Geolocating the stranger: the mapping of uncertainty as a configuration of matching and warranting techniques in dating apps

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ABSTRACT

Geolocation as an increasingly common technique in dating apps is often portrayed as a way of configuring uncertainty that facilitates playful interaction with unknown strangers while avoiding subjecting the user to unwanted risks. Geolocation features are used in these apps on the one hand as matching techniques that created links between the user and potential partners through geographical location, and on the other as warranting techniques that can help a user to determine whether to trust a given profile. Tracing a trajectory from Georg Simmel’s figure of the stranger as intrinsic to modern urban culture, through Stanley Milgram’s familiar stranger as an inspiration for the infrastructure of social networking sites, to a consideration of the double perspective of overview and embedment inherent in geolocation’s ability to map, we identify the stalker as an emblematic figure that appears not as a threatening Other, but rather as our own doubling.

It is becoming increasingly common in dating apps to filter potential subjects of interest not only through profile pictures and texts, but also by using geolocation to facilitate social interaction, supposedly on the assumption that physical proximity indicates shared interests or characteristics. Dating apps display geolocation in a variety of ways, ranging from notification of the proximity in miles or kilometres of a given profile to your own location, to a general indication of region, area or city, or even a map showing where you have crossed paths with a potential love interest. Users are thus notified not only about where a given “datable subject” (Rosamond 2018) is, but also about this person’s relative temporal positioning. In this way geolocation technologies produce new forms of intimacy mapping that operate both spatially and temporally. This configuration of temporal and geographical information, we argue in this article, can be seen as an affective technique of uncertainty and control. On the one hand, physical proximity is used as a matching technique that creates an affinity between the user and potential partners; on the other hand, geographical location functions as a warranting technique that a user may employ to determine whether to trust an online profile (Stone 1995; Walther and Parks 2002). It is in the vulnerable emotional space between the users’ desire for the unknown and their anxiety over the unknown’s implications that geolocation operates as a cultural flirtation technique. You seek to identify a stranger you want to get to know, in the process making sure that the stranger can be trusted, and avoiding subjecting yourself to potential stalkers; but all the while you are also seeking to leave space for performativity on your own and your potential partner’s part, to allow a sense of playful interaction. In other words, you want to unleash the right amount of uncertainty to make the experience enticing without posing any unwanted risks. The question that remains, however, is the degree to which all of this puts you in the position of the stalker.

The present article situates itself in the emerging field of research dedicated to dating and hook-up apps. Significantly it brings a cultural-theoretical perspective to bear on an analytical object that has hitherto primarily been explored the fields of health studies and in different branches of internet sociology, including those informed by gender, critical race studies and LGBTQ studies (see e.g. Batiste 2013; Stempfhuber and Liegl 2016). The pioneering work conducted by these fields take on a wide variety of concerns and interests, but it is also possible to identify recurrent themes across the board: questions of risk, uncertainty and control (Handel and Shklovski 2012; Brubaker, Ananny, and Crawford 2014; Albury and Byron 2016), new forms of intimacy (Race 2015; David and Cambre 2016; Møller and Petersen, n.d.), and new patterns of mediated mobilities (Licoppe, 2015; Blackwell, Birnholtz and Abbott 2014). Seeking to foreground and emphasize the cultural historical trajectory of these concerns, we wish to bring this pioneering
work into dialogue with aesthetic and cultural historical theories on urbanity. Our hope is that approaching dating apps from this perspective, can make the research potential available apparent to a wider audience and gesture towards the ways in which looking at dating apps may inform existing discourses in aesthetic and cultural theory.

With a focus on the contemporary spatio-temporal dynamics at work in these apps, we argue in this article that the cultural history of modern urbanity, and specifically the figure of the stranger, can help us to understand the contemporary stakes of geolocation in dating technologies. Second, we link this historical-theoretical lineage to more recent sociological theories about the familiar and the stranger, suggesting that geolocation as a spatio-temporal matching and warranting technique helps us to navigate an uncertain territory of strangers who appear as desirable unknowns or as risks to be avoided. Third, we unfold the questions these insights yield in relation to the cultural technique of mapping, arguing that the maps produced by geolocation techniques invite the user to assume a double perspective on the dating process as simultaneously immersed and in control. This double position also allows the ambiguous emergence of the stalker, and we end by suggesting that the new powers that geolocation bestows upon the user, and the new ways of relating to strangers it provides, pose new (and possibly uncomfortable) questions regarding our own information-seeking behaviour in the indeterminate field between mapping and stalking.

