

LOCATING THE LOCAL/MAPPING THE NETWORK

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The project seeks to understand the changing landscape of local areas through location-based applications. The changing nature of the map is captured at different points in time as a way of analysing the ephemeral landscape of data depicting the opinions, locations and imagery left as digital memories or tokens by those within the area. The narrative of place is re-examined in light of this user-generated content.



Figure 1. Invisible Cities data captured 13th May 2011. Copyright 2010-11 Christian Marc Schmidt & Liangjie Xia.

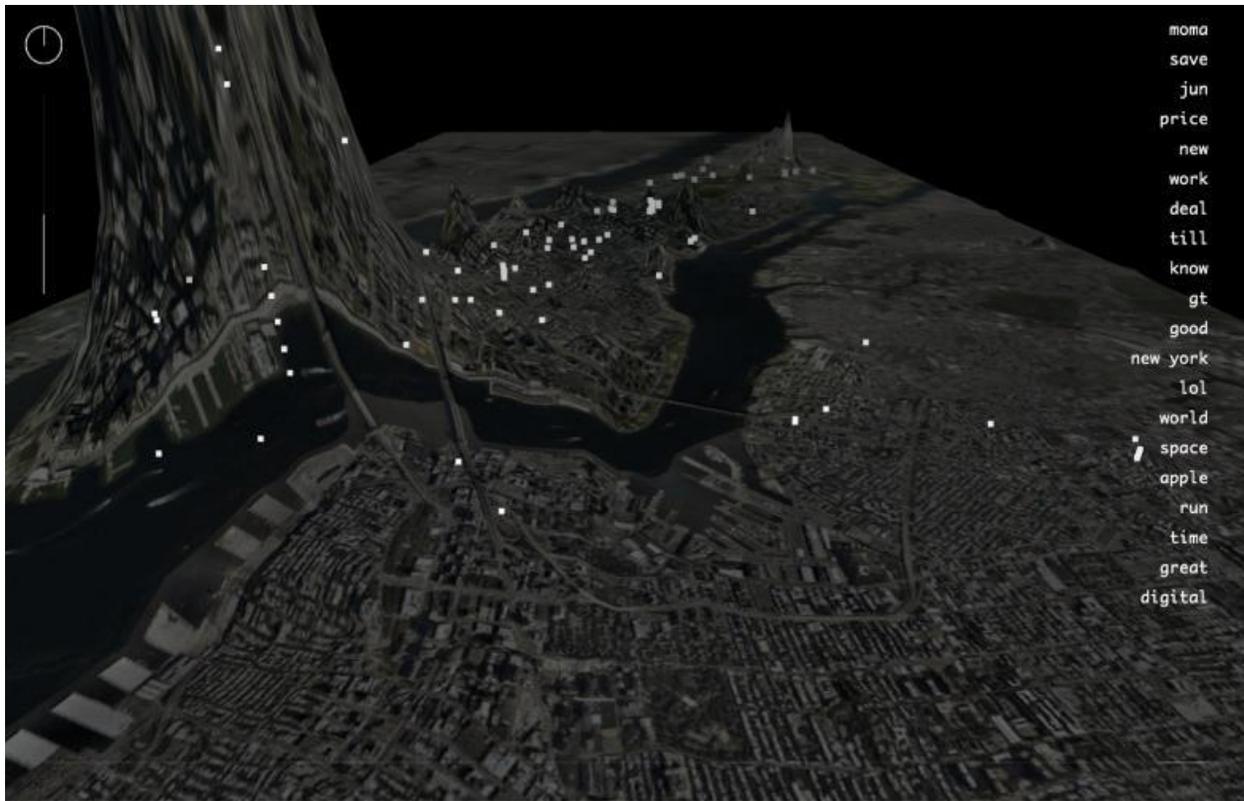


Figure 2. Invisible Cities data captured 1st June 2011. Copyright 2010-11 Christian Marc Schmidt & Liangjie Xia.

"Cities are comprised of complex social networks. In addition to the physical architecture these networks define our experience of the urban environment." _Schmidt & Xia 2011

As many have written, to walk the streets of the city or town is now to walk the streets whilst being connected. The ubiquity of the mobile phone, and the increasing use of smartphones in particular are seemingly 'always on', connecting to data networks often combined with GPS and allowing for locations to be tracked and defined. But what happens to this location data and how are users shaping various landscapes through the use of geo-located information such as tweets, check-ins and embedded photography?

