

9. Visualizing Locality Now: Objects, Practices and Environments of Social Media Imagery Around Urban Change

Scott Rodgers

Abstract

This chapter explores social media platforms as increasingly vast and ordinary infrastructures for how people visually experience urban locality. Drawing on a mixed-method project (including image visualization and qualitative observation) exploring the mediation of a controversial cycling scheme in East London, UK, social media imagery is conceptualized and analysed in three overlapping stages: (1) as discrete digital objects; (2) as objects mobilized through particular user practices; and (3) as objects and practices operating and appearing within platform interface environments. Drawing inspiration from phenomenological perspectives on media and technology, the chapter shows how these objects, practices and environments of social media visibility create conditions for experiencing, as well as addressing oneself towards locality, not only spatially but also temporally.

Keywords: platform urbanism, urban photography, (post)phenomenology, interface

Introduction

In everyday life, “local” is often taken for granted. It is self-evidently proximate and perhaps intimate: it is simply “here” or “there”. When someone “cares” about a local place – which can range from deep worry to disinterested awareness (Dreyfus 1991, 238) – they do so on the basis of being thrown into their own local world. Stiegler’s (2012) related notion of

“attention”, however, adds an important proviso to this kind of Heideggerian formulation about care. It suggests that a capacity to attend to any object (such as a locality) is always already exteriorized into various technical objects and infrastructures. A locality such as an urban neighbourhood is experienced as natural and effortless precisely because it is made into a durable and shared entity by countless discourses, technologies and institutions (cf. Appadurai 1995). Increasingly, these socio-technical epistemological apparatuses include digitally-mediated exteriorizations of local experience, such as gathering information on named places through search engines (Ballatore, Graham, and Sen 2017), being segregated into polygon-delineated Nextdoor neighbourhoods (Payne 2017), or knowing a nearby high street thanks partly to the efforts of Twitter-savvy local businesses (Bingham-Hall and Law 2015). When objects, activities and environments are for the most part seen as unproblematically local, what is forgotten or structurally ignored is how locally experienced actions are shaped by other local experiences and actions elsewhere, distributed across time and space.

In this chapter, I explore how the circulation of visual information through social media platforms is becoming an increasingly vast and ordinary infrastructure for how people experience urban locality. Beyond established platforms dedicated to organizing and sharing images, such as Flickr, Instagram or Pinterest, social media more generally have increasingly become important mediums of image circulation. Drawing on a collaborative research project that examined the mediation of a controversial cycling infrastructure scheme in East London, UK, I will explore the circulation of images through both Facebook and Twitter as ways of visualizing urban locality. My focus is less on the content of such images, but rather on how social media were used for producing, displaying, mobilizing and modifying various kinds of images in exchanges related to this urban controversy. For example, how through smartphone photography, users documented the installation, use, or perceived misuse of cycling infrastructures at particular locations. Or how others used editing affordances to, for example, take screenshots from online mapping services, modifying them to show planned road closures. Or how others still re-shared image-based memes that they sensed might be funny to imagined local publics.

My analysis of such social media imagery of urban change will comprise three overlapping stages. I will first conceptualize images as discrete digital objects. Second, I will examine how such objects were mobilized through particular user practices. Finally, I will consider how such objects and practices operate and appear within the interface environments of social media platforms. This threefold analysis of objects, practices and

environments of social media imagery draws initially on the work of Yuk Hui, who conceptualizes digital objects as a “unity of relations” (2016, 14). Hui’s relational conception of objects diverges in important respects from the object-oriented ontologies of thinkers such as Graham Harman (2002), but still provides a lens for thinking of image objects as having some autonomy from their practical use and environmental conditions. This initial focus on relatively autonomous digital image objects is important not only conceptually but methodologically, since the starting point of my analysis was visualizations of image datasets related to the above-mentioned controversy, made using ImagePlot. I will connect the patterns and properties I observe in these visualizations to qualitative observations and interviews, which revealed how such image objects were accessed, created, modified and shared through related social media practices and interface environments. Drawing inspiration from phenomenological perspectives on media and technology, I will show how these objects, practices, and environments of social media visibility create conditions for experiencing, as well as addressing oneself towards locality, not only spatially but also temporally. Social media organize and deliver visual information via temporal streams (Hochman 2014), encouraging users to engage with asynchronous image and other data alongside others, facilitating an experience of “liveness” (Van Es 2017) or “realtimeness” (Weltevrede, Helmond, and Gerlitz 2014). As a shorthand, we might say social media affords ways of visualizing locality “now”.

Social platforms, imaging and urban visual experience

One way to understand social media and the city is to first situate our discussion within recent debates around the relationships of digital platforms and the city, increasingly understood by scholars as an emerging “platform urbanism” (Barns 2020; Rodgers and Moore 2018; Sadowski 2020). The meaning of “platform” is not entirely settled, in these debates or in general. As Gillespie (2010) suggests, the discursive ambiguity of the term helps platform companies take relatively equivocal stances around their own responsibilities for what happens on and through their services. Two often-interconnected meanings of platform predominate in academic debates: first, as a business model (and even a new era of capitalism) founded on extracting economic value from user contributions and metadata (e.g. Srnicek 2017); and second, as a kind of software architecture that processes and regulates data flows across external third-party websites and apps (e.g.