Geolocation as matching technique

At the turn of the nineteenth century, German sociologist Georg Simmel ([1908] 1971, 143) canonized the figure of the stranger as tied to urban modernity and embodying a particular configuration of time and space:

> If wandering, considered as a state of detachment from every given point in space, is the conceptual opposite of attachment to any point, then the sociological form of the “stranger” presents the synthesis, as it were, of both these properties. (This is another indication that spatial relations not only are determining conditions of relationships among men, but are also symbolic of those relationships.)

By uniting a “detachment” and an “attachment” to space, the stranger for Simmel embodies the fact that a person may be a member of a group in spatial terms but not a member socially—in the group but not of it (Wood, 1934, 45). The stranger is a synthesis of the foreign and the familiar, indifference and involvement, nearness and remoteness, in a way that makes distance pivotal but also adds a temporal dimension. The stranger that Simmel is interested in is not the one who passes through, “who comes today and goes tomorrow” (Simmel, [1908] 1971, 143), but rather the stranger that remains in the same place, and who moves in our circles.

In The Metropolis and Mental Life [Die Grossstädte und das Geistesleben die Großstadt] ([1903] 1950), Simmel argues that the urban inhabitant comes into contact every day with a large number of people, only a small proportion of whom become acquaintances. Moreover, many of these acquaintanceships remain superficial, in order to counteract overload and retain psychic energy. The number of possible interlocutors necessitates a selection as to where to focus one’s attention. Adaptive approaches may include spending less time on each input, disregarding low-priority input, or completely blocking off some sensory input. Considerations such as these take shape in geolocational functions as design questions ripe for algorithmic automation. How do we decide which of the thousands of people we pass in the street to interact with? How do we decide to whom to send a flirtatious gaze? Whom to ignore?

While Simmel’s stranger was an emblematic figure of modern urban culture at the beginning of the twentieth century, we suggest that it also has crucial analytical value for the stakes of the dating techniques of the twenty-first century. We use Simmel’s figure of the temporally and geographically coded stranger as an inroad into the unknown yet geolocated profile with which we may or may not want to engage in online or offline flirtatious activity through mobile dating apps.

One of the key functions of geolocation that we focus on here is its use as a matching technique to help the user determine which strangers to interact with. The use of geolocation as an indication of a match rests on the assumption that location conveys information about a person that indicates some sort of similarity or common ground, and may even facilitate an initiation of contact. It thus draws on the insights of social psychologist Stanley Milgram (1977), who (building on Simmel) introduced the concept of the “familiar stranger” in his seminal paper “The Familiar Stranger: An Aspect of Urban Anonymity.” A “familiar stranger” is someone we recognize regularly—for instance, the person who sits across from us every morning on the bus, who works out at the same time as we do at the gym, or who walks her dog at the particular moment every morning when we are staring out of the window with a cup of coffee in our hand. This is a visual and non-verbal familiarity in which anonymity is maintained and no interaction is initiated. However, if we encounter these people in an unfamiliar setting, we are more likely to interact with them than with complete strangers, because we have a set of shared experiences in common.
With the advance of mobile technologies, Milgram’s experiments have been broadly adapted in social media structures, and they inform the development of a range of social networking sites such as Swarm (a companion app launched by Foursquare in 2014 for its social networking and location-sharing features) or Facebook’s Nearby Friends function (launched in 2014). Nonetheless, getting strangers that are not already linked in a friend network to interact remains a design challenge when there are no other motivational forces at work (Sutko and de Souza e Silva, 2011). Dating apps have the advantage that their users can be assumed to want to meet and interact with people they do not know in the hope of a romantic encounter, the duration of which might be anything between the time it takes to drink a cup of coffee and the rest of your life. This makes for a different attitude towards the stranger than, for instance, digitally enhanced social experiments such as TrainRoulette (2013), a mobile app that encourages real-time chats between train passengers (Camacho, Foth, and Rakotonirainy, 2013), or the app Somebody (2014), through which you send your text message to a person in close physical proximity with the person you want to contact, to whom they then deliver it personally. These are all applications that play with the configuration of anonymity and physical proximity, and they use technology to both challenge and enhance interactions with strangers.