Eric Gordon writes of "network locality" defined as "the experience of interacting with located data within the perceived infinity of global access" (Gordon 2009, p. 22). It is through these networks that we, as users, are frequently able to locate ourselves, our actions, our places and our thoughts through a variety of media applications and technologies. The smartphone, alongside the ease and open access nature of digital mapping systems such as Google Maps and Open Street Maps, has seen an increase in how and when people now choose to locate their activities. Photographs can be geo-located, capturing places frozen in time. We can check-in to virtual equivalents of shops, work buildings, or our own homes with applications such as *FourSquare* and *Gowalla*. Each of these instances is only possible through an

underlying network of global connections. However, it is through this 'global access' that we are now also changing the mapped narrative of many local areas.

The map is more than a means of seeking directions, but allows for a visualisation of data in various formats. Each time people log in to *Foursquare*, *Gowalla* or *Facebook Places* they are locating themselves on a map, they are providing a representation as to the area they are in. Although users cannot see the extended map of data whilst using the application, various mash-ups have been created integrating different APIs with Google Maps as a way of visualising each check-in location in relation to one another. This project will focus on mapped data collected from areas local to the GPS co-ordinates of each data collection. *FourSquare* places, ephemeral geo-located tweets and geotagged photographs will be visualised against a background of a local map. Each area will be defined in terms of a community or town, and will be viewed as an isolated snapshot, depicted as a miniature mapped landscape in amongst the surrounding area.

The project seeks to understand the changing landscape of each local area by analysing what John Pickles (2004) defines as "socio-spatial identities" that he sees to be the basis of many contemporary maps as "digital mapping has begun to influence many more domains of social life" (p. 10). Whereas many location-based applications seek to define the user's position in amongst a global network, this project examines the changing narratives of the local area through numerous check-ins, tweets and images. The changing nature of the map is captured at different points in time as a way of analysing the ephemeral landscape of data depicting the opinions, locations and imagery left as digital memories or tokens by those within the area. The narrative of place takes precedence over the identity of the user as places and spaces are re-examined in light of this user-generated content. It is through looking at these maps that we can start to see how local areas are being shaped by this data.

One such project providing a representation of geo-located Twitter feeds and Twitter trending topics is Christian Marc Schmidt and Liangjie Xia's (2010) project titled *Invisible Cities*[1]. As stated on their website, "Invisible Cities maps information from one realm – online social networks – to another: an immersive, three-dimensional space. In doing so, the piece creates a parallel experience to the physical urban environment" (Schmidt 2010). On loading *Invisible Cities*, the user is presented with a three-dimensional mapping of New York. The underlying map is familiar to those having ever viewed the data from Google Maps or Google Earth, and landmarks such as the Hudson River are viewable as well as the various sections of the city including lower Manhattan and Central Park. Each real-time piece of geo-located data from *Twitter* and *Flickr* changes how the city is represented and viewed. Imaginary spiked hills are constructed, distorting the mapped view of the city, creating a new imaginary space of digital data. As the density of location data changes, so do areas around the city. One day the city may be viewed as in Figure 1, the next day the city is shaped as in Figure 2. This view of the city is now re-arranged through the new layer of location information. As de Souza e Silva states, the city has become a "hybrid space", a "mobile space, created by the constant movement of users who carry portable devices continuously connected to the Internet and to other users" (de Souza e Silva 2006, p. 263). As de Souza e Silva notes, hybrid spaces are not purely augmented spaces, and this is especially true of *Invisible Cities*. There are various layers and combinations of actions taking place in order to create the piece. There is the layer of data provided by users geo-locating the information in the New York area. There is the two-dimensional mapped layer showing areas familiar to both locals and those having viewed New York on various maps and satellite views. Then there is the layer of the map and the data combined to form the resultant viewpoint, manipulating the local view in real time to provide yet another perspective. An augmentation would see these spaces as separate, leaving the map in tact and adding an extra layer of data on top. However, in this instance the map becomes a hybrid of user and place shaping the city and creating

rhythms of movement over a period of time. The user cannot see these distortions as they themselves walk the city streets, but it is through their actions that others can view the landscape in a different way. Here the narrative of the city exists in peaks and flows through the changing visualisation. As Christian Marc Schmidt and Liangjie Xia (2011) note in discussing *Invisible Cities*, the work depicts a "new kind of geography in which the urban landscape is reframed through narrative (a sequence of events in space and time)." Maps are no longer static and fixed. The growing trend of geo-location constantly seeks to change the map creating temporal-spatial narratives that change depending on the moment they are viewed. It is these narratives of place that I wish to explore further through mash-ups such as *Fourwhere*.