Helmond 2015). In the context of urban research, platforms are usually seen as relatively novel applications, services and companies that intervene and remediate a wide range of existing urban infrastructures, such as transport (e.g. Pollio 2019), food logistics (e.g. Richardson 2020), real estate (e.g. Shaw 2018), and accommodation (e.g. Wachsmuth and Weisler 2018). Arguably, there has been less attention to platforms as experiential infrastructures increasingly interdependent with how people perceive and go about daily urban life (see Barns 2019; Leszczynski 2019; Rodgers and Moore 2020; Rose et al. 2020). The approach I take here on social media visuality will emphasize in particular this experiential sense of platform urbanism.

Social media can be seen as one of the more longstanding kinds of platforms that help to produce experiences of urban locality. As their name suggests, social media cultivate social relationships and communication. Like virtually all platforms, social media individuate users by requiring them to establish a profile, using a real or invented name. What distinguishes social media from most other platforms is their emphasis on the generation, modification or circulation of content data by users. This content is valuable for social platforms since it helps in turn generate interactional metadata, relating for example to how users follow or connect with one other, share or like content, check into locations, or establish and moderate forums, groups or lists. While such content and metadata are amassed and mobilized at very large scale by social platforms, in important ways they are fundamentally local. Social data is, increasingly, location-based or spatial data (cf. Evans 2015; Gordon and de Souza e Silva 2011; Wilken 2019). In significant part this is because social media are now often accessed on the go, using smartphones and other devices. In the process, social media users reveal geospatial data concerning their usage locations, whether through automatic encoding or by volunteering it willingly. But social data are not only local in these technical or structural ways. As Loukissas argues, all data collections – including those stored on and circulated through social media platforms – should be understood as “cultural artifacts created by people, and their dutiful machines, at a time, in a place, and with the instruments at hand for audiences that are conditioned to receive them” (2019, 1–2).

Images are an increasingly important and voluminous form of social data helping to produce urban locality. The proliferation of images on social media is closely related to the rise in accessible smartphone technologies and applications, through which photography and image editing have become intimate, yet also ephemeral, affordances (Frith 2015, 88; Hand 2020). As is well known, the combination of camera phones and social platforms helps to circulate (often graphic) user-generated photographs as news imagery,

which sometimes even displaces the outputs of professional photojournalism (Jukes 2018). This same combination has also enabled more ordinary forms of photographic publicity. Social media users regularly deploy photos to document, edit, and tag themselves (e.g. in selfies), banal objects, and various local wayfaring situations (Hjorth and Pink 2014; Halegoua 2019, 164–71; Hochman 2017). The sheer volume of such images, like so-called Big Data in general, should not be mistaken for the emergence of a more complete, precise or authoritative image of the city (Shelton 2017). Imaging through social media demands many of the same questions around representation that have been examined for other longstanding forms of visual media. Boy and Uitermark (2017), for example, study a dataset of more than 400,000 Instagram images related to Amsterdam, and perhaps contrary to the more ordinary or banal photography described above, find a predominance of exclusive or avant-garde places and events in the city. It is important to recognize, however, that the implications of social media for urban life extends beyond user-generated photographs. Social media users also experience, articulate, and problematize localities using re-shared and modified memes, a plethora of screen grabs, stock photography (Aiello, this volume), promotional visualizations (Rose and Willis 2019) and, increasingly, “fake” images (Highfield 2016, 92–95). The visuality fostered through social media also extends beyond discrete images: as I will argue, platform interfaces – which bring together users, images and other content – are also a way in which urban locality is visualized.

To expand on this broader perspective on social platforms, visuality, and urban experience, I will step back and very briefly consider how images emerge and are sustained as discrete digital objects through particular practices and technical environments. In *On the Existence of Digital Objects*, Hui (2016) argues that digital objects are a new kind of industrial object that has important differences with the technical objects described by Simondon (2016 [1969]), on whom she draws, alongside Heidegger (1962). Digital objects emerge through what Hui (2016: 50) calls a “double movement” of objects and data. First, data – understood in the word’s original sense as things given in the world – are objectified practically. People’s habitual photographic practices (Hand and Scarlett 2019), for example, or the wide range of ways they use images to establish their visibility on a social platform (Margetts et al. 2017, 137–52), are acts that formalize objects in the world by translating them into digital formats. Second, objects are datafied, and here data is understood by its contemporary meaning as computational information. This refers to the adding of attributes to an object, such as a digitally formatted image, so that it can be incorporated

into a digital milieu, such as a smartphone photo browser or social media service.¹ Where digital objects are akin to the technical objects described by Simondon is that, while they can self-regulate and therefore exceed the intentions of their creators, they cannot in themselves establish new grounds of self-regulation (Ash 2018, 32). Like technical objects, digital objects are sustained as discrete entities by their “associated milieu”: their physical, technical and practical conditions.

Digital images circulating through social media platforms, then, attain their discrete qualities both through users’ cultural norms, practices and affective impulses, and also through how image data are continuously processed, pushed and filtered according to the technical parameters of the platform, which itself relies on data about those same users and their interactions with the platform interface. As Hochman (2014) argues, social media embody a fairly novel approach to the handling of such image objects. Rather than making images available via specific database queries, what is most distinctive about social media is the delivery of images and other data within a time-encoded data stream. This means that, experientially, social media images:

[A]pppear to us from the current time backward and are restricted to the recent now, as older objects quickly disappear from the stream and are available only by searching the application database. What we have here is a continuous, rapid presentation of multiple data units from many users, places, and times — all appear to us almost at the same, synchronous, time. (Hochman 2014, 2)

By collating multiple images and other data from various times and places, social media create an experiential or affective “present” or “now” for variably-defined subsets of people using social media applications at particular moments (Coleman 2018). So social media images are not only interesting individually, for example in showing particular aspects of the city, or collectively, in their unprecedented volume. They are also interesting because of their environmental conditions of circulation, the streaming temporal structures of which afford new ways of experiencing urban locality.