Yet what is significant about the geolocational feature of most dating apps is its automated nature, which also points to its double function: not only as a matching technique, but also as a warranting technique. The automation of location information on mobile dating apps reveals that what is sought is not only the identity markers that profile owners themselves provide. Functions that allow us to “check in” to locations that we list ourselves make the location part of a performative gesture in which being at a certain café or in a certain neighbourhood is actively used to signal information about our personality (Barkhuus et al., 2008; Cramer, Rost, and Holmqvist, 2011; Patil et al., 2012). The automated real-time function provides information about where the user is located at that particular moment, either by listing a general location such as an area or city (Bumble), or by estimating the distance between yourself and the profile you are looking at (Tinder, Grindr). The apps differ in how often they update the location: in some cases you have to open the app to update the location, while in others the app tracks this silently, features that can often be changed with the privacy settings on your phone. Some phones are programmed to limit the number of times an app polls for location, which means that the extent of the geo-tracking resides in the interaction between your phone and the app. All of this adds to the sense that the data points we see are less consciously performative as self-representations than the information we know from Foursquare or Facebook. As so-called warrants, they in this way acquire a higher value. However, this information also enters into a service-oriented regime of “software-sorted geographies” (Graham, 2005) that not only opens new possibilities for “datable subjects” (Rosamond, 2018), but also repeats and reinforces geographical, gender and racialized inequalities through its software sorted geographies. Dating apps thus continuously and invisibly classify and demarcate rights, privileges, inclusions, exclusions, and mobilities to such an extent that critical questions have to be raised not only to the warranting systems, but also what is warranted (in the sense affirmed) within the structure (racialized identities, ethnicities, ages, sexualities etc.). Such software-sorted warranting mechanisms ultimately necessarily implies that what works as an optimized infrastructure for one person may rise as a significant obstacle for another (Star, 1999, 390). Warranting as a technique to which we shall now turn thus necessitates a closer scrutiny.

**Geolocation as warranting technique**

In *The War of Desire and Technology at the Close of the Mechanical Age*, Allucquère Rosanna Stone (1995) described warrants as vehicles for constructing and maintaining a connection between a physical self and a discursive representation of that self. More recently, communication scholars Joseph B. Walther and Malcolm R. Parks (2002) have transferred this notion of the warrant to the online communication field, describing the warrant as connecting the self with an online presentation. Furthermore, Jeffrey T. Hancock and Jamie Guillory (2015, 279) have extended the focus on warrants from the receiver perspective (as a technique to make judgements about an online profile) to encompass how creators of online material use warrants when crafting self-presentations. Through this route has emerged what is now commonly referred to as “warranting theory”, which is becoming increasingly influential in particular in the more applied fields of human-computer interaction and design. Here we are interested in warrants as vehicles for understanding geolocation as a cultural technique that negotiates the field of uncertainty. Looking more closely at how warranting can be concretely identified in the design of these apps, and at the precariousness of the automation of geolocation for its function as a warrant, is fruitful for understanding the spatio-temporal configuration at work.

Walther and Parks (2002) argue that the value of a warrant becomes higher as information becomes more difficult for users to manipulate. Numerical
information such as height, weight and age, which can be verified by a physical meeting, and information such as a given name, which may be used to look up information elsewhere, are considered “partial warrants”. Information provided by someone other than the user is regarded as more valuable than that provided by the user. One way of securing the validation of a warrant is through an individual’s social network, which is expected to address inconsistencies in self-representation. This was the logic of early social networking and dating sites such as Sixdegrees.com (1997) and Friendster (2002), as well as most subsequent social networking sites that aim to build trust. Friendster mobilized the warranting technique by only allowing you to approach those at four degrees of separation. The assumption was that the endorsement inherent in being linked to someone as a friend could serve as a way of building trust in the network, insofar as it created an online situation similar to meeting someone through mutual friends. Yet, as danah Boyd (2004) has pointed out in an article on Friendster, friendship status is binary—you are either a friend or not—and there can be a plethora of reasons for befriending someone online. Being linked on a social media platform does not necessarily mean that you know people very well and would vouch for them. Furthermore, while dating apps mobilize warranting as a way of creating trust, their automated techniques also introduce a more complex social dynamic that takes into account that users might not always want to involve friends directly in their flirtatious behaviour. Indeed, anonymity might often be sought when looking for a partner: you might not want to involve your circle of friends in your love life, with all the conquest and heartbreak that entails, or to disclose all the intimate information that is part of the matching criteria with which you search, such as sexual preferences, relationship status or sexually transmitted infections.

