive mobile technologies blur the borders of time, community and space facilitated by gamification, quantification and surveillance; conflating on/offline identity and making it increasingly difficult to determine which side of the screen is which. The film exploits the graphic infancy of contemporary AR technology to illuminate the sophistication of situational data aggregation and commodification. This critical reflection seeks to discuss the accumulation of intimate and long-term data of desires and behaviours in the context of civil liberty and freedom of mobility.

Methodology

The decision to choose free public WiFi limited the choice of shots and perspective, yet proved informative in illustrating issues of reliability and bandwidth. It was important to illustrate and contextualise public network availability, unrestricted by phone tariffs. (see Appendix *location scout*, 15apr2014). Free WiFi is provided by the main telecom providers, BT, O2 and Sky (aka *The Cloud*) in areas of urban density, for example, places of shopping or transit. Many commercial enterprises provide WiFi hotspots to increase brand identity and accumulate customer eMail.

The second parameter was to record the mobile screen as a 'window to an immersive experience.' Bullet cams, steadicams and webcams would have required a lot of post-production. The decision to use a mobile/tablet screen, helped to frame the jerky and disorientating hybrid experience of navigating

the physical and digital worlds. Screen recording is a technology used for educational and gaming purposes. The University of Brighton supports the use of TechSmith's *Camtasia*, which records a computer's display or video footage from a smartphone, as will Apple's *QuickTime.* Recording a smartphone's screen activity however, requires bypassing digital rights management (DRM) and 'rooting' an Android operating system (OS) or 'jailbreaking' Apple's iOS.

Mirroring technology facilitates networked streaming of screen activity, and some will also record. *AirServer* uses Apple's *AirPlay* mirroring and recording for Mac OSX, as does airsquirrels *Reflector* (PC and Mac). In fact, there are many applications that allow this facility. Mirroring technology is only available for newer mobile operating systems, from iPhone 4S and Android's *Jellybean 4.2* onwards. The eventual solution was to invest in an iPad mini, *Reflector*'s 10-minute trial licence to mirror to a WindowsXP (SP3) netbook and record using the opensource software *CamStudio*.

The AR application *Navigator* is a simple compass that uses Google Maps. Layar is a popular AR application for interactive print. Its GeoLayers act as mapping filters for "points of interest". Featured as recommended, *tweeps around* and *instagram*, map uploaded content, included in shared geolocative data from the social networking giants *Twitter* and *Instagram*.

Theory and context

Castells, argues that the 'space of flows' subsumes the historical 'space of places', defined as the circulation of informational capital, and "the expression of processes dominating our economic, political, and symbolic life." (Castells, 1996:412). The flow of information and space is fluid, mediated and codified. Kitchin & Dodge (2011), contend that software or code transduces the physical, social and environmental, space and time. Technology providers act as gatekeepers potentially manipulating media access and representation. Space becomes an event or a doing, contextualised and negotiated by social and cultural practice dependent on

software. "Software conditions our very existence." (2011:ix). A political analysis is necessary when behaviour and desire is codified and classified, monitored by software and policed by algorithm, manipulating and stratifying social practice. By codifying the citizen as a data subject, the individual is dehumanised as object for automated management. With 4G mobile and location-based services, there is a cultural need to contextualise ourselves within a growing network of information (Gordon and de Souza e Silva, 2011), trading potential disciplinary effects against the mediated benefits gained. The ubiquitous and irresistible seduction of software erodes the element of choice on how to engage or function as a citizen. This desire to be located and contextualised in a networked locality of miniaturised icons and intermittent text is exploited and aggregated; 'dataveillance' (Clarke, 1988 cited in Gordon and deSouza, 2011: 11) becomes normalised for commercial prediction and social stratification.

Michael Bull (aka Professor iPod), studies the mediation of urban space in order to foster mood and experience, acting as an effective substitute for a sense of connectivity (Bull, 2007:5). McGonigal (2011), argues that games contribute powerfully to human happiness and motivation, a sense of meaning, and the development of (gaming) communities. Debord in Bull (2007:7) discusses the atomisation of the individual and the weakening of the collective bonds between urban citizens. According to Bassett (2003), the smartphone acts as emancipation from this mediated isolation, facilitating communication in multiple socially produced spaces, yet at the same time limiting by compelling the user to be 'always on' and accountable to social solicitation.

Whitson (2013) analyses the effectiveness of gamification to the quantification of everyday life by linking it to pervasive surveillance. Whether contributions are incremental improvements in health or becoming a foursquare mayor, control and ownership over the accumulated data is key. In work and education, gamified applications are "used to judge, rank and punish." (Whitson, 2013:174). Torres and Goggin (2014) expand the social border of Montola's "magic circle" (deSouza e Silva and Sutko, 2009:1) in their paper on

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mobile social gambling and the increased normalisation of betting as entertainment. This has serious implications for policy makers and those who are vulnerable to addiction. Casey (2012), ethically discusses the disembodiment and displacement of transmission of information and its impact on the freedom to be autonomous, "in ungrounded and isolated instants and sites of sheer representation." (Casey, 2012 in Wilken & Goggin, 2012:180). Finally, Drakopolou (2013) discusses AR applications, for example Google Glass, as techno-synthetically redefining the urban environment, which "do little to enrich but they rather visualise the hybridisation of space, of the urban environment, by visualising the commodification of all spaces, both mental and physical." (Drakapolou, 2013).

Sharing a digital profile can be emancipatory, yet it requires the ability to be able to negotiate "a spaghetti of power relationships and data trails" (Adams in deSouza eSilva & Sutko, 2007). Terms and conditions for proprietary access are notoriously legalese in syntax and hardly ever read. Instead, users blindly agree in order to access the next level of exclusive social network. The trail gets ever longer and there is no delete.

1099**words**

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leeoneill2014@gmail.com

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leeoneill2014@gmail.com

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CAMSTUDIO. Screen recorder. Opensource. <Available at:
http://camstudio.org/ [Accessed 30may2014]
QUICKTIME Player. Media Player with facility to screen record.
http://www.apple.com/uk/quicktime/

Edit
iMovie 11, version 9.0

Hardware

Camera
iPad mini Retina Display. iOS Version 7.03.
Edit
miniMac (Intel) OSX 10.6.8 (Snow Leopard)
Netbook
Windows XP (SP3)

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All photographs are original and captured in Brighton and Hastings during Semester 2, 2014.

leeoneill2014@gmail.com