It is important however to be cautious in describing the experience of social platforms, in which multiple visualizations of the city appear

1 Drawing on Bergson, MacKenzie and Munster (2019, 5) argue that through such datafication processes images are increasingly being rendered into large-scale ensembles of “image matter” which platforms, as socio-technical systems, can “see” in ways distinct from human perception.

to users, as happening in “real-time”. The notion of a “real-time city” has become a common, often celebratory, refrain in both popular and academic discussions around the promise of so-called smart cities (Kitchin 2014). Urban dashboards – those emerging screen interfaces which borrow their aesthetics from cars and automobiles, setting out for its users an array of urban vital signs (Mattern 2015) – are one of the prime ways in which smart cities are imagined as operating in real-time. Demonstration projects such as the London City Dashboard seem to almost scream “now!”, inviting the perceiving user not only to observe but to believe in the actually existing city, delivered minute-by-minute, thanks to the data processing at work through the interface. The real-time smart city has proven to be an enchanting idea, but it has also generated critical reactions. Bleecker and Nova (2009), for example, argue that as a design principle, the efficient, seamless nature of the real-time city poses many of the same threats that the Situationists saw in modern urban planning. They propose that this might be disrupted artistically, with efforts at inserting a-synchronicity – or out-of-synccness – into urban computing.

We should go further here, however, and recognize that most flows of digital information are fundamentally asynchronous. As Sheller suggests evocatively, information flow might be seen as “less like water running smoothly down a channel, and more like an entire terrain forming in the manner of lava spreading evenly, bubbling up and overflowing, melting some structures even as it hardens into other structural forms” (2015, 19). What is important, I will suggest, is to understand that social media translate asynchronous image and other data into an apparently-real-time or synchronous experience. As Weltvrede, Helmond and Gerlitz (2014, 143) argue, events on social media do not in fact happen in real-time, in the way a synchronous videoconference does, for example. As I will discuss later, phenomena such as social media threads are obviously asynchronous; it is relatively easy to show a time series in which a photo is uploaded, then attached to a post, and then at various subsequent points commented on, reacted to and shared. What the technical operations and user practices inherent to social media forge however are specific experiential modes of “realtimeness”. These temporal modes are almost infinitely multiple, because social platforms have invested in so many different kinds of tools, settings, functionalities, nudges, and features devoted to the production of a real-time-like experience (Weltvrede, Helmond, and Gerlitz 2014, 145). This real-time-like experience even paradoxically encompasses social media practices geared to memory and remembrance, such as local Facebook groups devoted to remembering places and events through curating the

contribution and collection of historical photos (Keightley and Schlesinger 2014). Despite the fact that social platforms such as Facebook automatically archive image and other data, the dominant “temporal experience is one of immediacy, ephemerality, ‘liveness’, and flow” (Kaun and Stiernstedt 2014, 116). Stream architectures on social media continuously present new content while sending everything else downstream, immersing users in “an atmosphere and an interface of rapid change and forgetfulness” (Kaun and Stiernstedt 2014, 116).

To further flesh out this conceptualization of social platforms, imaging, and urban experience, I will now turn to consider how social media images can form part of experiencing and problematizing urban change, focusing on the mediation of a controversial cycling infrastructure scheme in Walthamstow, East London.

Social media visibility and urban change in Walthamstow, East London

In 2014, the London Borough of Waltham Forest bid for and won £30 million in funding from then Mayor Boris Johnson’s “Mini Holland” programme. Run through Transport for London (TfL), this funding scheme asked for ambitious proposals to upgrade London’s local cycling infrastructures. Waltham Forest developed its successful application in close collaboration with local cycling campaigners. Yet on receiving the TfL funding, the Council decided to hand a trial implementation of its scheme to its own transport engineers who, by most accounts, handled the public consultation technocratically and even clumsily. Local cycling campaigners and other supporters of the scheme soon found themselves embroiled in highly antagonistic exchanges with a range of opposing voices on Twitter and local Facebook groups. In time, these exchanges on social media became an emotional and organizational catalyst for two organized protests – one at a Town Hall vote, and a second at the scheme’s official opening – that surprised the Council and attracted national media attention. As the project progressed into later phases, Waltham Forest hired a public engagement team, who led better resourced workshops, and employed Commonplace, a digital consultation platform. The scheme was also rebranded “Enjoy Waltham Forest” via a dedicated website, in an effort to pivot from cycling to a broader quality of life focus. Nevertheless, the spectre of “Mini Holland” endured and even grew as a topic of debate, promotion, ridicule, passing humour, and explanation on social media. For many it came to embody one of a series of putative divides, such as

between the more and less able, young and old, or factual and emotive argumentation. For others it was an icon of encroaching gentrification, pitting longstanding, often working class and ethnically diverse residents against white middle class newcomers.