Such considerations can all be seen as drivers towards system-generated warranting. Based on the automation of information-harvesting, this form of warranting is unlikely to have been manipulated by the user, and is therefore regarded as disclosing cues that reflect the user’s offline identity. For instance, Tinder, Bumble, Hinge and happn require you to have a Facebook account, and to sync your name, age, occupation and photos rather than entering this information anew. This not only eases the sign-up process (and forms part of the information economy between the different platforms), but as a second-order linkage to your social network it is also an example of the complex warranting techniques that make deception more difficult. This function provides even stronger warranting cues when the social network is made visible on the dating app, providing information about which friends you have in common with a given profile. Indeed, this can quickly become an efficient way of tracking the identity of a profile. The more mutual friends you have on other platforms, the more likely you are to be identified through those platforms. The link to social networks thus serves a double function: as a matching parameter that makes assumptions about mutual friends as criteria for common ground, but also as a warranting cue to hamper deception.

We can thus begin to see how matching and warranting are constantly entangled, in ways that mean they sometimes work in unison but often also against each other. Dating apps’ invitational matching and warranting techniques harks back to the complex nature of the stranger as simultaneously near and remote, foreign and familiar. Let us therefore linger a little longer over what Milgram calls the “familiar” and Simmel conceptualizes as the nearness of the stranger; according to Simmel, strangeness may arise in the most intimate of relationships.

In his exposition of the stranger, Simmel ([1908] 1971, 148) evokes the time in an intimate relationship between lovers when the initial feeling of uniqueness is wearing off. He argues that this inflicts an estrangement that comes from the realization that what we thought was an exceptional match is in fact an experience that millions have had before us, and that we would be able to replicate with others:

“It is strangeness caused by the fact that similarity, harmony, and closeness are accompanied by the feeling that they are actually not the exclusive property of this particular relation, but stem from a more general one—a relation that potentially includes us and an indeterminate number of others, and therefore prevents that relation which alone was experienced from having an inner and exclusive necessity.

Strangeness in this sense is not only part of a flirtatious mode of interaction with someone unknown, but is also an intricate part of the near and the most intimate as it develops over time. In terms of the dating apps of interest to us, we may read this as indicating that a similarity that works as a matching criterion at first can paradoxically foster a feeling of estrangement in the long run. While moving in the same geographical circles may help us to initiate contact and generate a sense of familiarity in the beginning, over time this may give way to a realization of just how many people move in these circles, and thus point to the many other potential matches out there.

The familiar and the near are intricately tied to the figure of the stranger for both Simmel and Milgram. We can begin to see how this figure, on which the dating apps’ use of geolocation capitalizes, is born out of a configuration of temporality and distance. On the one hand, that configuration may instil in the user the right amount of estrangement to evoke a
desire for the potential exceptionality of the unknown constellation that encourages us to engage in flirtation. On the other hand, it can provide reassurance that there is a location-based resemblance between you and the profile in question that has made the match arise in the first place. Geolocation’s double function as matching and warranting appears particularly apt for generating this double bind of strangeness, imbuing the stranger with a particular kind of uncertainty that is as exhilarating as it is anxiety-ridden. Yet, whereas similarity with regard to flirtation and dating apps is often addressed in relation to matching criteria and the quest to determine which similarities make for a meaningful match, Simmel makes us aware that estrangement also enters the equation as a temporal experience. A feeling of strangeness may develop over time as a result of repetition, or even just as a result of the thought that this match is replicable rather than unique. Thus there are intricate spatio-temporal overlays at work in the geolocation function, and these overlays are part of the configuration of uncertainty played out between the apps’ matching and warranting properties.