In examining my local area I can access *Foursquare* check-ins of nearby shops, takeaways and conveniences as well as view the tweets of strangers around me. These views differ to my own relationship with the area, the shops that I visit frequently in person, the people I may or may not see. A five minute walk from my home there is a parade of shops. They exist in a line, one next to the other. However, the view on *Fourwhere* is quite different. *Fourwhere* is a mash-up of *Foursquare* data plotted on Google Maps. You can search any area and find foursquare locations that are mapped around that immediate area. As with any Google Map you can zoom in and out to make the search area broad or narrow, but the application generally works more effectively on a local level. When zooming into the street by street level of my local area I am able to locate the shops. Not every shop is added on Foursquare therefore only shows a snapshot of what local people and businesses decide are relevant to the area. Much like *Invisible Cities*, *Fourwhere* provides a layer into the geo-located world of users in the local vicinity. The density of shops in the local area have not been replicated within *Foursquare*. Instead, only a handful of shops are displayed when trying to check-in on the application. Most notable are the supermarkets and takeaways that appear, potentially hoping for users to get 'specials' (such as discounts for the mayor, etc). Smaller stores such as the optometrists and travel agent are not found as check-ins (as of the 19th May 2011). This may be due to the fact that these two stores take up the same amount of street space as one full sized store, and/or are less frequented by users of the application.

This is where the user becomes noticeable within the mapping of data. It is only through companies or individuals adding themselves to the *Foursquare* database that they then appear as check-ins. If local users/businesses do not feel the need to create these places they are then left off the mapped database. In terms of viewing the spatiality of the *Fourwhere* map, these places no longer exist within the layer of my locality. Certain places take preference within this new map of my area. The map can be added to and grow over time as more check-ins are established but it acts as a separate representation, a local area frequented by those connecting online. This layer of check-ins can change the identity of the area when viewed against other representations of the local area. Place names can be misspelt, such as one local bakery being named a 'balery' (as shown in Figure 3). This adds a layer of almost fiction to the area. The misspelling changes the place into something new that only exists within the layer of the geo-located machine data. I can access the 'balery' online but in real life it will be known by its correct name. It is through the creation of the user's own places that there are multiple 'homes' in my local area. Places are created and called 'home', yet this is a place name that only means something to the creator. They are not my home (although I can virtually visit and check-in to it) and one of the homes is not the same as the other home created by another user. The geo-located network allows for multiple identities and in doing so the layer also allows for multiple entries creating numerous overlappings of different (or sometimes even the same) real life places. It is through this ability to create places that we can also see the opposite trend occurring in local areas. Although places have networked access and data streams, it does not mean that it will be inundated with Foursquare check-ins and geo-located twitter feeds.

As de Souza e Silva (2006) writes, it is "not possible to define a worldwide cell phone culture, because cell phone use differs substantially from place to place depending on cultural and socioeconomic factors." Therefore, some places end up existing free from this layer of digital locative urban commentary. On a recent trip to the Sierra Nevada mountains in Spain I found limited foursquare check-ins. I stayed in the town of Bérchules with access to a free wi-fi network in the apartment and generally good access to a mobile phone data connection. However, the people of Bérchules (even though they are connected, and some have smartphone access) choose not to check-in to their daily activities. Location is based around adding hotels and bars that tourists may want to visit on their travels. Location is also very much often limited to whole places rather than separating those places into various shops, cafes, etc. When logging in to *Foursquare*, the town itself was a place and existed as one mapped area (until I decided to add the place I was staying in). In many ways the layer of check-ins within this vicinity switches to a purely tourist view of the area and everyday usage fades away. Yi Fu Tuan's notion of "place" becomes "space" as the familiarity of these locations is not always known in detail to passers-by. Tuan notes that "when space feels thoroughly familiar to us, it has become place" (1977 p. 73). Therefore, tourists may not frequent the local shops on a daily basis, and the locals that do, do not see the need to leave a digital trace of their everyday occurrences. People passing through may often leave their own mark such as the restaurants or hotels they have been to in amongst the places they visit, but these now exist as mementos of an experience, rather than a constantly viewed place linked to everyday life within that space. There is no need for every building to be 'placed' and instead the whole village becomes placed in amongst the wider area, not succumbing to the finer detail of dozens of check-ins within the local vicinity.

Unlike the hustle and bustle of a large city such as New York, this absence of geo-located data reveals a slower pace of life, as the rhythms of the city are found within the quotidian streets and not through mash-ups of location-based data. The layer of location within the local area does not change as frequently, producing a different type of spatial-temporal narrative played out in a new way. As this project has shown, geo-location is more than locating objects, tweets and places. It is a way of creating various layers of information about an area. Mash-ups, maps and applications all reveal piece of a place, sometimes joining to show the ever-changing nature of how that place is experienced. Yet for those only able to experience the digitally mapped representation, this data offers a window into a partial place, revealed only to/by those choosing to leave their mark and create another layer to be viewed by others accessing the network.

References and Notes:

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1. *Invisible Cities*, a project by Christian Marc Schmidt and Liangjie Xia (2010) "Invisible Cities (beta)" <http://www.christianmarcschmidt.com/invisiblecities/>