I was involved in a collaborative research project² focusing on three digital platforms through which publics convened around this controversy of urban change: Twitter, Facebook, and the Commonplace consultation platform. Our research design was mixed method, in that it combined and moved between qualitative and quantitative approaches to social media. Our larger-scale data analytics focused on a historical sample of just over 31,000 Twitter posts (tweets) and 11,630 Facebook posts (status updates or comments from four Public Groups and three Communities). We explored these data sets through social network analysis, topic modelling, sentiment analysis, and image visualization using ImagePlot, discussed below. These data analytics techniques were closely and recursively interwoven with qualitative techniques which included extensive observation, coding (using NVivo), and analysis of purposefully sampled online contributions and images from Facebook (including observations of five additional Private Groups), Twitter, and Commonplace, alongside twelve in-depth interviews with politicians, campaigners, activists, and frequent social media contributors. This mixed-method approach was essential since our principal interest was less in social media content than how people use social media to debate and discuss urban change, and how those uses are shaped by the technical affordances of such platforms.

The approach I take here to social media imagery is inspired by the same methodology that guided this collaborative research project. It also draws on part of its data corpus, specifically datasets of 4733 images derived from Twitter posts, and 1193 images derived from Facebook posts and comments.³ I created a series of visualizations using the open-access application ImagePlot. These visualizations were a basis for observing patterns across

2 The research project “Planning, Participation and Social Media Platforms” was funded by an EPSRC pilot grant. The Principal Investigator was Susan Moore at University College London, and alongside myself the other co-investigator was Andrea Ballatore at Birkbeck, University of London, who I must also thank for helping prepare the image data sets used in this chapter.

3 Most of these images were downloaded via a sample dataset of social media posts, scraped through the Twitter and Facebook APIs by Andrea Ballatore. The original social media posts were drawn from four time periods between 2014 and 2017. Our doctoral research assistant Justinien Tribillon conducted a preliminary analysis of Facebook and Twitter, as well as news coverage, to identify the time period with the most intense activity. I added to the scraped image dataset by manually downloading 580 images from closed Facebook groups.

large collections of images, and then identifying areas for closer investigation (Hochman and Manovich 2013). Unlike some digital humanities approaches, this closer analysis was not focused on analysing the meaning of individual images. Instead, I moved between the image visualizations and selected qualitative observations of how such images figured into practical and environmental contexts such as posts or threads. I also cross-referenced these observations with themes coded in interview transcripts. Thus, across the next three subsections, the volume of images I bring into view will go from larger to smaller. However, my analytical scope will also widen, from images as discrete objects, to the practices through which they circulate, and then, to some of the dynamics of their interface environments.

Objects

I will begin by treating the images I visualized somewhat narrowly, as sets of discrete digital objects. First, I need to provide just a little more detail about how I used ImagePlot to create these image visualizations.⁴ ImagePlot is an open-access software application created by the Software Studies Initiative, which runs as a macro within ImageJ. It renders arrays of images onto a two-dimensional canvas, delimited by an XY axis, along either cartesian or polar coordinates. The image values ImagePlot uses are set by the user, and in my case, I captured and used two main types of data. First, data related to the dimensions and colouration of the images (median and standard deviation saturation, hue and brightness), measured using standard ImagePlot macros. Second, image metadata collected through the Facebook and Twitter APIs as part of the collaborative project mentioned earlier. This metadata related to: the date, weekday, and time an image was posted; the number of “reactions” (e.g. likes, retweets, comments); and in the case of the Twitter image data, the followers and friends count of the tweet author.⁵ We might observe that the first type of image data more closely reflects Hui’s (2016, 50) first “movement”, where objects in the world are translated into digital formats, whereas the second are more related to data that codes objects (here, images) into a digital milieu (i.e. a social media platform).

4 Readers seeking more detail about the functions and various uses of ImagePlot should visit the Software Studies Initiative website, at which there is extensive documentation and related literature. See: <http://lab.softwarestudies.com/p/imageplot.html>

5 Due to restrictions in the Facebook API, we were only able to collect such metadata for posts made to public groups. Additionally, while the Twitter API allowed us to collect data on the retweet count for each post, it did not at the time of collection provide the number of “likes”.

While I did not create visualizations for every possible combination of the above data points – there were hundreds of possible combinations – I took a relatively open-ended and experimental approach, producing eighty-nine visualizations, split evenly between the Twitter and Facebook datasets, as well as between plots along Cartesian or polar coordinates. I created such a large number of visualizations for a few reasons. Experimenting with different visualizations was necessary to learn how to use ImagePlot effectively, particularly since I am primarily a qualitative researcher, lacking experience in data analytics techniques. Consequently, I was also probably motivated to justify the considerable effort I had put into preparing and cleaning the required data tables. However, in the process of creating the visualizations I also began to understand that some of the most interesting patterns were emerging more by accident than design, which encouraged me to try different combinations of data variables.

Contrary to my expectations, visualizations plotting the image meta-data, for example, the number of image reactions (e.g. “likes”, angry faces, retweets), were not very revealing. In the case of reactions, there was too little variation. Only a small number of posts garnered voluminous reactions; most had only a few, and many had none at all. On closer investigation, larger numbers of reactions appeared to be influenced by a range of factors, including but beyond the image used. For example, one image on Facebook with 139 comments was attached to a post offering a heartfelt testimony about the negative impact the Mini Holland scheme on the author’s long-time business on Orford Road in Walthamstow. The image, showing the part-pedestrianization of Orford Road, empty of cars but otherwise arguably banal, was only loosely related to the post. Another image on Twitter, with 386 retweets, is attached to a post proclaiming: “Astonishing results from Walthamstow Mini Holland: 10,000 fewer cars a day, traffic down 56% in village, no collisions.” The image relates directly to the claim: a photographed page from a Council report, with substantiating passages underlined in pen. However, the number of reactions is also likely because the tweet was authored by Ross Lydall, Health and City Hall Editor for the *London Evening Standard*. Working for a large mainstream newspaper, he possesses status and authority, with over 8000 followers at the time of posting.