Warranting and matching as mapping
According to Ma, Sun, and Naaman (2017), location-based apps can be divided into two systems: on the one hand, location-based, real-time dating applications (Blackwell, Birnholtz, and Abbott, 2014; Handel and Shklovski, 2012) such as Tinder and Grindr, in which the location overlap mapped is the current location; on the other hand, location-based post-hoc dating applications (Ma, Sun, and Naaman, 2017) in which a location history is mapped. The difference between the two systems lies in whether the app’s geo-logging functions only in real time or is also collated over a longer period.

Whereas real-time applications mostly match people that are in close proximity at the same time, the post-hoc applications add a temporal overlay that means that having passed someone, and in particular passing someone repeatedly, brings them up in your feed as a potential match. For the app happn (at the time of writing) this is defined as passing someone within 250 metres (see Figure 1). Here the geolocation information is conveyed partly as a numerical count of how many times you have passed someone, and partly as more detailed information about the most recent location overlap—noting the time your paths crossed, and marking the area where this took place on a small map. It mitigates potential anxiety about conveying your entire location history, by breaking down your path through the city into a series of historical events distinguished by when you crossed paths with another user.

In this way, an app such as happn rearticulates fundamental discussions of the temporal and spatial configuration of the relationship between representation and experience. It provides the users with a map of their spatial and temporal proximity to other datable subjects, allowing them both to gain an overview and to navigate the spatial and temporal flows of uncertain flirtatious encounters. Of course, the centrality of maps is not exclusive to dating apps. Maps have become a popular mode of visualization for all kinds of localizable goods and services that we search for online. Such maps render our contingent everyday settings into indexical and modular zones that can be searched, tracked, consumed and exploited (Thylstrup and Teilmann, 2017). So what kind of affective terrain does the map offer to dating app users? And how might we understand the role of

Figure 1. Happn features a small screenshot of a map that freezes the moment you passed a potential match, without marking the exact spot.
the map in dating apps in relation to the figure of the stranger?

As visual-culture theorist Nicholas Mirzoeff (2011) reminds us, the map offers a form of visibility intrinsically tied to colonial power. Cartographic scholar Christian Jacob (2006, xv) similarly explores the map as a “tool of power” that reflects the interests and world views of specific milieus, whether political, clerical, administrative, technical or scientific. In the hands of these interest groups, the map has been an authoritative way of seeing the world. These voices echo Foucault’s analysis of the panopticon as an instrument of control and coercion through vision.

In maps, messy realities become a matter of the decipherment of a device, offering a significant sense of control not only to the app's developer but also to the user. As Jacob (2006, 1) notes, historical maps reflect “a yearning for power in which seeing from a point of view forbidden to all others—from a zenithal, cold gaze […]—is equivalent to possession”. The map also offers the user the sense of being at the centre of something, positioning her “as the subject of [a] statement” (36). Although the warranting cue functions of geolocation dating apps can make them appear at first glance as objective indications of where and how often we have passed a particular stranger, these devices are entangled in a web of algorithmic logics that select and sort the people we have passed. The interface design of geolocation dating apps is as ideological and discursive as the maps of yesteryear, and they are felt differently to different people due to the repeated materialisations of empowered subjectivities for some people and marginalisation of others.

The geolocation feature is thus a form of knowledge production that serves more functions than mere rationalized control. The view from above and the sensation of embodiment are configured in new ways in these geolocational devices. This makes it relevant to revisit Michel De Certeau’s (1984) chapter on “Walking in the City” in The Practise of Everyday Life, in which he juxtaposes the map-like view of Manhattan from a distance experienced by a pedestrian moving on the pavement, creating and writing the city. The ability to take such a double position of overview and embodiment, facilitated by the intermingling of matching and warranting techniques, is arguably part of the attraction of dating apps, instilling the users with a reassuring sense of agency and control in an uncertain terrain, as well as providing an opportunity not only for protection from stalkers but also for the exploration of strangers. They can maintain a distanced gaze, while also immersing themselves in the messy realities of dating. Geolocation in dating apps can thus be understood as “affective geovizualisations”3: they enable multiple ways of integrating the quantitative perspective with the qualitative, uniting the perspectives of the voyeur and the blind lovers in new ways, integrating the situated, embodied and emotional qualities of movement with the overview in what Adriana de Souza e Silva (2006) has called “hybrid space”4:

Hybrid spaces are mobile spaces, created by the constant movement of users who carry portable devices continuously connected to the Internet and to other users […] The possibility of an “always-on” connection when one moves through a city transforms our experience of space by enfolding remote contexts inside the present context. (de Souza e Silva, 2006, 273)

This notion of “enfolding remote contexts inside the present context”, and seeing this as a result of online connectedness, speaks to the particular spatio-
temporal configuration that unfolds in relationships between strangers on dating apps, where temporal and spatial distance is mapped and becomes traceable in a way that not only makes the stranger familiar, but also turns the user into a potential stalker.

**The stranger and the stalker**

Happn founder Didier Rappaport explains that technology allows the company to generate even more accurate location information than is visible on the user’s screen. Yet it has refrained from doing so, due to concerns about stalking raised by its female board members: “We have a map in the app—on the first version that we did, we wanted to flag exactly the place where people are. Women told us: no. Do not do that. We could be afraid. We could feel that the guy can stalk us.” Such concerns have also been voiced in media coverage of the app, for instance as “the dating app that takes stalking to a new level” (Joshua, 2015; Sam, 2016). Rappaport’s narrative makes us aware that the configuration of matching and warranting properties may go awry, resulting in an encounter not with the stranger as a potential lover, but with a stalker as a terrifying Other.

However, we suggest that the stalker in today’s media environment of ubiquitous geolocation devices constitutes a particular version of the stranger, who may embody the overview, control and voyeuristic satisfaction inherent in the map as a representational figure, but who is also—precisely because of this—increasingly familiar, not only as an Other, but as part of ourselves and the ways we engage online. Media arts scholar Olga Goriunova (2017, 3924) finds in the figure of the lurker a similar double position of remoteness and nearness as we have observed in the stranger:

The lurker is definitely involved, but remains at a distance. It is someone who observes and processes through a practice that is not too dissimilar from participant observation, but does not participate. It is important to note that lurker does not arise to a higher knowledge or a detached rational view while others’ brains are boiled in a heated debate. The lurker feels. The specificity of the conceptual position of the lurker, therefore, lies in simultaneous involvement and withdrawal, activity and passivity, sparseness, invisibility, and, simultaneously, intensity.

Geolocation features in dating apps allow a range of lurking modes of engagement, but Rappaport’s concerns open up the possibility that the stranger is not only a lurker, but a stalker. Yet the categories are hard to differentiate. Deriving from “the pursuit of game by method of stealthy approach”, which the *Oxford English Dictionary* reports from the fourteenth century onwards, stalking has come to be used metaphorically to describe one human hunting another. As film and literature scholar Bran Nicol (2006) has carefully mapped out, the stalker as a pathological category emerging in the late 1980s and early 1990s is a coming together of connotations of the celebrity paparazzo and the psychopathological serial killer who stalks his victims before attacking them (previously known as “stranger killing”, because serial killers are characterized by not knowing their victims). Nicol points out that the stalker is related to the experience of the densely populated modern city and the desire for intimate connection when confronted with throngs of anonymous city dwellers.

Legal and psychological approaches to stalking conceive of it as a behaviour rather than a state of mind. It is thus regarded as connected to an act rather than as intrinsic to a particular human being. Nonetheless, for psychologists and psychiatrists stalking is often associated with pathological narcissism, and in psychoanalytic terms is regarded as governed by a desire for intimacy and an inability to relate to the other. Nicol (2006, 7) not only looks at stalking as a relationship between two people that has become unhinged, but also asks how stalking relates to more fundamental questions about intimate relationships in our media-saturated culture:

Our culture is one in which the impulses which fuel stalking behaviour—the conviction that one has the right to become intimate with and gain knowledge about other people, even strangers, and the counter impulse to expose our deepest and darkest desires for all to see—are promoted as an ideal.