The point is not that these examples are uninteresting, particularly not when put into their practical and environmental contexts. Nor do I mean to deny the important role such metadata plays in providing a ground that makes such images specifically digital objects. However, at the scale of visualizing a large collection of such image objects, colouration and size data showed more interesting patterns. Figure 9.1, for example, shows part

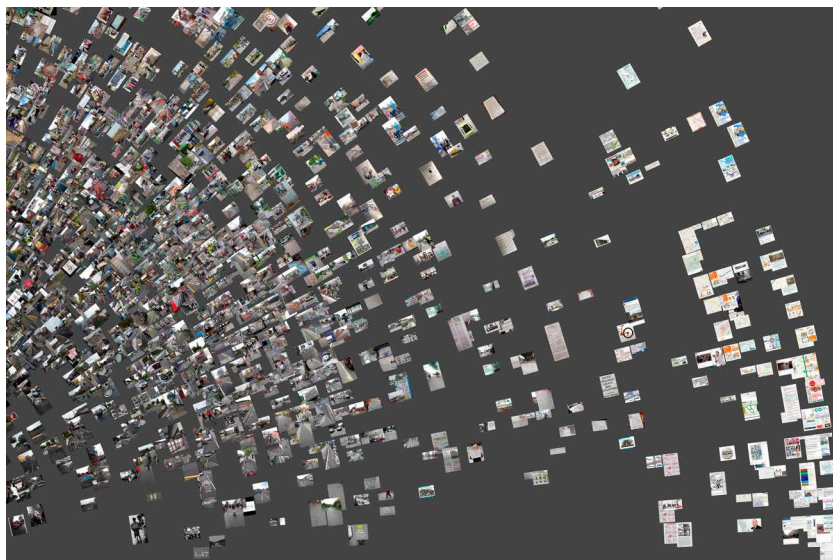


Figure 9.1. Cropped section of ImagePlot render of 4733 Twitter images, plotting brightness (X axis) against saturation (Y axis), along polar coordinates. Made by author.

of a visualization from our Twitter dataset, plotting image brightness (X) against saturation (Y). Towards its left side, the figure is dominated by daytime images that include grey pavement. These represent a prevalent “infrastructure photography” that I discuss further in the next section. The cluster of white background images towards the right side also jumps out, however. These images are predominantly screengrabs from sources such as social media posts, campaigning material, news websites and reports. Material like this was not surprising; our social network analysis showed that cycling campaigners and their allies (e.g. local councillors, academics) dominated Twitter discussions around Mini Holland, and might be expected to share material like this. The volume of these kinds of images was however more unexpected, and served as a basic but important reminder that social media images in our dataset – and probably more generally – very often include a wide variety of materials beyond photographs. Visualizations of colouration patterns plotted the properties of images as such, rather than the attributes allowing their circulation within a social platform. In so doing, these revealed how exchanges about the Mini Holland programme produced an “extensive, diverse and febrile visual field” of image objects, experienced as often through “glancing at a screen, swiping quickly through networked images, briefly scanning a feed” (Rose and Willis 2019, 422) as focused attention.

Visualizations plotting image dimensions were also revealing, showing some of the different modalities through which users in our case studies captured, sometimes edited and shared images. There are clusters of images at common photo proportions (2:3/3:2, 4:3/3:4, as well as 1:1, often associated with Instagram). On closer inspection, a prevalence of smartphone photography amongst these images is clear (as discussed in the next section), even though this could not be plotted, since both the Facebook and Twitter APIs strip most of the image EXIF data, which can indicate the camera used. Another large cluster of images can be seen at 9:16/16:9, the most common aspect ratio for smartphone screens. In most cases, these images were likely created from a smartphone screengrab, for example capturing and re-sharing an image of a social media post, part of a comment thread, or part of a news story. Beyond these typical image proportions are a range of slender (wide and thin) images, which includes banners, logos, calls to action, and partial screengrabs of quoted text (e.g. from a report, or social media). In some cases, these images might have been ready-cropped and re-shared. In others, the user likely cropped the image themselves, indicating some digital literacy, and possibly editing on a desktop computer. In the Twitter image collection, in particular, there is evidence of more variation in image proportions, possibly suggesting users more predisposed, comported or in a situation (such as a desk-based job) to precisely crop images they share.

Digital images are “objects” in that they anchor and sustain the technical operations of social platforms, as well as how users navigate platform interfaces in the contexts of their wider everyday existence. Even considered in relative isolation, the visualizations I created show a field of objects helping to generate the “phenomenological surface of sensemaking” (Pentzold and Menke 2020, 2804) increasingly presented through social media environments. So far, however, these ImagePlot visualizations have comprised a more present-at-hand orientation to the collected images (to use Heideggerian terminology, cf. Hui 2016, 16): an analysis in other words trained on the image collections as such, visually rendered based on their measurements and social metadata. Let me turn now to extend my analysis into these images as ready-to-hand: that is, as objects receding into the background of different practices in and through social media.

Practices

It may already be evident that divorcing image objects from their practical contexts is difficult. In our context, “practices” can refer to very fine-grained,

dispersed understandings or rules (or “doings” and “sayings”, see Schatzki [2002]) around using, noticing, capturing, editing, and sharing images in and through social media. Here, however, I am also interested in how images figure into more complex forms of practical purposiveness or end orientation, ranging from the more teleological or normative to the more affective or emotional (Schatzki 2002, 80–83). One more obvious form of organized image-related practices found in exchanges around the Mini Holland controversy was campaigning. Earlier Twitter posts, for example, include many images related to calling others to action, such as banners, posters and digital flyers. These images tend to appear in posts that relate to broader campaigning around cycling. Let me focus here, however, on the wide range of imaging practices we observed that oriented to the controversy as a specifically local concern.

One clear manifestation of visualizing urban locality were various practices of witnessing the Mini Holland programme as it was implemented in physical spaces, similar to the acts of mobile wayfaring described by Hjorth and Pink (2014). Although, as discussed in the previous section, detailed EXIF data is unavailable in our image dataset, smartphones (or camera phones) can reasonably be inferred as the prevailing technology to hand in such witnessed photographs. Not only because of the image proportions, but evident photographic perspectives and situations, such as from inside a car stuck in traffic, or shot while walking or cycling, or of documents laying upon a table, just received in the post. Photos like these imply a camera angle or position, and an act of photography, that would have only been possible, or at least be more likely, with the slender size and social discreetness of a smartphone (Bate 2013, 81).

The most common “witnessing” smartphone photographs capture under-construction or recently finished cycling infrastructures at the centre of the controversy – or otherwise their absence. This “infrastructure photography” was not only evident in our qualitative observations, but also in the ImagePlot visualizations. Plots of colouration show large grey-toned clusters of images with the asphalt or stone paving slabs involved in road and cycling infrastructure, often newly installed and purer in colour. Also visible are image clusters of reddish-orange with restricted entry signs or construction barriers, yellow with road construction notices, red bike lanes, green bicycle storage sheds, and dark anthracite bollards. This kind of witnessed infrastructure photography was put to a variety of purposes. One of the most active contributors in our dataset, on both Facebook and Twitter, and a supporter of the cycling scheme, described his use of mobile photography to us in this way:

I use photos almost like a note. So if I see something I want to discuss with anyone about what's happening, something that's going on, something I think should change or I think it's bad, well to do with anything really, I will take a photograph of it and then when I'm going through my photos, yes then I might do a post to say, 'I saw this the other day'.

Activists and other proponents often used photography of new cycling infrastructure, or related environmental improvements such as commissioned street art, to call attention to and even celebrate the Council's scheme. One of the most photographed locations in that vein was Orford Road, perhaps Walthamstow's most gentrified street, and the site of the Mini Holland project's first phase and official opening. A leading member of the Waltham Forest Cycling Campaign described his own photography of the street:

Well, I guess quite a lot of my tweeting is around, you know, what I see in the street, which I think looks good, looks nice, looks comfortable. So in a way I'm just as guilty of that in a way, you know, my shots of Orford Road of a particularly nice crossing or whatever it might be that I'm seeing is like, that's a feel-good thing about, yes, you know, stuff is starting to look better, you know. Look at the plants or whatever it might be [...] it's emotional language, isn't it?

This "emotional language" was also visible in visualizations plotting colouration. In infrastructure shots with strong blue tones, the clear sky that often occupies half the frame was possibly an aesthetic cue for the photographer. High saturation green images, meanwhile, show a variety of summer events in public parks, often with happy cycling children riding on the grass.

Celebration or aesthetic appreciation were not the only ways images embodied an emotional language. For many, particularly on Facebook, images and their ensuing discussion threads centred on venting: the expression of how one feels, and in so doing the releasing of pressure. Venting related to the Mini Holland project could be about a range of things, such as bad drivers, inconsiderate cyclists, the congested school run, unused cycle lanes, or damaged infrastructure. Most commonly, venting related to traffic delays, evident for example in visualizations plotting brightness against hue, where clusters of images show evening traffic scenes, such as a line of glaring headlights cutting through dusk or dark. Users posting these images frequently deployed the term "road chaos" and directly ascribed such traffic to the Mini Holland programme, with the image itself serving as evidence.



Figure 9.2. Cropped section of ImagePlot render of 85 Facebook and Twitter images (purposefully sampled examples of humorous use), plotting standard deviation hue (X axis) against standard deviation saturation (Y axis), along cartesian coordinates. Made by author.

The recurring invocation of “road chaos” also catalysed humorous riffing and banter, often augmented by images, which subtly demarcated users according to whether they were in on the joke or not. For example, there was a minor memetic subgenre in the Facebook groups we studied of users parodying others that blamed Mini Holland for increased traffic, offering absurd accounts of the scheme’s effects on other happenings, from the weather, to mobile phone mast construction, to the lateness of Ocado food deliveries. In addition to these kinds of memetic jokes, users also used images as such to convey a point humorously (shown in Figure 9.2), including various memes such as image macros (a recurring image with a superimposed caption).