We have discussed the constellation of matching and warranting techniques, and the figure of the stranger as embodying the simultaneous nearness and distance found in the geolocation function of dating apps. Nicol allows us to contextualize our observations within a wider theoretical discussion about the stranger in contemporary culture. Sociologist Robert Fine (1997, 130) sees stalking as a way of turning “the ordinary rituals of public life into instruments of oppression”. What characterizes stalking is the way it is woven into ordinary routine behaviour that only becomes menacing by being repeated and targeted at a particular person (Sheridan, Blaauw, and Davies, 2003). Flirtation as enabled by dating apps with geolocation features bears a certain resemblance to stalking, in that the apps’ spatio-temporal configurations emphasize repetition as a matching and warranting criterion. However, stalking breaks the invisible social codes of which we often only become aware when they are broken. It is the link to the fundamentally human desire to be loved that makes stalking unnerving. This makes it easy to empathize with the stalker, and easy for the victims to wonder whether they are paranoid, because the individual actions are harmless in themselves; only when they accumulate do they become a (criminal) transgression. As Nicol (2006,
14) argues: “Our perception of stalking [...] always revolves around the question of what is normal, and this means that it forces us to acknowledge an uncomfortable similarity between ourselves and the figure of the stalker—otherwise too easily dismissed as just another ‘weirdo’ or ‘psycho.’” We thus return not only to the familiar stranger and the particular constellation of near and far it embodies, but also to the familiar stalker as a figure that is intricately linked to the temporality of repetition. Geolocation technologies in this way seem to be feeding into a gradual change in invisible social codes and rules about what constitutes “normal” and pathological behaviour.

Concluding remarks

Dating apps that employ geolocation technologies open up uncertain new spatio-temporal terrains of intimacy in more than one sense. One the one hand, they offer themselves as affective geographies of flirtation, in which the user is invited both to assume the role of the distanced voyeur-God and to immerse herself in the erotic life of the city. As such they allow the user to enjoy the exciting aspects of uncertainty, such as the exploration of the unknown territories of strangers, while at the same time giving the sense of doing so within the relatively controlled space of the dating app, which seeks to protect the user from acts of stalking. On the other hand, dating apps also unsettle the terrain of our own certainty, facilitating new mediated forms of connectivity that remind us that although we may seek to protect ourselves from running into stalkers, the technologies we use to connect often force us to acknowledge that the stalker may be as much a part of ourselves as a danger lurking in the eye of the stranger.

Notes

1. Milgram (1970) was also responsible for the “small world” experiment (which suggested that people in the USA on average are separated by six people) and research on experiences of urban overload.
2. For instance, the automation of location information on Grindr conflates locations in close proximity, such as a pub and a gym next door to each other, where the difference between the two may be significant as identity markers, and thus important for geolocation’s use as a criterion for matching interests (Blackwell, Birnholtz, and Abbott, 2014). In terms of warranting this may be less significant, however.
3. A term which geographers Stuart C. Aitken and James Craine (2009; 2011) have coined to describe the entanglement between maps and their affects in GIS-based digital virtualized environments, building on a tradition of emotional geography as a way of bridging the individual, qualitative perspective and the quantitative (Anderson and Smith, 2001; Davidson, Bondi, and Smith, 2005).
4. Hybrid space is a concept which emphasizes the sociability and communicative aspects of such spaces, by comparison with notions of mixed reality (Ohta and Tamura, 1999).
5. Interview with Didier Rappaport conducted by Kristin Veel 16 July 2016.
6. We find ancestors for the stalker in figures such as Edgar Allan Poe’s “Man of the Crowd” ([1840] 1986), who follows a man through the streets of London, which he observes with equal fear and fascination, or Knut Hamsun’s nameless protagonist in Hunger ([1890] 1934), who sees a girl he names Ylajali in the street and decides to follow her, becoming increasingly obsessed. These characters are related to Baudelaire’s narrator who takes refuge from the urban mass by fantasizing about the stranger in poems such as “L’étranger” and “A une passante” (2007). They are also related to tirelessly Hollywood heroes that “get the girl” through persistence, refusing to take no for an answer.

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