In contrast to exasperated venting, or banter with like-minded others, Facebook and Twitter users also often deployed images to illustrate or substantiate claims. Many of these are the same white background screengrabs I mentioned in the last section – slices of social media posts, campaigning material, news websites or reports (e.g. of passages, photographs, charts, tables, maps) – used to illustrate a point, or cite an authoritative source. Sometimes these screengrabs included additional editing, for example maps edited to delimit areas, highlight routes, show distances, or pinpoint locations with various qualities. Photographs were also sometimes used

as a kind of evidence. For instance, some Facebook users photographed printed material such as correspondence or public notices received in the post from Enjoy Waltham Forest, or less frequently, newspaper pages to mark a new development.

Of course, the infrastructure photography I mentioned earlier was the most common forms of visual evidence or substantiation. Here, there were some notable differences between such infrastructure photography on Facebook and Twitter. In Facebook neighbourhood groups, users tended to present themselves within the context of their everyday life, while showing an awareness that they share local turf with their interlocutors. Their use of photography relating to the Mini Holland scheme tended to accordingly be highly local examples of infrastructural objects or situations, often characterized by shots of bare infrastructure without people, sometimes closeup. On Twitter, users tend to adopt more of a public persona, and share content to broadcast a perspective, form networks and partake in broader and often translocal conversation with others (cf. Binns 2014). Infrastructural images on Twitter often exemplified good design or policy “best practices”, and were characterized by wide shots showing people using such infrastructure (e.g. walking, cycling, or sitting on a pedestrianized pavement). Sometimes, these images were skilfully shot images of Mini Holland infrastructure, but there were also more generic photographs, often re-shared repeatedly, showing international examples of intersection design, bike lanes, or public realm improvements, as well as design visualizations and staged photos (e.g. comparisons of road usage by pedestrians, cyclists, buses and cars). These are not just differences in user practices, but also in the characteristics of the platforms’ different interface environments, which I now turn to discuss.

Environments

Just as it is difficult to separate image objects from their practical instantiation, it is also difficult to separate imaging practices from their socio-technical environments. By “environment” I primarily mean the digital interfaces of social media platforms. Digital interfaces can be approached in a number of ways. Ash (2015, 16–24), for example, summarizes five distinct if overlapping approaches to digital interfaces, as computational, practiced, ideological, an analogue/digital bridge, and affective. There is no space here to delve into these various conceptual debates around interfaces, nor Ash’s own (2015, 25–32) object-oriented approach. Suffice to say, I will approach social media interfaces here as an irreducible duality. On the one hand,

they are experiential infrastructures, defined not so much by what they are, but rather what they do in conjunction with users' practices (Rodgers and Moore 2020). On the other hand, they are technical infrastructures which govern the relationships and presentation of various digital objects, such as user profiles, image and other content, and interactional affordances such as threads.

Rather than considering social media interfaces abstractly, I will examine one aspect that was important in our study: threaded exchanges, which are core to how social media organize and deliver images alongside other content in temporal streams. Let us start with a closer if brief account of just one threaded exchange. It is drawn from the Walthamstow Life Facebook group, the second largest carrying the Walthamstow name. The thread begins with an image. Likely taken with a smartphone, it shows Orford Road, as mentioned earlier the symbolic epicentre of the Mini-Holland controversy. People are seated as well as standing outside some of the road's cafes on a partly sunny day. They are somewhat hemmed in by temporary orange construction barriers. Compositionally, it is not a work of art, nor would that be expected. But Justin,⁶ the user that took the photo, seems to know the photographic "rule of thirds" and how to work the basics of perspective. The newly expanded sidewalk fills the bottom of the frame, vanishing into the upper-left third of the image.

Justin's image includes a textual comment: "Good to see local people and businesses on Orford Road flourishing from the Mini Holland enhancements." A few minutes later, he adds another comment to his relatively neutral first one, acknowledging the different views about the cycling scheme, but suggesting everyone can benefit from improved public space. He exhorts people to get more involved and make the most of the infrastructure. At first, there are just a few banal comments about the image, such as the pavement width and the construction barriers. Soon, however, a familiar set of antagonistic exchanges build up around the Mini Holland programme: that not all shops benefit from pedestrianization; that more trees are needed; that the council just cannot be trusted. Flo, one of the users who had initially raised some of the earlier critical questions, returns to the discussion to report that she's seen on another local Facebook group that a cyclist has been run over by a bus. "Maybe the mini Holland money should have been spent on busy roads," says Flo, "where we have accidents,

6 Users named in this account have been given pseudonyms. In addition, quoted passages from our dataset have been reworded, while remaining faithful to the original expression, in order to further cloak the users and protect their anonymity.

not orford rd, one of E17's safest areas." "Please tell me this isn't going to be one of *those* threads," bemoans Kamron, a well-known cycling campaigner, who beckons people to look at all the detailed information on the Enjoy Waltham Forest website about the full range of infrastructure improvements planned. Another, Rahila, accuses Flo of cynically using a potentially injured cyclist to prove a point.

Just as the exchange heats up, it is momentarily interrupted by another that seems to take everything back to the original image:

Charlotte: I saw u snap that pic earlier

Justin: Sorry, Charlotte, are you in it? Should I remove it? I tried to shoot the photo without faces....

Charlotte: Naw dnt b daft it's my corner shop, the bakery!

Justin: Oh wait I know u!

Justin: Whoops, hi Lotta!

Charlotte: Hey!! How'd you like the sandwich?

Justin: Tikka Masala Chicken was great!

After this amusingly hyperlocal interlude, a long and often heated back and forth discussion gains momentum again around the Mini Holland programme. Beyond discussions of the cycling infrastructure, personal attacks are hurled between different users, some of whom are already known to one another. Stipulations and arguments are also made around etiquette on the thread itself, such as whether cutting and pasting past comments is appropriate, or whether a pointed discussion should just continue through "pm" (personal messaging).

One way to see the scale of a thread like this, typical in our case study, is to zoom out and visualize its entirety, as a series of screengrabs (Figure 9.3). In the mode of clock time, measured from initial post to last comment, Justin's post and image inaugurated a thread of 142 comments, spread across two days (forty-nine hours, or just one shy of 3000 minutes). The thread is striking not just in scale or duration, but as a visual representation of the asynchronicity of threaded exchanges, when mapped according to their occurrence in clock time. But what is most interesting on closer analysis is how users' contributions to such asynchronous, threaded exchanges express a real-time-like (Weltevrede, Helmond, and Gerlitz 2014) and largely transitory (Kaun and Stiernstedt 2014) experience. The posting of the image, observations of its details, critical interjections about the cycling scheme's equity, importing news from adjacent Facebook groups, interludes about bakery sandwiches, debates on thread etiquette: these embody not a single "now" but a succession of "nows".



Figure 9.3. Visualization of threaded Facebook exchange (1 post with image, 142 comments) captured using multiple screengrabs. Made by author.

This threaded succession of nows illustrates the irreducible duality of platform environments, as both experiential infrastructures produced through user practices, and technical infrastructures governing user relationships with each other, as well as with other digital objects. The commenting practices, as well as Justin's initial image, are significant, but the thread is not just the sum total of these asynchronous acts. As an encompassing visual environment, the thread itself encourages contributions. Social media interfaces, and threads in particular, are designed to generate anticipation of further updates and responses. They can be understood as a kind of animation, not just in the general sense of bringing things to life, but more specifically in creating a visual appearance of movement. Both Facebook and Twitter animate contributions through time-based threads, though with differing forms of publicity and intimacy. The Facebook interface encourages users to delve into relatively focused threaded discussions, and has been deepened recently, with added functionalities such as nested (hierarchical) threads and a wider series of emotional reactions (e.g. thumbs up, angry face, laughter, etc). The Twitter interface, meanwhile, prioritizes reacting and contributing to the main user feed, for example by presenting replies within the same visualized time stream as initial tweets. In the context of our study, which focused on social media contributions made broadly in relation to a shared geographical context, the platform interface is therefore more than just a delivery system for discrete images of or related to an urban locality. With users engaging social platforms through all manner of places

or settings (often using mobile devices), different streaming interfaces should be understood as visual environments in their own right – as part of experiencing and seeing the “near” and “now” of urban locality.

Conclusion

In some ways my analysis of social media visuality and the city in this chapter has been unconventional, combining phenomenological perspectives on media and technology, qualitative research, and computational approaches to image visualization. I began with an exploration of digital image collections, visualized using ImagePlot, because it was methodologically as well as conceptually useful. The visualization of image objects showed both discrete crystallizations of users’ cultural norms, practices and affective impulses, and at the same time, discrete data units that are processed, pushed and filtered through technical platform environments. In both respects, I was able to observe the images as generative objects.

Digital images are inseparable from the practices and performances that go into, for example, making or taking a picture, or the technical conditions that allow them to circulate across different platforms. Beginning with these image objects could be seen, following Kember and Zylinska (2012, 71–95), as homing in on a specific “cut” in the flow of mediation, one that is technical and material but also perceptual and affective. While I had some interest in how these images documented past moments, or marked the passage of time, my prime concern was their lively and productive dimensions.

One of the main ways I explored the “liveliness” of such images was their figuration within practices of social media contribution around the Walthamstow Mini Holland controversy, as a specifically local concern. Chief amongst such practices were photographic acts of witnessing the cycling programme as it unfolded through new infrastructure and related elements – celebrating and aesthetically appreciating the scheme and its implementation, or venting and trading jokes about it. But in so doing users also deployed a range of other images beyond photography, from memes to various visual materials meant to illustrate or substantiate claims. Whether these imaging practices were devoted to rational deliberation, or just exasperated venting or banter with like-minded others, they can all be seen as “ambient” forms of participation around urban transformation: participation that is as often dispersed and incidental as it is discrete or directed. This need not be seen as cluttered or obfuscated engagement in local life. At least in principle, participation through more ambient forms

of social media visuality can “invite tuning in instead of tuning out” (McCullough 2013, 20).

The urban visuality of social media in this chapter has not just referred to images, but also platform interfaces. Digital interfaces are not so much a visualization of urban spaces understood representationally, but visual environments that are increasingly part of the urban experience. My account analysed social media streams, and specifically threads, as both experiential (Rodgers and Moore 2020) as well as technical infrastructures in this respect. Contributing to a streamed interface such as a thread involves partaking in an environment that is structurally asynchronous but experientially future-oriented; a kind of visual animation between the movements of the platform and users. In a context where digital content and services are increasingly accessed through mobile interfaces – which recede more and more into the background of their users’ situations – social media and their images appear to bring about novel spatially- and temporally-organized environments for seeing, knowing and living in cities.

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About the author

Scott Rodgers is Reader in Media and Geography in the Department of Film, Media and Cultural Studies at Birkbeck, University of London. His research specializes in the relationships of media and cities and the geographies of communication. Scott also has broad interests in social media, journalism, urban politics, phenomenological approaches to media and technology, and ethnographic methodologies. His most recent work focuses on the convergence between digital platforms and the making of contemporary urbanism and locality.